Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: HYDRO (Hydrography Lines and Polygons)

Metadata:

- **Identification Information**
- **Data Quality Information**
- **Spatial Data Organization Information**
- **Spatial Reference Information**
- **Entity and Attribute Information**
- **Distribution Information**
- **Metadata Reference Information**

**Identification Information:**

**Citation Information:**

**Originator:**

**Originator:**

**Originator:**
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

**Publication Date:**
201208

**Title:**
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: HYDRO (Hydrography Lines and Polygons)

**Edition:**
Second

**Geospatial Data Presentation Form:**
vector digital data

**Series Information:**

**Series Name:**
Florida Panhandle ESI

**Issue Identification:**
Florida Panhandle

**Publication Information:**

**Publication Place:**
Seattle, Washington

**Publisher:**
NOAA's Ocean Service, Office of Response and Restoration (OR&R), Emergency Response Division (ERD).

**Other Citation Details:**
Prepared by Research Planning, Inc., Columbia, South Carolina for the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and
Abstract:
This data set contains vector lines and polygons representing coastal hydrography used in the creation of the Environmental Sensitivity Index (ESI) for the Florida Panhandle. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the data layers, ESIP (ESI shoreline polygons) and ESIL (ESI shoreline lines), part of the larger Florida Panhandle ESI database, for additional shoreline information.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:
Range_of_Dates/Times:
Beginning_Date:
2003
Ending_Date:
2010

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 2003 to 2010 and are documented in the Lineage section.

Status:
Progress:
Complete
Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:
Bounding_Coordinates:
West_BoundingCoordinate:
-87.62500
East_BoundingCoordinate:
-83.68400
North_BoundingCoordinate:
30.74700
South_BoundingCoordinate:
28.27700

Keywords:
Theme:

Theme_Keyword_Thesaurus:
ISO 19115 Topic Category

Theme_Keyword:
biota

Theme_Keyword:
environment
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

**Browse_Graphic:**

**Browse_Graphic_File_Name:**

http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata
/FloridaPanhandle_2012_datafig.jpg

**Browse_Graphic_File_Description:**

Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

**Browse_Graphic_File_Type:**

JPEG

**Browse_Graphic_File_Name:**
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

**Browse_Graphic_File_Type:**
JPEG

**Data_Set_Credit:**
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

**Native_Data_Set_Environment:**
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, soc_econ.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biore.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

**Data_Quality_Information:**

**Attribute_Accuracy:**

**Attribute_Accuracy_Report:**
A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

**Logical_Consistency_Report:**
A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks.

**Completeness_Report:**
These data represent linear and polygonal hydrography for the Florida Panhandle. See also the data layers, ESIP (ESI shoreline polygons) and ESIL (ESI shoreline lines), part of the larger Florida Panhandle ESI database, for additional shoreline information.

**Positional_Accuracy:**

**Horizontal_Positional_Accuracy:**

**Horizontal_Positional_Accuracy_Report:**
The hydrography data set was developed from pre-existing digital data and reflects the positional accuracy of these original data. The horizontal positional accuracy of the 1:24,000 USGS...
topographic quads should conform to National Map Accuracy Standards at scales of 1:24,000. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

**Lineage:**

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

MARINE RESOURCE GEOGRAPHIC INFORMATION SYSTEM (GIS), FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

**Publication Date:**

2010

**Title:**

FWC_IMAGERY_WEB

**Geospatial Data Presentation Form:**

raster digital data

**Publication Information:**

**Publication Place:**

ST. PETERSBURG, FL

**Publisher:**

FISH AND WILDLIFE RESEARCH INSTITUTE, FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

**Other Citation Details:**

THIS DATA SET IS COMPRISED OF A VARIETY OF DATES OF IMAGERY. THE PRIMARY DATA SET USED WAS THE 2004 DOQQS.

**Online Linkage:**

http://atoll.floridamarine.org/ArcGIS/rest/services/FWC_Imagery_Web/MapServer

**Type of Source Media:**

ONLINE

**Source Time Period of Content:**

**Time Period Information:**

**Single Date/Time:**

**Calendar Date:**

2010

**Source Currentness Reference:**

DATE OF PUBLICATION

**Source Citation Abbreviation:**

Src_0

**Source Contribution:**

HYDRO INFORMATION

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

**Publication Date:**

2009

**Title:**

LAND USE LAND COVER NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT 2004

**Geospatial Data Presentation Form:**

vector digital data

**Publication Information:**
Public Place:
TALLAHASSEE, FLORIDA
Publisher:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP)
Online Linkage:
http://www.dep.state.fl.us/gis/datadir.htm
Source Scale Denominator:
12000
Type of Source Media:
ONLINE
Source Time Period of Content:
Time Period Information:
Range of Dates/Times:
Beginning Date:
2003
Ending Date:
2009
Source Currentness Reference:
DATE OF PUBLICATION
Source Citation Abbreviation:
Src_1
Source Contribution:
HYDRO INFORMATION
Source Information:
Source Citation:
Citation Information:
Originator:
RESEARCH PLANNING, INC. (RPI)
Publication Date:
2010
Title:
STUDY AREA BOUNDARY
Geospatial Data Presentation Form:
vector digital data
Other Citation Details:
UNPUBLISHED
Source Scale Denominator:
24000
Type of Source Media:
DIGITAL
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2010
Source Currentness Reference:
DATE OF PUBLICATION
Source Citation Abbreviation:
Src_2
Source Contribution:
HYDRO INFORMATION
Source Information:
Source Citation:
The shoreline of the HYDRO data layer was constructed from three primary data sets: 1) the FWRI_fl_12k_2004_Panhandle data provided by Florida Fish and Wildlife Conservation Commission, 2) the Suwannee River Water Management District (SRWMD) 2004 Land Use data, and 3) the Northwest Florida Water Management District 2004 Land Use data. (See the Lineage section for additional information on the type of source data for this data layer.) The data were integrated and visually compared to fwc_imagery from Florida Fish and Wildlife Conservation Commission at a scale of 1:6,000 or less to determine gross shoreline change. Edits to bay, inlet, and river shoreline were digitized at a scale of approximately 1:3,000. The above digital and/or hardcopy sources were compiled to create the HYDRO data layer. Depending on the type of source data, four general approaches are used for compiling the data layer: 1) hardcopy maps are digitized at their source scale; 2) digital data layers are evaluated and used "as is" or integrated with the other data sources; 3) overflight classifications are digitized from the scanned and registered hardcopy field maps; and/or 4) classifications are interpreted from oblique GPS-referenced photography or video taken during the overflights. After the initial shoreline classification, the data are edgematched and checked for logical consistency errors. Review maps are plotted at 1:24,000 scale for verification of polygonal and linear attributes. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are
conducted to review the maps. If necessary, edits to the HYDRO data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

**Process Date:**
201208

**Process Contact:**

**Contact Information:**

**Contact Organization Primary:**

**Contact Organization:**
NOAA, Office of Response and Restoration

**Contact Person:**
ESI Manager

**Contact Address:**

**Address Type:**
Physical address

**Address:**
7600 Sand Point Way, N.E.

**City:**
Seattle

**State or Province:**
Washington

**Postal Code:**
98115-6349

**Contact Voice Telephone:**
(206) 526-6944

**Contact Facsimile Telephone:**
(206) 526-6329

**Contact Electronic Mail Address:**
orr.esi@noaa.gov

**Spatial Data Organization Information:**

**Direct Spatial Reference Method:**
Vector

**Point and Vector Object Information:**

**SDTS Terms Description:**

**SDTS Point and Vector Object Type:**
GT-polygon composed of chains

**Point and Vector Object Count:**
4580

**SDTS Terms Description:**

**SDTS Point and Vector Object Type:**
Area point

**Point and Vector Object Count:**
4581

**SDTS Terms Description:**

**SDTS Point and Vector Object Type:**
Complete chain

**Point and Vector Object Count:**
5847

**SDTS Terms Description:**

**SDTS Point and Vector Object Type:**
Link
Point_and_Vector_Object_Count: 511463

SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
Node, planar graph
Point_and_Vector_Object_Count: 5818

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Geographic:
Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:
Horizontal_Datum_Name: North American Datum of 1983
Ellipsoid_Name: Geodetic Reference System 80
Semi-major_Axis: 6378137.000000
Denominator_of_Flattening_Ratio: 298.257222

Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label: HYDRO.AAT
Entity_Type_Definition: The HYDRO.AAT table contains attribute information for the vector lines representing linear hydrography features in the HYDRO data layer.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:
Attribute_Label: LINE
Attribute_Definition: Type of geographic feature.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: B
Enumerated Domain Value Definition:
  Breakwater
Enumerated Domain Value Definition Source:
  NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      H
    Enumerated Domain Value Definition:
      Hydrography
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      I
    Enumerated Domain Value Definition:
      Index
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      S
    Enumerated Domain Value Definition:
      Shoreline
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute:
  Attribute Label:
    SOURCE_ID
  Attribute Definition:
    Source identifier that links to the SOURCES data table. This identifier indicates the source of a vector line segment.
  Attribute Definition Source:
    NOAA ESI Guidelines
  Attribute Domain Values:
    Range Domain:
      Range Domain Minimum:
        1
      Range Domain Maximum:
        N

Detailed Description:
  Entity Type:
    Entity Type Label:
      HYDRO.PAT
  Entity Type Definition:
    The HYDRO.PAT table contains attribute information for the vector polygons representing polygonal hydrography features in the HYDRO data layer.
  Entity Type Definition Source:
    NOAA ESI Guidelines

Attribute:
  Attribute Label:
WATER_CODE

**Attribute Definition:**
Specifies a polygon as either water or land.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:** L
  - **Enumerated Domain Value Definition:** Land
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:** W
  - **Enumerated Domain Value Definition:** Water
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

- **Entity Type Label:** SOURCES

**Entity Type Definition:**
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute:**

- **Attribute Label:** SOURCE_ID

**Attribute Definition:**
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Range Domain:**
  - **Range Domain Minimum:** 1
  - **Range Domain Maximum:** N
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: DATE_PUB
Attribute Definition: Date of source material, publication, or date of personal communication with expert source.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: YYYYMM
Enumerated Domain Value Definition: YYYY for year and optionally MM for month
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
Attribute Label: TITLE
Attribute Definition: Title of source material or data.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: DATA_FORMAT
Attribute Definition: The format of the source material.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: PUB_PLACE
Attribute Definition: Publication place.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: PUBLISHER
Attribute Definition:
Overview_Description:

In addition to the geographic data layers, relational attribute or data tables are used to store information in the ESI data structure. (See the Browse_Graphic section for links to entity-relationship diagrams, which describe the relationships between the attribute tables in the ESI data structure.) The HYDRO data layer is linked to the data table, SOURCES, using the SOURCE_ID.
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

Distribution Information:
Distributor:
Contact Information:
Contact Person Primary:
Contact Person:
ESI Manager
Contact Organization:
NOAA, Office of Response and Restoration
Contact Address:
Address Type:
Physical Address
Address:
7600 Sand Point Way N.E.
City:
Seattle
State_or_Province:
Washington
Postal Code:
98115-6349
Contact Voice Telephone:
(206) 526-6944
Contact Facsimile Telephone:
(206) 526-6329
Contact Electronic Mail Address:
orr.esi@noaa.gov

Resource Description:
Downloadable Data

Distribution Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard Order Process:
Digital Form:
Digital Transfer Information:
Format Name:
Multiple formats
Digital Transfer Option:
Online Option:
Computer Contact Information:
Network Address:
Network Resource Name:
http://response.restoration.noaa.gov/esi_download

Fees:
None

Custom Order Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats.
Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: ESIP (ESI Shoreline Types - Polygons)

Metadata:

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

Identification Information:

Citation Information:

Originator:

Originator:

Originator:
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

Publication Date:
201208

Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: ESIP (ESI Shoreline Types - Polygons)

Edition:
Second

Geospatial Data Presentation Form:
vector digital data

Series Information:

Series Name:
Florida Panhandle ESI

Issue Identification:
Florida Panhandle

Publication Information:

Publication Place:
Seattle, Washington

Publisher:
NOAA's Ocean Service, Office of Response and Restoration (OR&R), Emergency Response Division (ERD).

Other Citation Details:
Prepared by Research Planning, Inc., Columbia, South Carolina for the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and
Restoration, Emergency Response Division, Seattle, Washington.

Online Linkage:
http://response.restoration.noaa.gov/esi

Online Linkage:
http://response.restoration.noaa.gov/esi_download

Online Linkage:
http://response.restoration.noaa.gov/esi_guidelines

Description:

Abstract:
The ESIP data set contains vector polygons representing the shoreline and coastal habitats of the Florida Panhandle, classified according to the Environmental Sensitivity Index (ESI) classification system. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the ESIL (ESI shoreline polygons) and HYDRO (Hydrography lines and polygons) data layers, part of the larger Florida Panhandle ESI database, for additional shoreline information.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date:
2003
Ending_Date:
2010

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 2003 to 2010 and are documented in the Lineage section.

Status:

Progress:
Complete

Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:

Bounding_Coordinates:
West_BoundingCoordinate:
-87.62500
East_BoundingCoordinate:
-83.68400
North_BoundingCoordinate:
30.74700
South_BoundingCoordinate:
28.27700

Keywords:

Theme:

Theme_Keyword_Thesaurus:
ISO 19115 Topic Category
Theme_Keyword:
biota
Theme_Keyword:
environment

Theme:

Theme_Keyword_Thesaurus:
None

Theme_Keyword:
Environmental Monitoring

Theme_Keyword:
ESI

Theme_Keyword:
Sensitivity maps

Theme_Keyword:
Coastal resources

Theme_Keyword:
Oil spill planning

Theme_Keyword:
Coastal Zone Management

Theme_Keyword:
Wildlife

Theme:

Theme_Keyword_Thesaurus:
None

Theme_Keyword:
Environmental Monitoring

Place:

Place_Keyword_Thesaurus:
None

Place_Keyword:
Florida Panhandle

Access_Constraints:
None

Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use
constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent
data or information held by state or federal agencies or other organizations. Likewise, information contained
in the database cannot be used in place of consultations with environmental, natural resource, and cultural
resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database
represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does
not necessarily represent the full distribution or range of each species or resource. This is particularly
important to recognize when considering potential impacts to protected resources, such as endangered
species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would
be appreciated in products derived from these data.

Browse_Graphic:

Browse_Graphic_File_Name:
http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata
/FloridaPanhandle_2012_datafig.jpg

Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle
ESI data.

Browse_Graphic_File_Type:
JPEG

Browse_Graphic:

Browse_Graphic_File_Name:
http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

Browse_Graphic_File_Type:
JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, soccon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_INFORMATION:

Attribute_Accuracy:
Attribute_Accuracy_Report:
A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical_Consistency_Report:
A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks.

Completeness_Report:
These data represent coastal shorelines and habitats classified according to the Environmental Sensitivity Index (ESI) classification system. See also the ESIL (ESI shoreline lines) and HYDRO (Hydrography lines and polygons) data layers, part of the larger Florida Panhandle ESI database, for additional ESI information.

Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report:
The spatial location of the ESI shoreline was developed from pre-existing digital sources and reflects the positional accuracy of these original data. The horizontal positional accuracy of the 1:24,000 USGS topographic quads should conform to National Map Accuracy Standards at
scales of 1:24,000. The minimum mapping unit (MMU) of the actual shoreline classification segments is estimated at 50 meters where mapping is conducted using 1:24,000 hardcopy fieldmaps. Field verification has shown that the absolute positional accuracy of breaks between shoreline ESI types with a 95-percent error bound is approximately 58 meters. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:
MARINE RESOURCE GEOGRAPHIC INFORMATION SYSTEM (GIS), FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

Publication_Date:
2010

Title:
FWC_IMAGERY_WEB

Geospatial_Data_Presentation_Form:
raster digital data

Publication_Information:

Publication_Date:
ST. PETERSBURG, FL

Publisher:
FISH AND WILDLIFE RESEARCH INSTITUTE, FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Other_Citation_Details:
THIS DATA SET IS COMPRISED OF A VARIETY OF DATES OF IMAGERY. THE PRIMARY DATA SET USED WAS THE 2004 DOQQS.

Online_Linkage:
http://atoll.floridamarine.org/ArcGIS/rest/services/FWC_Imagery_Web/MapServer

Type_of_Source_Media:
ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:
2010

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_0

Source_Contribution:
ESI INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Publication_Date:
2009

Title:
LAND USE LAND COVER NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT 2004
Original ESI maps were re-examined and fully updated using the sources and methods described below. The intertidal shoreline habitats of the Florida Panhandle were mapped via interpretation of a continuous, overlapping sets of georeferenced oblique aerial photographs. These photographs were acquired for the counties of Okaloosa, Walton, Gulf, Franklin, Wakulla, Jefferson, and Taylor in April 2010 during overflights conducted at elevations of 400-600 feet and slow air speed. All flights were planned to maximize time on site during the 2.5 hours preceding and the 2.5 hours following peak low tide. Continuous, overlapping set of georeferenced oblique aerial photographs for the counties of Escambia, Santa Rosa, and Bay were obtained from Pictometry International Corp. of Rochester, New York. Where appropriate, revisions to the existing shoreline were made and, where necessary, multiple habitats were described for each shoreline segment. See the HYDRO metadata for additional source information for the vector lines attributed with the ESI. The above digital and/or hardcopy sources were compiled to create the ESI data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) hardcopy maps are digitized at their source scale; 2) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources; and 3) overflight changes are digitized from the scanned and registered hardcopy field maps or aerial photography. After the initial shoreline classification, these data are
edgematched and checked for logical consistency errors. Review maps are plotted at 1:24,000 scale for verification of polygonal and linear attributes. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the ESI data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date:
201208

Process_Contact:
Contact_Information:
  Contact_Organization_Primary:
    Contact_Organization:
      NOAA, Office of Response and Restoration
    Contact_Person:
      ESI Manager
  Contact_Address:
    Address_Type:
      Physical address
    Address:
      7600 Sand Point Way, N.E.
    City:
      Seattle
    State_or_Province:
      Washington
    Postal_Code:
      98115-6349
  Contact_Voice_Telephone:
    (206) 526-6944
  Contact_Facsimile_Telephone:
    (206) 526-6329
  Contact_Electronic_Mail_Address:
    orr.esi@noaa.gov

Spatial_Data_Organization_Information:
  Direct_Spatial_Reference_Method:
    Vector
  Point_and_Vector_Object_Information:
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:
        GT-polygon composed of chains
      Point_and_Vector_Object_Count:
        35679
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:
        Area point
      Point_and_Vector_Object_Count:
        35680
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:
        Complete chain
Point_and_Vector_Object_Count: 104332
SDTS_Terms_Description:
  SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 1747627
SDTS_Terms_Description:
  SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 89523

Spatial_Reference_Information:
  Horizontal_Coordinate_System_Definition:
    Geographic: 
      Latitude_Resolution: 0.0000001
      Longitude_Resolution: 0.0000001
    Geographic_Coordinate_Units: Decimal degrees
  Geodetic_Model:
    Horizontal_Datum_Name: North American Datum of 1983
    Ellipsoid_Name: Geodetic Reference System 80
    Semi-major_Axis: 6378137.000000
    Denominator_of_Flattening_Ratio: 298.257222

Entity_and_Attribute_Information:
  Detailed_Description:
    Entity_Type: 
      Entity_Type_Label: ESI.PAT
      Entity_Type_Definition: The ESI.PAT table contains attribute information for the vector polygons representing polygonal features with ESI classification.
      Entity_Type_Definition_Source: NOAA ESI Guidelines
    Attribute: 
      Attribute_Label: ESI
      Attribute_Definition: The item ESI contains values representing the ESI polygon type.
      Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      7
    Enumerated_Domain_Value_Definition:
      Sand Tidal Flats
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      9A
    Enumerated_Domain_Value_Definition:
      Mud Tidal Flats
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      10A
    Enumerated_Domain_Value_Definition:
      Salt- and Brackish-water Marshes
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      10B
    Enumerated_Domain_Value_Definition:
      Freshwater Marshes
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      10C
    Enumerated_Domain_Value_Definition:
      Swamps
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      10D
    Enumerated_Domain_Value_Definition:
      Scrub-shrub Wetlands
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    WATER_CODE
  Attribute_Definition:
    Specifies a polygon as either water or land.
**Attribute**

**Attribute_Label**: ENVIR

**Attribute_Definition**: Type of regional environment.

**Attribute_Definition_Source**: NOAA ESI Guidelines

**Attribute_Domain_Values**:

**Enumerated_Domain**:

- **Enumerated_Domain_Value**: L
  - **Enumerated_Domain_Value_Definition**: Land
  - **Enumerated_Domain_Value_Definition_Source**: NOAA ESI Guidelines

**Attribute_Domain_Values**:

- **Enumerated_Domain_Value**: W
  - **Enumerated_Domain_Value_Definition**: Water
  - **Enumerated_Domain_Value_Definition_Source**: NOAA ESI Guidelines

**Attribute**

**Attribute_Label**: ESI_SOURCE

**Attribute_Definition**: Source identifier that links to the SOURCES data table. This identifier indicates the source of the ESI classification of a polygon. Polygon features that do not have an associated ESI value are given an ESI_SOURCE value of -1

**Attribute_Definition_Source**: NOAA ESI Guidelines

**Attribute_Domain_Values**:

- **Range_Domain**: Florida Panhandle ESI: ESIP
  - **Range_Domain_Minimum**: -9
Detailed Description:

Entity Type:

Entity Type Label:
SOURCES

Entity Type Definition:
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
SOURCE_ID

Attribute Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Range Domain:

Range Domain Minimum:
1

Range Domain Maximum:
N

Attribute:

Attribute Label:
ORIGINATOR

Attribute Definition:
Author or developer of source material or data set.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:
DATE_PUB

Attribute Definition:
Date of source material, publication, or date of personal communication with expert source.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
YYYYMM

Enumerated Domain Value Definition:
YYYY for year and optionally MM for month

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
   Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
   Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
   Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
   Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
   Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Overview_Description:

In addition to the geographic data layers, relational attribute or data tables are used to store information in the ESI data structure. (See the Browse_Graphic section for links to entity-relationship diagrams, which describe the relationships between the attribute tables in the ESI data structure.) The ESIP data layer is linked to the data table, SOURCES, using ESI_SOURCE.

Entity_and_Attribute_Detail_Citation:

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

Distribution_Information:

Distributor:

Contact_Information:

Contact Person Primary:

Contact Person:

ESI Manager

Contact Organization:

NOAA, Office of Response and Restoration

Contact Address:

Address Type:

Physical Address

Address:

7600 Sand Point Way N.E.
Resource_Description:
- Downloadable Data

Distribution_Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard_Order_Process:
- Digital_Form:
  - Digital_Transfer_Information:
    - Format_Name:
      - Multiple formats
  - Online_Option:
    - Computer_Contact_Information:
      - Network_Address:
        - Network_Resource_Name:
          - http://response.restoration.noaa.gov/esi_download

Fees:
- None

Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.
Contact Position:
GIS Manager

Contact Address:
Address Type:
Physical Address
Address:
7600 Sand Point Way, N.E.
City:
Seattle
State or Province:
Washington
Postal Code:
98115-6349

Contact Voice Telephone:
(206) 526-6944

Contact Facsimile Telephone:
(206) 526-6329

Contact Electronic Mail Address:
or.esi@noaa.gov

Metadata Standard Name:
Content Standards for Digital Geospatial Metadata

Metadata Standard Version:
FGDC-STD-001-1998

Back To Index
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: ESIL (ESI Shoreline Types - Lines)

Metadata:

- **Identification Information**
- **Data Quality Information**
- **Spatial Data Organization Information**
- **Spatial Reference Information**
- **Entity and Attribute Information**
- **Distribution Information**
- **Metadata Reference Information**

---

**Identification Information:***

**Citation Information:***

**Originator:**

**Originator:**

**Originator:**
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

**Publication Date:**
201208

**Title:**
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: ESIL (ESI Shoreline Types - Lines)

**Edition:**
Second

**Geospatial Data Presentation Form:**
vector digital data

**Series Information:**

**Series Name:**
Florida Panhandle ESI

**Issue Identification:**
Florida Panhandle

**Publication Information:**

**Publication Place:**
Seattle, Washington

**Publisher:**
NOAA's Ocean Service, Office of Response and Restoration (OR&R), Emergency Response Division (ERD).

**Other Citation Details:**
Prepared by Research Planning, Inc., Columbia, South Carolina for the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and
Description:

Abstract:
The ESIL data set contains vector lines representing the shoreline and coastal habitats of the Florida Panhandle, classified according to the Environmental Sensitivity Index (ESI) classification system. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the ESIP (ESI shoreline polygons) and HYDRO (Hydrography lines and polygons) data layers, part of the larger Florida Panhandle ESI database, for additional shoreline information.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date:
2003

Ending_Date:
2010

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 2003 to 2010 and are documented in the Lineage section.

Status:

Progress:
Complete

Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding-coordinate:
-87.62500

East_Bounding-coordinate:
-83.68400

North_Bounding-coordinate:
30.74700

South_Bounding-coordinate:
28.27700

Keywords:

Theme:

Theme.Keyword_Thesaurus:
ISO 19115 Topic Category

Theme.Keyword:
biota

Theme.Keyword:
environment

Theme:
  Theme_Keyword_Thesaurus:
    None
  Theme_Keyword:
    Environmental Monitoring
  Theme_Keyword:
    ESI
  Theme_Keyword:
    Sensitivity maps
  Theme_Keyword:
    Coastal resources
  Theme_Keyword:
    Oil spill planning
  Theme_Keyword:
    Coastal Zone Management
  Theme_Keyword:
    Wildlife

Theme:
  Theme_Keyword_Thesaurus:
    NOS Data Explorer Topic Category
  Theme_Keyword:
    Environmental Monitoring

Place:
  Place_Keyword_Thesaurus:
    None
  Place_Keyword:
    Florida Panhandle

Access_Constraints:
  None

Use_Constraints:
  DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse_Graphic:
  Browse_Graphic_File_Name:
  Browse_Graphic_File_Description:
    Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.
  Browse_Graphic_File_Type:
    JPEG

Browse_Graphic:
  Browse_Graphic_File_Name:
    http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

**Native Data Set Environment:**

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO® (version 9.3) and SQL SERVER® (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial Data Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, soc econ.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biorec.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

**Data Quality Information:**

**Attribute Accuracy:**

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

**Logical Consistency Report:**

A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks.

**Completeness Report:**

These data represent coastal shorelines and habitats classified according to the Environmental Sensitivity Index (ESI) classification system. See also the ESIP (ESI shoreline polygons) and HYDRO (Hydrography lines and polygons) data layers, part of the larger Florida Panhandle ESI database, for additional shoreline information.

**Positional Accuracy:**

**Horizontal Positional Accuracy:**

The spatial location of the ESI shoreline was developed from pre-existing digital sources and reflects the positional accuracy of these original data. The horizontal positional accuracy of the...
1:24,000 USGS topographic quads should conform to National Map Accuracy Standards at scales of 1:24,000. The minimum mapping unit (MMU) of the actual shoreline classification segments is estimated at 50 meters where mapping is conducted using 1:24,000 hardcopy fieldmaps. Field verification has shown that the absolute positional accuracy of breaks between shoreline ESI types with a 95-percent error bound is approximately 58 meters. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

**Lineage:**

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

MARINE RESOURCE GEOGRAPHIC INFORMATION SYSTEM (GIS), FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

**Publication Date:**

2010

**Title:**

FWC_IMAGERY_WEB

**Geospatial Data Presentation Form:**

raster digital data

**Publication Information:**

**Publication Place:**

ST. PETERSBURG, FL

**Publisher:**

FISH AND WILDLIFE RESEARCH INSTITUTE, FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

**Other Citation Details:**

THIS DATA SET IS COMPRISED OF A VARIETY OF DATES OF IMAGERY. THE PRIMARY DATA SET USED WAS THE 2004 DOQQS.

**Online Linkage:**

http://atoll.floridamarine.org/ArcGIS/rest/services/FWC_Imagery_Web/MapServer

**Type of Source Media:**

ONLINE

**Source Time Period of Content:**

**Time Period Information:**

**Single Date/Time:**

**Calendar Date:**

2010

**Source Currentness Reference:**

DATE OF PUBLICATION

**Source Citation Abbreviation:**

Src_0

**Source Contribution:**

ESI INFORMATION

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

**Publication Date:**

2009

**Title:**

LAND USE LAND COVER NORTHWEST FLORIDA WATER MANAGEMENT
DISTRICT 2004

Geospatial_Data_Presentation_Form: vector digital data
Publication_Information:
Publication_Place: TALLAHASSEE, FLORIDA
Publisher: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP)
Online_Linkage: http://www.dep.state.fl.us/gis/datadir.htm
Source_Scale_Denominator: 12000
Type_of_Source_Media: online
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 2003
Ending_Date: 2009
Source_Currentness_Reference:
DATE OF PUBLICATION
Source_Citation_Abbreviation: Src_1
Source_Contribution: ESI INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: PICTOMETRY INTERNATIONAL CORP.
Publication_Date: 2010
Title: OBLIQUE AERIAL PHOTOGRAPHY
Geospatial_Data_Presentation_Form: remote-sensing image
Publication_Information:
Publication_Place: ROCHESTER, NY
Publisher: PICTOMETRY INTERNATIONAL CORP.
Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2010
Source_Currentness_Reference:
DATE OF SURVEY
Source_Citation_Abbreviation:
Src_2
Source_Contribution:
ESI INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
RESEARCH PLANNING, INC. (RPI)
Publication_Date:
2010
Title:
OVERFLIGHT OBLIQUE PHOTOGRAPHS
Geospatial_Data_Presentation_Form:
remote-sensing image
Other_Citation_Details:
UNPUBLISHED
Type_of_Source_Media:
DIGITAL PHOTOGRAPH
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2010
Source_Currentness_Reference:
DATE OF SURVEY
Source_Citation_Abbreviation:
Src_3
Source_Contribution:
ESI INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
SUWANNEE RIVER WATER MANAGEMENT DISTRICT (SRWMD)
Publication_Date:
2008
Title:
SRWMD 2004 LAND USE
Geospatial_Data_Presentation_Form:
vector digital data
Publication_Information:
Publication_Place:
TALLAHASSEE, FLORIDA
Publisher:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP)
Online_Linkage:
http://www.srwmd.state.fl.us/index.aspx?NID=319
Source_Scale_Denominator:
12000
Type_of_Source_Media:
ONLINE
Source_Time_Period_of_Content:
Time_Period_Information:
Original ESI maps were re-examined and fully updated using the sources and methods described below. The intertidal shoreline habitats of the Florida Panhandle were mapped via interpretation of a continuous, overlapping sets of georeferenced oblique aerial photographs. These photographs were acquired for the counties of Okaloosa, Walton, Gulf, Franklin, Wakulla, Jefferson, and Taylor in April 2010 during overflights conducted at elevations of 400-600 feet and slow air speed. All flights were planned to maximize time on site during the 2.5 hours preceding and the 2.5 hours following peak low tide. Continuous, overlapping set of georeferenced oblique aerial photographs for the counties of Escambia, Santa Rosa, and Bay were obtained from Pictometry International Corp. of Rochester, New York. Where appropriate, revisions to the existing shoreline were made and, where necessary, multiple habitats were described for each shoreline segment. See the HYDRO metadata for additional source information for the vector lines attributed with the ESI. The above digital and/or hardcopy sources were compiled to create the ESI data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) hardcopy maps are digitized at their source scale; 2) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources; and 3) overflight changes are digitized from the scanned and registered hardcopy field maps or aerial photography. After the initial shoreline classification, these data are edgematched and checked for logical consistency errors. Review maps are plotted at 1:24,000 scale for verification of polygonal and linear attributes. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the ESI data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date:
201208

Process_Contact:

Contact Information:

Contact_Organization_Primary:

Contact_Organization:
NOAA, Office of Response and Restoration

Contact_Person:
ESI Manager

Contact_Address:

Address_Type:
Physical address

Address:
7600 Sand Point Way, N.E.

City:
Seattle
**State_or_Province:**  Washington  
**Postal_Code:**  98115-6349  
**Contact_Voice_Telephone:**  (206) 526-6944  
**Contact_Facsimile_Telephone:**  (206) 526-6329  
**Contact_Electronic_Mail_Address:**  orr.esi@noaa.gov  

---

**Spatial_Data_Organization_Information:**
**Direct_Spatial_Reference_Method:**  Vector  
**Point_and_Vector_Object_Information:**
**SDTS_Terms_Description:**  
**SDTS_Point_and_Vector_Object_Type:**  Complete chain  
**Point_and_Vector_Object_Count:**  12005  

**SDTS_Terms_Description:**  
**SDTS_Point_and_Vector_Object_Type:**  Link  
**Point_and_Vector_Object_Count:**  425564  

**SDTS_Terms_Description:**  
**SDTS_Point_and_Vector_Object_Type:**  Node, planar graph  
**Point_and_Vector_Object_Count:**  12050  

---

**Spatial_Reference_Information:**
**Horizontal_Coordinate_System_Definition:**  
**Geographic:**  
**Latitude_Resolution:**  0.0000001  
**Longitude_Resolution:**  0.0000001  
**Geographic_Coordinate_Units:**  Decimal degrees  
**Geodetic_Model:**  
**Horizontal_Datum_Name:**  North American Datum of 1983  
**Ellipsoid_Name:**  Geodetic Reference System 80  
**Semi-major_Axis:**  6378137.000000  
**Denominator_of_Flattening_Ratio:**  298.257222
Entity and Attribute Information:

Detailed Description:

Entity Type:

Entity Type Label:
ESI.AAT

Entity Type Definition:
The ESI.AAT table contains attribute information for the vector lines representing linear shoreline features with ESI classification.

Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
ESI

Attribute Definition:
The item ESI contains values representing the ESI shoreline type. In many cases shorelines are ranked with multiple codes, such as "6B/3A" (listed landward to seaward from left to right). The first code, "6B", is the most landward shoreline type and the second code, "3A", is the shoreline type closest to the water. Singular shoreline types are listed below. No multiple codes are listed, but all multiple codes included in the data set can be assembled from the codes described. The ESI rankings progress from low to high susceptibility to oil spills. To determine the sensitivity of a particular intertidal shoreline habitat, the following factors are integrated: 1) Shoreline type (substrate, grain size, tidal elevation, origin); 2) Exposure to wave and tidal energy; 3) Biological productivity and sensitivity; 4) Ease of cleanup. Prediction of the behavior and persistence of oil in intertidal habitats is based on an understanding of the dynamics of the coastal environments, not just the substrate type and grain size. The intensity of energy expended upon a shoreline by wave action, tidal currents, and river currents directly affects the persistence of stranded oil. The need for shoreline cleanup activities is determined, in part, by the slowness of natural processes in removal of oil stranded on the shoreline. The potential for biological injury, and ease of cleanup of spilled oil are also important factors in the ESI ranking. Generally speaking, areas exposed to high levels of physical energy, such as wave action and tidal currents, and low biological activity rank low on the scale, whereas sheltered areas with associated high biological activity have the highest ranking.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
1B

Enumerated Domain Value Definition:
Exposed, Solid Man-made Structures

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
2B

Enumerated Domain Value Definition:
Exposed Scarps and Steep Slopes in Clay

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    3A
  Enumerated_Domain_Value_Definition:
    Fine- to Medium-grained Sand Beaches
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      3B
    Enumerated_Domain_Value_Definition:
      Scarps and Steep Slopes in Sand
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      4
    Enumerated_Domain_Value_Definition:
      Coarse-grained Sand Beaches
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      5
    Enumerated_Domain_Value_Definition:
      Mixed Sand and Gravel Beaches
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      6A
    Enumerated_Domain_Value_Definition:
      Gravel Beaches
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      6B
    Enumerated_Domain_Value_Definition:
      Riprap
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      7
    Enumerated_Domain_Value_Definition:
      Sand Tidal Flats
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            8A
        Enumerated_Domain_Value_Definition:
            Sheltered Rocky Shores and Sheltered Scarps in Bedrock, Mud, or Clay
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            8B
        Enumerated_Domain_Value_Definition:
            Sheltered, Solid Man-made Structures
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            8C
        Enumerated_Domain_Value_Definition:
            Sheltered Riprap
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            9A
        Enumerated_Domain_Value_Definition:
            Mud Tidal Flats
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            9B
        Enumerated_Domain_Value_Definition:
            Vegetated Low Banks
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            10A
        Enumerated_Domain_Value_Definition:
            Salt- and Brackish-water Marshes
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
10B

**Enumerated_Domain_Value_Definition:**
Freshwater Marshes

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:**
    - 10C

10C

**Enumerated_Domain_Value_Definition:**
Swamps

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:**
    - 10D

10D

**Enumerated_Domain_Value_Definition:**
Scrub-shrub Wetlands

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:*
LINE

*Attribute_Definition:*
Type of geographic feature.

*Attribute_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:**
    - B

B

**Enumerated_Domain_Value_Definition:**
Breakwater

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:**
    - H

H

**Enumerated_Domain_Value_Definition:**
Hydrography

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:**
    - S

S

**Enumerated_Domain_Value_Definition:**
Shoreline

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**
**Attribute Label:**
SOURCE_ID

**Attribute Definition:**
Source identifier that links to the SOURCES data table. This identifier indicates the source of a vector line segment.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

<table>
<thead>
<tr>
<th>Range Domain</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range_Domain_Minimum</td>
<td>1</td>
<td>N</td>
</tr>
</tbody>
</table>

**Attribute:**

**Attribute Label:**
ENVIR

**Attribute Definition:**
Type of regional environment.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

<table>
<thead>
<tr>
<th>Enumerated Domain</th>
<th>Value</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enumerated_Domain_Value</td>
<td>E</td>
<td>Estuarine</td>
<td>NOAA ESI Guidelines</td>
</tr>
</tbody>
</table>

**Attribute Domain Values:**

<table>
<thead>
<tr>
<th>Enumerated Domain</th>
<th>Value</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enumerated_Domain_Value</td>
<td>U</td>
<td>Unclassified</td>
<td>NOAA ESI Guidelines</td>
</tr>
</tbody>
</table>

**Attribute:**

**Attribute Label:**
ESI_SOURCE

**Attribute Definition:**
Source identifier that links to the SOURCES data table. This identifier indicates the source of the ESI classification of a line segment. Vector features that were not surveyed or do not qualify for an ESI classification have a value of -1.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

<table>
<thead>
<tr>
<th>Range Domain</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range_Domain_Minimum</td>
<td>-1</td>
<td>N</td>
</tr>
</tbody>
</table>

**Detailed Description:**

**Entity_Type:**
Entity Type Label: SOURCES
Entity Type Definition: The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
Entity Type Definition Source: NOAA ESI Guidelines

Attribute:
Attribute Label: SOURCE_ID
Attribute Definition: Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Range Domain:
  Range Domain Minimum: 1
  Range Domain Maximum: N

Attribute:
Attribute Label: ORIGINATOR
Attribute Definition: Author or developer of source material or data set.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
  Unrepresentable Domain: Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: DATE_PUB
Attribute Definition: Date of source material, publication, or date of personal communication with expert source.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value: YYYYMM
    Enumerated Domain Value Definition: YYYY for year and optionally MM for month
    Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
Attribute Label: TITLE
Attribute Definition:
Title of source material or data.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
DATA_FORMAT

**Attribute Definition:**
The format of the source material.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
PUB_PLACE

**Attribute Definition:**
Publication place.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
PUBLISHER

**Attribute Definition:**
Publisher.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
PUBLICATION

**Attribute Definition:**
Additional citation information.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
ONLINE_LINK

**Attribute Definition:**
Online computer resource URL.

**Attribute Definition Source:**
NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
SCALE
Attribute_Definition:
Description of the source scale.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Overview_Description:
Entity_and_Attribute_Overview:
In addition to the geographic data layers, relational attribute or data tables are used to store information in the ESI data structure. (See the Browse_Graphic section for links to entity-relationship diagrams, which describe the relationships between the attribute tables in the ESI data structure.) The ESIL data layer is linked to the data table, SOURCES, using SOURCE_ID and ESI_SOURCE.

Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

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Resource_Description:
Downloadable Data

Distribution_Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard_Order_Process:
Digital_Form:
  Digital_Transfer_Information:
    Format_Name:
      Multiple formats
  Digital_Transfer_Option:
    Online_Option:
      Computer_Contact_Information:
        Network_Address:
          Network_Resource_Name:
            http://response.restoration.noaa.gov/esi_download

Fees:
None

Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

Back To Index
Address:
    7600 Sand Point Way, N.E.
City:
    Seattle
State_orProvince:
    Washington
Postal_Code:
    98115-6349
Contact_Voice_Telephone:
    (206) 526-6944
Contact Facsimile_Telephone:
    (206) 526-6329
Contact_Electronic_Mail_Address:
    orr.esi@noaa.gov

Metadata_Standard_Name:
    Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version:
    FGDC-STD-001-1998

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Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: INDEX (Index Polygons)

Metadata:

- Identification_Information
- Data_Quality_Information
- Spatial_Data_Organization_Information
- Spatial_Reference_Information
- Entity_and_Attribute_Information
- Distribution_Information
- Metadata_Reference_Information

Identification_Information:

Citation:

Citation_Information:

Originator:

Originator:

Originator:
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

Publication_Date:
201208

Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: INDEX (Index Polygons)

Edition:
Second

Geospatial_Data_Presentation_Form:
vector digital data

Series_Information:
Series_Name:
Florida Panhandle ESI

Issue_Identification:
Florida Panhandle

Publication_Information:
Publication Place:
Seattle, Washington
Publication Details:
Publisher:
NOAA's Ocean Service, Office of Response and Restoration (OR&R),
Emergency Response Division (ERD).

Other Citation Details:
Prepared by Research Planning, Inc., Columbia, South Carolina for the National
Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office
of Response and Restoration, Emergency Response Division, Seattle, Washington.

Online Linkage:
http://response.restoration.noaa.gov/esi

Online Linkage:
http://response.restoration.noaa.gov/esi_download

Online Linkage:
http://response.restoration.noaa.gov/esi_guidelines

Description:
Abstract:
This data set contains vector polygons representing the boundaries of all hardcopy
cartographic products produced as part of the Environmental Sensitivity Index (ESI) for
the Florida Panhandle. This data set comprises a portion of the ESI data for the Florida
Panhandle. ESI data characterize the marine and coastal environments and wildlife by their
sensitivity to spilled oil. The ESI data include information for three main components:
shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil
spill planning and response. The Clean Water Act with amendments by the Oil Pollution
Act of 1990 requires response plans for immediate and effective protection of sensitive
resources.

Time Period of Content:
Time Period Information:
Range of Dates/Times:
Beginning Date:
1993
Ending Date:
2003

Currentness Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from
1993 to 2003 and are documented in the Lineage section.

Status:
Progress:
Complete

Maintenance and Update Frequency:
None Scheduled

Spatial Domain:
Bounding Coordinates:
West Bounding Coordinate:
-87.62500
East Bounding Coordinate:
-83.68400
North Bounding Coordinate:
30.74700
South_BoundingCoordinate:
28.27700

Keywords:
Theme:
    Theme_Keyword_Thesaurus:
        ISO 19115 Topic Category
    Theme_Keyword:
        biota
    Theme_Keyword:
        environment

Theme:
    Theme_Keyword_Thesaurus:
        None
    Theme_Keyword:
        Environmental Monitoring
    Theme_Keyword:
        ESI
    Theme_Keyword:
        Sensitivity maps
    Theme_Keyword:
        Coastal resources
    Theme_Keyword:
        Oil spill planning
    Theme_Keyword:
        Coastal Zone Management
    Theme_Keyword:
        Wildlife

Theme:
    Theme_Keyword_Thesaurus:
        NOS Data Explorer Topic Category
    Theme_Keyword:
        Environmental Monitoring

Place:
    Place_Keyword_Thesaurus:
        None
    Place_Keyword:
        Florida Panhandle

Access_Constraints:
None

Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not
necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse Graphic:

Browse Graphic File Name: http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhdle_2012_datafig.jpg
Browse Graphic File Description: Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.
Browse Graphic File Type: JPEG

Browse Graphic:

Browse Graphic File Name: http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhdle_2012_datafig2.jpg
Browse Graphic File Description: Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.
Browse Graphic File Type: JPEG

Data Set Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native Data Set Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial Data Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, inverpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.
methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical_Consistency_Report:
A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks.

Completeness_Report:
These data represent the boundaries of all hardcopy cartographic products and digital data extents produced as part of the Florida Panhandle ESI atlas.

Positional_Accuracy:
Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
The index polygons in this data layer were generated in ArcInfo from the coordinates of the USGS 1:24,000 topographic map corners. Some small amount of positional error may be present along the arcs forming the boundaries of these polygons, particularly away from the polygon corners. Some boundaries were developed from pre-existing digital and hardcopy sources and reflect the positional accuracy of these original data. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:
Source_Citation:
Citation_Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)
Publication_Date:
200308
Title:
ENVIRONMENTAL SENSITIVITY INDEX HYDROGRAPHY FLORIDA
Geospatial_Data_Presentation_Form:
vector digital data
Publication_Information:
Publication Place:
ST. PETERSBURG, FL
Publisher:
FLORIDA MARINE RESEARCH INSTITUTE, FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
Source Scale Denominator: 12000

Type of Source Media: ONLINE

Source Time Period of Content:
Time Period Information:
Range of Dates/Times:
Beginning Date: 1993
Ending Date: 2003

Source Currentness Reference:
DATE OF PUBLICATION

Source Citation Abbreviation:
Src_0

Source Contribution:
ALLANTON, FLA. (1978); APALACHICOLA, FLA. (1982); BAY HEAD, FLA. (1982); BEACON BEACH, FLA. (1982); BEACON HILL, FLA. (1982); BEVERLY, FLA. (1981); BUNKER, FLA. (1976); CAPE SAN BLAS, FLA. (1992); CAPE ST. GEORGE, FLA. (1982); CARRABELLE, FLA. (1992); CHOCTAW BEACH, FLA. (1976); COBB ROCKS, FLA. (1992); CROOKED ISLAND, FLA. (1992); DESTIN, FLA. (1987); DOG ISLAND, FLA. (1992); FORT BARRANCAS, FLA. (1992); FORT WALTON BEACH, FLA. (1992); FREEPORT, FLA. (1976); GARCON POINT, FLA. (1992); GOOSE ISLAND, FLA. (1992); GRAYTON BEACH, FLA. (1976); GREEN POINT, FLA. (1982); GULF BREEZE, FLA. (1992); HOLLEY, FLA. (1992); INDIAN PASS, FLA. (1982); LAGUNA BEACH, FLA. (1982); LIGHTHOUSE POINT, FLA. (1992); LILLIAN, FLA.-AL. (1987); LONG POINT, FLA. (1982); MANLIN HAMMOCK, FLA. (1993); MARY ESTHER, FLA. (1987); MCINTYRE, FLA. (1982); MILTON SOUTH, FLA. (1987); MIRAMAR BEACH, FLA. (1976); NAVARRE, FLA. (1987); NEW INLET, FLA. (1981); NICEVILLE, FLA. (1987); ORANGE BEACH, FLA.-AL. (1992); ORIOLE BEACH, FLA. (1992); OVERSTREET, FLA. (1982); PACE, FLA. (1987); PANAMA CITY BEACH, FLA. (1982); PANAMA CITY, FLA. (1982); PENSACOLA, FLA. (1987); PERDIDO BAY, FLA.-AL. (1992); POINT WASHINGTON, FLA. (1992); PORT ST. JOE, FLA. (1992); ROCK ISLANDS, FLA. (1992); SEMINOLE HILLS, FLA. (1982); SNIPE ISLAND, FLA. (1993); SOPCHOPPY, FLA. (1972); SOUTH OF HOLLEY, FLA. (1992); SOUTHPORT, FLA. (1992); SPRAGUE ISLAND, FLA. (1992); SPRING CREEK, FLA. (1992); SPRINGFIELD, FLA. (1982); ST. JOSEPH PENINSULA, FLA. (1982); ST. JOSEPH POINT, FLA. (1992); ST. MARKS, FLA. (1992); ST. TERESA BEACH, FLA. (1992); SUGAR HILL, FLA. (1981); WARD BASIN, FLA. (1987); WEST BAY, FLA. (1992); WEST PASS, FLA. (1992); WEST PENSACOLA, FLA.-AL. (1987).

Process Step:
Process Description:
Primarily, 1:24,000 USGS topographic maps were used to provide boundaries for cartographic products. In some cases, the polygons represent USGS topographic maps that were re-tiled, moved, or extended to provide better cartographic coverage.
of the study area.

*Process Date:* 201208

*Process Contact:*

*Contact Information:*

**Contact Organization Primary:**

**Contact Organization:**

NOAA, Office of Response and Restoration

**Contact Person:**

ESI Manager

**Contact Address:**

**Address Type:**

Physical address

**Address:**

7600 Sand Point Way, N.E.

**City:**

Seattle

**State or Province:**

Washington

**Postal Code:**

98115-6349

**Contact Voice Telephone:**

(206) 526-6944

**Contact Facsimile Telephone:**

(206) 526-6329

**Contact Electronic Mail Address:**

orr.esi@noaa.gov

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**Spatial Data Organization Information:**

**Direct Spatial Reference Method:**

Vector

**Point and Vector Object Information:**

**SDTS Terms Description:**

**SDTS Point and Vector Object Type:**

GT-polygon composed of chains

**Point and Vector Object Count:**

67

**SDTS Terms Description:**

**SDTS Point and Vector Object Type:**

Area point

**Point and Vector Object Count:**

68

**SDTS Terms Description:**

**SDTS Point and Vector Object Type:**

Complete chain
**Point and Vector Object Count:**
221

**SDTS Terms Description:**

**SDTS Point and Vector Object Type:**
Link

**Point and Vector Object Count:**
13258

**SDTS Terms Description:**

**SDTS Point and Vector Object Type:**
Node, planar graph

**Point and Vector Object Count:**
155

**Spatial Reference Information:**

**Horizontal Coordinate System Definition:**

**Geographic:**

**Latitude Resolution:**
0.0000001

**Longitude Resolution:**
0.0000001

**Geographic Coordinate Units:**
Decimal degrees

**Geodetic Model:**

**Horizontal Datum Name:**
North American Datum of 1983

**Ellipsoid Name:**
Geodetic Reference System 80

**Semi-major Axis:**
6378137.000000

**Denominator of Flattening Ratio:**
298.257222

**Entity and Attribute Information:**

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**
INDEX.PAT

**Entity Type Definition:**
The INDEX.PAT table contains attribute information for the vector polygons representing the boundaries of the maps and digital data boundaries used in the creation of the ESI atlas.

**Entity Type Definition Source:**
NOAA ESI Guidelines
Attribute:
  Attribute_Label: TILE-NAME
  Attribute_Definition: The TILE-NAME contains the map number according to the specified layout of the atlas.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 1
      Range_Domain_Maximum: 65

Attribute:
  Attribute_Label: TOPO-NAME
  Attribute_Definition: USGS Topographic map name, short description of location, or atlas name.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: SCALE
  Attribute_Definition: SCALE contains the value of the denominator of the scale at which the map is plotted in the final map product.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: 24000
      Enumerated_Domain_Value_Definition: Scale = 1:24,000
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: MAPANGLE
  Attribute_Definition: MAPANGLE contains the value to rotate the final map product so that it is situated straight up and down.
  Attribute_Definition_Source: NOAA ESI Guidelines
Attribute: 

**Attribute Label:**
PAGESIZE

**Attribute Definition:**
PAGESIZE contains the value of the width and height of the map in the final map product.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
11,17

**Enumerated Domain Value Definition:**
Page size= 11" by 17"

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Overview Description:**

**Entity and Attribute Overview:**
In addition to the geographic data layers, relational attribute or data tables are used to store information in the ESI data structure. (See the Browse_Graphic section for links to entity-relationship diagrams, which describe the relationships between the attribute tables in the ESI data structure.) The INDEX data layer does not link to other ESI tables.

**Entity and Attribute Detail Citation:**
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

**Distribution Information:**

**Distributor:**

**Contact Information:**

**Contact Person Primary:**

**Contact Person:**
ESI Manager

**Contact Organization:**
NOAA, Office of Response and Restoration

**Contact Address:**

**Address Type:**
Physical Address
Address:
7600 Sand Point Way N.E.
City:
Seattle
State_or_Province:
Washington
Postal_Code:
98115-6349
Contact_Voice_Telephone:
(206) 526-6944
Contact_Facsimile_Telephone:
(206) 526-6329
Contact_Electronic_Mail_Address:
or.r.esi@noaa.gov

Resource_Description:
Downloadable Data
Distribution_Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Format_Name:
Multiple formats
Digital_Transfer_Option:
Online_Option:
Computer_Contact_Information:
Network_Address:
Network_Resource_Name:
http://response.restoration.noaa.gov/esi_download

Fees:
None

Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.
Metadata_Reference_Information:
Metadata_Date:
20140609
Metadata>Contact:
    Contact_Information:
        Contact_Person_Primary:
            Contact_Person:
                ESI Manager
        Contact_Organization:
            NOAA, Office of Response and Restoration
    Contact_Position:
        GIS Manager
    Contact_Address:
        Address_Type:
            Physical Address
        Address:
            7600 Sand Point Way, N.E.
        City:
            Seattle
        State_or_Province:
            Washington
        Postal_Code:
            98115-6349
    Contact_Voice_Telephone:
        (206) 526-6944
    Contact_Facsimile_Telephone:
        (206) 526-6329
    Contact_Electronic_Mail_Address:
        orr.esi@noaa.gov
Metadata_Standard_Name:
    Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version:
    FGDC-STD-001-1998
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: MGT (Management Area Polygons)

Metadata:

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

Identification Information:

Citation:

Citation Information:

Originator:

Originator:

Originator:
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

Publication_Date:
201208

Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: MGT (Management Area Polygons)

Edition:
Second

Geospatial_Data_Presentation_Form:
vector digital data

Series_Information:

Series_Name:
Florida Panhandle ESI

Issue_Identification:
Florida Panhandle

Publication_Information:

Publication Place:
Seattle, Washington
Abstract:

This data set contains sensitive human-use data for Designated Critical Habitats, Management Areas, National Forests, National Park Service properties, Parks, and Wildlife Refuges for the Florida Panhandle. Vector polygons in this data set represent management areas. Location specific type and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the SOCECON (Socioeconomic Resource Points and Lines) data layer, part of the larger Florida Panhandle ESI database, for additional human-use information.

Purpose:

The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1979

Ending_Date: 2012

Currentness_Reference:

The data were compiled during 2010-2012. The currentness dates for the data range from 1979 to 2012 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:
West_BoundingCoordinate: -87.62500
East_BoundingCoordinate: -83.68400
North_BoundingCoordinate: 30.74700
South_BoundingCoordinate: 28.27700

Keywords:
Theme:
  Theme_Keyword_Thesaurus: ISO 19115 Topic Category
  Theme_Keyword: biota
  Theme_Keyword: environment

Theme:
  Theme_Keyword_Thesaurus: None
  Theme_Keyword: Environmental Monitoring
  Theme_Keyword: ESI
  Theme_Keyword: Sensitivity maps
  Theme_Keyword: Coastal resources
  Theme_Keyword: Oil spill planning
  Theme_Keyword: Coastal Zone Management
  Theme_Keyword: Wildlife
  Theme_Keyword: Management

Theme:
  Theme_Keyword_Thesaurus: NOS Data Explorer Topic Category
  Theme_Keyword: Environmental Monitoring

Place:
  Place_Keyword_Thesaurus: None
  Place_Keyword: Florida Panhandle

Access_Constraints:
  None
Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

**Browse_Graphic:**

**Browse_Graphic_File_Name:**


**Browse_Graphic_File_Description:**

Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

**Browse_Graphic_File_Type:**

JPEG

**Browse_Graphic:**

**Browse_Graphic_File_Name:**


**Browse_Graphic_File_Description:**

Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

**Browse_Graphic_File_Type:**

JPEG

**Data_Set_Credit:**

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

**Native_Data_Set_Environment:**

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biore.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.
Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical_Consistency_Report:

A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

Completeness_Report:

These data represent a synthesis of digital boundaries for management areas. See also the SOCECON (Socioeconomic Resource Points and Lines) data layer, part of the larger Florida Panhandle ESI database, for additional human-use information. These data do not necessarily represent all management areas in the Florida Panhandle.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the human-use data layers can come from expert interviews, hardcopy, or digital sources. Most of the spatial components of the human-use data layers are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Some of the spatial components of the human-use data layers are compiled on hardcopy base maps with a scale of 1:24,000. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:
Source_Citation:
Citation_Information:
Originator:
   FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
   (FL DEP)
Publication_Date:
   2006
Title:
   OUTSTANDING FLORIDA WATERS
Geospatial_Data_Presentation_Form:
   vector digital data
Publication_Information:
   Publication Place:
      TALLAHASSEE
   Publisher:
      FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Type_of_Source_Media:
   FTP SITE
Source_Time_Period_of_Content:
   Time_Period_Information:
      Range_of_Dates/Times:
         Beginning_Date:
            1979
         Ending_Date:
            2006
   Source_Currentness_Reference:
      DATE OF PUBLICATION
Source_Citation_Abbreviation:
   Src_0
Source_Contribution:
   MGT INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
   FL DEPT OF AGRICULTURE AND CONSUMER SERVICES,
   DIVISION OF AQUACULTURE
Publication_Date:
   2011
Title:
   AQUACULTURELEASEAREASFL_2010
Geospatial_Data_Presentation_Form:
   vector digital data
Other_Citation_Details:
   UNPUBLISHED
Type_of_Source_Media:
   FTP SITE
Title:

AQUATIC PRESERVES FLORIDA

Geospatial_Data_Presentation_Form:
vector digital data

Publication_Information:
PublicationPlace:
ST. PETERSBURG

Publisher:
FWRI

Type_of_Source_Media:
FTP SITE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:
Calendar_Date:
2008

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_3

Source_Contribution:
MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)

Publication_Date:
2008

Title:

GULF STURGEON CRITICAL HABITAT UNITS 1 TO 7 AL, FL,
MS, LA

Geospatial_Data_Presentation_Form:
vector digital data

Other_Citation_Details:
UNPUBLISHED

Type_of_Source_Media:
ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:
Calendar_Date:
2008

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_4
Source_Contribution:
MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)

Publication_Date:
2008

Title:
GULF STURGEON CRITICAL HABITAT UNITS 8 TO 14 AL, FL, MS, LA

Geospatial_Data_Presentation_Form:
vector digital data

Type_of_Source_Media:
FTP SITE

Source_Time_Period_of_Content:

Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2008

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_5

Source_Contribution:
MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:
Originator:
FLORIDA NATURAL AREAS INVENTORY (FNAI)

Publication_Date:
2011

Title:
FLORIDA CONSERVATION LANDS (FLMA)

Geospatial_Data_Presentation_Form:
vector digital data

Publication_Information:
Publication_Place:
TALLAHASSEE
Publisher:
FLORIDA NATURAL AREAS INVENTORY

Type_of_Source_Media:
FTP SITE

Source_Time_Period_of_Content:

Time_Period_Information:
Single_Date/Time:
  Calendar_Date:
    2011
Source_Currentness_Reference:
  DATE OF PUBLICATION
Source_Citation_Abbreviation:
  Src_6
Source_Contribution:
  MGT INFORMATION
Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
      GULF ISLANDS NATIONAL SEASHORE (NPS)
    Publication_Date:
      2011
    Title:
      GULF ISLANDS NATIONAL SEASHORE GUIS_BOUNDARY_FL
    Geospatial_Data_Presentation_Form:
      vector digital data
    Other_Citation_Details:
      UNPUBLISHED
Type_of_Source_Media:
  FTP
Source_Time_Period_of_Content:
  Time_Period_Information:
    Single_Date/Time:
      Calendar_Date:
        2011
    Source_Currentness_Reference:
      DATE OF COMMUNICATION
Source_Citation_Abbreviation:
  Src_7
Source_Contribution:
  MGT INFORMATION
Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
      NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)
    Publication_Date:
      2010
    Title:
      MARINE PROTECTED AREAS ATLANTIC OCEAN AND GULF OF MEXICO POLY
    Geospatial_Data_Presentation_Form:
      vector digital data
Src_11
Source_Contribution:
MGT INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
U.S. FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date:
2006
Title:
SABM_FCH (ST. ANDREW BEACH MOUSE CRITICAL HABITAT)
Geospatial_Data_Presentation_Form:
vector digital data
Publication_Information:
PublicationPlace:
PANAMA CITY, FL
Publisher:
USFWS
Type_of_Source_Media:
CD-ROM
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2006
Source_Currentness_Reference:
DATE OF PUBLICATION
Source_Citation_Abbreviation:
Src_12
Source_Contribution:
MGT INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
U.S. FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date:
2009
Title:
FLSA_FCH (FLATWOODS SALAMANDER CRITICAL HABITAT)
Geospatial_Data_Presentation_Form:
vector digital data
Other_Citation_Details:
UNPUBLISHED
Type_of_Source_Media:
CD-ROM
Source_Time_Period_of_Content:
**Source_Citation**:

**Citation_Information**:
- **Originator**: U.S. FISH AND WILDLIFE SERVICE (USFWS)
- **Publication_Date**: 2011
- **Title**: USFWS CADAstral GEODATABASE-SIMPLIFIED WILDLIFE REFUGE BOUNDARIES
- **Geospatial_Data_Presentation_Form**: tabular digital data

**Type_of_Source_Media**: online

**Source_Time_Period_of_Content**:

**Time_Period_Information**:
- **Single_Date/Time**:
  - **Calendar_Date**: 2011

**Source_Currentness_Reference**:
- DATE OF PUBLICATION

**Source_Citation_Abbreviation**: Src_13

**Source_Contribution**: MGT INFORMATION

**Source_Information**:

**Source_Citation**:

**Citation_Information**:
- **Originator**: U.S. FISH AND WILDLIFE SERVICE (USFWS)
- **Publication_Date**: 2012
- **Title**: CRITICAL HABITAT FOR 7 MUSSELS, 2007
- **Geospatial_Data_Presentation_Form**: Florida Panhandle ESI: MGT
vector digital data

Publication Information:
Publication Place:
    ATLANTA, GA
Publisher:
    USFWS
Type_of_Source_Media:
    disc
Source_Time_Period_of_Content:
    Time_Period_Information:
        Range_of_Dates/Times:
            Beginning_Date:
                2007
            Ending_Date:
                2012
Source_Currentness_Reference:
    DATE OF SURVEY
Source_Citation_Abbreviation:
    Src_15
Source_Contribution:
    MGT INFORMATION
Source_Information:
Source_Citation:
    Citation_Information:
        Originator:
            ST. MARK'S NATIONAL WILDLIFE REFUGE (USFWS)
Publication_Date:
    2009
Title:
    REFUGE OUTLINE 09
Geospatial_Data_Presentation_Form:
    vector digital data
Other_Citation_Details:
    UNPUBLISHED

Type_of_Source_Media:
    CD-ROM
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date:
                2009
Source_Currentness_Reference:
    DATE OF PUBLICATION
Source_Citation_Abbreviation:
    Src_16
Source_Contribution:
    MGT INFORMATION

Process Step:
**Process_Description:**
Digital polygon coverages provided by the following agencies were used to depict management areas for this data layer: 1) U.S. Fish and Wildlife Service (USFWS) and St. Marks National Wildlife Refuge (NWR), 2) Gulf Islands National Seashore (NPS), 3) Florida Fish and Wildlife Conservation Commission - Fish and Wildlife Research Institute (FFWCC-FWRI), 4) FL Department of Environmental Protection (FL DEP), 5) Florida Natural Areas Inventory (FNAI), and 6) NOAA. The above digital and/or hardcopy sources were compiled by the project biologist to create the MGT data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the MGT data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

**Process_Date:**
201208

**Process_Contact:**

**Contact_Information:**

**Contact_Organization_Primary:**

**Contact_Organization:**
NOAA, Office of Response and Restoration

**Contact_Person:**
ESI Manager

**Contact_Address:**

**Address_Type:**
Physical address

**Address:**
7600 Sand Point Way, N.E.

**City:**
Seattle

**State_or_Province:**
Washington

**Postal_Code:**
98115-6349

**Contact_Voice_Telephone:**
(206) 526-6944

**Contact_Facsimile_Telephone:**
(206) 526-6329

**Contact_Electronic_Mail_Address:**
orr.esi@noaa.gov

[Back To Index]
Spatial Data Organization Information:

Direct Spatial Reference Method:
Vector

Point and Vector Object Information:

SDTS Terms Description:
SDTS Point and Vector Object Type: GT-polygon composed of chains
Point and Vector Object Count: 3442

SDTS Terms Description:
SDTS Point and Vector Object Type: Area point
Point and Vector Object Count: 3443

SDTS Terms Description:
SDTS Point and Vector Object Type: Complete chain
Point and Vector Object Count: 38529

SDTS Terms Description:
SDTS Point and Vector Object Type: Link
Point and Vector Object Count: 387475

SDTS Terms Description:
SDTS Point and Vector Object Type: Node, planar graph
Point and Vector Object Count: 35958

Spatial Reference Information:

Horizontal Coordinate System Definition:
Geographic:
Latitude Resolution:
0.0000001
Longitude Resolution:
0.0000001
Geographic Coordinate Units:
Decimal degrees

Geodetic Model:
Horizontal Datum Name:
North American Datum of 1983
Ellipsoid Name:
Geodetic Reference System 80
Semi-major Axis:
**Denominator of Flattening Ratio:**
298.257222

**Entity and Attribute Information:**

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**
MGT.PAT

**Entity Type Definition:**
The MGT.PAT table contains attribute information for the vector polygons representing management areas. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
TYPE

**Attribute Definition:**
The human-use features depicted on the maps are those that could be impacted by an oil spill or could provide access for response operations. TYPE can be used as a quick identifier for the managed polygon features. Greater detail about the object is provided in the SOC_DAT table.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
CH

**Enumerated Domain Value Definition:**
Designated Critical Habitat

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
FO

**Enumerated Domain Value Definition:**
National Forest

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
Enumerated_Domain_Value:
  MA
Enumerated_Domain_Value_Definition:
  Management Area
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      MR
    Enumerated_Domain_Value_Definition:
      Multiple Records - Signifies that multiple types overlap in the polygon
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      NP
    Enumerated_Domain_Value_Definition:
      National Park
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      P
    Enumerated_Domain_Value_Definition:
      Regional or State Park
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      WR
    Enumerated_Domain_Value_Definition:
      Wildlife Refuge
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      RF
    Enumerated_Domain_Value_Definition:
      Recreational Fishing
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
ID

Attribute Definition:
An identifier that links vector objects in the human-use data layers to records in the SOC_LUT data table. ID is a concatenation of atlas number (218), element number (11= MGT), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute Definition Source:
NOAA

Attribute Domain Values:
Range Domain:
Range Domain Minimum: 2181100002
Range Domain Maximum: 2181115521

Attribute:
Attribute Label: HUNUM
Attribute Definition:
An identifier that links directly to the SOC_DAT table. HUNUM values of 0 are holes in the polygons and do not contain information.

Attribute Definition Source:
NOAA

Attribute Domain Values:
Range Domain:
Range Domain Minimum: 218000347
Range Domain Maximum: 218001260

Detailed Description:
Entity Type:
Entity Type Label: SOC_LUT
Entity Type Definition:
The data table SOC_LUT is a lookup table that contains items necessary for linking vector objects in the human-use data layers with the SOC_DAT data table. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: HUNUM
Attribute Definition:
An identifier that links records in the SOC_LUT data table to records in the SOC_DAT data table. HUNUM values of 0 are holes in the polygons and do not contain information.

Attribute Definition Source:
NOAA
Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum:
      218000001
    Range_Domain_Maximum:
      218001260

Attribute:
  Attribute_Label:
    ID
  Attribute_Definition:
    An identifier that links vector objects in the human-use data layers to records in the
    SOC_LUT data table. ID is a concatenation of atlas number (218), element number
    (11), and record number. ID values of 9999 are holes in polygons and do not contain
    information.
  Attribute_Definition_Source:
    NOAA

Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum:
      2181000001
    Range_Domain_Maximum:
      2181115521

Detailed_Description:
  Entity_Type:
    Entity_Type_Label:
      SOC_DAT
    Entity_Type_Definition:
      The data table SOC_DAT contains both human-use attribute data and items
      necessary for linking the human-use spatial data layers to the SOURCES data table.
      See the Browse_Graphic section for a link to the entity-relationship diagram, which
      describes the way this table relates to other attribute tables in the ESI data structure.
  Entity_Type_Definition_Source:
    NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    HUNUM
  Attribute_Definition:
    An identifier that links records in the SOC_DAT data table to records in the
    SOC_LUT data table. HUNUM values of 0 are holes in the polygons and do not
    contain information.
  Attribute_Definition_Source:
    NOAA

Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum:
      218000001
    Range_Domain_Maximum:
      218001260
Attribute:

<table>
<thead>
<tr>
<th>Attribute_Label</th>
<th>TYPE</th>
</tr>
</thead>
</table>

**Attribute_Definition:**
The human-use features depicted on the maps are those that could be impacted by an oil spill or could provide access for response operations.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

<table>
<thead>
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<th>Enumerated_Domain</th>
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<tbody>
<tr>
<td>ABANDONED VESSEL</td>
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<table>
<thead>
<tr>
<th>Enumerated_Domain_Value_Definition</th>
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<tbody>
<tr>
<td>Abandoned Vessel</td>
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</tbody>
</table>

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>NOAA ESI Guidelines</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Enumerated_Domain</th>
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</thead>
<tbody>
<tr>
<td>ACCESS</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated_Domain_Value_Definition</th>
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<tbody>
<tr>
<td>Access</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated_Domain_Value_Definition_Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAA ESI Guidelines</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated_Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRPORT</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated_Domain_Value_Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport</td>
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</tbody>
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<tr>
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<tbody>
<tr>
<td>NOAA ESI Guidelines</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated_Domain</th>
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</thead>
<tbody>
<tr>
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</tbody>
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<table>
<thead>
<tr>
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<tr>
<td>NOAA ESI Guidelines</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated_Domain</th>
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<tr>
<td>ARCHAEOLICAL SITE</td>
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<table>
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<tr>
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<td>Archaeological Site</td>
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<table>
<thead>
<tr>
<th>Enumerated_Domain_Value_Definition_Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAA ESI Guidelines</td>
</tr>
</tbody>
</table>
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      ARTIFICIAL REEF
    Enumerated Domain Value Definition:
      Artificial Reef
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines
  Enumerated Domain Values:
    Enumerated Domain:
    Enumerated Domain Value:
      BEACH
    Enumerated Domain Value Definition:
      Beach
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines
  Enumerated Domain Values:
    Enumerated Domain:
    Enumerated Domain Value:
      BOAT RAMP
    Enumerated Domain Value Definition:
      Boat Ramp
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines
  Enumerated Domain Values:
    Enumerated Domain:
    Enumerated Domain Value:
      COAST GUARD
    Enumerated Domain Value Definition:
      Coast Guard
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines
  Enumerated Domain Values:
    Enumerated Domain:
    Enumerated Domain Value:
      COMMERCIAL FISHING
    Enumerated Domain Value Definition:
      Commercial Fishing
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines
  Enumerated Domain Values:
    Enumerated Domain:
    Enumerated Domain Value:
      CRITICAL HABITAT
    Enumerated Domain Value Definition:
      Designated Critical Habitat
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

DIVING

Enumerated_Domain_Value_Definition:

Diving Site

Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

HISTORICAL SITE

Enumerated_Domain_Value_Definition:

Historical Site

Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

MANAGEMENT AREA

Enumerated_Domain_Value_Definition:

Management Area

Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

MARINA

Enumerated_Domain_Value_Definition:

Marina

Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

NATIONAL FOREST

Enumerated_Domain_Value_Definition:

National Forest

Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

NATIONAL PARK

Enumerated_Domain_Value_Definition:

National Park

Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    OIL FACILITY
    Enumerated_Domain_Value_Definition:
    Oil Facility
    Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    PARK
    Enumerated_Domain_Value_Definition:
    Regional or State Park
    Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    PORT
    Enumerated_Domain_Value_Definition:
    Port
    Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    RECREATIONAL_FISHING
    Enumerated_Domain_Value_Definition:
    Recreational Fishing
    Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    WATER INTAKE
    Enumerated_Domain_Value_Definition:
    Water Intake
    Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    WILDLIFE REFUGE
    Enumerated_Domain_Value_Definition:
    Wildlife Refuge
    Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines


**Attribute:**

**Attribute Label:** NAME

**Attribute Definition:**

The feature name.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Unrepresentable Domain:**

Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:** CONTACT

**Attribute Definition:**

Contact person or entity.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Unrepresentable Domain:**

Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:** PHONE

**Attribute Definition:**

Contact telephone number.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

Any character

**Enumerated Domain Value Definition:**

Free text

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:** G_SOURCE

**Attribute Definition:**

Geographic source identifier that links records in the SOC_DAT data table to records in the SOURCES data table.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**

1

**Range Domain Maximum:**
Attribute:
  Attribute_Label: A_SOURCE
  Attribute_Definition: Attribute source identifier that links records in the SOC_DAT data table to records in the SOURCES data table.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum:
        1
      Range_Domain_Maximum:
        N

Detailed_Description:
  Entity_Type:
    Entity_Type_Label: SOURCES
    Entity_Type_Definition:
      The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
    Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: SOURCE_ID
  Attribute_Definition: Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum:
        1
      Range_Domain_Maximum:
        N

Attribute:
  Attribute_Label: ORIGINATOR
  Attribute_Definition: Author or developer of source material or data set.
**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**
DATE_PUB

**Attribute_Definition:**
Date of source material, publication, or date of personal communication with expert source.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
YYYYMM

**Enumerated_Domain_Value_Definition:**
YYYY for year and optionally MM for month

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
TITLE

**Attribute_Definition:**
Title of source material or data.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**
DATA_FORMAT

**Attribute_Definition:**
The format of the source material.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**
PUB_PLACE

**Attribute_Definition:**
Publication place.

**Attribute_Definition_Source:**
NOAA ESI Guidelines
Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: PUBLISHER
Attribute Definition: Publisher.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: PUBLICATION
Attribute Definition: Additional citation information.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: ONLINE_LINK
Attribute Definition: Online computer resource URL.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: SCALE
Attribute Definition: Description of the source scale.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: TIME_PERIOD
Attribute Definition: Date(s) of data collection that the source material is based upon.
Two relational attribute or data tables, SOC_DAT, and SOURCES, are used to store the complex socioeconomic data in the ESI data structure. The geographic data layer containing socioeconomic data resource information (in this case, MGT) is linked to the Socioeconomic Resources table (SOC_DAT) using the unique ID and the lookup table SOC_LUT, or it can be linked directly using HUNUM. HUNUM is a unique reference number concatenated with the atlas number (for Florida Panhandle, the number is 218). ID is a unique combination of the atlas number (218), an element specific number (MGT = 11), and a unique record number. SOC_DAT and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).
(206) 526-6329
Contact_Electronic_Mail_Address: orr.esi@noaa.gov

Resource_Description: Downloadable Data

Distribution_Liability: These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Format_Name: Multiple formats

Digital_Transfer_OPTION:
Online_Option:
Computer_Contact_Information:
Network_Address:
Network_Resource_Name: http://response.restoration.noaa.gov/esi_download

Fees: None

Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

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Metadata_Reference_Information:
Metadata_Date: 20140609

Metadata_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: ESI Manager
Contact_Organization: NOAA, Office of Response and Restoration
Contact_Position:
GIS Manager

Contact_Address:

Address_Type:
Physical Address

Address:
7600 Sand Point Way, N.E.

City:
Seattle

State_or_Province:
Washington

Postal_Code:
98115-6349

Contact_Voice_Telephone:
(206) 526-6944

Contact_Facsimile_Telephone:
(206) 526-6329

Contact_Electronic_Mail_Address:
orr.esi@noaa.gov

Metadata_Standard_Name:
Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version:
FGDC-STD-001-1998
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: SOCECON (Socioeconomic Resource Points and Lines)

Metadata:

- Identification_Information
- Data_Quality_Information
- Spatial_Data_Organization_Information
- Spatial_Reference_Information
- Entity_and_Attribute_Information
- Distribution_Information
- Metadata_Reference_Information

Identification_Information:

Citation Information:

Originator:

Originator:

Originator:
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

Publication_Date: 201208

Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: SOCECON (Socioeconomic Resource Points and Lines)

Edition:
Second

Geospatial_Data_Presentation_Form:
vector digital data

Series_Information:

Series_Name:
Florida Panhandle ESI

Issue_Identification:
Florida Panhandle

Publication_Information:
PublicationPlace:
Seattle, Washington
Abstract:
This data set contains human-use resource data (e.g., abandoned vessels, access points, airports, aquaculture sites, archaeological sites, artificial reefs, beaches, boat ramps, coast guard areas, commercial fishing, diving sites, historical sites, marinas, oil facilities, ports, recreational fishing, and water intakes) for the Florida Panhandle. Vector points and lines in this data set represent human-use site locations. Location specific type and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.
See also the MGT (Management Area Polygons) data layer, part of the larger Florida Panhandle ESI database, for additional human-use information.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:
Range_of_Dates/Times:
  Beginning_Date:
    2000
  Ending_Date:
    2012

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 2000 to 2012 and are documented in the Lineage section.

Status:
Progress:
  Complete

Maintenance_and_Update_Frequency:
  None Scheduled

Spatial_Domain:
Bounding Coordinates:
  West_Bounding Coordinate: -87.62500
  East_Bounding Coordinate: -83.68400
  North_Bounding Coordinate: 30.74700
  South_Bounding Coordinate: 28.27700

Keywords:
  Theme:
    Theme_Keyword_Thesaurus:
      ISO 19115 Topic Category
    Theme_Keyword:
      biota
    Theme_Keyword:
      environment
  Theme:
    Theme_Keyword_Thesaurus:
      None
    Theme_Keyword:
      Environmental Monitoring
    Theme_Keyword:
      ESI
    Theme_Keyword:
      Sensitivity maps
    Theme_Keyword:
      Coastal resources
    Theme_Keyword:
      Oil spill planning
    Theme_Keyword:
      Coastal Zone Management
    Theme_Keyword:
      Wildlife
    Theme_Keyword:
      Socioeconomic
  Theme:
    Theme_Keyword_Thesaurus:
      NOS Data Explorer Topic Category
    Theme_Keyword:
      Environmental Monitoring

Place:
  Place_Keyword_Thesaurus:
    None
  Place_Keyword:
    Florida Panhandle

Access Constraints:
  None
Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse_Graphic:
Browse_Graphic_File_Description: Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:
Browse_Graphic_File_Description: Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.
**Data Quality Information:**

**Attribute Accuracy:**

*Attribute Accuracy Report*

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

**Logical Consistency Report:**

A multi-stage error checking process, described in the above Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new IDs are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

**Completeness Report:**

These data represent a synthesis of digital data and expert knowledge on socioeconomic resources. See also the MGT (Management Area Polygons) data layer, part of the larger Florida Panhandle ESI database, for additional human-use information. These data do not necessarily represent all human-use sites in the Florida Panhandle.

**Positional Accuracy:**

**Horizontal Positional Accuracy:**

*Horizontal Positional Accuracy Report*

Spatial components for the human-use data layers can come from expert interviews, hardcopy, or digital sources. Most of the spatial components of the human-use data layers are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Some of the spatial components of the human-use data layers are compiled on hardcopy base maps with a scale of 1:24,000. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.
Lineage:

Source Information:

Source Citation:

Citation Information:

Originator:
ALEXANDER, S., FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FL DEP)

Publication Date:
2011

Title:
AQUATIC PRESERVE RESOURCES

Geospatial Data Presentation Form:
EXPERT KNOWLEDGE

Other Citation Details:
UNPUBLISHED

Type of Source Media:
PERSONAL COMMUNICATION

Source Time Period of Content:

Time Period Information:

Single Date/Time:

Calendar Date:
2011

Source Currentness Reference:
DATE OF COMMUNICATION

Source Citation Abbreviation:
Src_0

Source Contribution:
SOCECON INFORMATION

Source Information:

Source Citation:

Citation Information:

Originator:
ESRI

Publication Date:
2005

Title:
AIRPORTS_GDT_ESRI

Geospatial Data Presentation Form:
vector digital data

Publication Information:

Publication Place:
REDLANDS, CALIFORNIA, USA

Publisher:
ESRI

Other Citation Details:
UNPUBLISHED

Type of Source Media:
FTP SITE
SOCECON INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
Publication_Date:
2006
Title:
BEACH ACCESS FLORIDA
Geospatial_Data_Presentation_Form:
vector digital data
Other_Citation_Details:
UNPUBLISHED
Type_of_Source_Media:
FTP SITE
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2006
Source_Currentness_Reference:
DATE OF PUBLICATION
Source_Citation_Abbreviation:
Src_5
Source_Contribution:
SOCECON INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
Publication_Date:
2007
Title:
UNDERWATER ARCHAEOLOGICAL PRESERVES FLORIDA
Geospatial_Data_Presentation_Form:
vector digital data
Publication_Information:
PublicationPlace:
ST. PETERSBURG, FL
Publisher:
FWC-FWRI
Online_Linkage:
http://dhr.dos.state.fl.us/archaeology/underwater/preserves/
Type_of_Source_Media:
FTP SITE

Source_Time_Period_of_Content:
  Time_Period_Information:
    Single_Date/Time:
      Calendar_Date:
        2007

Source_Currentness_Reference:
  DATE OF PUBLICATION

Source_Citation_Abbreviation:
  Src_6

Source_Contribution:
  SOCECON INFORMATION

Source_Information:
  Source_Citation:
    Citation_Information:
      Originator:
        FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
        - FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)

Publication_Date:
  2008

Title:
  MOBACP_FACILITIES (MOBILE ACP FACILITIES)

Geospatial_Data_Presentation_Form:
  vector digital data

Other_Citation_Details:
  UNPUBLISHED

Type_of_Source_Media:
  FTP SITE

Source_Time_Period_of_Content:
  Time_Period_Information:
    Single_Date/Time:
      Calendar_Date:
        2008

Source_Currentness_Reference:
  DATE OF PUBLICATION

Source_Citation_Abbreviation:
  Src_7

Source_Contribution:
  SOCECON INFORMATION

Source_Information:
  Source_Citation:
    Citation_Information:
      Originator:
        FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
        - FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)

Publication_Date:
  2008

Title:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2011

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_11

Source_Contribution:
SOCECON INFORMATION

Source_Information:

Source_Citation:
Citation_Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)

Publication_Date:
2011

Title:
ARTIFICIAL REEFS FLORIDA

Geospatial_Data_Presentation_Form:
EXPERT KNOWLEDGE

Other_Citation_Details:
UNPUBLISHED

Type_of_Source_Media:
PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2011

Source_Currentness_Reference:
DATE OF COMMUNICATION

Source_Citation_Abbreviation:
Src_12

Source_Contribution:
SOCECON INFORMATION

Source_Information:

Source_Citation:
Citation_Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)

Publication_Date:
2011

Title:
FL_ESI_HISTORIC_PROPERTIES_AUG_2011

Geospatial_Data_Presentation_Form:
vector digital data

Publication Information:
Publication Place:
ST. PETERSBURG, FL
Publisher:
FFWCC - FWRI (FISH AND WILDLIFE RESEARCH INSTITUTE)

Type of Source Media:
FTP SITE
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2011

Source Currentness Reference:
DATE OF PUBLICATION
Source Citation Abbreviation:
Src_13
Source Contribution:
SOCECON INFORMATION
Source Information:
Source Citation:
Citation Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION - FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
Publication Date:
2011
Title:
PANHANDLE_ESI_BOATRAMPS_2011
Geospatial Data Presentation Form:
vector digital data
Other Citation Details:
UNPUBLISHED

Type of Source Media:
FTP SITE
Source Time Period of Content:
Time Period Information:
Range of Dates/Times:
Beginning Date:
2011
Ending Date:
2011

Source Currentness Reference:
DATE OF PUBLICATION
Source Citation Abbreviation:
Src_14
Source Contribution:
SOCECON INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
  Originator:
  FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
  - FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
Publication_Date:
  2011
Title:
  PANHANDLE_ESI_REC_BEACHES_2011
Geospatial_Data_Presentation_Form:
  vector digital data
Other_Citation_Details:
  UNPUBLISHED
Type_of_Source_Media:
  FTP SITE
Source_Time_Period_of_Content:
  Time_Period_Information:
    Single_Date/Time:
      Calendar_Date:
        2011
Source_Currentness_Reference:
  DATE OF PUBLICATION
Source_Citation_Abbreviation:
  Src_15
Source_Contribution:
  SOCECON INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
  Originator:
  NICHOLAS, M., NATIONAL PARK SERVICE, GULF ISLANDS
  NATIONAL SEASHORE
Publication_Date:
  2011
Title:
  GULF ISLANDS NATIONAL SEASHORE RESOURCES
Geospatial_Data_Presentation_Form:
  EXPERT KNOWLEDGE
Other_Citation_Details:
  UNPUBLISHED
Type_of_Source_Media:
  PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
  Time_Period_Information:
    Single_Date/Time:
      Calendar_Date:
2011
Source_Currentness_Reference:
DATE OF COMMUNICATION
Source_Citation_Abbreviation:
Src_16
Source_Contribution:
SOCECON INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
TURPIN, R. (ESCAMBIA COUNTY)
Publication_Date:
2012
Title:
ESCAMBIA COUNTY RESOURCES
Geospatial_Data_Presentation_Form:
EXPERT KNOWLEDGE
Other_Citation_Details:
UNPUBLISHED
Type_of_Source_Media:
PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2012
Source_Currentness_Reference:
DATE OF COMMUNICATION
Source_Citation_Abbreviation:
Src_17
Source_Contribution:
SOCECON INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
US ARMY CORPS OF ENGINEERS (USACOE)
Publication_Date:
2000
Title:
COMMERCIAL_PORTS_FL_USACOE_2000
Geospatial_Data_Presentation_Form:
vector digital data
Other_Citation_Details:
UNPUBLISHED
Type_of_Source_Media:
FTP
Two main sources of data were used to depict human-use resources for this data layer: 1) personal interviews with resource experts from Escambia County, and 2) digital data provided by: Florida Fish and Wildlife Conservation Commission - Fish and Wildlife Research Institute (FWC-FWRI), Environmental Systems Research Institute (ESRI), and U.S. Army Corps of Engineers (ACOE). The above digital and/or hardcopy sources were compiled by the project biologist to create the SOCECON data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the SOCECON data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process Date:
201208

Process Contact:
Contact Information:
Contact Organization Primary:
    Contact Organization:
        NOAA, Office of Response and Restoration
Contact Person:
    ESI Manager
Contact Address:
Address Type:
    Physical address
Address:
    7600 Sand Point Way, N.E.
City:
    Seattle
State or Province:
Spacial_Data_Organization_Information:
  Direct_Spatial_Reference_Method:
    Vector
  Point_and_Vector_Object_Information:
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:
        Complete chain
      Point_and_Vector_Object_Count:
        135
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:
        Link
      Point_and_Vector_Object_Count:
        246
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:
        Entity point
      Point_and_Vector_Object_Count:
        2146
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:
        Node, planar graph
      Point_and_Vector_Object_Count:
        270

Spatial_Reference_Information:
  Horizontal_Coordinate_System_Definition:
    Geographic:
      Latitude_Resolution:
        0.0000001
      Longitude_Resolution:
        0.0000001
    Geographic_Coordinate_Units:
Decimal degrees

Geodetic Model:

Horizontal Datum Name:
North American Datum of 1983

Ellipsoid Name:
Geodetic Reference System 80

Semi-major Axis:
6378137.000000

Denominator of Flattening Ratio:
298.257222

Entity and Attribute Information:

Detailed Description:

Entity Type:

Entity Type Label:
SOCECON.AAT

Entity Type Definition:
The SOCECON.AAT table contains attribute information for the vector lines representing roads.

Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
TYPE

Attribute Definition:
The human-use features depicted on the maps are those that could be impacted by an oil spill or could provide access for response operations. TYPE can be used as a quick identifier for the socioeconomic or human-use point features and is the attribute that is used to symbolize the layer.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
R

Enumerated Domain Value Definition:
Road, Transportation, or Bridge

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Detailed Description:

Entity Type:

Entity Type Label:
SOCECON.PAT

Entity Type Definition:
The SOCECON.PAT table contains attribute information for the vector points
representing abandoned vessels, access points, airports, aquaculture sites, archaeological sites, artificial reefs, beaches, boat ramps, coast guard areas, commercial fishing, diving sites, historical sites, marinas, oil facilities, ports, recreational fishing, and water intakes. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
TYPE

**Attribute_Definition:**
The human-use features depicted on the maps are those that could be impacted by an oil spill or could provide access for response operations. TYPE can be used as a quick identifier for the socioeconomic or human-use point features and is the attribute that is used to symbolize the layer. Greater detail about the object is provided in the SOC_DAT table.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:**
    - A
  - **Enumerated_Domain_Value_Definition:**
    Airport
  - **Enumerated_Domain_Value_Definition_Source:**
    NOAA ESI Guidelines

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:**
    - A2
  - **Enumerated_Domain_Value_Definition:**
    Access
  - **Enumerated_Domain_Value_Definition_Source:**
    NOAA ESI Guidelines

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:**
    - AQ
  - **Enumerated_Domain_Value_Definition:**
    Aquaculture
  - **Enumerated_Domain_Value_Definition_Source:**
    NOAA ESI Guidelines

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:**
    - AR
Enumerated_Domain_Value_Definition:
Artificial Reef

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
AS

Enumerated_Domain_Value_Definition:
Archaeological Site

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
AV

Enumerated_Domain_Value_Definition:
Abandoned Vessel

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
B

Enumerated_Domain_Value_Definition:
Beach

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
BR

Enumerated_Domain_Value_Definition:
Boat Ramp

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
CF

Enumerated_Domain_Value_Definition:
Commercial Fishing

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
CG
Enumerated_Domain_Value_Definition: Coast Guard
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      DV
    Enumerated_Domain_Value_Definition: Diving Site
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      HS
    Enumerated_Domain_Value_Definition: Historical Site
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      M
    Enumerated_Domain_Value_Definition: Marina
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      OF
    Enumerated_Domain_Value_Definition: Oil Facility
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      PT
    Enumerated_Domain_Value_Definition: Port
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      RF
Enumerated_Domain_Value_Definition:
  Recreational Fishing

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      WI

Enumerated_Domain_Value_Definition:
  Water Intake

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    ID
  Attribute_Definition:
    An identifier that links vector objects in the human-use data layers to records in the SOC_LUT data table. ID is a concatenation of atlas number (218), element number (10), and record number.
  Attribute_Definition_Source:
    NOAA

Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum:
      2181000001
    Range_Domain_Maximum:
      2181002146

Attribute:
  Attribute_Label:
    HUNUM
  Attribute_Definition:
    An identifier that links directly to the SOC_DAT table.
  Attribute_Definition_Source:
    NOAA

Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum:
      218000001
    Range_Domain_Maximum:
      218000674

Detailed_Description:
  Entity_Type:
    Entity_Type_Label:
      SOC_LUT
    Entity_Type_Definition:
      The data table SOC_LUT is a lookup table that contains items necessary for linking vector objects in the human-use data layers with the SOC_DAT data table. See the Browse_Graphic section for a link to the entity-relationship diagram, which
describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
HUNUM

**Attribute_Definition:**
An identifier that links records in the SOC_LUT data table to records in the SOC_DAT data table. HUNUM values of 0 are holes in the polygons and do not contain information.

**Attribute_Definition_Source:**
NOAA

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**
218000001

**Range_Domain_Maximum:**
218001260

**Attribute:**

**Attribute_Label:**
ID

**Attribute_Definition:**
An identifier that links vector objects in the human-use data layers to records in the SOC_LUT data table. ID is a concatenation of atlas number (218), element number (10), and record number. ID values of 9999 are holes in polygons and do not contain information.

**Attribute_Definition_Source:**
NOAA

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**
2181000001

**Range_Domain_Maximum:**
2181115521

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**
SOC_DAT

**Entity_Type_Definition:**
The data table SOC_DAT contains both human-use attribute data and items necessary for linking the human-use spatial data layers to the SOURCES data table. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
HUNUM
Attribute Definition:
An identifier that links records in the SOC_DAT data table to records in the
SOC_LUT data table. HNUM values of 0 are holes in the polygons and do not
contain information.

Attribute Definition Source:
NOAA

Attribute Domain Values:
Range Domain:
  Range Domain Minimum:
    218000001
  Range Domain Maximum:
    218001260

Attribute:
Attribute Label:
  TYPE

Attribute Definition:
The human-use features depicted on the maps are those that could be impacted by an
oil spill or could provide access for response operations.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    ABANDONED VESSEL
  Enumerated Domain Value Definition:
    Abandoned Vessel
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    ACCESS
  Enumerated Domain Value Definition:
    Access
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    AIRPORT
  Enumerated Domain Value Definition:
    Airport
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    AQUACULTURE
Enumerated_Domain_Value_Definition:
Aquaculture

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        ARCHAEOLOGICAL SITE
        Enumerated_Domain_Value_Definition:
        Archaeological Site
        Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        ARTIFICIAL REEF
        Enumerated_Domain_Value_Definition:
        Artificial Reef
        Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        BEACH
        Enumerated_Domain_Value_Definition:
        Beach
        Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        BOAT RAMP
        Enumerated_Domain_Value_Definition:
        Boat Ramp
        Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        COAST GUARD
        Enumerated_Domain_Value_Definition:
        Coast Guard
        Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        COMMERCIAL FISHING
Enumerated_Domain_Value_Definition: Commercial Fishing
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: CRITICAL HABITAT
  Enumerated_Domain_Value_Definition: Designated Critical Habitat
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: DIVING
  Enumerated_Domain_Value_Definition: Diving Site
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: HISTORICAL SITE
  Enumerated_Domain_Value_Definition: Historical Site
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: MANAGEMENT AREA
  Enumerated_Domain_Value_Definition: Management Area
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: MARINA
  Enumerated_Domain_Value_Definition: Marina
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: NATIONAL FOREST
Enumerated_Domain_Value_Definition: National Forest
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: NATIONAL PARK
    Enumerated_Domain_Value_Definition: National Park
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: OIL FACILITY
    Enumerated_Domain_Value_Definition: Oil Facility
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: PARK
    Enumerated_Domain_Value_Definition: Regional or State Park
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: PORT
    Enumerated_Domain_Value_Definition: Port
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: RECREATIONAL FISHING
    Enumerated_Domain_Value_Definition: Recreational Fishing
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: WATER INTAKE
**Enumerated_Domain_Value_Definition:**
Water Intake

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
WILDLIFE REFUGE

**Enumerated_Domain_Value_Definition:**
Wildlife Refuge

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
NAME

**Attribute_Definition:**
The feature name.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**
CONTACT

**Attribute_Definition:**
Contact person or entity.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**
PHONE

**Attribute_Definition:**
Contact telephone number.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
Any character

**Enumerated_Domain_Value_Definition:**
Free text

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**
**Attribute**

**Attribute Label:**

G_SOURCE

**Attribute Definition:**

Geographic source identifier that links records in the SOC_DAT data table to
records in the SOURCES data table.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 1
- **Range Domain Maximum:** N

**Attribute:**

**Attribute Label:**

A_SOURCE

**Attribute Definition:**

Attribute source identifier that links records in the SOC_DAT data table to records
in the SOURCES data table.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 1
- **Range Domain Maximum:** N

**Detailed Description:**

**Entity Type:**

**Entity Type Label:** SOURCES

**Entity Type Definition:**

The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

SOURCE_ID

**Attribute Definition:**

Source identifier that links records in the SOURCES data table to the items
G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

**Attribute Definition Source:**
NOAA ESI Guidelines

Attribute Domain Values:

Range Domain:
- Range Domain Minimum: 1
- Range Domain Maximum: N

Attribute:
- Attribute Label: ORIGINATOR
- Attribute Definition: Author or developer of source material or data set.
- Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
- Unrepresentable Domain: Acceptable values change from atlas to atlas.

Attribute:
- Attribute Label: DATE_PUB
- Attribute Definition: Date of source material, publication, or date of personal communication with expert source.
- Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
- Enumerated Domain:
  - Enumerated Domain Value:
    - YYYYMM
  - Enumerated Domain Value Definition: YYYY for year and optionally MM for month
  - Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
- Attribute Label: TITLE
- Attribute Definition: Title of source material or data.
- Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
- Unrepresentable Domain: Acceptable values change from atlas to atlas.

Attribute:
- Attribute Label: DATA_FORMAT
- Attribute Definition: The format of the source material.
Attribute_Definition_Source:
    NOAA ESI Guidelines
Attribute_Domain_Values:
    Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label:
    PUB_PLACE
    Attribute_Definition:
    Publication place.
    Attribute_Definition_Source:
    NOAA ESI Guidelines
    Attribute_Domain_Values:
    Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label:
    PUBLISHER
    Attribute_Definition:
    Publisher.
    Attribute_Definition_Source:
    NOAA ESI Guidelines
    Attribute_Domain_Values:
    Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label:
    PUBLICATION
    Attribute_Definition:
    Additional citation information.
    Attribute_Definition_Source:
    NOAA ESI Guidelines
    Attribute_Domain_Values:
    Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label:
    ONLINE_LINK
    Attribute_Definition:
    Online computer resource URL.
    Attribute_Definition_Source:
    NOAA ESI Guidelines
    Attribute_Domain_Values:
    Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label:
    SCALE
Attribute Definition:
Description of the source scale.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label:
TIME_PERIOD

Attribute Definition:
Date(s) of data collection that the source material is based upon.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Overview Description:
Entity and Attribute Overview:
Two relational attribute or data tables, SOC_DAT, and SOURCES, are used to store the complex socioeconomic data in the ESI data structure. The geographic data layer containing socioeconomic data resource information (in this case, SOCECON) is linked to the Socioeconomic Resources table (SOC_DAT) using the unique ID and the lookup table SOC_LUT, or it can be linked directly using HUNUM. HUNUM is a unique reference number concatenated with the atlas number (for Florida Panhandle, the number is 218). ID is a unique combination of the atlas number (218), an element specific number (SOCECON = 10), and a unique record number. SOC_DAT and the other relational data tables are described in the Detailed Description sections. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

Entity and Attribute Detail Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

Back To Index

Distribution Information:
Distributor:
Contact Information:
Contact Person Primary:

Contact Person:
ESI Manager

Contact Organization:
NOAA, Office of Response and Restoration

Contact Address:
Address Type:
Physical Address

Address:
7600 Sand Point Way N.E.

City:
Seattle

State_or_Province:
Washington

Postal_Code:
98115-6349

Contact_Voice_Telephone:
(206) 526-6944

Contact_Facsimile_Telephone:
(206) 526-6329

Contact_Electronic_Mail_Address:
orr.esi@noaa.gov

Resource_Description:
Downloadable Data

Distribution_Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:
Format_Name:
Multiple formats

Digital_Transfer_Option:
Online_Option:

Computer_Contact_Information:
Network_Address:

Network_Resource_Name:
http://response.restoration.noaa.gov/esi_download

Fees:
None

Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.
Metadata_Reference_Information:

Metadata_Date:
20140609

Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person:
ESI Manager

Contact_Organization:
NOAA, Office of Response and Restoration

Contact_Position:
GIS Manager

Contact_Address:

Address_Type:
Physical Address

Address:
7600 Sand Point Way, N.E.

City:
Seattle

State_or_Province:
Washington

Postal_Code:
98115-6349

Contact_Voice_Telephone:
(206) 526-6944

Contact_Facsimile_Telephone:
(206) 526-6329

Contact_Electronic_Mail_Address:
or.esi@noaa.gov

Metadata_Standard_Name:
Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version:
FGDC-STD-001-1998
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: BIRDS (Bird Polygons)

Metadata:

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

Identification Information:
Citation:

Citation Information:

Originator:

Originator:

Originator:
Florida Fish And Wildlife Conservation Commission, Tallahassee, Florida.

Publication Date:
201208

Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: BIRDS (Bird Polygons)

Edition:
Second

Geospatial Data Presentation Form:
vector digital data

Series Information:
Series Name:
Florida Panhandle ESI

Issue Identification:
Florida Panhandle

Publication Information:
Publication Place:
Seattle, Washington
Abstract:
This data set contains sensitive biological resource data for wading birds, shorebirds, 
waterfowl, raptors, diving birds, seabirds, passerine birds, and gulls and terns for the Florida Panhandle. Vector polygons in this data set represent bird nesting, wintering, migratory staging and other spatial/temporal concentration areas. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the NESTS data layer, part of the larger Florida Panhandle ESI database, for additional bird information.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Range_of_Dates/Times:
Beginning_Date:
1972
Ending_Date:
2012

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 1972 to 2012 and are documented in the Lineage section.

Status:
Progress:
Complete

Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:
Bounding_Coordinates:
West_Bounding Coordinate: -87.62500
East_Bounding Coordinate: -83.68400
North_Bounding Coordinate: 30.74700
South_Bounding Coordinate: 28.27700

Keywords:
Theme:
  Theme_Keyword_Thesaurus: ISO 19115 Topic Category
  Theme_Keyword: biota
  Theme_Keyword: environment
  Theme_Keyword_Thesaurus: None
  Theme_Keyword: Environmental Monitoring
  Theme_Keyword: ESI
  Theme_Keyword: Environmental Sensitivity Index
  Theme_Keyword: Sensitivity maps
  Theme_Keyword: Coastal resources
  Theme_Keyword: Oil spill planning
  Theme_Keyword: Coastal Zone Management
  Theme_Keyword: Wildlife
  Theme_Keyword: Bird
  Theme_Keyword_Thesaurus: NOS Data Explorer Topic Category
  Theme_Keyword: Environmental Monitoring
  Theme_Keyword: Shoreline

Place:
  Place_Keyword_Thesaurus: None
  Place_Keyword: Florida Panhandle ESI: BIRDS
Florida Panhandle ESI: BIRDS

Access Constraints:
None

Use Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse Graphic:
Browse Graphic File Name: http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhandle_2012_datafig.jpg
Browse Graphic File Description:
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.
Browse Graphic File Type: JPEG

Browse Graphic:
Browse Graphic File Name: http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhandle_2012_datafig2.jpg
Browse Graphic File Description:
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.
Browse Graphic File Type: JPEG

Data Set Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness, Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native Data Set Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial Data Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, inverpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables
provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:
A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical_Consistency_Report:
A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new IDs are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resources at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

Completeness_Report:
These data represent a synthesis of expert knowledge, available hardcopy documents, survey data, maps, and digital data on bird nesting, wintering, migratory staging and other spatial/temporal concentration areas. See also the NESTS data layer, part of the larger Florida Panhandle ESI database, for additional bird information. These data do not necessarily represent all bird occurrences in Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 1, Common loon, Gavia immer; 8, Double-crested cormorant, Phalacrocorax auritus; 12, Canada goose, Branta canadensis; 15, Snow goose, Chen caerulescens; 16, Mallard, Anas platyrhynchos; 17, Northern pintail, Anas acuta; 18, Green-winged teal, Anas crecca; 20, Northern shoveler, Anas clypeata; 21, Canvasback, Aythya valisineria; 23, Lesser scaup, Aythya affinis; 24, Common goldeneye, Bucephala clangula; 26, Bufflehead, Bucephala albeola; 27, Long-tailed duck, Clangula hyemalis; 33, Red-breasted merganser, Mergus serrator; 34, American coot, Fulica americana;
Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.
Lineage:

Source Information:

Source Citation:

Citation Information:

Originator:
ALEXANDER, S., FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FL DEP)

Publication Date:
2011

Title:
AQUATIC PRESERVE RESOURCES

Geospatial Data Presentation Form:
EXPERT KNOWLEDGE

Other Citation Details:
UNPUBLISHED

Type of Source Media:
PERSONAL COMMUNICATION

Source Time Period of Content:

Time Period Information:
Single Date/Time:
Calendar Date:
2011

Source Currentness Reference:
DATE OF COMMUNICATION

Source Citation Abbreviation:
Src 0

Source Contribution:
BIRDS INFORMATION

Source Information:

Source Citation:

Citation Information:

Originator:
APALACHICOLA RIVERKEEPER

Publication Date:
2011

Title:
APALACHICOLA RIVERKEEPER: SAVING AN AMERICAN TREASURE

Geospatial Data Presentation Form:
vector digital data

Online Linkage:
http://www.apalachicolariverkeeper.org

Type of Source Media:
online

Source Time Period of Content:

Time Period Information:
Single Date/Time:
Calendar Date:
2011

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_1

Source_Contribution:
BIRDS INFORMATION

Source_Information:
Source_Citation:

Citation_Information:
Originator:
CHOCTAWHATCHEE AUDUBON SOCIETY (CAS)

Publication_Date:
2010

Title:
CAS SHOREBIRD SURVEY SUMMARY

Geospatial_Data_Presentation_Form:
spreadsheet

Other_Citation_Details:
UNPUBLISHED

Type_of_Source_Media:
EMAIL

Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2010

Source_Currentness_Reference:
DATE OF SURVEY

Source_Citation_Abbreviation:
Src_2

Source_Contribution:
BIRDS INFORMATION

Source_Information:
Source_Citation:

Citation_Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

Publication_Date:
2010

Title:
BNB (BEACH-NESTING BIRDS)

Geospatial_Data_Presentation_Form:
vector digital data

Publication_Information:
Publication Place:
Tallahassee, Florida
Source_Citation:
Citation_Information:
  Originator:
    FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
    - FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
  Publication_Date:
    2003
  Title:
    MIDWINTER WATERFOWL INVENTORY (MWI) FL CORRECTED DATA
  Geospatial_Data_Presentation_Form:
    spreadsheet
  Other_Citation_Details:
    UNPUBLISHED
Type_of_Source_Media:
  EMAIL
Source_Time_Period_of_Content:
  Time_Period_Information:
    Range_of_Dates/Times:
      Beginning_Date:
        1972
      Ending_Date:
        2003
  Source_Currentness_Reference:
    DATE OF SURVEY
Source_Citation_Abbreviation:
  Src_5
Source_Contribution:
  BIRDS INFORMATION
Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
      FLORIDA NATURAL AREAS INVENTORY (FNAI)
  Publication_Date:
    2011
  Title:
    ELEMENT OCCURRENCE POLYGON DATA LAYER
  Geospatial_Data_Presentation_Form:
    vector digital data
  Publication_Information:
    Publication Place:
      TALLAHASSEE, FL
    Publisher:
      FLORIDA NATURAL AREAS INVENTORY
Type_of_Source_Media:
  EMAIL
Source_Time_Period_of_Content:
UNPUBLISHED

Type_of_Source_Media:
FTP SITE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:

2010

Source_Currentness_Reference:

DATE OF SURVEY

Source_Citation_Abbreviation:

Src_8

Source_Contribution:

BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

GULF ISLANDS NATIONAL SEASHORE, ESCAMBIA COUNTY, FLORIDA STATE PARKS

Publication_Date:

2012

Title:

GULF ISLANDS NATIONAL SEASHORE/STATE PARK/ESCAMBIA COUNTY RESOURCES: DISTRIBUTION AND ABUNDANCE

Geospatial_Data_Presentation_Form:

EXPERT KNOWLEDGE

Other_Citation_Details:

UNPUBLISHED

Type_of_Source_Media:

PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:

2012

Source_Currentness_Reference:

DATE OF COMMUNICATION

Source_Citation_Abbreviation:

Src_9

Source_Contribution:

BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

HARVEY, A. (BIG LAGOON STATE PARK)
STATE PARK RESOURCES FOR FLORIDA PANHANDLE

BIRDS INFORMATION

BIRDS, REPTILES, AMPHIBIANS, AND OTHER PANHANDLE COASTAL RESOURCES
Time_Period_Information:
   Single_Date/Time:
      Calendar_Date:
         2011
Source_Currentness_Reference:
   DATE OF COMMUNICATION
Source_Citation_Abbreviation:
   Src_13
Source_Contribution:
   BIRDS INFORMATION
Source_Information:
   Source_Citation:
      Citation_Information:
         Originator:
            KNUDSEN, RICHARD (FWRI)
      Publication_Date:
         2011
Title:
   DIVING AND RECREATIONAL FISHING SITES IN WATERS OF FLORIDA PANHANDLE
Geospatial_Data_Presentation_Form:
   EXPERT KNOWLEDGE
Other_Citation_Details:
   UNPUBLISHED
Type_of_Source_Media:
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Source_Time_Period_of_Content:
   Time_Period_Information:
      Single_Date/Time:
         Calendar_Date:
            2011
Source_Currentness_Reference:
   DATE OF COMMUNICATION
Source_Citation_Abbreviation:
   Src_14
Source_Contribution:
   BIRDS INFORMATION
Source_Information:
   Source_Citation:
      Citation_Information:
         Originator:
            NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL OCEAN SERVICE (NOS), OFFICE OF RESPONSE AND RESTORATION (OR&R), EMERGENCY RESPONSE DIVISION (ERD)
      Publication_Date:
         1995
Title:
EMAIL

Source Time Period of Content:
Time Period Information:
  Single Date/Time:
    Calendar Date:
      2010

Source Currentness Reference:
  DATE OF PUBLICATION

Source Citation Abbreviation:
  Src_16

Source Contribution:
  BIRDS INFORMATION

Source Information:
  Source Citation:
    Citation Information:
      Originator:
        REINMAN, JOSEPH (USFWS)
      Publication Date:
        2011
    Title:
      ST. MARKS NATIONAL WILDLIFE REFUGE RESOURCES
  Geospatial Data Presentation Form:
    EXPERT KNOWLEDGE

Other Citation Details:
  UNPUBLISHED

Type of Source Media:
  PERSONAL COMMUNICATION

Source Time Period of Content:
Time Period Information:
  Single Date/Time:
    Calendar Date:
      2011

Source Currentness Reference:
  DATE OF COMMUNICATION

Source Citation Abbreviation:
  Src_17

Source Contribution:
  BIRDS INFORMATION

Source Information:
  Source Citation:
    Citation Information:
      Originator:
        ST. MARKS NATIONAL WILDLIFE REFUGE (USFWS)
      Publication Date:
        2007
    Title:
      ST MARKS NWR BREEDING WIPL PAIRS AND NESTS
  Geospatial Data Presentation Form:
spreadsheet
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL

Source_Time_Period_of_Content:
  Time_Period_Information:
    Single_Date/Time:
      Calendar_Date: 2007

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: Src_18
Source_Contribution: BIRDS INFORMATION
Source_Information:
  Source_Citation:
    Citation_Information:
      Originator: U.S. FISH AND WILDLIFE SERVICE (USFWS)
      Publication_Date: 2010
      Title: MIDWINTER REDHEAD SURVEY ALONG THE GULF OF MEXICO, 1981-2010
    Geospatial_Data_Presentation_Form: HARDCOPY TEXT

Type_of_Source_Media: EMAIL

Source_Time_Period_of_Content:
  Time_Period_Information:
    Range_of_Dates/Times:
      Beginning_Date: 1981
      Ending_Date: 2010

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: Src_19
Source_Contribution: BIRDS INFORMATION
Source_Information:
  Source_Citation:
    Citation_Information:
Originator:
U.S. FISH AND WILDLIFE SERVICE (USFWS)

Publication Date:
2012

Title:
RED KNOT FOR ESI

Geospatial_Data_Presentation_Form:
vector digital data

Other_Citation_Details:
UNPUBLISHED

Type_of_Source_Media:
disc

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:
2012

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_20

Source_Contribution:
BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
USAF EGLIN AIR FORCE BASE

Publication_Date:
2007

Title:
PIPING PLOVER HABITAT

Geospatial_Data_Presentation_Form:
vector digital data

Other_Citation_Details:
UNPUBLISHED

Type_of_Source_Media:
EMAIL

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:
2007

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_21

Source_Contribution:
BIRDS INFORMATION

Source Information:

Source Citation:

Citation Information:

Originator:
USAF EGLIN AIR FORCE BASE

Publication Date:
2009

Title:
SNOWY PLOVER MASTER

Geospatial Data Presentation Form:
vector digital data

Publication Information:

Publication Place:
NICEVILLE, FL

Publisher:
U.S. AIR FORCE

Type of Source Media:
EMAIL

Source Time Period of Content:

Time Period Information:

Single Date/Time:
Calendar Date:
2009

Source Currentness Reference:
DATE OF PUBLICATION

Source Citation Abbreviation:
Src_22

Source Contribution:
BIRDS INFORMATION

Source Information:

Source Citation:

Citation Information:

Originator:
WARE, D. AND G. PARSONS (CHOCTAWHATCHEE AUDUBON SOCIETY)

Publication Date:
2010

Title:
A REPORT ON THE SHOREBIRD SURVEY CONDUCTED BY THE CHOCTAWHATCHEE AUDUBON SOCIETY (3 JUL-9 OCT 2010)

Geospatial Data Presentation Form:
POWERPOINT

Other Citation Details:
UNPUBLISHED

Type of Source Media:
online

Source Time Period of Content:
Three main sources of data were used to depict bird distribution and seasonality for this data layer: 1) personal interviews with resource experts from the U.S. Fish and Wildlife Service (USFWS), Gulf Islands National Seashore (GINS), Florida Fish and Wildlife Conservation Commission (FFWCC), Florida Department of Environmental Protection (DEP), Florida Audubon, and Big Lagoon State Park; 2) digital data sets and survey data provided by: FFWCC, GINS, USFWS, St. Marks National Wildlife Refuge (NWR), Florida Natural Areas Inventory (FNAI), Eglin Air Force Base; and 3) published and unpublished reports. The above digital and/or hardcopy sources were compiled by the project biologist to create the BIRDS data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the BIRDS data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Contact Information:

Contact Organization Primary:

NOAA, Office of Response and Restoration

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ESI Manager

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Physical address

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State or Province: Washington
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Contact Electronic Mail Address: orr.esi@noaa.gov

Spatial Data Organization Information:
  Direct Spatial Reference Method: Vector
  Point and Vector Object Information:
    SDTS Terms Description:
      SDTS Point and Vector Object Type: GT-polygon composed of chains
      Point and Vector Object Count: 1680
    SDTS Terms Description:
      SDTS Point and Vector Object Type: Area point
      Point and Vector Object Count: 1681
    SDTS Terms Description:
      SDTS Point and Vector Object Type: Complete chain
      Point and Vector Object Count: 4325
    SDTS Terms Description:
      SDTS Point and Vector Object Type: Link
      Point and Vector Object Count: 760555
    SDTS Terms Description:
      SDTS Point and Vector Object Type: Node, planar graph
      Point and Vector Object Count: 3660

Spatial Reference Information:
  Horizontal Coordinate System Definition:
Geographic:

Latitude Resolution: 0.0000001
Longitude Resolution: 0.0000001
Geographic Coordinate Units: Decimal degrees

Geodetic Model:

Horizontal Datum Name: North American Datum of 1983
Ellipsoid Name: Geodetic Reference System 80
Semi-major Axis: 6378137.000000
Denominator of Flattening Ratio: 298.257222

Entity and Attribute Information:

Detailed Description:

Entity Type:

Entity Type Label: BIRDS.PAT

Entity Type Definition:

The BIRDS.PAT table contains attribute information for the vector polygons in this data set representing bird nesting, wintering, migratory staging and other spatial/temporal concentration areas. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity Type Definition Source: NOAA ESI Guidelines

Attribute:

Attribute Label: ID

Attribute Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (1), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute Definition Source: NOAA

Attribute Domain Values:

Range Domain:

Range Domain Minimum: 2180100002
**Attribute:**

**Attribute_Label:**

RARNUM

**Attribute_Definition:**

An identifier that links directly to the BIORES table or the flat format BIOFILE table. RARNUM values of 0 are holes in the polygons and do not contain information.

**Attribute_Definition_Source:**

NOAA

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**

218000001

**Range_Domain_Maximum:**

218000503

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**

BIO_LUT

**Entity_Type_Definition:**

The data table BIO_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**

RARNUM

**Attribute_Definition:**

An identifier that links records in the BIO_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.

**Attribute_Definition_Source:**

NOAA

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**

218000001

**Range_Domain_Maximum:**

218001335

**Attribute:**

**Attribute_Label:**

ID
**Attribute Definition:**

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (1), and record number. ID values of 9999 are holes in polygons and do not contain information.

**Attribute Definition Source:**

NOAA

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**

2180100002

**Range Domain Maximum:**

2183700142

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**

BIORES

**Entity Type Definition:**

The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

RARNUM

**Attribute Definition:**

An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.

**Attribute Definition Source:**

NOAA

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**

218000001

**Range Domain Maximum:**

218001335

**Attribute:**

**Attribute Label:**

SPECIES_ID

**Attribute Definition:**

Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**
Range_Domain:
  Range_Domain_Minimum:
    1
  Range_Domain_Maximum:
    N

Attribute:
Attribute_Label:
CONC
Attribute_Definition:
The field CONC refers to "concentration," abundance, or density values, and may contain counts of individuals for each species present at a particular nesting or wintering site, or a term that describes relative abundance of birds at a particular site. The field may contain counts or a range of counts of individuals (XX, or XX BIRDS, NESTS, ADULTS, or PAIRS). In cases where no quantitative count data were available, the field may either be blank or contain descriptive terms, such as "HIGH" or "COMMON" or a concentration approximation, such as "100s." If no concentration information was available from any source, the field was populated with "-". Counts were derived from a variety of surveys, and may range in date (see Lineage).

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
SEASON_ID
Attribute_Definition:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Range_Domain:
  Range_Domain_Minimum:
    1
  Range_Domain_Maximum:
    N

Attribute:
Attribute_Label:
G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Range_Domain:
Attribute:
  Attribute_Label: S_SOURCE
  Attribute_Definition: Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum:
        1
      Range_Domain_Maximum:
        N

Attribute:
  Attribute_Label: ELEMENT
  Attribute_Definition: Major categories of biological data.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        BIRD
      Enumerated_Domain_Value_Definition: Birds
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      FISH
    Enumerated_Domain_Value_Definition: Fish
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      HABITAT
    Enumerated_Domain_Value_Definition: Habitats and plants
    Enumerated_Domain_Value_Definition_Source:
Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    INVERT
    Enumerated Domain Value Definition:
      Invertebrates
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    M_MAMMAL
    Enumerated Domain Value Definition:
      Marine mammals
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    REPTILE
    Enumerated Domain Value Definition:
      Reptiles and Amphibians
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    T_MAMMAL
    Enumerated Domain Value Definition:
      Terrestrial mammals
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute:
  Attribute Label:
    EL_SPE
  Attribute Definition:
    Concatenation of ELEMENT and SPECIES_ID. This item links records in the
    BIORES data table to records in the SPECIES and STATUS data tables.
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    E####
    Enumerated Domain Value Definition:
      Where E is the first character of ELEMENT and the next five characters
      are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1;
EL_SPE = 'B00001').

*Enumerated_Domain_Value_Definition_Source:* 
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE_SEA

**Attribute_Definition:**
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

*Attribute_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
E########

*Enumerated_Domain_Value_Definition:*
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**
SPECIES

**Entity_Type_Definition:**
The data table SPECIES identifies all species in the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness_Report for a list of layer-specific species.

*Entity_Type_Definition_Source:*
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
SPECIES_ID

**Attribute_Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

*Attribute_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**
1

**Range_Domain_Maximum:**
N
Attribute:
  Attribute_Label: NAME
  Attribute_Definition: Species common name for the entire ESI data set.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values: Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: GEN_SPEC
  Attribute_Definition: Species scientific name for the entire ESI data set.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values: Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: ELEMENT
  Attribute_Definition: Major categories of biological data.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        BIRD
        Enumerated_Domain_Value_Definition:
          Birds
          Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      FISH
      Enumerated_Domain_Value_Definition:
        Fish
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      HABITAT
      Enumerated_Domain_Value_Definition:
Habitats and plants

*Enumerated_Domain_Value_Definition_Source*:
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain*:

*Enumerated_Domain_Value*:
INVERT

*Enumerated_Domain_Value_Definition*:
Invertebrates

*Enumerated_Domain_Value_Definition_Source*:
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain*:

*Enumerated_Domain_Value*:
M_MAMMAL

*Enumerated_Domain_Value_Definition*:
Marine Mammals

*Enumerated_Domain_Value_Definition_Source*:
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain*:

*Enumerated_Domain_Value*:
REPTILE

*Enumerated_Domain_Value_Definition*:
Reptiles and Amphibians

*Enumerated_Domain_Value_Definition_Source*:
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain*:

*Enumerated_Domain_Value*:
T_MAMMAL

*Enumerated_Domain_Value_Definition*:
Terrestrial Mammals

*Enumerated_Domain_Value_Definition_Source*:
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label**:
SUBELEMENT

**Attribute_Definition**:
Element subgroup delineating a logical grouping of species.

*Attribute_Definition_Source*:
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain*:

*Enumerated_Domain_Value*:
alligator

*Enumerated_Domain_Value_Definition*:
Alligator
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: amphibian
    Enumerated_Domain_Value_Definition: Amphibian
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: bear
    Enumerated_Domain_Value_Definition: Bear
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: bivalve
    Enumerated_Domain_Value_Definition: Bivalve
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: canine
    Enumerated_Domain_Value_Definition: Canine
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: cephalopod
    Enumerated_Domain_Value_Definition: Cephalopod
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: coral
    Enumerated_Domain_Value_Definition: Coral
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

*crab*

**Enumerated_Domain_Value_Definition:**

Crab

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

*crayfish*

**Enumerated_Domain_Value_Definition:**

Crayfish

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

*diadromous*

**Enumerated_Domain_Value_Definition:**

Diadromous fish

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

*diving*

**Enumerated_Domain_Value_Definition:**

Diving bird

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

*dolphin*

**Enumerated_Domain_Value_Definition:**

Dolphin

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

*e_nursery*

**Enumerated_Domain_Value_Definition:**

Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerable_Domain_Value:
e_resident
Enumerable_Domain_Value_Definition:
Estuarine resident fish
Enumerable_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerable_Domain_Value:
fav
Enumerable_Domain_Value_Definition:
Floating aquatic vegetation
Enumerable_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerable_Domain:
Enumerable_Domain_Value:
fish
Enumerable_Domain_Value_Definition:
Fish
Enumerable_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerable_Domain:
Enumerable_Domain_Value:
freshwater
Enumerable_Domain_Value_Definition:
Freshwater fish
Enumerable_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerable_Domain:
Enumerable_Domain_Value:
gull_tern
Enumerable_Domain_Value_Definition:
Gull or tern
Enumerable_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerable_Domain:
Enumerable_Domain_Value:
invert
Enumerable_Domain_Value_Definition:
Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: m_benthic
Enumerated_Domain_Value_Definition: Marine benthic fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: m_pelagic
Enumerated_Domain_Value_Definition: Marine pelagic fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: manatee
Enumerated_Domain_Value_Definition: Manatee
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: passerine
Enumerated_Domain_Value_Definition: Passerine bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: pelagic
Enumerated_Domain_Value_Definition: Pelagic bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: plant
    Enumerated_Domain_Value_Definition: Plant
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: raptor
    Enumerated_Domain_Value_Definition: Raptor
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: sav
    Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: shorebird
    Enumerated_Domain_Value_Definition: Shorebird
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: shrimp
    Enumerated_Domain_Value_Definition: Shrimp
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: sm_mammal
    Enumerated_Domain_Value_Definition: Small mammal
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            snake
        Enumerated_Domain_Value_Definition:
            Snake
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            turtle
        Enumerated_Domain_Value_Definition:
            Turtle
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            wading
        Enumerated_Domain_Value_Definition:
            Wading bird
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            waterfowl
        Enumerated_Domain_Value_Definition:
            Waterfowl
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            wetland
        Enumerated_Domain_Value_Definition:
            Wetland
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
    Attribute_Label: NHP
    Attribute_Definition: Natural Heritage Program global ranking.
    Attribute_Definition_Source:
Network of Natural Heritage Program

Attribute Domain Values:
Codeset Domain:
  Codeset Name:
    NHP Global Conservation Status Rank
  Codeset Source:
    Natural Heritage Program

Attribute:
  Attribute Label:
    DATE_PUB
  Attribute Definition:
    Date of NHP listing.
  Attribute Definition Source:
    NOAA ESI Guidelines
  Attribute Domain Values:
    Enumerated Domain:
      Enumerated Domain Value:
        YYYYMM
      Enumerated Domain Value Definition:
        YYYY for year and optionally MM for month
      Enumerated Domain Value Definition Source:
        NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      0
    Enumerated Domain Value Definition:
      Date unspecified
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute:
  Attribute Label:
    EL_SPE
  Attribute Definition:
    Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.
  Attribute Definition Source:
    NOAA ESI Guidelines
  Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      E#####
    Enumerated Domain Value Definition:
      Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines
Detailed_Description:
Entity_Type:

Entity_Type_Label: SEASONAL

Entity_Type_Definition:
The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ELEMENT

Attribute_Definition: Major categories of biological data.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: BIRD

Enumerated_Domain_Value_Definition: Birds

Enumerated_Domain_Value_Source: NOAA ESI Guidelines

Enumerated_Domain_Value: FISH

Enumerated_Domain_Value_Definition: Fish

Enumerated_Domain_Value_Source: NOAA ESI Guidelines

Enumerated_Domain_Value: HABITAT

Enumerated_Domain_Value_Definition: Habitats and plants

Enumerated_Domain_Value_Source: NOAA ESI Guidelines

Enumerated_Domain_Value: INVERT

Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: M_MAMMAL
    Enumerated_Domain_Value_Definition: Marine Mammals
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: REPTILE
    Enumerated_Domain_Value_Definition: Reptiles and Amphibians
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: T_MAMMAL
    Enumerated_Domain_Value_Definition: Terrestrial Mammals
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: SPECIES_ID
  Attribute_Definition: Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.
  Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum: 1
    Range_Domain_Maximum: N

Attribute:
  Attribute_Label: SEASON_ID
  Attribute_Definition: Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
  Attribute_Definition_Source: NOAA ESI Guidelines
Attribute Domain Values:

Range Domain:

Range Domain Minimum:
1

Range Domain Maximum:
N

Attribute:

Attribute Label:
JAN

Attribute Definition:
January

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
X

Enumerated Domain Value Definition:
Present in January

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
FEB

Attribute Definition:
February

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
X

Enumerated Domain Value Definition:
Present in February

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
MAR

Attribute Definition:
March

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
X

Enumerated Domain Value Definition:
Present in March

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**

APR

**Attribute_Definition:**

April

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:

**Enumerated_Domain_Value:**

X

*Enumerated_Domain_Value_Definition:* Present in April

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**

MAY

**Attribute_Definition:**

May

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:

**Enumerated_Domain_Value:**

X

*Enumerated_Domain_Value_Definition:* Present in May

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**

JUN

**Attribute_Definition:**

June

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:

**Enumerated_Domain_Value:**

X

*Enumerated_Domain_Value_Definition:* Present in June

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines
Attribute:
  Attribute_Label: JUL
  Attribute_Definition: July
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in July
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: AUG
  Attribute_Definition: August
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in August
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: SEP
  Attribute_Definition: September
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in September
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: OCT
Attribute Definition:
October

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
X
Enumerated Domain Value Definition:
Present in October
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
NOV
Attribute Definition:
November

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
X
Enumerated Domain Value Definition:
Present in November
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
DEC
Attribute Definition:
December

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
X
Enumerated Domain Value Definition:
Present in December
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
EL_SPE_SEA
Attribute Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    E########
  Enumerated Domain Value Definition:
    Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
  Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Detailed Description:
Entity Type:
  Entity Type Label:
    BREED
  Entity Type Definition:
    The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
  Entity Type Definition Source: NOAA ESI Guidelines

Attribute:
  Attribute Label:
    EL_SPE_SEA
  Attribute Definition:
    Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
  Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    E########
  Enumerated Domain Value Definition:
    Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
  Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
  Attribute Label:
    MONTH
  Attribute Definition:
    Two-digit calendar month. Each life history stage or activity type for a particular
species can have up to 12 records to account for each month of the year.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**
- **Range Domain Minimum:**
  - 1
- **Range Domain Maximum:**
  - 12

**Attribute:**

**Attribute Label:**
BREED1

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:**
  - Y
- **Enumerated Domain Value Definition:**
  - Life-history stage or activity present
- **Enumerated Domain Value Definition Source:**
  - NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:**
  - N
- **Enumerated Domain Value Definition:**
  - Life-history stage or activity not present or not reported
- **Enumerated Domain Value Definition Source:**
  - NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:**
  - 
- **Enumerated Domain Value Definition:**
  - Breed category not used or not appropriate for record(s) in question
- **Enumerated Domain Value Definition Source:**
  - NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
BREED2

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- Y

**Enumerated Domain Value Definition:**
Life-history stage or activity present

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- N

**Enumerated Domain Value Definition:**
Life-history stage or activity not present or not reported

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- 

**Enumerated Domain Value Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
BREED3

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- Y

**Enumerated Domain Value Definition:**
Life-history stage or activity present
**Attribute**: BREED4

**Attribute_Definition**: Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

**Attribute_Definition_Source**: NOAA ESI Guidelines

**Attribute_Domain_Values**: 

**Enumerated_Domain**:  

**Enumerated_Domain_Value**: Y

**Enumerated_Domain_Value_Definition**: Life-history stage or activity present

**Enumerated_Domain_Value_Definition_Source**: NOAA ESI Guidelines

**Enumerated_Domain_Value**: N

**Enumerated_Domain_Value_Definition**: Life-history stage or activity not present or not reported

**Enumerated_Domain_Value_Definition_Source**: NOAA ESI Guidelines
Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
BREED5

Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
Y

Enumerated_Domain_Value_Definition:
Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
N

Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
-

Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Detailed_Description:
Entity_Type:
Entity_Type_Label:
STATUS

Entity_Type_Definition:
The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
Entity_Type_Definition_Source:
  NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    ELEMENT
  Attribute_Definition:
    Major categories of biological data.
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      BIRD
      Enumerated_Domain_Value_Definition:
        Birds
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      FISH
      Enumerated_Domain_Value_Definition:
        Fish
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      HABITAT
      Enumerated_Domain_Value_Definition:
        Habitats and Plants
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      INVERT
      Enumerated_Domain_Value_Definition:
        Invertebrates
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      M_MAMMAL
      Enumerated_Domain_Value_Definition:
        Marine Mammals
      Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    REPTILE
  Enumerated Domain Value Definition:
    Reptiles and Amphibians
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    T_MAMMAL
  Enumerated Domain Value Definition:
    Terrestrial Mammals
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute:
  Attribute Label:
    SPECIES_ID
  Attribute Definition:
    Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
  Range Domain Minimum:
    1
  Range Domain Maximum:
    N

Attribute:
  Attribute Label:
    STATE
  Attribute Definition:
    Two-letter state abbreviation.
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
  Acceptable values change from atlas to atlas.

Attribute:
  Attribute Label:
    COUNTRY
  Attribute Definition:
    Three-letter country abbreviation.
  Attribute Definition Source:
    NOAA ESI Guidelines
Attribute\_Domain\_Values:

Unrepresentable\_Domain:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:
S
Attribute\_Definition:
State threatened or endangered status.

Attribute\_Definition\_Source:
NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:
E
Enumerated\_Domain\_Value\_Definition:
Endangered on state list
Enumerated\_Domain\_Value\_Definition\_Source:
NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:
T
Enumerated\_Domain\_Value\_Definition:
Threatened on state list
Enumerated\_Domain\_Value\_Definition\_Source:
NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:
C
Enumerated\_Domain\_Value\_Definition:
Species of Special Concern
Enumerated\_Domain\_Value\_Definition\_Source:
NOAA ESI Guidelines

Attribute:

Attribute\_Label:
F
Attribute\_Definition:
Federal threatened or endangered status.

Attribute\_Definition\_Source:
NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:
E
Enumerated\_Domain\_Value\_Definition:
Endangered on federal list
Enumerated\_Domain\_Value\_Definition\_Source:
NOAA ESI Guidelines

**Attribute Domain Values**

**Enumerated Domain**

**Enumerated Domain Value:**

T

**Enumerated Domain Value Definition:** Threatened on federal list

**Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values**

**Enumerated Domain**

**Enumerated Domain Value:**

C

**Enumerated Domain Value Definition:** Species of Special Concern

**Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

I

**Attribute Definition:**

International threatened or endangered status.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values**

**Enumerated Domain**

**Enumerated Domain Value:**

E

**Enumerated Domain Value Definition:** Endangered on international list

**Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values**

**Enumerated Domain**

**Enumerated Domain Value:**

T

**Enumerated Domain Value Definition:** Threatened on international list

**Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values**

**Enumerated Domain**

**Enumerated Domain Value:**

C

**Enumerated Domain Value Definition:** Species of Special Concern

**Enumerated Domain Value Definition Source:** NOAA ESI Guidelines
Attribute:

**Attribute_Label:**

S_DATE

**Attribute_Definition:**

Publication date of source material used to assign state status values for each species, if used.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

YYYYMM

**Enumerated_Domain_Value_Definition:**

YYYY for year and optionally MM for month

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

---

Attribute:

**Attribute_Label:**

F_DATE

**Attribute_Definition:**

Publication date of source material used to assign federal status values for each species, if used.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

YYYYMM

**Enumerated_Domain_Value_Definition:**

YYYY for year and optionally MM for month

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

---

Attribute:

**Attribute_Label:**

I_DATE

**Attribute_Definition:**

Publication date of source material used to assign international status values for each species, if used.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

YYYYMM

**Enumerated_Domain_Value_Definition:**

YYYY for year and optionally MM for month

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines
Attribute:
  Attribute_Label: EL_SPE
  Attribute_Definition: Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: E####
      Enumerated_Domain_Value_Definition: Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:
Entity_Type:
  Entity_Type_Label: SOURCES
  Entity_Type_Definition: The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
  Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: SOURCE_ID
  Attribute_Definition: Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 1
      Range_Domain_Maximum: N
ORIGINATOR
Attribute_Definition:
Author or developer of source material or data set.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
YYYYMM
Enumerated_Domain_Value_Definition:
YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
TITLE
Attribute_Definition:
Title of source material or data.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
DATA_FORMAT
Attribute_Definition:
The format of the source material.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
PUB_PLACE
Publication place.

**Attribute**

**Attribute Label:** PUBLISHER

Attribute Definition:
Publisher.

**Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:** PUBLICATION

Attribute Definition:
Additional citation information.

**Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:** ONLINE_LINK

Attribute Definition:
Online computer resource URL.

**Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:** SCALE

Attribute Definition:
Description of the source scale.

**Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
TIME_PERIOD

Attribute_Definition:
Date(s) of data collection that the source material is based upon.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Overview_Description:

Entity_and_Attribute_Overview:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, BIRDS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables (described in the Detailed_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a
Detailed_Description section.

**Entity_and_Attribute_Detail_Citation:**

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

---

**Distribution_Information:**

**Distributor:**

**Contact_Information:**

**Contact_Person_Primary:**

**Contact_Person:**

ESI Manager

**Contact_Organization:**

NOAA, Office of Response and Restoration

**Contact_Address:**

**Address_Type:**

Physical Address

**Address:**

7600 Sand Point Way N.E.

**City:**

Seattle

**State_or_Province:**

Washington

**Postal_Code:**

98115-6349

**Contact_Voice_Telephone:**

(206) 526-6944

**Contact_Facsimile_Telephone:**

(206) 526-6329

**Contact_Electronic_Mail_Address:**

orr.esi@noaa.gov

---

**Resource_Description:**

Downloadable Data

**Distribution_Liability:**

These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

**Standard_Order_Process:**

**Digital_Form:**

**Digital_Transfer_Information:**

**Format_Name:**

Multiple formats
Digital Transfer Option:
Online Option:
Computer Contact Information:

Network Address:

Network Resource Name:
http://response.restoration.noaa.gov/esi_download

Fees:
None

Custom Order Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

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Metadata Reference Information:
Metadata Date:
20140609
Metadata Contact:
Contact Information:
Contact Person Primary:
Contact Person:
ESI Manager
Contact Organization:
NOAA, Office of Response and Restoration
Contact Position:
ESI Manager
Contact Address:
Address Type:
Physical Address
Address:
7600 Sand Point Way, N.E.
City:
Seattle
State or Province:
Washington
Postal Code:
98115-6349
Contact Voice Telephone:
(206) 526-6944
Contact Facsimile Telephone:
(206) 526-6329
Contact Electronic Mail Address:
orr.esi@noaa.gov

*Metadata Standard Name*: Content Standards for Digital Geospatial Metadata


[Back To Index]
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: NESTS (Nest Points)

Metadata:

- **IdentificationInformation**
- **DataQualityInformation**
- **SpatialDataOrganizationInformation**
- **SpatialReferenceInformation**
- **EntityAndAttributeInformation**
- **DistributionInformation**
- **MetadataReferenceInformation**

---

**IdentificationInformation:**

**Citation:**

**Originator:**

**Originator:**

**Originator:**
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

**PublicationDate:**
201208

**Title:**
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: NESTS (Nest Points)

**Edition:**
Second

**GeospatialDataPresentationForm:**
vector digital data

**SeriesInformation:**
**SeriesName:**
Florida Panhandle ESI

**IssueIdentification:**
Florida Panhandle

**PublicationInformation:**
**PublicationPlace:**
Seattle, Washington
Abstract:
This data set contains sensitive biological resource data for wading birds, shorebirds, raptors, diving birds, and gulls and terns in for the Florida Panhandle. Vector points in this data set represent bird nesting and wintering sites. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the BIRDS data layer, part of the larger Florida Panhandle ESI database, for additional bird information.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date:
1999

Ending_Date:
2012

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 1999 to 2012 and are documented in the Lineage section.

Status:
Progress:
Complete

Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate:
Florida Panhandle ESI: NESTS

-87.62500

East_Bounding_Coordinate:
-83.68400

North_Bounding_Coordinate:
30.74700

South_Bounding_Coordinate:
28.27700

Keywords:

Theme:

Theme_Keyword_Thesaurus:
ISO 19115 Topic Category

Theme_Keyword:
biota

Theme_Keyword:
environment

Theme:

Theme_Keyword_Thesaurus:
None

Theme_Keyword:
Environmental Monitoring

Theme_Keyword:
ESI

Theme_Keyword:
Sensitivity maps

Theme_Keyword:
Coastal resources

Theme_Keyword:
Oil spill planning

Theme_Keyword:
Coastal Zone Management

Theme_Keyword:
Wildlife

Theme_Keyword:
Nest

Theme_Keyword:
Bird

Theme:

Theme_Keyword_Thesaurus:
NOS Data Explorer Topic Category

Theme_Keyword:
Environmental Monitoring

Place:

Place_Keyword_Thesaurus:
None

Place_Keyword:
Florida Panhandle

Access_Constraints:
None
Use_Constraints:

DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse_Graphic:

Browse_Graphic_File_Name:

Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

Browse_Graphic_File_Type:
JPEG

Browse_Graphic:

Browse_Graphic_File_Name:
http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhdle_2012_datafig2.jpg

Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

Browse_Graphic_File_Type:
JPEG

Data_Set_Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native_Data_Set_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biorese.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.
Data Quality Information:

Attribute Accuracy:

Attribute Accuracy Report:

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical Consistency Report:

A multi-stage error checking process, described in the above Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary node, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUM's remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

Completeness Report:

These data represent a synthesis of expert knowledge, survey data, and digital data on bird nesting and wintering sites. See also the BIRDS data layer, part of the larger Florida Panhandle ESI database, for additional bird information. These data do not necessarily represent all nest occurrences in Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 8, Double-crested cormorant, Phalacrocorax auritus; 54, Great blue heron, Ardea herodias; 60, Red knot, Calidris canutus; 69, Semipalmated plover, Charadrius semipalmatus; 70, Killdeer, Charadrius vociferus; 76, Bald eagle, Haliaeetus leucocephalus; 77, Osprey, Pandion haliaetus; 86, Least tern, Sternal antillarum; 87, Little blue heron, Egretta caerulea; 88, Great egret, Ardea alba; 89, Snowy egret, Egretta thula; 93, Cattle egret, Bubulcus ibis; 94, Tricolored heron, Egretta tricolor; 98, Laughing gull, Larus atricilla; 107, Peregrine falcon, Falco peregrinus; 118, Brown pelican, Pelecanus occidentalis; 125, Clapper rail, Rallus longirostris; 133, Black skimmer, Rynchops niger; 134, Gull-billed tern, Gelochelidon nilotica; 135, Sandwich tern, Thalasseus sandvicensis; 136, Caspian tern, Hydroprogne caspia; 137, Royal tern, Thalasseus maximus; 138, Forster's tern, Sterna forsteri; 139, Snowy plover, Charadrius alexandrinius; 152, American oystercatcher,
Positional_Accuracy:

**Horizontal_Positional_Accuracy:**

**Horizontal_Positional_Accuracy_Report:**

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

**Lineage:**

**Source_Information:**

**Source_Citation:**

**Citation_Information:**

**Originator:**

APALACHICOLA RIVERKEEPER

**Publication_Date:**

2011

**Title:**

APALACHICOLA RIVERKEEPER: SAVING AN AMERICAN TREASURE

**Geospatial_Data_Presentation_Form:**

vector digital data

**Online_Linkage:**

http://www.apalachicolariverkeeper.org/home0.aspx

**Type_of_Source_Media:**

ONLINE

**Source_Time_Period_of_Content:**

**Time_Period_Information:**

**Single_Date/Time:**

**Calendar_Date:**

2011

**Source_Currentness_Reference:**

DATE OF PUBLICATION

**Source_Citation_Abbreviation:**

Src_0

**Source_Contribution:**

NESTS INFORMATION
Source Information:
Source Citation:

Citation Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)
Publication Date:
2007
Title:
PELICAN_ACTIVE_2007
Geospatial Data Presentation Form:
vector digital data
Other Citation Details:
UNPUBLISHED

Type of Source Media:
EMAIL
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2007
Source Currentness Reference:
DATE OF SURVEY
Source Citation Abbreviation:
Src_1
Source Contribution:
NESTS INFORMATION

Source Information:
Source Citation:

Citation Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)
Publication Date:
2010
Title:
BNB (BEACH-NESTING BIRDS)
Geospatial Data Presentation Form:
vector digital data
Publication Information:
Publication Place:
ST. PETERSBURG, FL
Publisher:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
Online Linkage:
http://legacy.myfwc.com/bnb/

Type of Source Media:
EMAIL

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date:

2005

Ending_Date:

2010

Source_Currentness_Reference:

DATE OF SURVEY

Source_Citation_Abbreviation:

Src_2

Source_Contribution:

NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

Publication_Date:

1999

Title:

WADING BIRD ROOKERIES FLORIDA

Geospatial_Data_Presentation_Form:

vector digital data

Other_Citation_Details:

UNPUBLISHED

Type_of_Source_Media:

FTP SITE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:

1999

Source_Currentness_Reference:

DATE OF SURVEY

Source_Citation_Abbreviation:

Src_3

Source_Contribution:

NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

Publication_Date:
2010

Title:
EAGLE NESTS 10

Geospatial_Data_Presentation_Form:
vector digital data

Other_Citation_Details:
UNPUBLISHED

Type_of_Source_Media:
EMAIL

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:
2010

Source_Currentness_Reference:
DATE OF SURVEY

Source_Citation_Abbreviation:
Src_4

Source_Contribution:
NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

Publication_Date:
2010

Title:
MARSH BIRDS FWC 2010

Geospatial_Data_Presentation_Form:
spreadsheet

Other_Citation_Details:
UNPUBLISHED

Type_of_Source_Media:
EMAIL

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:
2010

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_5

Source_Contribution:
NESTS INFORMATION

Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
    FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)
    Publication_Date:
    2012
    Title:
    FLORIDA SHOREBIRD DATABASE SITES FINAL
    Geospatial_Data_Presentation_Form:
    vector digital data
    Other_Citation_Details:
    UNPUBLISHED
  Type_of_Source_Media:
  EMAIL
  Source_Time_Period_of_Content:
    Time_Period_Information:
    Single_Date/Time:
    Calendar_Date:
    2012
  Source_Currentness_Reference:
  DATE OF SURVEY
  Source_Citation_Abbreviation:
  Src_6
  Source_Contribution:
  NESTS INFORMATION

Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
    GULF ISLANDS NATIONAL SEASHORE (NPS)
    Publication_Date:
    2010
    Title:
    WILSON'S PLOVER
    Geospatial_Data_Presentation_Form:
    vector digital data
    Other_Citation_Details:
    UNPUBLISHED
  Type_of_Source_Media:
  FTP SITE
  Source_Time_Period_of_Content:
    Time_Period_Information:
    Single_Date/Time:
    Calendar_Date:
    2010
  Source_Currentness_Reference:
  DATE OF SURVEY
Source_Citation_Abbreviation: Src_7
Source_Contribution: NESTS INFORMATION
Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
      HARVEY, A. (BIG LAGOON STATE PARK)
    Publication_Date: 2011
    Title: STATE PARK RESOURCES FOR FLORIDA PANHANDLE
    Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
    Other_Citation_Details: UNPUBLISHED
  Type_of_Source_Media: PERSONAL COMMUNICATION
  Source_Time_Period_of_Content:
    Time_Period_Information:
      Single_Date/Time:
        Calendar_Date: 2011
    Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: Src_8
Source_Contribution: NESTS INFORMATION
Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
      HIMES, J., FWC-FWRI (FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION-FISH AND WILDLIFE RESEARCH INSTITUTE)
    Publication_Date: 2011
    Title: BIRDS, REPTILES, AMPHIBIANS, AND OTHER PANHANDLE COASTAL RESOURCES
    Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
    Other_Citation_Details: UNPUBLISHED
  Type_of_Source_Media: PERSONAL COMMUNICATION
DISTRIBUTION OF SHOREBIRDS AND OTHER SPECIES IN THE FL PANHANDLE

Geospatial Data Presentation Form:
EXPERT KNOWLEDGE

Other Citation Details:
UNPUBLISHED

Type of Source Media:
PERSONAL COMMUNICATION

Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2011

Source Currentness Reference:
DATE OF COMMUNICATION

Source Citation Abbreviation:
Src_11

Source Contribution:
NESTS INFORMATION

Source Information:
Source Citation:
Citation Information:
Originator:
KNUDSEN, RICHARD (FWRI)

Publication Date:
2011

Title:
DIVING AND RECREATIONAL FISHING SITES IN WATERS OF FLORIDA PANHANDLE

Geospatial Data Presentation Form:
EXPERT KNOWLEDGE

Other Citation Details:
UNPUBLISHED

Type of Source Media:
PERSONAL COMMUNICATION

Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2011

Source Currentness Reference:
DATE OF COMMUNICATION

Source Citation Abbreviation:
Src_12

Source Contribution:
NESTS INFORMATION

Source Information:
Source Citation:
Source_Contribution: 
NESTS INFORMATION 

Source_Information: 

Source_Citation: 

Citation_Information: 
Originator: 
U.S. FISH AND WILDLIFE SERVICE (USFWS) 
Publication_Date: 
2012 
Title: 
RED KNOT FOR ESI 
Geospatial_Data_Presentation_Form: 
vector digital data 
Other_Citation_Details: 
UNPUBLISHED 

Type_of_Source_Media: 
disc 
Source_Time_Period_of_Content: 
Time_Period_Information: 
Single_Date/Time: 
Calendar_Date: 
2012 
Source_Currentness_Reference: 
DATE OF PUBLICATION 
Source_Citation_Abbreviation: 
Src_15 
Source_Contribution: 
NESTS INFORMATION 

Source_Information: 

Source_Citation: 

Citation_Information: 
Originator: 
ST. MARKS NATIONAL WILDLIFE REFUGE (USFWS) 
Publication_Date: 
2010 
Title: 
2010 RCW (RED COCKADED WOODPECKER) CLUSTER CENTERS 
Geospatial_Data_Presentation_Form: 
vector digital data 
Other_Citation_Details: 
UNPUBLISHED 

Type_of_Source_Media: 
EMAIL 
Source_Time_Period_of_Content: 
Time_Period_Information: 
Single_Date/Time: 
Calendar_Date:
2010

**Source Currentness Reference:**
DATE OF SURVEY

**Source Citation Abbreviation:**
Src_16

**Source Contribution:**
NESTS INFORMATION

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**
USAF EGLIN AIR FORCE BASE

**Publication Date:**
2007

**Title:**
PIPING PLOVER SIGHTINGS

**Geospatial Data Presentation Form:**
vector digital data

**Publication Information:**

**Publication Place:**
NICEVILLE, FL

**Publisher:**
U.S. AIR FORCE

**Type of Source Media:**
EMAIL

**Source Time Period of Content:**

**Time Period Information:**

**Single Date/Time:**
Calendar Date:
2007

**Source Currentness Reference:**
DATE OF PUBLICATION

**Source Citation Abbreviation:**
Src_17

**Source Contribution:**
NESTS INFORMATION

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**
ST. MARKS NATIONAL WILDLIFE REFUGE (USFWS)

**Publication Date:**
2010

**Title:**
2010 RCW (RED-COCKADED WOODPECKER) CLUSTER
CENTERS

**Geospatial Data Presentation Form:**
vector digital data
Three main sources of data were used to depict bird distribution and seasonality for this data layer: 1) personal interviews with resource experts from the U.S. Fish and Wildlife Service (USFWS), Gulf Islands National Seashore (GINS), Florida Fish and Wildlife Conservation Commission (FFWCC), and Big Lagoon State Park; 2) digital data sets and survey data provided by: FFWCC, GINS, USFWS, St. Marks
National Wildlife Refuge (NWR); and 3) published and unpublished documents. The above digital and/or hardcopy sources were compiled by the project biologist to create the NESTS data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the NESTS data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

**Process Date:**
201208

**Process Contact:**

**Contact Information:**

**Contact Organization Primary:**

**Contact Organization:**
NOAA, Office of Response and Restoration

**Contact Person:**
ESI Manager

**Contact Address:**

**Address Type:**
Physical address

**Address:**
7600 Sand Point Way, N.E.

**City:**
Seattle

**State or Province:**
Washington

**Postal Code:**
98115-6349

**Contact Voice Telephone:**
(206) 526-6944

**Contact Facsimile Telephone:**
(206) 526-6329

**Contact Electronic Mail Address:**
orr.esi@noaa.gov

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**Spatial Data Organization Information:**

**Direct Spatial Reference Method:**
Vector

**Point and Vector Object Information:**
SDTS_Terms_Description:
  SDTS_Point_and_Vector_Object_Type:
  Entity point
  Point_and_Vector_Object_Count:
  828

Spatial_Reference_Information:
  Horizontal_Coordinate_System_Definition:
    Geographic:
      Latitude_Resolution:
        0.0000001
      Longitude_Resolution:
        0.0000001
    Geographic_Coordinate_Units:
      Decimal degrees
  Geodetic_Model:
    Horizontal_Datum_Name:
      North American Datum of 1983
    Ellipsoid_Name:
      Geodetic Reference System 80
    Semi-major_Axis:
      6378137.000000
    Denominator_of_Flattening_Ratio:
      298.257222

Entity_and_Attribute_Information:
  Detailed_Description:
    Entity_Type:
      Entity_Type_Label:
        NESTS.PAT
      Entity_Type_Definition:
        The NESTS.PAT table contains attribute information for the vector points in this
data set representing bird nesting and wintering sites. Note that all attribute
information is stored in a series of relational files, described below and in the
Overview_Description section. See the Browse_Graphic section for a link to the
entity-relationship diagram, which describes the relationships between attribute
tables in the ESI data structure.
    Entity_Type_Definition_Source:
      NOAA ESI Guidelines
  Attribute:
    Attribute_Label:
      ID
    Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (5), and record number.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 2180500001
- **Range Domain Maximum:** 2180500828

**Attribute:**

**Attribute Label:**
RARNUM

**Attribute Definition:**
An identifier that links directly to the BIORES table or the flat format BIOFILE table.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 218000002
- **Range Domain Maximum:** 218000273

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**
BIO_LUT

**Entity Type Definition:**
The data table BIO_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
RARNUM

**Attribute Definition:**
An identifier that links records in the BIO_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**
Range_Domain:
  Range_Domain_Minimum:
    218000001
  Range_Domain_Maximum:
    218001335

Attribute:
  Attribute_Label:
    ID
  Attribute_Definition:
    An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (5), and record number. ID values of 9999 are holes in polygons and do not contain information.
  Attribute_Definition_Source:
    NOAA
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum:
        2180100002
      Range_Domain_Maximum:
        2183700142

Detailed_Description:
Entity_Type:
  Entity_Type_Label:
    BIORES
  Entity_Type_Definition:
    The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
  Entity_Type_Definition_Source:
    NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    RARNUM
  Attribute_Definition:
    An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.
  Attribute_Definition_Source:
    NOAA
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum:
        218000001
      Range_Domain_Maximum:
        218001335
**Attribute_Label:**

SPECIES_ID

**Attribute_Definition:**

Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

Range_Domain:

- **Range_Domain_Minimum:** 1
- **Range_Domain_Maximum:** N

**Attribute:**

**Attribute_Label:**

CONC

**Attribute_Definition:**

The field CONC refers to "concentration," abundance, or density values, and may contain counts of individuals for each species present at a particular nesting or wintering site. The field may contain counts or a range of counts of individuals (XX, or XX BIRDS, NESTS, ADULTS, CHICKS or PAIRS). In cases where no quantitative count data were available, the field may either be blank or contain descriptive terms, such as "HIGH". If no concentration information was available from any source, the field was populated with "-". Counts were derived from a variety of surveys, and may range in date (see Lineage).

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

Unrepresentable_Domain:

Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**

SEASON_ID

**Attribute_Definition:**

Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

Range_Domain:

- **Range_Domain_Minimum:** 1
- **Range_Domain_Maximum:** N

**Attribute:**

**Attribute_Label:**

G_SOURCE

**Attribute_Definition:**
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Range Domain:**
  - **Range Domain Minimum:** 1
  - **Range Domain Maximum:** N

**Attribute:**

**Attribute Label:**
S_SOURCE

**Attribute Definition:**
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Range Domain:**
  - **Range Domain Minimum:** 1
  - **Range Domain Maximum:** N

**Attribute:**

**Attribute Label:**
ELEMENT

**Attribute Definition:**
Major categories of biological data.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:** BIRD
  - **Enumerated Domain Value Definition:** Birds
    - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:** FISH
  - **Enumerated Domain Value Definition:** Fish
    - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines
Enumerated_Domain:
  Enumerated_Domain_Value:
    HABITAT
    Enumerated_Domain_Value_Definition:
      Habitats and plants
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      INVERT
      Enumerated_Domain_Value_Definition:
        Invertebrates
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      M_MAMMAL
      Enumerated_Domain_Value_Definition:
        Marine mammals
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      REPTILE
      Enumerated_Domain_Value_Definition:
        Reptiles and Amphibians
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T_MAMMAL
      Enumerated_Domain_Value_Definition:
        Terrestrial mammals
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    EL_SPE
  Attribute_Definition:
    Concatenation of ELEMENT and SPECIES_ID. This item links records in the 
    BIORES data table to records in the SPECIES and STATUS data tables.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:

E####

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE_SEA

Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

E########

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label:
SPECIES

Entity_Type_Definition:
The data table SPECIES identifies all species in the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness_Report for a list of layer specific species.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
SPECIES_ID

Attribute_Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute Domain Values:
  Range Domain:
    Range Domain Minimum: 1
    Range Domain Maximum: N

Attribute:
  Attribute Label: NAME
  Attribute Definition: Species common name for the entire ESI data set.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values:
    Unrepresentable Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute Label: GEN_SPEC
  Attribute Definition: Species scientific name for the entire ESI data set.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values:
    Unrepresentable Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute Label: ELEMENT
  Attribute Definition: Major categories of biological data.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values:
    Enumerated Domain:
      Enumerated Domain Value: BIRD
      Enumerated Domain Value Definition: Birds
      Enumerated Domain Value Definition Source: NOAA ESI Guidelines
    Enumerated Domain Values:
      Enumerated Domain Value: FISH
      Enumerated Domain Value Definition: Fish
      Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

**HABITAT**

**Enumerated Domain Value Definition:**

Habitats and plants

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

**INVERT**

**Enumerated Domain Value Definition:**

Invertebrates

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

**M_MAMMAL**

**Enumerated Domain Value Definition:**

Marine Mammals

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

**REPTILE**

**Enumerated Domain Value Definition:**

Reptiles and Amphibians

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

**T_MAMMAL**

**Enumerated Domain Value Definition:**

Terrestrial Mammals

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

**SUBELEMENT**

**Attribute Definition:**

Element subgroup delineating a logical grouping of species.

**Attribute Definition Source:**

NOAA ESI Guidelines
Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      alligator
    Enumerated_Domain_Value_Definition:
      Alligator
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      amphibian
    Enumerated_Domain_Value_Definition:
      Amphibian
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      bear
    Enumerated_Domain_Value_Definition:
      Bear
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      bivalve
    Enumerated_Domain_Value_Definition:
      Bivalve
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      canine
    Enumerated_Domain_Value_Definition:
      Canine
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      cephalopod
    Enumerated_Domain_Value_Definition:
      Cephalopod
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      coral
    Enumerated_Domain_Value_Definition:
      Coral
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      crab
    Enumerated_Domain_Value_Definition:
      Crab
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      crayfish
    Enumerated_Domain_Value_Definition:
      Crayfish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      diadromous
    Enumerated_Domain_Value_Definition:
      Diadromous fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      diving
    Enumerated_Domain_Value_Definition:
      Diving bird
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      dolphin
    Enumerated_Domain_Value_Definition:
      Dolphin
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      e_nursery
    Enumerated_Domain_Value_Definition:
      Estuarine nursery fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      e_resident
    Enumerated_Domain_Value_Definition:
      Estuarine resident fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      fav
    Enumerated_Domain_Value_Definition:
      Floating aquatic vegetation
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      fish
    Enumerated_Domain_Value_Definition:
      Fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      freshwater
    Enumerated_Domain_Value_Definition:
      Freshwater fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      gull_tern
    Enumerated_Domain_Value_Definition:
      Gull or tern
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      invert
    Enumerated_Domain_Value_Definition:
      Invertebrate
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      lobster
    Enumerated_Domain_Value_Definition:
      Lobster
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      m_benthic
    Enumerated_Domain_Value_Definition:
      Marine benthic fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      m_pelagic
    Enumerated_Domain_Value_Definition:
      Marine pelagic fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      manatee
    Enumerated_Domain_Value_Definition:
      Manatee
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      passerine
    Enumerated_Domain_Value_Definition:
      Passerine bird
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
pelagic
Enumerated Domain Value Definition:
Pelagic bird
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
plant
Enumerated Domain Value Definition:
Plant
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
raptor
Enumerated Domain Value Definition:
Raptor
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
sav
Enumerated Domain Value Definition:
Submerged aquatic vegetation
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
shorebird
Enumerated Domain Value Definition:
Shorebird
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
shrimp
Enumerated Domain Value Definition:
Shrimp
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines
**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- sm\_mammal

**Enumerated Domain Value Definition:**
Small mammal

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- snake

**Enumerated Domain Value Definition:**
Snake

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- turtle

**Enumerated Domain Value Definition:**
Turtle

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- wading

**Enumerated Domain Value Definition:**
Wading bird

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- waterfowl

**Enumerated Domain Value Definition:**
Waterfowl

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- wetland

**Enumerated Domain Value Definition:**
Wetland

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines
Attribute:
  Attribute_Label:
  NHP
  Attribute_Definition:
  Natural Heritage Program global ranking.
  Attribute_Definition_Source:
  Network of Natural Heritage Program
  Attribute_Domain_Values:
    Codeset_Domain:
      Codeset_Name:
      NHP Global Conservation Status Rank
      Codeset_Source:
      Natural Heritage Program

Attribute:
  Attribute_Label:
  DATE_PUB
  Attribute_Definition:
  Date of NHP listing.
  Attribute_Definition_Source:
  NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
      YYYYMM
      Enumerated_Domain_Value_Definition:
      YYYY for year and optionally MM for month
      Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
      0
      Enumerated_Domain_Value_Definition:
      Date unspecified
      Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
  EL_SPE
  Attribute_Definition:
  Concatenation of ELEMENT and SPECIES_ID. This item links records in the
  SPECIES data table to records in the BIORES and STATUS data tables.
  Attribute_Definition_Source:
  NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
      E#####
**Enumerated_Domain_Value_Definition:**
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

*Entity_Type_Label:* SEASONAL

*Entity_Type_Definition:* The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

*Entity_Type_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:* ELEMENT

*Attribute_Definition:* Major categories of biological data.

*Attribute_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:*

**Enumerated_Domain:**

*Enumerated_Domain_Value:* BIRD

*Enumerated_Domain_Value_Definition:* Birds

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:*

**Enumerated_Domain:**

*Enumerated_Domain_Value:* FISH

*Enumerated_Domain_Value_Definition:* Fish

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:*

**Enumerated_Domain:**

*Enumerated_Domain_Value:* HABITAT

*Enumerated_Domain_Value_Definition:* Habitats and plants

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            INVERT
        Enumerated_Domain_Value_Definition:
            Invertebrates
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            M_MAMMAL
        Enumerated_Domain_Value_Definition:
            Marine Mammals
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            REPTILE
        Enumerated_Domain_Value_Definition:
            Reptiles and Amphibians
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            T_MAMMAL
        Enumerated_Domain_Value_Definition:
            Terrestrial Mammals
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute:
    Attribute_Label:
        SPECIES_ID
    Attribute_Definition:
        Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.
    Attribute_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
    Range_Domain:
        Range_Domain_Minimum:
            1
        Range_Domain_Maximum:
            N
SEASON_ID

Attribute Definition:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
Range Domain Minimum:
1
Range Domain Maximum:
N

Attribute:
Attribute Label:
JAN
Attribute Definition:
January
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
X
Enumerated Domain Value Definition:
Present in January
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
FEB
Attribute Definition:
February
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
X
Enumerated Domain Value Definition:
Present in February
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
MAR
Attribute Definition:
March
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value: X
  Enumerated Domain Value Definition: Present in March
  Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
Attribute Label: APR
Attribute Definition: April
Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value: X
  Enumerated Domain Value Definition: Present in April
  Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
Attribute Label: MAY
Attribute Definition: May
Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value: X
  Enumerated Domain Value Definition: Present in May
  Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
Attribute Label: JUN
Attribute Definition: June
Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
*Enumerated_Domain_Value*:  
X

*Enumerated_Domain_Value_Definition*:  
Present in June

*Enumerated_Domain_Value_Definition_Source*:  
NOAA ESI Guidelines

**Attribute:**  
**Attribute_Label**:  
JUL

**Attribute_Definition**:  
July

**Attribute_Definition_Source**:  
NOAA ESI Guidelines

**Attribute_Domain_Values**:  
*Enumerated_Domain*:  

**Enumerated_Domain_Value**:  
X

**Enumerated_Domain_Value_Definition**:  
Present in July

**Enumerated_Domain_Value_Definition_Source**:  
NOAA ESI Guidelines

**Attribute:**  
**Attribute_Label**:  
AUG

**Attribute_Definition**:  
August

**Attribute_Definition_Source**:  
NOAA ESI Guidelines

**Attribute_Domain_Values**:  
*Enumerated_Domain*:  

**Enumerated_Domain_Value**:  
X

**Enumerated_Domain_Value_Definition**:  
Present in August

**Enumerated_Domain_Value_Definition_Source**:  
NOAA ESI Guidelines

**Attribute:**  
**Attribute_Label**:  
SEP

**Attribute_Definition**:  
September

**Attribute_Definition_Source**:  
NOAA ESI Guidelines

**Attribute_Domain_Values**:  
*Enumerated_Domain*:  

**Enumerated_Domain_Value**:  
X

**Enumerated_Domain_Value_Definition**:  
Florida Panhandle ESI: NESTS
Present in September

*Enumerated Domain Value Definition Source:* NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** OCT
- **Attribute Definition:** October
- **Attribute Definition Source:** NOAA ESI Guidelines
- **Attribute Domain Values:**
  - **Enumerated Domain:**
    - **Enumerated Domain Value:** X
    - **Enumerated Domain Value Definition:** Present in October
    - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** NOV
- **Attribute Definition:** November
- **Attribute Definition Source:** NOAA ESI Guidelines
- **Attribute Domain Values:**
  - **Enumerated Domain:**
    - **Enumerated Domain Value:** X
    - **Enumerated Domain Value Definition:** Present in November
    - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** DEC
- **Attribute Definition:** December
- **Attribute Definition Source:** NOAA ESI Guidelines
- **Attribute Domain Values:**
  - **Enumerated Domain:**
    - **Enumerated Domain Value:** X
    - **Enumerated Domain Value Definition:** Present in December
    - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines
**Attribute**:  
**Attribute Label**: EL_SPE_SEA  
**Attribute Definition**: Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.  
**Attribute Definition Source**: NOAA ESI Guidelines  
**Attribute Domain Values**:  
**Enumerated Domain**:  
**Enumerated Domain Value**: E############  
**Enumerated Domain Value Definition**: Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').  
**Enumerated Domain Value Definition Source**: NOAA ESI Guidelines  

**Detailed Description**:  
**Entity Type**:  
**Entity Type Label**: BREED  
**Entity Type Definition**: The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.  
**Entity Type Definition Source**: NOAA ESI Guidelines  

**Attribute**:  
**Attribute Label**: EL_SPE_SEA  
**Attribute Definition**: Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.  
**Attribute Definition Source**: NOAA ESI Guidelines  
**Attribute Domain Values**:  
**Enumerated Domain**:  
**Enumerated Domain Value**: E############  
**Enumerated Domain Value Definition**: Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').  
**Enumerated Domain Value Definition Source**: NOAA ESI Guidelines
NOAA ESI Guidelines

Attribute:

Attribute_Label: MONTH
Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -
Enumerated_Domain_Value_Definition: Breed category not used or not appropriate for record(s) in question
**Attribute:**

**Attribute Label:**

BREED2

**Attribute Definition:**

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

Y

**Enumerated Domain Value Definition:**

Life-history stage or activity present

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

N

**Enumerated Domain Value Definition:**

Life-history stage or activity not present or not reported

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

-

**Enumerated Domain Value Definition:**

Breed category not used or not appropriate for record(s) in question

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

BREED3

**Attribute Definition:**

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**

NOAA ESI Guidelines
**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

Y

**Enumerated Domain Value Definition:**

Life-history stage or activity present

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

N

**Enumerated Domain Value Definition:**

Life-history stage or activity not present or not reported

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

-

**Enumerated Domain Value Definition:**

Breed category not used or not appropriate for record(s) in question

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

BREED4

**Attribute Definition:**

Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

Y

**Enumerated Domain Value Definition:**

Life-history stage or activity present

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

N

**Enumerated Domain Value Definition:**

Florida Panhandle ESI:  NESTS
Life-history stage or activity not present or not reported

*Enumerated_Domain_Value_Definition_Source:*

NOAA ESI Guidelines

*Attribute_Domain_Values:*

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

- *Enumerated_Domain_Value_Definition:*

  Breed category not used or not appropriate for record(s) in question

*Enumerated_Domain_Value_Definition_Source:*

NOAA ESI Guidelines

*Attribute:*

*Attribute_Label:*

BREED5

*Attribute_Definition:*

Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

*Attribute_Definition_Source:*

NOAA ESI Guidelines

*Attribute_Domain_Values:*

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

Y

*Enumerated_Domain_Value_Definition:*

Life-history stage or activity present

*Enumerated_Domain_Value_Definition_Source:*

NOAA ESI Guidelines

*Attribute_Domain_Values:*

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

N

*Enumerated_Domain_Value_Definition:*

Life-history stage or activity not present or not reported

*Enumerated_Domain_Value_Definition_Source:*

NOAA ESI Guidelines

*Attribute_Domain_Values:*

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

-

*Enumerated_Domain_Value_Definition:*

Breed category not used or not appropriate for record(s) in question

*Enumerated_Domain_Value_Definition_Source:*

NOAA ESI Guidelines

*Detailed_Description:*

*Entity_Type:*

*Entity_Type_Label:
STATUS

Entity_Type_Definition:
The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
ELEMENT

Attribute_Definition:
Major categories of biological data.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

BIRD

Enumerated_Domain_Value_Definition:
Birds

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

FISH

Enumerated_Domain_Value_Definition:
Fish

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

HABITAT

Enumerated_Domain_Value_Definition:
Habitats and Plants

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

INVERT

Enumerated_Domain_Value_Definition:
Invertebrates

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated Domain:
    Enumerated Domain Value:
      M_MAMMAL
    Enumerated Domain Value Definition:
      Marine Mammals
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
    Enumerated Domain:
      Enumerated Domain Value:
        REPTILE
    Enumerated Domain Value Definition:
      Reptiles and Amphibians
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
    Enumerated Domain:
      Enumerated Domain Value:
        T_MAMMAL
    Enumerated Domain Value Definition:
      Terrestrial Mammals
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute:
    Attribute Label:
      SPECIES_ID
    Attribute Definition:
      Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.
    Attribute Definition Source:
      NOAA ESI Guidelines
    Attribute Domain Values:
      Range Domain:
        Range Domain Minimum:
          1
        Range Domain Maximum:
          N

Attribute:
    Attribute Label:
      STATE
    Attribute Definition:
      Two-letter state abbreviation.
    Attribute Definition Source:
      NOAA ESI Guidelines
    Attribute Domain Values:
      Unrepresentable Domain:
        Acceptable values change from atlas to atlas.

Attribute:
Attribute Label:  
COUNTRY 

Attribute Definition:  
Three-letter country abbreviation.  

Attribute Definition Source:  
NOAA ESI Guidelines 

Attribute Domain Values:  

Unrepresentable Domain:  
Acceptable values change from atlas to atlas. 

Attribute:  

Attribute Label:  
S 

Attribute Definition:  
State threatened or endangered status. 

Attribute Definition Source:  
NOAA ESI Guidelines 

Attribute Domain Values:  

Enumerated Domain:  

Enumerated Domain Value:  
E 

Enumerated Domain Value Definition:  
Endangered on state list 

Enumerated Domain Value Definition Source:  
NOAA ESI Guidelines 

Attribute Domain Values:  

Enumerated Domain:  

Enumerated Domain Value:  
T 

Enumerated Domain Value Definition:  
Threatened on state list 

Enumerated Domain Value Definition Source:  
NOAA ESI Guidelines 

Attribute Domain Values:  

Enumerated Domain:  

Enumerated Domain Value:  
C 

Enumerated Domain Value Definition:  
Species of Special Concern 

Enumerated Domain Value Definition Source:  
NOAA ESI Guidelines 

Attribute:  

Attribute Label:  
F 

Attribute Definition:  
Federal threatened or endangered status. 

Attribute Definition Source:  
NOAA ESI Guidelines 

Attribute Domain Values:  

Enumerated Domain:
  Enumerated Domain Value:
    E
  Enumerated Domain Value Definition:
    Endangered on federal list
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      T
    Enumerated Domain Value Definition:
      Threatened on federal list
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      C
      Enumerated Domain Value Definition:
        Species of Special Concern
        Enumerated Domain Value Definition Source:
          NOAA ESI Guidelines

Attribute:
  Attribute Label:
    I
  Attribute Definition:
    International threatened or endangered status.
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      E
      Enumerated Domain Value Definition:
        Endangered on international list
      Enumerated Domain Value Definition Source:
        NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      T
      Enumerated Domain Value Definition:
        Threatened on international list
      Enumerated Domain Value Definition Source:
        NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
Enumerated Domain Value:
C

Enumerated Domain Value Definition:
Species of Special Concern

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
S_DATE

Attribute Definition:
Publication date of source material used to assign state status values for each species, if used.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
YYYYMM

Enumerated Domain Value Definition:
YYYY for year and optionally MM for month

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
F_DATE

Attribute Definition:
Publication date of source material used to assign federal status values for each species, if used.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
YYYYMM

Enumerated Domain Value Definition:
YYYY for year and optionally MM for month

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
I_DATE

Attribute Definition:
Publication date of source material used to assign international status values for each species, if used.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:

**Enumerated Domain Value:**

YYYMM

**Enumerated Domain Value Definition:**

YYYY for year and optionally MM for month

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

EL_SPE

**Attribute Definition:**

Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

E#####

**Enumerated Domain Value Definition:**

Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**

SOURCES

**Entity Type Definition:**

The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

SOURCE_ID

**Attribute Definition:**

Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

Florida Panhandle ESI: NESTS
Range_Domain_Minimum:
   1
Range_Domain_Maximum:
   N

Attribute:
   Attribute_Label:
      ORIGINATOR
   Attribute_Definition:
      Author or developer of source material or data set.
   Attribute_Definition_Source:
      NOAA ESI Guidelines
   Attribute_Domain_Values:
      Unrepresentable_Domain:
         Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label:
      DATE_PUB
   Attribute_Definition:
      Date of source material, publication, or date of personal communication with expert source.
   Attribute_Definition_Source:
      NOAA ESI Guidelines
   Attribute_Domain_Values:
      Enumerated_Domain:
         Enumerated_Domain_Value:
            YYYYMM
         Enumerated_Domain_Value_Definition:
            YYYY for year and optionally MM for month
         Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute:
   Attribute_Label:
      TITLE
   Attribute_Definition:
      Title of source material or data.
   Attribute_Definition_Source:
      NOAA ESI Guidelines
   Attribute_Domain_Values:
      Unrepresentable_Domain:
         Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label:
      DATA_FORMAT
   Attribute_Definition:
      The format of the source material.
   Attribute_Definition_Source:
      NOAA ESI Guidelines
   Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: PUB_PLACE
  Attribute_Definition: Publication place.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: PUBLISHER
  Attribute_Definition: Publisher.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: PUBLICATION
  Attribute_Definition: Additional citation information.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: ONLINE_LINK
  Attribute_Definition: Online computer resource URL.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: SCALE
  Attribute_Definition: Description of the source scale.
  Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute Domain Values:

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:
TIME_PERIOD

Attribute Definition:
Date(s) of data collection that the source material is based upon.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Overview Description:

Entity and Attribute Overview:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, NESTS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in detail. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both
G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data
query, it is not a normalized database structure, and actual updates performed by the states
and other responsible agencies should be done using the relational data tables. The entity-
relationship diagram, describing relationships between attribute tables in the ESI data
structure does NOT include the BIOFILE data table, and this data table is NOT described
in detail below.

Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can
be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov
/esi_guidelines).

Distribution_Information:
Distributor:

Contact_Information:
Contact_Person_Primary:
Contact_Person:
ESI Manager

Contact_Organization:
NOAA, Office of Response and Restoration

Contact_Address:
Address_Type:
Physical Address
Address:
7600 Sand Point Way N.E.

City:
Seattle

State_or_Province:
Washington

Postal_Code:
98115-6349

Contact_Voice_Telephone:
(206) 526-6944

Contact_Facsimile_Telephone:
(206) 526-6329

Contact_Electronic_Mail_Address:
orr.esi@noaa.gov

Resource_Description:
Downloadable Data

Distribution_Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are
not intended to include all biological or human-use resources present in an area; they focus on
species and resources particularly sensitive to oiling. In the event of a spill, they should be used
for a first assessment only. The data providers are the experts with regard to individual resources.
They should be contacted to confirm if more current data exist, and/or in-depth information is
needed about a particular resource.
**Standard Order Process:**

**Digital Form:**

**Digital Transfer Information:**

**Format Name:**
- Multiple formats

**Digital Transfer Option:**

**Online Option:**

**Computer Contact Information:**

**Network Address:**
- Network Resource Name: http://response.restoration.noaa.gov/esi_download

**Fees:**
- None

**Custom Order Process:**

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

---

**Metadata Reference Information:**

**Metadata Date:**
- 20140609

**Metadata Contact:**

**Contact Information:**

**Contact Person Primary:**

**Contact Person:**
- ESI Manager

**Contact Organization:**
- NOAA, Office of Response and Restoration

**Contact Position:**
- ESI Manager

**Contact Address:**

**Address Type:**
- Physical Address

**Address:**
- 7600 Sand Point Way, N.E.

**City:**
- Seattle

**State or Province:**
- Washington

**Postal Code:**
- 98115-6349
Contact_Voice_Telephone:
(206) 526-6944

Contact_Facsimile_Telephone:
(206) 526-6329

Contact_Electronic_Mail_Address:
orr.esi@noaa.gov

Metadata_Standard_Name:
Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version:
FGDC-STD-001-1998
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: FISH (Fish Polygons)

Metadata:

- Identification_Information
- Data_Quality_Information
- Spatial_Data_Organization_Information
- Spatial_Reference_Information
- Entity_and_Attribute_Information
- Distribution_Information
- Metadata_Reference_Information

Identification_Information:
Citation:

Citation_Information:
Originator:

Originator:

Originator:
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

Publication_Date:
201208

Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: FISH (Fish Polygons)

Edition:
Second

Geospatial_Data_Presentation_Form:
vector digital data

Series_Information:
Series_Name:
Florida Panhandle ESI

Issue_Identification:
Florida Panhandle

Publication_Information:
Publication_PLACE:
Seattle, Washington
Abstract:
This data set contains sensitive biological resource data for marine, estuarine, anadromous, and brackish/freshwater fish species for the Florida Panhandle. Vector polygons in this data set represent fish distribution, concentration areas, nursery areas, and spawning areas. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date:
1985
Ending_Date:
2012

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 1985 to 2012 and are documented in the Lineage section.

Status:
Progress:
Complete
Maintenance_and_Update_Frequency:
None Scheduled
Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate:
-87.62500
East_Bounding_Coordinate: 
-83.68400
North_Bounding_Coordinate: 
30.74700
South_Bounding_Coordinate: 
28.27700

Keywords:

Theme:
Theme_Keyword_Thesaurus:
ISO 19115 Topic Category
Theme_Keyword:
biota
Theme_Keyword:
environment

Theme:
Theme_Keyword_Thesaurus:
None
Theme_Keyword:
Environmental Monitoring
Theme_Keyword:
ESI
Theme_Keyword:
Sensitivity maps
Theme_Keyword:
Coastal resources
Theme_Keyword:
Oil spill planning
Theme_Keyword:
Coastal Zone Management
Theme_Keyword:
Wildlife
Theme_Keyword:
Fish

Theme:
Theme_Keyword_Thesaurus:
NOS Data Explorer Topic Category
Theme_Keyword:
Environmental Monitoring

Place:
Place_Keyword_Thesaurus:
None
Place_Keyword:
Florida Panhandle

Access_Constraints:
None

Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the
exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Point_of_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person:
ESI Manager
Contact_Organization:
NOAA, Office of Response and Restoration
Contact_Address:
Address_Type:
Physical Address
Address:
7600 Sand Point Way N.E.
City:
Seattle
State_orProvince:
Washington
Postal_Code:
98115-6349
Contact_Voice_Telephone:
(206) 526-6944
Contact_Facsimile_Telephone:
(206) 526-6329
Browse_Graphic:
Browse_Graphic_File_Name:
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.
Browse_Graphic_File_Type:
JPEG
Browse_Graphic:
Browse_Graphic_File_Name:
http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhdle_2012_datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.
Browse_Graphic_File_Type:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native Data Set Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO® (version 9.3) and SQL SERVER® (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial Data Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, soccon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data Quality Information:

Attribute Accuracy:

Attribute Accuracy Report:

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical Consistency Report:

A multi-stage error checking process, described in the above Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include...
the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

Completeness Report:

These data represent a synthesis of expert knowledge, digital and tabular survey data, hardcopy maps and reports on fish distribution, concentration areas, nursery areas, and spawning areas. These data do not necessarily represent all fish occurrences in Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 65, Bluefish, Pomatomus saltatrix; 104, Striped bass, Morone saxatilis; 107, Spotted seatrout, Cynoscion nebulosus; 109, Red drum, Sciaenops ocellatus; 110, Black sea bass, Centropristis striata; 111, Southern flounder, Paralichthys lethostigma; 112, Gulf flounder, Paralichthys albigutta; 113, Bay anchovy, Anchoa mitchilli; 114, Florida pompano, Trachinotus carolinus; 116, Striped mullet, Mugil cephalus; 117, Pinfish, Lagodon rhomboides; 119, Silver perch, Bairdiella chrysoura; 120, Pigfish, Orthopristis chrysoptera; 121, Spot, Leiostomus xanthurus; 122, Black drum, Pogonias cromis; 123, Atlantic croaker, Micropogonias undulatus; 126, King mackerel, Scomberomorus cavalla; 127, Spanish mackerel, Scomberomorus maculatus; 128, Blue runner, Caranx crysos; 129, Atlantic thread herring, Opisthonema oglinum; 134, Cobia, Rachycentron canadum; 136, Dolphin, Coryphaena hippurus; 137, Sheepshead, Archosargus probatocephalus; 139, Spanish sardine, Sardinella aurita; 140, Ladyfish, Elops saurus; 142, Crevalle jack, Caranx hippos; 143, Tarpon, Megalops atlanticus; 163, Gizzard shad, Dorosoma cepedianum; 173, White mullet, Mugil curema; 179, Largemouth bass, Micropterus salmoides; 181, Black crappie, Pomoxis nigromaculatus; 182, Bluegill, Lepomis macrochirus; 203, Warmouth, Lepomis gulosus; 204, Redear sunfish, Lepomis microlophus; 213, Gulf menhaden, Brevoortia patronus; 215, Sand seatrout, Cynoscion arenarius; 269, Gulf killifish, Fundulus grandis; 274, Sheepshead minnow, Cyprinodon variegatus; 278, Little tunny, Euthynnus alletteratus; 287, Hardhead catfish, Arius felis; 288, Atlantic tripletail, Lobotes surinamensis; 292, Chain pickerel, Esox niger; 298, Saltmarsh topminnow, Fundulus jenkinsi; 302, Gag, Mycteropepera microlepis; 303, Permit, Trachinotus falcatus; 305, Red snapper, Lutjanus campechanus; 306, Gray snapper, Lutjanus griseus; 307, Lane snapper, Lutjanus synagris; 308, Rock sea bass, Centropristis philadelphica; 310, Atlantic spadefish, Chaetodipterus faber; 315, Blacktip shark, Carcharhinus limbatus; 316, Spinner shark, Carcharhinus brevipinna; 317, Bull shark, Carcharhinus leucas; 318, Atlantic sharpnose shark, Rhizoprionodon terraenovae; 319, Gulf sturgeon, Acipenser oxyrinchus desotoi; 326, Bonnethead shark, Sphyra tiburo; 332, Tiger shark, Galeocerdo cuvier; 334, Finetooth shark, Carcharhinus isodon; 335, Silversides, n/a; 339, Bluenose shiner, Pteronotropis welaka; 347, Round scad, Decapterus punctatus; 354, Scamp, Mycteropepera pharonis; 366, Hogchoker, Trinectes maculatus; 367, Alabama shad, Alosa alabamiae; 368, Yellowfin menhaden, Brevoortia smithi; 369, Code goby, Gobiosoma robustum; 381, Cusk eels, Ophidion spp.; 416, Mojarras, Diapterus spp.; 438, Scalloped hammerhead, Sphyra lewini; 464, Longnose gar, Lepisosteus osseus; 487, Skates, Raja spp.; 495, Gray triggerfish, Balistes capriscus; 518, Jewfish, Epinephelus itajara; 631, Bigeye scad, Selar crumenopthalmus; 638, Wahoo, Acanthocybium solandri; 715, Whale shark, Rhincodon typus; 776, Red grouper, Epinephelus morio; 788, Ballyhoo, Hemiramphus brasiliensis; 792, Skipjack tuna, Katsuwonus pelamis; 835, Blackfin tuna, Thunnus atlanticus; 883, Vermillion snapper, Rhombopiltes aurorubens; 985, Redbreast sunfish, Lepomis auritus; 1015, Rays, n/a; 1017, Grunts, Haemulidae; 1018, Porgies, n/a; 1028, Goatfishes, Mullidae; 1053, Lizardfishes, n/a; 1141, Flatfish, n/a; 1146, Bluefin tuna, Thunnus thynnus; 1147, Tuna, Thunnus alalunga; 1148, Scomber, Scomber scombrus; 1149, Tuna, Thunnus alalunga; 1150, Horse mackerel, Trachurus symmetricus; 1153, Amberjacks, Seriola spp.; 1155, Sunfishes, n/a; 1156, Okaloosa darter, Etheostoma okaloosae; 1157, Tonguefish, Symphurus spp.;
1158, Kingfishes, Menticirrhus spp.; 1159, Smalltooth sawfish, Pristis pectinata; 1160, Blacknose shark, Carcharhinus acronotus.

**Positional Accuracy:**

**Horizontal Positional Accuracy:**

**Horizontal Positional Accuracy Report:**

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

**Lineage:**

**Source Information:**

**Source Citation:**

Citation Information:

Originator:

ALEXANDER, S., FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FL DEP)

Publication Date:

2011

Title:

AQUATIC PRESERVE RESOURCES

Geospatial Data Presentation Form:

EXPERT KNOWLEDGE

Other Citation Details:

UNPUBLISHED

Type of Source Media:

PERSONAL COMMUNICATION

Source Time Period of Content:

Time Period Information:

Single Date/Time:

Calendar Date:

2011

Source Currentness Reference:

DATE OF COMMUNICATION

Source Citation Abbreviation:

Src_0

Source Contribution:

FISH INFORMATION

Source Information:

Source Citation:

Citation Information:
Originator:
BETHEA, D.M., L.S. HOLLENSEAD, J.K. CARLSON, M.J.
AJEMIAN, R.D. GRUBBS, E.R. HOFFMAYER, R. DEL RIO, G.W.
PETerson, D.M. BALTZ, AND J. ROMINE.

Publication Date:
2009

Title:
SHARK NURSERY GROUNDS AND ESSENTIAL FISH HABITAT STUDIES. GULFSPAN GULF OF MEXICO-FY08. REPORT TO NOAA FISHERIES, HIGHLY MIGRATORY SPECIES DIVISION.

Geospatial_Data_Presentation_Form:
HARDCOPY TEXT

Publication Information:
Publication Place:
PANAMA CITY, FL
Publisher:
NMFS

Online Linkage:

Type_of_Source_Media:
ONLINE

Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2009

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_1
Source_Contribution:
FISH INFORMATION

Source Information:
Source Citation:
Citation Information:
Originator:
DOC NOAA NOS NCCOS CCMA BIOGEOGRAPHY PROGRAM
Publication Date:
2000

Title:
NOAA'S ESTUARINE LIVING MARINE RESOURCES (ELMR) DATA BASE

Geospatial_Data_Presentation_Form:
vector digital data

Publication Information:
Publication Place:
SILVER SPRING, MD
Publisher:
NOAA'S OCEAN SERVICE, NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE (NCCOS)

Online_Linkage:
http://www8.nos.noaa.gov/biogeo_public/elmr.aspx

Type_of_Source_Media:
online

Source_Time_Period_of_Content:

Time_Period Information:

Range_of_Dates/Times:

Beginning_Date:
1985

Ending_Date:
2000

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_2

Source_Contribution:
FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
ESTUARINE MARINE LIVING RESOURCES (ELMR) DATA VIA FISH AND WILDLIFE RESEARCH INSTITUTE (FWRI)

Publication_Date:
2011

Title:
PANHANDLE_ELMR_SEASONALITY_TABLE.XLSX

Geospatial_Data_Presentation_Form:
spreadsheet

Other_Citation_Details:
UNPUBLISHED

Type_of_Source_Media:
ftp site

Source_Time_Period_of_Content:

Time_Period Information:

Single_Date/Time:
Calendar_Date:
2011

Source_Currentness_Reference:
DATE OF COMMUNICATION

Source_Citation_Abbreviation:
Src_3

Source_Contribution:
FISH INFORMATION

Source_Information:

Source_Citation:
Source_Citation:
Citation_Information:
 Originator: 
   FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
   - FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
 Publication_Date: 
   2008
 Title: 
   GULF STURGEON CRITICAL HABITAT UNITS 1 TO 7 AL, FL, 
   MS, LA
 Geospatial_Data_Presentation_Form: 
   vector digital data
 Other_Citation_Details: 
   UNPUBLISHED
Type_of_Source_Media:
 online
Source_Time_Period_of_Content:
 Time_Period_Information:
  Single_Date/Time:
   Calendar_Date: 
   2008
 Source_Currentness_Reference:
  DATE OF PUBLICATION
 Source_Citation_Abbreviation:
 Src_7
 Source_Contribution:
 FISH INFORMATION
Source_Information:
 Source_Citation:
 Citation_Information:
 Originator: 
   FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
   - FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
 Publication_Date: 
   2011
 Title: 
   MARINE FISHERIES TRIP TICKET AREA CODES GDB
 Geospatial_Data_Presentation_Form: 
   vector digital data
 Other_Citation_Details: 
   UNPUBLISHED
Type_of_Source_Media:
 FTP SITE
Source_Time_Period_of_Content:
 Time_Period_Information:
  Single_Date/Time:
   Calendar_Date: 
   2011
Source_Citation_Abbreviation: Src_8
Source_Contribution: FISH INFORMATION

Source_Information:
Source_Citation:
Citation_Information:
Originator:
FLORIDA NATURAL AREAS INVENTORY (FNAI)
Publication_Date:
2001
Title:
SALTMARSH TOPMINNOW SEASONALITY
Geospatial_Data_Presentation_Form:
HARDCOPY TEXT

Type_of_Source_Media:
ONLINE
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2001

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation: Src_9
Source_Contribution: FISH INFORMATION

Source_Information:
Source_Citation:
Citation_Information:
Originator:
FLORIDA NATURAL AREAS INVENTORY (FNAI)
Publication_Date:
2011
Title:
ELEMENT OCCURRENCE POLYGON DATA LAYER
Geospatial_Data_Presentation_Form:
vector digital data
Publication_Information:
Publication_Place:
TALLAHASSEE, FL
Publisher:
FLORIDA NATURAL AREAS INVENTORY

Type_of_Source_Media:
EMAIL
Source_Time_Period_of_Content:
Time_Period_Information:
  Single_Date/Time:
    Calendar_Date:
      2011
Source_Currentness_Reference:
  DATE OF PUBLICATION
Source_Citation_Abbreviation:
  Src_10
Source_Contribution:
  FISH INFORMATION
Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
      FNAI (FLORIDA NATURAL AREAS INVENTORY)
    Publication_Date:
      2001
    Title:
      FIELD GUIDE TO THE RARE ANIMALS OF FLORIDA
  Geospatial_Data_Presentation_Form:
    HARDCOPY TEXT
  Online_Linkage:
    http://www.fnai.org/FieldGuide/pdf/Ambystoma_cingulatum.PDF
Type_of_Source_Media:
  ONLINE
Source_Time_Period_of_Content:
Time_Period_Information:
  Single_Date/Time:
    Calendar_Date:
      2001
Source_Currentness_Reference:
  DATE OF PUBLICATION
Source_Citation_Abbreviation:
  Src_11
Source_Contribution:
  FISH INFORMATION
Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
      HERRINGTON, K., USFWS (UNITED STATES FISH AND WILDLIFE SERVICE)
    Publication_Date:
      2012
    Title:
      FLORIDA ESI GULF STURGEON SHAPEFILE
  Geospatial_Data_Presentation_Form:
vector digital data

Publication Information:
Publication Place:
PANAMA CITY, FL
Publisher:
USFWS AQUATIC SPECIES CONSULTATION AND RECOVERY

Type of Source Media:
EMAIL

Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2012

Source Currentness Reference:
DATE OF COMMUNICATION

Source Citation Abbreviation:
Src_12

Source Contribution:
FISH INFORMATION

Source Information:
Source Citation:
Citation Information:
Originator:
MATHESON, E. AND R. KNUDSEN, FWC-FWRI (FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION-FISH AND WILDLIFE RESEARCH INSTITUTE)

Publication Date:
2011

Title:
DISTRIBUTION AND SEASONALITY FOR FISH AND INVERTS IN GULF OF MEXICO AND FL PANHANDLE BAYS

Geospatial Data Presentation Form:
EXPERT KNOWLEDGE

Other Citation Details:
EXPERT KNOWLEDGE BASED ON NUMEROUS PUBLISHED DOCUMENTS

Type of Source Media:
EMAIL

Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2011

Source Currentness Reference:
DATE OF COMMUNICATION

Source Citation Abbreviation:
Src_13
Source_Contribution: FISH INFORMATION

Source_Information:
Source_Citation:
Citation_Information:
Originator: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)
Publication_Date: 2012
Title: NATIONAL SAWFISH ENCOUNTER DATABASE, NORTHWEST FLORIDA 2003-2012 SMALLTOOTH SAWFISH ENCOUNTERS, MARCH 2012
Geospatial_Data_Presentation_Form: map
Publication_Information:
Publication_Place: ST. PETERSBURG, FL
Publisher: NOAA SOUTHEAST REGIONAL OFFICE PROTECTED RESOURCES DIVISION
Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 2003
Ending_Date: 2012
Source_Currentness_Reference: DATE OF SURVEY
Source_Citation_Abbreviation: Src_14
Source_Contribution: FISH INFORMATION

Source_Information:
Source_Citation:
Citation_Information:
Originator: NOAA NATIONAL MARINE FISHERIES SERVICE (NMFS)
Publication_Date: 2009
Title: AMENDMENT 1 TO THE CONSOLIDATED HIGHLY MIGRATORY SPECIES FISHERIES MANAGEMENT PLAN: CHAPTER 5 ESSENTIAL FISH HABITAT
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:
Publication Place: SILVER SPRING, MD
Publisher: NMFS

Type_of_Source_Media: online
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2009
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: Src_15
Source_Contribution: FISH INFORMATION

Source_Information:
Source_Citation:
Citation_Information:
Originator: NOAA NATIONAL MARINE FISHERIES SERVICE (NMFS)
Publication_Date: 2009
Title: HIGHLY MIGRATORY SPECIES - ESSENTIAL FISH HABITAT 2009 BLACKNOSE SHARK

Geospatial_Data_Presentation_Form: vector digital data
Publication_Information:
Publication Place: SILVER SPRING, MD
Publisher: NMFS

Type_of_Source_Media: online
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2009
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: Src_19
Source_Contribution: FISH INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
  Originator:
    NOAA NATIONAL MARINE FISHERIES SERVICE (NMFS)
  Publication_Date:
    2009
  Title:
    HIGHLY MIGRATORY SPECIES - ESSENTIAL FISH HABITAT
    2009 SCALLOPED HAMMERHEAD SHARK
Geospatial_Data_Presentation_Form:
  vector digital data
Publication_Information:
  Publication Place:
    SILVER SPRING, MD
  Publisher:
    NMFS
Online_Linkage:
Type_of_Source_Media:
  ONLINE
Source_Time_Period_of_Content:
  Time_Period_Information:
    Single_Date/Time:
      Calendar_Date:
        2009
Source_Currentness_Reference:
  DATE OF PUBLICATION
Source_Citation_Abbreviation: Src_20
Source_Contribution: FISH INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
  Originator:
    NOAA NATIONAL MARINE FISHERIES SERVICE (NMFS)
  Publication_Date:
    2009
  Title:
    HIGHLY MIGRATORY SPECIES - ESSENTIAL FISH HABITAT
    2009 SHARPNOSE SHARK
Geospatial_Data_Presentation_Form:
  vector digital data
Publication Information:
Publication Place:
SILVER SPRING, MD
Publisher:
NMFS
Online Linkage:
Type of Source Media:
ONLINE
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2009
Source Currentness Reference:
DATE OF PUBLICATION
Source Citation Abbreviation:
Src_21
Source Contribution:
FISH INFORMATION
Source Information:
Source Citation:
Citation Information:
Originator:
NOAA NATIONAL MARINE FISHERIES SERVICE (NMFS)
Publication Date:
2009
Title:
HIGHLY MIGRATORY SPECIES - ESSENTIAL FISH HABITAT
2009 WHALE SHARK
Geospatial Data Presentation Form:
vector digital data
Publication Information:
Publication Place:
SILVER SPRING, MD
Publisher:
NMFS
Online Linkage:
Type of Source Media:
ONLINE
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2009
Source Currentness Reference:
DATE OF PUBLICATION
Publication Information:
Publication Place:
SILVER SPRING, MD
Publisher:
NMFS
Online Linkage:
Type of Source Media:
ONLINE
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2009
Source Currentness Reference:
DATE OF PUBLICATION
Source Citation Abbreviation:
Src_24
Source Contribution:
FISH INFORMATION
Source Information:
Source Citation:
Citation Information:
Originator:
NOAA OFFICE OF SUSTAINABLE FISHERIES (OFS)
Publication Date:
2009
Title:
HIGHLY MIGRATORY SPECIES - ESSENTIAL FISH HABITAT
2009 TIGER SHARK
Geospatial Data Presentation Form:
vector digital data
Publication Information:
Publication Place:
SILVER SPRING, MD
Publisher:
NMFS
Online Linkage:
Type of Source Media:
online
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2009
Source Currentness Reference:
DATE OF PUBLICATION
Source_Citation_Abbreviation: Src_25
Source_Contribution: FISH INFORMATION
Source_Information: 
Source_Citation: 
Citation_Information: 
Originator: 
PARAUKA, FRANK (USFWS)
Publication_Date: 2011
Title: SEASONALITY DATA FOR GULF STURGEON
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content: 
Time_Period_Information: 
Single_Date/Time: 
Calendar_Date: 2011
Source_Currentness_Reference: 
DATE OF COMMUNICATION
Source_Citation_Abbreviation: Src_26
Source_Contribution: FISH INFORMATION
Source_Information: 
Source_Citation: 
Citation_Information: 
Originator: 
WILCOX, J., FWC (FLORIDA FISH AND WILDLIFE COMMISSION)
Publication_Date: 2012
Title: GULF STURGEON CONCENTRATION AREAS IN THE FL PANHANDLE
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content: 

Three main sources of data were used to depict fish distribution and seasonality for this data layer: 1) personal interviews with resource experts from the U.S. Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC), Florida Department of Environmental Protection (DEP), and University of South Florida (USF); 2) digital data sets and survey data provided by: NOAA (Biogeography Program), National Marine Fisheries Service (NMFS), FWC, USFWS, Florida Natural Areas Inventory (FNAI); and 3) published and unpublished reports and maps. The above digital and/or hardcopy sources were compiled by the project biologist to create the FISH data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the FISH data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date:
201208

Process_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization:
NOAA, Office of Response and Restoration
Contact_Person:
ESI Manager
Contact_Address:
Address_Type:
Physical address
Address:
7600 Sand Point Way, N.E.
City:
Seattle
State or Province: Washington
Postal Code: 98115-6349
Contact Voice Telephone: (206) 526-6944
Contact Facsimile Telephone: (206) 526-6329
Contact Electronic Mail Address: orr.esi@noaa.gov

Spatial Data Organization Information:
Direct Spatial Reference Method:
Vector
Point and Vector Object Information:
SDTS Terms Description:
SDTS Point and Vector Object Type: GT-polygon composed of chains
Point and Vector Object Count: 1699
SDTS Terms Description:
SDTS Point and Vector Object Type: Area point
Point and Vector Object Count: 1700
SDTS Terms Description:
SDTS Point and Vector Object Type: Complete chain
Point and Vector Object Count: 4005
SDTS Terms Description:
SDTS Point and Vector Object Type: Link
Point and Vector Object Count: 522323
SDTS Terms Description:
SDTS Point and Vector Object Type: Node, planar graph
Point and Vector Object Count: 3134

Spatial Reference Information:
Horizontal Coordinate System Definition:
Geographic:
  
  Latitude Resolution:
  0.0000001
  
  Longitude Resolution:
  0.0000001
  
  Geographic Coordinate Units:
  Decimal degrees

Geodetic Model:
  
  Horizontal Datum Name:
  North American Datum of 1983
  
  Ellipsoid Name:
  Geodetic Reference System 80
  
  Semi-major Axis:
  6378137.000000
  
  Denominator of Flattening Ratio:
  298.257222

Entity and Attribute Information:
  
  Detailed Description:
  
  Entity Type:
  
  Entity Type Label:
  FISH.PAT
  
  Entity Type Definition:
  The FISH.PAT table contains attribute information for the vector polygons in this
  data set representing fish distribution, concentration areas, nursery areas, and
  spawning areas. Note that all attribute information is stored in a series of relational
  files, described below and in the Overview Description section. See the
  Browse Graphic section for a link to the entity-relationship diagram, which
  describes the relationships between attribute tables in the ESI data structure.
  
  Entity Type Definition Source:
  NOAA ESI Guidelines

Attribute:
  
  Attribute Label:
  ID
  
  Attribute Definition:
  An identifier that links vector objects in the biology data layers to records in the
  BIO_LUT data table. ID is a concatenation of atlas number (218), element number
  (2), and record number. ID values of 9999 are holes in polygons and do not contain
  information.
  
  Attribute Definition Source:
  NOAA

  Attribute Domain Values:
  
  Range Domain:
Range_Domain_Maximum: 2180203924

Attribute:
  Attribute_Label: RARNUM
  Attribute_Definition:
  An identifier that links directly to the BIORES table or the flat format BIOFILE
  table. RARNUM values of 0 are holes in the polygons and do not contain
  information.
  Attribute_Definition_Source: NOAA
  Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum: 218000504
    Range_Domain_Maximum: 218000730

Detailed_Description:
  Entity_Type:
    Entity_Type_Label: BIO_LUT
    Entity_Type_Definition:
    The data table BIO_LUT is a lookup table that contains items necessary for linking
    vector objects in the biological data layers with the BIORES data table. Note that all
    attribute information is stored in a series of relational files, described below and in
    the Overview_Description section. See the Browse_Graphic section for a link to the
    entity-relationship diagram, which describes the way this table relates to other
    attribute tables in the ESI data structure.
    Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: RARNUM
  Attribute_Definition:
  An identifier that links records in the BIO_LUT data table to records in the BIORES
  data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in
  polygons and do not contain information.
  Attribute_Definition_Source: NOAA
  Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum: 218000001
    Range_Domain_Maximum: 218001335

Attribute:
  Attribute_Label: ID
Attribute Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (2), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute Definition Source:
NOAA

Attribute Domain Values:
Range Domain:
Range Domain Minimum: 2180100002
Range Domain Maximum: 2183700142

Detailed Description:
Entity Type:
Entity Type Label: BIORES
Entity Type Definition:
The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: RARNUM
Attribute Definition:
An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.

Attribute Definition Source:
NOAA

Attribute Domain Values:
Range Domain:
Range Domain Minimum: 218000001
Range Domain Maximum: 218001335

Attribute:
Attribute Label: SPECIES_ID
Attribute Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
  Range Domain Minimum: 1
  Range Domain Maximum: N

Attribute:
  Attribute Label: CONC
  Attribute Definition: The field CONC refers to "concentration," abundance, or density values of a species at a particular location. No quantitative data were available for fish, so the concentration field may contain descriptive terms such as "COMMON" or "PRESENT" or a range of numeric values (e.g., 2000-3000).
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values:
    Unrepresentable Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute Label: SEASON_ID
  Attribute Definition: Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values:
    Range Domain:
      Range Domain Minimum: 1
      Range Domain Maximum: N

Attribute:
  Attribute Label: G_SOURCE
  Attribute Definition: Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values:
    Range Domain:
      Range Domain Minimum: 1
      Range Domain Maximum: N
S_SOURCE

Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Range_Domain:
  Range_Domain_Minimum:
    1
  Range_Domain_Maximum:
    N

Attribute:

Attribute_Label:
  ELEMENT

Attribute_Definition:
  Major categories of biological data.

Attribute_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      BIRD
    Enumerated_Domain_Value_Definition:
      Birds
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      FISH
    Enumerated_Domain_Value_Definition:
      Fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      HABITAT
    Enumerated_Domain_Value_Definition:
      Habitats and plants
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      INVERT
Invertebrates

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

M_MAMMAL

**Enumerated_Domain_Value_Definition:**
Marine mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

REPTILE

**Enumerated_Domain_Value_Definition:**
Reptiles and Amphibians

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

T_MAMMAL

**Enumerated_Domain_Value_Definition:**
Terrestrial mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE

**Attribute_Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

E#####

**Enumerated_Domain_Value_Definition:**
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE_SEA
**Attribute Definition:**
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

*Enumerated Domain:*

*Enumerated Domain Value:*
E############

*Enumerated Domain Value Definition:*
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B000101').

*Enumerated Domain Value Definition Source:*
NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

*Entity Type Label:*
SPECIES

*Entity Type Definition:*
The data table SPECIES identifies all species in the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness_Report for a list of layer specific species.

*Entity Type Definition Source:*
NOAA ESI Guidelines

**Attribute:**

*Attribute Label:*
SPECIES_ID

*Attribute Definition:*
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

*Attribute Definition Source:*
NOAA ESI Guidelines

*Attribute Domain Values:*

*Range Domain:*

*Range Domain Minimum:*
1

*Range Domain Maximum:*
N

**Attribute:**

*Attribute Label:*\nNAME

*Attribute Definition:*
Species common name for the entire ESI data set.

*Attribute Definition Source:*

NOAA ESI Guidelines

**Attribute**

**Attribute Label:**
GEN_SPEC

**Attribute Definition:**
Species scientific name for the entire ESI data set.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

*Unrepresentable Domain:
Acceptable values change from atlas to atlas.*

**Attribute**

**Attribute Label:**
ELEMENT

**Attribute Definition:**
Major categories of biological data.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

*Enumerated Domain:
Enumerated Domain Value:
BIRD

*Enumerated Domain Value Definition:
Birds

*Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

**Attribute Domain Values:**

*Enumerated Domain:
Enumerated Domain Value:
FISH

*Enumerated Domain Value Definition:
Fish

*Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

**Attribute Domain Values:**

*Enumerated Domain:
Enumerated Domain Value:
HABITAT

*Enumerated Domain Value Definition:
Habitats and plants

*Enumerated Domain Value Definition Source:
NOAA ESI Guidelines
INVERT

Enumerated_Domain_Value_Definition:
Invertebrates

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
M_MAMMAL

Enumerated_Domain_Value_Definition:
Marine Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
REPTILE

Enumerated_Domain_Value_Definition:
Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
T_MAMMAL

Enumerated_Domain_Value_Definition:
Terrestrial Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
SUBELEMENT

Attribute_Definition:
Element subgroup delineating a logical grouping of species.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
alligator

Enumerated_Domain_Value_Definition:
Alligator

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: bear

Enumerated_Domain_Value_Definition: Bear
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: bivalve

Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: canine

Enumerated_Domain_Value_Definition: Canine
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: cephalopod

Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: coral

Enumerated_Domain_Value_Definition: Coral
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition:
Crab
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    crayfish
Enumerated_Domain_Value_Definition:
Crayfish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    diadromous
Enumerated_Domain_Value_Definition:
Diadromous fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    diving
Enumerated_Domain_Value_Definition:
Diving bird
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    dolphin
Enumerated_Domain_Value_Definition:
Dolphin
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    e_nursery
Enumerated_Domain_Value_Definition:
Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    e_resident
Enumerated_Domain_Value_Definition:
Estuarine resident fish

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
fav

Enumerated_Domain_Value_Definition:
Floating aquatic vegetation

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
fish

Enumerated_Domain_Value_Definition:
Fish

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
freshwater

Enumerated_Domain_Value_Definition:
Freshwater fish

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
gull_tern

Enumerated_Domain_Value_Definition:
Gull or tern

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
invert

Enumerated_Domain_Value_Definition:
Invertebrate

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
lobster
Enumerated Domain Value Definition: Lobster
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: m_benthic
Enumerated Domain Value Definition: Marine benthic fish
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: m_pelagic
Enumerated Domain Value Definition: Marine pelagic fish
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: manatee
Enumerated Domain Value Definition: Manatee
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: passerine
Enumerated Domain Value Definition: Passerine bird
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: pelagic
Enumerated Domain Value Definition: Pelagic bird
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: plant
Enumerated_Domain_Value_Definition:
  Plant
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      raptor
      Enumerated_Domain_Value_Definition:
        Raptor
        Enumerated_Domain_Value_Definition_Source:
          NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      sav
      Enumerated_Domain_Value_Definition:
        Submerged aquatic vegetation
        Enumerated_Domain_Value_Definition_Source:
          NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      shorebird
    Enumerated_Domain_Value_Definition:
      Shorebird
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      shrimp
    Enumerated_Domain_Value_Definition:
      Shrimp
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      sm_mammal
    Enumerated_Domain_Value_Definition:
      Small mammal
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      snake
Enumerated_Domain_Value_Definition:
Snake

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
turtle

Enumerated_Domain_Value_Definition:
Turtle

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
wading

Enumerated_Domain_Value_Definition:
Wading bird

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
waterfowl

Enumerated_Domain_Value_Definition:
Waterfowl

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
wetland

Enumerated_Domain_Value_Definition:
Wetland

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
NHP

Attribute_Definition:
Natural Heritage Program global ranking.

Attribute_Definition_Source:
Network of Natural Heritage Program

Attribute_Domain_Values:
Codeset_Domain:
Codeset_Name:
NHP Global Conservation Status Rank

Codeset_Source:
Attribute:

**Attribute Label:**
DATE_PUB

**Attribute Definition:**
Date of NHP listing.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    - YYYYMM
  - **Enumerated Domain Value Definition:**
    - YYYY for year and optionally MM for month
  - **Enumerated Domain Value Definition Source:**
    - NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    - 0
  - **Enumerated Domain Value Definition:**
    - Date unspecified
  - **Enumerated Domain Value Definition Source:**
    - NOAA ESI Guidelines

Attribute:
**Attribute Label:**
EL_SPE

**Attribute Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    - E####
  - **Enumerated Domain Value Definition:**
    - Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
  - **Enumerated Domain Value Definition Source:**
    - NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

- **Entity Type Label:**
  - SEASONAL
- **Entity Type Definition:**
  The data table SEASONAL contains information on the seasonal presence of each
species associated with each spatial vector object. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
ELEMENT

**Attribute_Definition:**
Major categories of biological data.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

<table>
<thead>
<tr>
<th>Enumerated_Domain</th>
<th>Enumerated_Domain_Value</th>
<th>Enumerated_Domain_Value_Definition</th>
<th>Enumerated_Domain_Value_Definition_Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIRD</td>
<td>Birds</td>
<td>Birds</td>
<td>NOAA ESI Guidelines</td>
</tr>
<tr>
<td>FISH</td>
<td>Fish</td>
<td>Fish</td>
<td>NOAA ESI Guidelines</td>
</tr>
<tr>
<td>HABITAT</td>
<td>Habitats and plants</td>
<td>Habitats and plants</td>
<td>NOAA ESI Guidelines</td>
</tr>
<tr>
<td>INVERT</td>
<td>Invertebrates</td>
<td>Invertebrates</td>
<td>NOAA ESI Guidelines</td>
</tr>
<tr>
<td>M_MAMMAL</td>
<td>M_MAMMAL</td>
<td>M_MAMMAL</td>
<td></td>
</tr>
</tbody>
</table>
Enumerated Domain Value Definition:
Marine Mammals

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
REPTILE

Enumerated Domain Value Definition:
Reptiles and Amphibians

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
T_MAMMAL

Enumerated Domain Value Definition:
Terrestrial Mammals

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
SPECIES_ID
Attribute Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
Range Domain Minimum:
1
Range Domain Maximum:
N

Attribute:
Attribute Label:
SEASON_ID
Attribute Definition:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
Range Domain Minimum:
1
Range Domain Maximum:
N
Attribute:
  Attribute_Label: JAN
  Attribute_Definition: January
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition: Present in January
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: FEB
  Attribute_Definition: February
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition: Present in February
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: MAR
  Attribute_Definition: March
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition: Present in March
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: APR
**Attribute Definition:**
April

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
X

**Enumerated Domain Value Definition:**
Present in April

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
MAY

**Attribute Definition:**
May

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
X

**Enumerated Domain Value Definition:**
Present in May

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
JUN

**Attribute Definition:**
June

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
X

**Enumerated Domain Value Definition:**
Present in June

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
JUL

**Attribute Definition:**
July

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

X

**Enumerated Domain Value Definition:**

Present in July

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

AUG

**Attribute Definition:**

August

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

X

**Enumerated Domain Value Definition:**

Present in August

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

SEP

**Attribute Definition:**

September

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

X

**Enumerated Domain Value Definition:**

Present in September

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

OCT

**Attribute Definition:**

October

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition: Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
Enumerated Domain Value Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B000101').

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Detailed Description:
Entity Type:
Entity Type Label: BREED
Entity Type Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: EL_SPE_SEA
Attribute Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
E############

Enumerated Domain Value Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B000101').

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: MONTH
Attribute Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
Range Domain Minimum:
**Range Domain Maximum:**
12

**Attribute:**

**Attribute Label:**
BREED1

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    - Y
      **Enumerated Domain Value Definition:**
      Life-history stage or activity present
      **Enumerated Domain Value Definition Source:**
      NOAA ESI Guidelines
  - **Enumerated Domain Value:**
    - N
      **Enumerated Domain Value Definition:**
      Life-history stage or activity not present or not reported
      **Enumerated Domain Value Definition Source:**
      NOAA ESI Guidelines
  - **Enumerated Domain Value:**
    - -
      **Enumerated Domain Value Definition:**
      Breed category not used or not appropriate for record(s) in question
      **Enumerated Domain Value Definition Source:**
      NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
BREED2

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:
  Enumerated Domain Value:
    Y
  Enumerated Domain Value Definition:
    Life-history stage or activity present
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:
  Enumerated Domain Value:
    N
  Enumerated Domain Value Definition:
    Life-history stage or activity not present or not reported
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:
  Enumerated Domain Value:
    -
  Enumerated Domain Value Definition:
    Breed category not used or not appropriate for record(s) in question
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute:

Attribute Label:
  BREED3

Attribute Definition:
  Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute Definition Source:
  NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:
  Enumerated Domain Value:
    Y
  Enumerated Domain Value Definition:
    Life-history stage or activity present
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:
  Enumerated Domain Value:
    N
**Enumerated_Domain_Value_Definition:**
Life-history stage or activity not present or not reported

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**

**Enumerated_Domain_Value:**
-

**Enumerated_Domain_Value_Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**
**Attribute_Label:**
BREED4

**Attribute_Definition:**
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**

**Enumerated_Domain_Value:**
Y

**Enumerated_Domain_Value_Definition:**
Life-history stage or activity present

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**

**Enumerated_Domain_Value:**
N

**Enumerated_Domain_Value_Definition:**
Life-history stage or activity not present or not reported

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**

**Enumerated_Domain_Value:**
-

**Enumerated_Domain_Value_Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**
Attribute Label: 
BREED5

Attribute Definition: 
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

Attribute Definition Source: 
NOAA ESI Guidelines

Attribute Domain Values: 
Enumerated Domain:
  Enumerated Domain Value:
    Y
    Enumerated Domain Value Definition:
      Life-history stage or activity present
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    N
    Enumerated Domain Value Definition:
      Life-history stage or activity not present or not reported
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    -
    Enumerated Domain Value Definition:
      Breed category not used or not appropriate for record(s) in question
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Detailed Description:
Entity Type:
  Entity Type Label: 
    STATUS
  Entity Type Definition:
    The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
  Entity Type Definition Source:
    NOAA ESI Guidelines

Attribute:
  Attribute Label: 
    ELEMENT
  Attribute Definition:
Major categories of biological data.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:** BIRD
  - **Enumerated Domain Value Definition:** Birds
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:** FISH
  - **Enumerated Domain Value Definition:** Fish
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:** HABITAT
  - **Enumerated Domain Value Definition:** Habitats and Plants
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:** INVERT
  - **Enumerated Domain Value Definition:** Invertebrates
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:** M_MAMMAL
  - **Enumerated Domain Value Definition:** Marine Mammals
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:** REPTILE
  - **Enumerated Domain Value Definition:**
Reptiles and Amphibians

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

T_MAMMAL

*Enumerated_Domain_Value_Definition:* Terrestrial Mammals

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:** SPECIES_ID

**Attribute_Definition:** Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

*Attribute_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:** 1

**Range_Domain_Maximum:** N

**Attribute:**

**Attribute_Label:** STATE

**Attribute_Definition:** Two-letter state abbreviation.

*Attribute_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:** COUNTRY

**Attribute_Definition:** Three-letter country abbreviation.

*Attribute_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:** S
Attribute Definition:
State threatened or endangered status.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
E

Enumerated Domain Value Definition:
Endangered on state list

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
T

Enumerated Domain Value Definition:
Threatened on state list

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
C

Enumerated Domain Value Definition:
Species of Special Concern

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
F

Attribute Definition:
Federal threatened or endangered status.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
E

Enumerated Domain Value Definition:
Endangered on federal list

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
T

Enumerated Domain Value Definition:
Threatened on federal list

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
C

Enumerated_Domain_Value_Definition:
Species of Special Concern

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
I

Attribute_Definition:
International threatened or endangered status.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
E

Enumerated_Domain_Value_Definition:
Endangered on international list

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
T

Enumerated_Domain_Value_Definition:
Threatened on international list

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
C

Enumerated_Domain_Value_Definition:
Species of Special Concern

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
S_DATE

Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value: YYYYMM
    Enumerated Domain Value Definition: YYYY for year and optionally MM for month
    Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
  Attribute Label: F_DATE
  Attribute Definition: Publication date of source material used to assign federal status values for each species, if used.
  Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value: YYYYMM
    Enumerated Domain Value Definition: YYYY for year and optionally MM for month
    Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
  Attribute Label: I_DATE
  Attribute Definition: Publication date of source material used to assign international status values for each species, if used.
  Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value: YYYYMM
    Enumerated Domain Value Definition: YYYY for year and optionally MM for month
    Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
  Attribute Label: EL_SPE
  Attribute Definition: Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.
**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
E#####

**Enumerated Domain Value Definition:**
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

**Entity Type Label:** SOURCES

**Entity Type Definition:**
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:** SOURCE_ID

**Attribute Definition:**
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:** 1

**Range Domain Maximum:** N

**Attribute:**

**Attribute Label:** ORIGINATOR

**Attribute Definition:**
Author or developer of source material or data set.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
Unrepresentable_Domain:
   Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label: DATE_PUB
   Attribute_Definition: Date of source material, publication, or date of personal communication with expert source.
   Attribute_Definition_Source: NOAA ESI Guidelines
   Attribute_Domain_Values:
      Enumerated_Domain:
         Enumerated_Domain_Value: YYYYMM
         Enumerated_Domain_Value_Definition: YYYYY for year and optionally MM for month
         Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
   Attribute_Label: TITLE
   Attribute_Definition: Title of source material or data.
   Attribute_Definition_Source: NOAA ESI Guidelines
   Attribute_Domain_Values:
      Unrepresentable_Domain:
         Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label: DATA_FORMAT
   Attribute_Definition: The format of the source material.
   Attribute_Definition_Source: NOAA ESI Guidelines
   Attribute_Domain_Values:
      Unrepresentable_Domain:
         Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label: PUB_PLACE
   Attribute_Definition: Publication place.
   Attribute_Definition_Source: NOAA ESI Guidelines
   Attribute_Domain_Values:
      Unrepresentable_Domain:
         Acceptable values change from atlas to atlas.
Attribute:
  Attribute_Label: PUBLISHER
  Attribute_Definition: Publisher.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: PUBLICATION
  Attribute_Definition: Additional citation information.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: ONLINE_LINK
  Attribute_Definition: Online computer resource URL.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: SCALE
  Attribute_Definition: Description of the source scale.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: TIME_PERIOD
  Attribute_Definition: Date(s) of data collection that the source material is based upon.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, FISH) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables (described in the Detailed_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed_Description section.

Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).
Distribution Information:

Distributor:

Contact Information:

Contact Person Primary:

Contact Person:

ESI Manager

Contact Organization:

NOAA, Office of Response and Restoration

Contact Address:

Address Type:

Physical Address

Address:

7600 Sand Point Way N.E.

City:

Seattle

State or Province:

Washington

Postal Code:

98115-6349

Contact Voice Telephone:

(206) 526-6944

Contact Facsimile Telephone:

(206) 526-6329

Contact Electronic Mail Address:

orr.esi@noaa.gov

Resource Description:

Downloadable Data

Distribution Liability:

These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource

Standard Order Process:

Digital Form:

Digital Transfer Information:

Format Name:

Multiple formats

Digital Transfer Option:

Online Option:

Computer Contact Information:

Network Address:

Network Resource Name:

http://response.restoration.noaa.gov/esi_download
Fees:
None

Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

Metadata_Reference_Information:
Metadata_Date:
20140609

Metadata_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person:
ESI Manager
Contact_Organization:
NOAA, Office of Response and Restoration
Contact_Position:
GIS Manager
Contact_Address:
Address_Type:
Physical Address
Address:
7600 Sand Point Way, N.E.
City:
Seattle
State_or_Province:
Washington
Postal_Code:
98115-6349
Contact_Voice_Telephone:
(206) 526-6944
Contact_Facsimile_Telephone:
(206) 526-6329
Contact_Electronic_Mail_Address:
orr.esi@noaa.gov

Metadata_Standard_Name:
Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version:
FGDC-STD-001-1998
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: INVERT (Invertebrate Polygons)

Metadata:

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

Identification Information:

Citation:

Citation Information:

Originator:


Originator:


Originator:

Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

Publication Date:

201208

Title:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: INVERT (Invertebrate Polygons)

Edition:

Second

Geospatial Data Presentation Form:

vector digital data

Series Information:

Series Name:

Florida Panhandle ESI

Issue Identification:

Florida Panhandle

Publication Information:

Publication Place:

Seattle, Washington
This data set contains sensitive biological resource data for marine, estuarine, and freshwater (limited to threatened/endangered/rare) invertebrate species for the Florida Panhandle. Vector polygons in this data set represent invertebrate distribution and concentration areas. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the INVERTPT (Invertebrate Points) data layer, part of the larger Florida Panhandle ESI database, for additional invertebrate information.

The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

The data were compiled during 2010-2012. The currentness dates for the data range from 1985 to 2012 and are documented in the Lineage section.

Status:
Progress: Complete
Maintenance and Update Frequency: None Scheduled
Spatial Domain:
Bounding Coordinates:
West_BoundingCoordinate: -87.62500
East_BoundingCoordinate: -83.68400
North_BoundingCoordinate: 30.74700
South_BoundingCoordinate: 28.27700

Keywords:
Theme:
Theme_Keyword_Thesaurus:
ISO 19115 Topic Category
Theme_Keyword:
biota
Theme_Keyword:
environment

Theme:
Theme_Keyword_Thesaurus:
None
Theme_Keyword:
Environmental Monitoring
Theme_Keyword:
ESI
Theme_Keyword:
Sensitivity maps
Theme_Keyword:
Coastal resources
Theme_Keyword:
Oil spill planning
Theme_Keyword:
Coastal Zone Management
Theme_Keyword:
Wildlife
Theme_Keyword:
Invertebrate

Theme:
Theme_Keyword_Thesaurus:
NOS Data Explorer Topic Category
Theme_Keyword:
Environmental Monitoring

Place:
Place_Keyword_Thesaurus:
None
Place_Keyword:
Florida Panhandle

Access_Constraints:
None
Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

**Browse Graphic:**

---

**Browse Graphic File Name:**


**Browse Graphic File Description:**
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

**Browse Graphic File Type:**
JPEG

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**Browse Graphic:**

---

**Browse Graphic File Name:**


**Browse Graphic File Description:**
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

**Browse Graphic File Type:**
JPEG

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**Data Set Credit:**
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C. and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

**Native Data Set Environment:**
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.
Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:
A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical_Consistency_Report:
A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary node, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new IDs are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resources at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

Completeness_Report:
These data represent a synthesis of expert knowledge, available hardcopy documents, survey data, maps, and digital data on invertebrate distribution and concentration areas. See also the INVERTPT (Invertebrate Points) data layer, part of the larger Florida Panhandle ESI database, for additional invertebrate information. These data do not necessarily represent all invertebrate occurrences in the Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 4, Pink shrimp, Penaeus duorarum; 30, Octopus, Octopus spp.; 41, Bay scallop, Argopecten irradians; 43, Eastern oyster, Crassostrea virginica; 44, Horseshoe crab, Limulus polyphemus; 49, Blue crab, Callinectes sapidus; 50, White shrimp, Penaeus setiferus; 51, Brown shrimp, Penaeus aztecus; 72, Caribbean spiny lobster, Panulirus argus; 82, Atlantic rangia, Rangia cuneata; 96, Atlantic ghost crab, Ocypode quadrata; 99, Speckled swimming crab, Emerita talpoida; 100, Quahog, Mercenaria spp.; 119, Bay squid, Lolliguncula brevis; 120, Gulf stone crab, Menippe adina; 288, Florida stone crab, Menippe mercenaria; 289, Daggerblade grass shrimp, Palaemonetes pugio; 444, Atlantic sand crab, Emerita benedicti; 604, Purple bankclimber, Elliptoideus sloatianus; 605, Fat three ridge, Amblema neislerii; 606, Gulf moccasinshell, Medionidus penicillatus; 607, Oval pigtoe, Pleurobema pyriforme; 609, Spotted spiny lobster, Panulirus guttatus; 611, Benedict sand crab, Emerita benedicti; 612, Round ebonyshell, Fusconaia rotulata; 613, Southern sandshell,
Hamiota australis; 614, Southern kidneyshell, Ptychobranchus jonesi; 615, Choctaw bean, Villosa choctawensis; 616, Narrow pigtoe, Fusconaia escambia; 618, Fuzzy pigtoe, Pleurobema strodeanum; 1062, Sand crabs, Emerita spp..

**Positional Accuracy:**

**Horizontal Positional Accuracy:**

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

**Lineage:**

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

ALEXANDER, S., FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FL DEP)

**Publication Date:**

2011

**Title:**

AQUATIC PRESERVE RESOURCES

**Geospatial Data Presentation Form:**

EXPERT KNOWLEDGE

**Other Citation Details:**

UNPUBLISHED

**Type of Source Media:**

PERSONAL COMMUNICATION

**Source Time Period of Content:**

**Time Period Information:**

**Single Date/Time:**

Calendar Date:

2011

**Source Currentness Reference:**

DATE OF COMMUNICATION

**Source Citation Abbreviation:**

Src_0

**Source Contribution:**

INVERT INFORMATION

**Source Information:**

**Source Citation:**
FTP SITE
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
   Calendar_Date:
     2011
Source_Currentness_Reference:
   DATE OF COMMUNICATION
Source_Citation_Abbreviation:
   Src_2
Source_Contribution:
   INVERT INFORMATION
Source_Information:
Source_Citation:
   Citation_Information:
     Originator:
       FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)
     Publication_Date:
       2011
   Title:
       HORSESHOE CRAB SPAWNING BEACH SURVEY RESULTS
   Geospatial_Data_Presentation_Form:
       map
   Online_Linkage:
Type_of_Source_Media:
   online
Source_Time_Period_of_Content:
Time_Period_Information:
   Single_Date/Time:
     Calendar_Date:
       2011
Source_Currentness_Reference:
   DATE OF SURVEY
Source_Citation_Abbreviation:
   Src_3
Source_Contribution:
   INVERT INFORMATION
Source_Information:
Source_Citation:
   Citation_Information:
     Originator:
       FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
       - FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
     Publication_Date:
       1990
Source Information:
Source Citation:
Citation Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
Publication Date:
2011
Title:
DISTRIBUTION AND ABUNDANCE DATA FOR BAY SCALLOP
Geospatial Data Presentation Form:
vector digital data
Other Citation Details:
UNPUBLISHED
Type of Source Media:
ftp site
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2011
Source Currentness Reference:
DATE OF COMMUNICATION
Source Citation Abbreviation:
Src_6
Source Contribution:
INVERT INFORMATION
Source Information:
Source Citation:
Citation Information:
Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
Publication Date:
2011
Title:
MARINE FISHERIES TRIP TICKET AREA CODES GDB
Geospatial Data Presentation Form:
vector digital data
Other Citation Details:
UNPUBLISHED
Type of Source Media:
FTP SITE
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2011
Source_Citation_Abbreviation: Src_7
Source_Contribution: INVERT INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
GEIGER, S., FWC-FWRI (FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION-FISH AND WILDLIFE RESEARCH INSTITUTE)
Publication_Date: 2011
Title: SEASONALITY DATA FOR FLORIDA PANHANDLE INVERTS
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2011
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: Src_8
Source_Contribution: INVERT INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
HARVEY, A. (BIG LAGOON STATE PARK)
Publication_Date: 2011
Title: STATE PARK RESOURCES FOR FLORIDA PANHANDLE
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media:
PERSONAL COMMUNICATION

Source Time Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:

2011

Source Currentness Reference:

DATE OF COMMUNICATION

Source Citation_Abbreviation:

Src_9

Source Contribution:

INVERT INFORMATION

Source Information:

Source Citation:

Citation Information:

Originator:

MATHESON, E. AND R. KNUDSEN, FWC-FWRI (FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION-FISH AND WILDLIFE RESEARCH INSTITUTE)

Publication_Date:

2011

Title:

DISTRIBUTION AND SEASONALITY FOR FISH AND INVERTS IN GULF OF MEXICO AND FL PANHANDLE BAYS

Geospatial_Data_Presentation_Form:

EXPERT KNOWLEDGE

Other_Citation_Details:

EXPERT KNOWLEDGE BASED ON NUMEROUS PUBLISHED DOCUMENTS

Type_of_Source_Media:

EMAIL

Source Time Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:

2011

Source Currentness Reference:

DATE OF COMMUNICATION

Source Citation_Abbreviation:

Src_10

Source Contribution:

INVERT INFORMATION

Source Information:

Source Citation:

Citation Information:

Originator:

NICHOLAS, M., NATIONAL PARK SERVICE, GULF ISLANDS NATIONAL SEASHORE
INVERT INFORMATION

Source Information:

Source Citation:

Citation Information:

Originator:

REINMAN, JOSEPH (USFWS)

Publication Date:

2011

Title:

ST. MARKS NATIONAL WILDLIFE REFUGE RESOURCES

Geospatial Data Presentation Form:

EXPERT KNOWLEDGE

Other Citation Details:

UNPUBLISHED

Type of Source Media:

PERSONAL COMMUNICATION

Source Time Period of Content:

Time Period Information:

Single Date/Time:

Calendar Date:

2011

Source Currentness Reference:

DATE OF COMMUNICATION

Source Citation Abbreviation:

Src 13

Source Contribution:

INVERT INFORMATION

Source Information:

Source Citation:

Citation Information:

Originator:

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FL DEP), FLORIDA MARINE RESEARCH INSTITUTE (FMRI), 100 Eighth Avenue S.E., St. Petersburg, Florida 33701; and Research Planning, Inc., 1121 Park Street, Post Office Box 328, Columbia, South Carolina, 29202

Publication Date:

199605

Title:

SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE TO SPILLED OIL: WEST PENINSULAR FLORIDA VOLUME 1: INVERT

Geospatial Data Presentation Form:

vector digital data

Publication Information:

Publication Place:

ST. PETERSBURG, FLORIDA

Publisher:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), FLORIDA MARINE RESEARCH INSTITUTE (FMRI)

Other_Citation_Details:
PREPARED BY: RESEARCH PLANNING, INC, COLUMBIA, SOUTH CAROLINA FOR THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), FLORIDA MARINE RESEARCH INSTITUTE (FMRI)

Source_Scale_Denominator:
24000

Type_of_Source_Media:
FTP SITE

Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
1996

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_14

Source_Contribution:
INVERT INFORMATION

Source_Information:
Source_Citation:
Citation_Information:
Originator:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), FLORIDA MARINE RESEARCH INSTITUTE (FMRI), 100 Eighth Avenue S.E., St. Petersburg, Florida 33701; and Research Planning, Inc., 1121 Park Street, Post Office Box 328, Columbia, South Carolina, 29202

Publication_Date:
1996

Title:
SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE TO SPILLED OIL: WEST PENINSULAR FLORIDA VOLUME 1: INVERT

Geospatial_Data_Presentation_Form:
vector digital data

Publication_Information:
Publication Place:
ST. PETERSBURG, FLORIDA

Publisher:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), FLORIDA MARINE RESEARCH INSTITUTE (FMRI)

Other_Citation_Details:
PREPARED BY: RESEARCH PLANNING, INC, COLUMBIA, SOUTH CAROLINA FOR THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), FLORIDA MARINE RESEARCH INSTITUTE (FMRI)

Source Scale Denominator: 24000

Type of Source Media: CD-ROM

Source Time Period of Content:
  Time Period Information:
    Single Date/Time:
      Calendar Date: 1996

Source Currentness Reference: DATE OF PUBLICATION

Source Citation Abbreviation: Src_15

Source Contribution: INVERT INFORMATION

Source Information:
  Source Citation:
    Citation Information:
      Originator: U.S. FISH AND WILDLIFE SERVICE (USFWS)
      Publication Date: 2011
      Title: 8 MUSSELS POTENTIAL CRITICAL HABITAT
    Geospatial Data Presentation Form: vector digital data
    Publication Information:
      Publication Place: ATLANTA, GA
      Publisher: USFWS

Type of Source Media: disc

Source Time Period of Content:
  Time Period Information:
    Single Date/Time:
      Calendar Date: 2011

Source Currentness Reference: DATE OF PUBLICATION

Source Citation Abbreviation: Src_16

Source Contribution: INVERT INFORMATION
Three main sources of data were used to depict invert distribution and seasonality for this data layer: 1) personal interviews with resource experts from: Big Lagoon State Park, Gulf Islands National Seashore (NPS), the U.S. Fish and Wildlife Service (USFWS), St. Marks National Wildlife Refuge (USFWS), Florida Fish and Wildlife Conservation Commission-Fish and Wildlife Research Institute (FWC-FWRI), Florida Department of Environmental Protection (DEP), and University of South Florida (USF); 2) digital data sets and survey data provided by: NOAA, FWC-FWRI, USFWS, Florida Natural Areas Inventory (FNAI); and 3) published and unpublished documents. The above digital and/or hardcopy sources were compiled by the project biologist to create the INVERT data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the
Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the INVERT data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

**Process Date:**
201208

**Process Contact:**
**Contact Information:**

- **Contact Organization Primary:**
  - **Contact Organization:** NOAA, Office of Response and Restoration
- **Contact Person:**
  - ESI Manager
- **Contact Address:**
  - **Address Type:** Physical address
  - **Address:** 7600 Sand Point Way, N.E.
  - **City:** Seattle
  - **State or Province:** Washington
  - **Postal Code:** 98115-6349
- **Contact Voice Telephone:**
  - (206) 526-6944
- **Contact Facsimile Telephone:**
  - (206) 526-6329
- **Contact Electronic Mail Address:**
  - orr.esi@noaa.gov

**Spatial Data Organization Information:**

- **Direct Spatial Reference Method:** Vector

**Point and Vector Object Information:**

- **SDTS Terms Description:**
  - **SDTS Point and Vector Object Type:** GT-polygon composed of chains
  - **Point and Vector Object Count:** 4792

- **SDTS Terms Description:**
  - **SDTS Point and Vector Object Type:** Area point
Point_and_Vector_Object_Count:
4793
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
  Complete chain
Point_and_Vector_Object_Count:
44665
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
  Link
Point_and_Vector_Object_Count:
981993
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
  Node, planar graph
Point_and_Vector_Object_Count:
43089

Spatial_Reference_Information:
  Horizontal_Coordinate_System_Definition:
    Geographic:
      Latitude_Resolution:
        0.0000001
      Longitude_Resolution:
        0.0000001
    Geographic_Coordinate_Units:
      Decimal degrees
  Geodetic_Model:
    Horizontal_Datum_Name:
      North American Datum of 1983
    Ellipsoid_Name:
      Geodetic Reference System 80
    Semi-major_Axis:
      6378137.000000
    Denominator_of_Flattening_Ratio:
      298.257222

Entity_and_Attribute_Information:
  Detailed_Description:
    Entity_Type:
      Entity_Type_Label:
        INVERT.PAT
      Entity_Type_Definition:
The INVERT.PAT table contains attribute information for the vector polygons in this data set representing invertebrate distribution and concentration areas. Note that all attribute information is stored in a series of relational files, described below. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
ID

**Attribute Definition:**
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (7), and record number. ID values of 9999 are holes in polygons and do not contain information.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**
2180700002

**Range Domain Maximum:**
2180707126

**Attribute:**

**Attribute Label:**
RARNUM

**Attribute Definition:**
An identifier that links directly to the BIORES table or the flat format BIOFILE table. RARNUM values of 0 are holes in the polygons and do not contain information.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**
218001080

**Range Domain Maximum:**
218001246

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**
BIO_LUT

**Entity Type Definition:**
The data table BIO_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
**Attribute**: 

**Attribute Label**: RARNUM  

**Attribute Definition**: 
An identifier that links records in the BIO_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information. 

**Attribute Definition Source**: NOAA  

**Attribute Domain Values**:  

*Range Domain*:  

**Range Domain Minimum**: 218000001  

**Range Domain Maximum**: 218001335  

**Attribute**:  

**Attribute Label**: ID  

**Attribute Definition**: 
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (7), and record number. ID values of 9999 are holes in polygons and do not contain information. 

**Attribute Definition Source**: NOAA  

**Attribute Domain Values**:  

*Range Domain*:  

**Range Domain Minimum**: 218010002  

**Range Domain Maximum**: 2183700142  

**Detailed Description**:  

**Entity Type**:  

**Entity Type Label**: BIORES  

**Entity Type Definition**: 
The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. 

**Entity Type Definition Source**: NOAA ESI Guidelines  

**Attribute**: 

**Attribute Label**: RARNUM
**Attribute Definition:**
An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 218000001
- **Range Domain Maximum:** 218001335

**Attribute:**

**Attribute Label:** SPECIES_ID

**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Range Domain:**
  - **Range Domain Minimum:** 1
  - **Range Domain Maximum:** N

**Attribute:**

**Attribute Label:** CONC

**Attribute Definition:**
The field CONC refers to "concentration," abundance, or density values of a species at a particular location. No quantitative data were available for invertebrates, so the concentration may contain descriptive terms such as "ABUNDANT" or "PRESENT" were used to describe the relative abundance of particular invertebrate species at specific locations.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Unrepresentable Domain:** Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:** SEASON_ID

**Attribute Definition:**
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
Range_Domain:
  Range_Domain_Minimum:
    1
  Range_Domain_Maximum:
    N

Attribute:
  Attribute_Label:
    G_SOURCE
  Attribute_Definition:
    Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum:
        1
      Range_Domain_Maximum:
        N

Attribute:
  Attribute_Label:
    S_SOURCE
  Attribute_Definition:
    Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum:
        1
      Range_Domain_Maximum:
        N

Attribute:
  Attribute_Label:
    ELEMENT
  Attribute_Definition:
    Major categories of biological data.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        BIRD
      Enumerated_Domain_Value_Definition:
        Birds
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines
Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: FISH

Enumerated Domain Value Definition: Fish

Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: HABITAT

Enumerated Domain Value Definition: Habitats and plants

Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: INVERT

Enumerated Domain Value Definition: Invertebrates

Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: M_MAMMAL

Enumerated Domain Value Definition: Marine mammals

Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: REPTILE

Enumerated Domain Value Definition: Reptiles and Amphibians

Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: T_MAMMAL

Enumerated Domain Value Definition: Terrestrial mammals

Enumerated Domain Value Definition Source: NOAA ESI Guidelines
**Attribute:**

**Attribute_Label:**
EL_SPE

**Attribute_Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
E####

**Enumerated_Domain_Value_Definition:**
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE_SEA

**Attribute_Definition:**
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
E####

**Enumerated_Domain_Value_Definition:**
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**
SPECIES

**Entity_Type_Definition:**
The data table SPECIES identifies all species in the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness Report for list of layer specific species.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

Attribute:
  Attribute_Label: SPECIES_ID
  Attribute_Definition: Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 1
      Range_Domain_Maximum: N

Attribute:
  Attribute_Label: NAME
  Attribute_Definition: Species common name for the entire ESI data set.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: GEN_SPEC
  Attribute_Definition: Species scientific name for the entire ESI data set.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: ELEMENT
  Attribute_Definition: Major categories of biological data.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: BIRD
      Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
FISH
Enumerated_Domain_Value_Definition:
Fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
HABITAT
Enumerated_Domain_Value_Definition:
Habitats and plants
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
INVERT
Enumerated_Domain_Value_Definition:
Invertebrates
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
M_MAMMAL
Enumerated_Domain_Value_Definition:
Marine Mammals
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
REPTILE
Enumerated_Domain_Value_Definition:
Reptiles and Amphibians
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
T_MAMMAL
Enumerated_Domain_Value_Definition:
Terrestrial Mammals
**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
SUBELEMENT

**Attribute_Definition:**
Element subgroup delineating a logical grouping of species.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- alligator

**Enumerated_Domain_Value_Definition:**
Alligator

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- amphibian

**Enumerated_Domain_Value_Definition:**
Amphibian

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- bear

**Enumerated_Domain_Value_Definition:**
Bear

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- bivalve

**Enumerated_Domain_Value_Definition:**
Bivalve

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- canine

**Enumerated_Domain_Value_Definition:**
Canine

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- cephalopod

**Enumerated_Domain_Value_Definition:**
- Cephalopod

**Enumerated_Domain_Value_Definition_Source:**
- NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- coral

**Enumerated_Domain_Value_Definition:**
- Coral

**Enumerated_Domain_Value_Definition_Source:**
- NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- crab

**Enumerated_Domain_Value_Definition:**
- Crab

**Enumerated_Domain_Value_Definition_Source:**
- NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- crayfish

**Enumerated_Domain_Value_Definition:**
- Crayfish

**Enumerated_Domain_Value_Definition_Source:**
- NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- diadromous

**Enumerated_Domain_Value_Definition:**
- Diadromous fish

**Enumerated_Domain_Value_Definition_Source:**
- NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- diving

**Enumerated_Domain_Value_Definition:**
- Diving bird

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

dolphin

**Enumerated_Domain_Value_Definition:**

Dolphin

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

e_nursery

**Enumerated_Domain_Value_Definition:**

Estuarine nursery fish

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

e_resident

**Enumerated_Domain_Value_Definition:**

Estuarine resident fish

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

fav

**Enumerated_Domain_Value_Definition:**

Floating aquatic vegetation

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

fish

**Enumerated_Domain_Value_Definition:**

Fish

**Enumerated_Domain_Value_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

freshwater

**Enumerated_Domain_Value_Definition:**

Freshwater fish

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
gull_tern
  Enumerated_Domain_Value_Definition:
    Gull or tern
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
invert
  Enumerated_Domain_Value_Definition:
    Invertebrate
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
  lobster
  Enumerated_Domain_Value_Definition:
    Lobster
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
m_benthic
  Enumerated_Domain_Value_Definition:
    Marine benthic fish
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
m_pelagic
  Enumerated_Domain_Value_Definition:
    Marine pelagic fish
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
  manatee
  Enumerated_Domain_Value_Definition:
    Manatee
  Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    passerine
    Enumerated_Domain_Value_Definition:
      Passerine bird
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    pelagic
    Enumerated_Domain_Value_Definition:
      Pelagic bird
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    plant
    Enumerated_Domain_Value_Definition:
      Plant
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    raptor
    Enumerated_Domain_Value_Definition:
      Raptor
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    sav
    Enumerated_Domain_Value_Definition:
      Submerged aquatic vegetation
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    shorebird
    Enumerated_Domain_Value_Definition:
      Shorebird
    Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
    shrimp
Enumerated_Domain_Value_Definition:
    Shrimp
Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
    sm_mammal
Enumerated_Domain_Value_Definition:
    Small mammal
Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
    snake
Enumerated_Domain_Value_Definition:
    Snake
Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
    turtle
Enumerated_Domain_Value_Definition:
    Turtle
Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
    wading
Enumerated_Domain_Value_Definition:
    Wading bird
Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
    waterfowl
Enumerated_Domain_Value_Definition:
    Waterfowl
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    wetland
Enumerated Domain Value Definition:
  Wetland
Enumerated Domain Value Definition Source:
  NOAA ESI Guidelines

Attribute:
Attribute Label:
  NHP
Attribute Definition:
  Natural Heritage Program global ranking.
Attribute Definition Source:
  Network of Natural Heritage Program
Attribute Domain Values:
  Codeset Domain:
    Codeset Name:
      NHP Global Conservation Status Rank
    Codeset Source:
      Natural Heritage Program

Attribute:
Attribute Label:
  DATE_PUB
Attribute Definition:
  Date of NHP listing.
Attribute Definition Source:
  NOAA ESI Guidelines
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      YYYYMM
    Enumerated Domain Value Definition:
      YYYY for year and optionally MM for month
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      0
    Enumerated Domain Value Definition:
      Date unspecified
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute:
Attribute Label:
  EL_SPE
**Attribute Definition:**

Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

E####

**Enumerated Domain Value Definition:**

Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001')

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

---

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**

SEASONAL

**Entity Type Definition:**

The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

ELEMENT

**Attribute Definition:**

Major categories of biological data.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

BIRD

**Enumerated Domain Value Definition:**

Birds

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

FISH

**Enumerated Domain Value Definition:**

Fish

**Enumerated Domain Value Definition Source:**

Florida Panhandle ESI: INVERT
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

HABITAT

**Enumerated Domain Value Definition:**

Habitats and plants

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

INVERT

**Enumerated Domain Value Definition:**

Invertebrates

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

M_MAMMAL

**Enumerated Domain Value Definition:**

Marine Mammals

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

REPTILE

**Enumerated Domain Value Definition:**

Reptiles and Amphibians

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

T_MAMMAL

**Enumerated Domain Value Definition:**

Terrestrial Mammals

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

SPECIES_ID

**Attribute Definition:**

Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.

**Attribute Definition Source:**

...
NOAA ESI Guidelines

Attribute Domain Values:

Range Domain:
  Range Domain Minimum:
    1
  Range Domain Maximum:
    N

Attribute:
  Attribute Label:
    SEASON_ID
  Attribute Definition:
    Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Range Domain:
    Range Domain Minimum:
      1
    Range Domain Maximum:
      N

Attribute:
  Attribute Label:
    JAN
  Attribute Definition:
    January
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      X
    Enumerated Domain Value Definition:
      Present in January
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute:
  Attribute Label:
    FEB
  Attribute Definition:
    February
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      X
    Enumerated Domain Value Definition:
Present in February

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    MAR
  Attribute_Definition:
    March
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in March
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    APR
  Attribute_Definition:
    April
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in April
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    MAY
  Attribute_Definition:
    May
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in May
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines
Attribute:
  Attribute_Label: JUN
  Attribute_Definition: June
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition: Present in June
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: JUL
  Attribute_Definition: July
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition: Present in July
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: AUG
  Attribute_Definition: August
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition: Present in August
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: SEP
**Attribute Definition:**
- September

**Attribute Definition Source:**
- NOAA ESI Guidelines

**Attribute Domain Values:**
- Enumerated Domain
  - Enumerated Domain Value: X

**Enumerated Domain Value Definition:**
- Present in September

**Enumerated Domain Value Definition Source:**
- NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** OCT

**Attribute Definition:**
- October

**Attribute Definition Source:**
- NOAA ESI Guidelines

**Attribute Domain Values:**
- Enumerated Domain
  - Enumerated Domain Value: X

**Enumerated Domain Value Definition:**
- Present in October

**Enumerated Domain Value Definition Source:**
- NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** NOV

**Attribute Definition:**
- November

**Attribute Definition Source:**
- NOAA ESI Guidelines

**Attribute Domain Values:**
- Enumerated Domain
  - Enumerated Domain Value: X

**Enumerated Domain Value Definition:**
- Present in November

**Enumerated Domain Value Definition Source:**
- NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** DEC

**Attribute Definition:**
- December

**Attribute Definition Source:**
- NOAA ESI Guidelines (Florida Panhandle ESI: INVERT)
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:

X

Enumerated Domain Value Definition:
Present in December

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:

EL_SPE_SEA

Attribute Definition:

Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:

E#######

Enumerated Domain Value Definition:

Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Detailed Description:

Entity Type:

Entity Type Label:

BREED

Entity Type Definition:

The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.

Entity Type Definition Source:

NOAA ESI Guidelines

Attribute:

Attribute Label:

EL_SPE_SEA

Attribute Definition:

Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute Domain Values:
Enumerated_Domain:

Enumerated_Domain_Value:

E######

Enumerated_Domain_Value_Definition:

Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines

Attribute:

Attribute_Label:

MONTH

Attribute_Definition:

Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.

Attribute_Definition_Source:

NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum:

1

Range_Domain_Maximum:

12

Attribute:

Attribute_Label:

BREED1

Attribute_Definition:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

Attribute_Definition_Source:

NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

Y

Enumerated_Domain_Value_Definition:

Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

N

Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
-

Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
BREED2
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
Y
Enumerated_Domain_Value_Definition:
Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
N
Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
-

Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
BREED3

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
Enumerated Domain Value Definition:
Life-history stage or activity present
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
N
Enumerated Domain Value Definition:
Life-history stage or activity not present or not reported
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
-
Enumerated Domain Value Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
BREED4

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
**Enumerated Domain Value Definition:**
Life-history stage or activity present

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
**Enumerated Domain:**

**Enumerated Domain Value:**

**N**

**Enumerated Domain Value Definition:**
Life-history stage or activity not present or not reported

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
**Enumerated Domain:**

**Enumerated Domain Value:**

**-**

**Enumerated Domain Value Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
BREED5

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
**Enumerated Domain:**

**Enumerated Domain Value:**

**Y**

**Enumerated Domain Value Definition:**
Life-history stage or activity present

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
**Enumerated Domain:**

**Enumerated Domain Value:**

**N**

**Enumerated Domain Value Definition:**
Life-history stage or activity not present or not reported

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
**Enumerated Domain:**
Enumerated_Domain_Value: 

- 

Enumerated_Domain_Value_Definition: 
Breed category not used or not appropriate for record(s) in question 

Enumerated_Domain_Value_Definition_Source: 
NOAA ESI Guidelines

Detailed_Description: 
Entity_Type: 

Entity_Type_Label: 
STATUS 

Entity_Type_Definition: 
The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. 

Entity_Type_Definition_Source: 
NOAA ESI Guidelines

Attribute: 

Attribute_Label: 
ELEMENT 

Attribute_Definition: 
Major categories of biological data. 

Attribute_Definition_Source: 
NOAA ESI Guidelines 

Attribute_Domain_Values: 

Enumerated_Domain: 

Enumerated_Domain_Value: 
BIRD 

Enumerated_Domain_Value_Definition: 
Birds 

Enumerated_Domain_Value_Definition_Source: 
NOAA ESI Guidelines 

Attribute_Domain_Values: 

Enumerated_Domain: 

Enumerated_Domain_Value: 
FISH 

Enumerated_Domain_Value_Definition: 
Fish 

Enumerated_Domain_Value_Definition_Source: 
NOAA ESI Guidelines 

Attribute_Domain_Values: 

Enumerated_Domain: 

Enumerated_Domain_Value: 
HABITAT 

Enumerated_Domain_Value_Definition: 
Habitats and Plants 

Enumerated_Domain_Value_Definition_Source: 
NOAA ESI Guidelines
**Attribute**

**Attribute Label:** SPECIES_ID

**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**
1

**Range Domain Maximum:**
N
STATE
Attribute_Definition:
Two-letter state abbreviation.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
COUNTRY
Attribute_Definition:
Three-letter country abbreviation.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
S
Attribute_Definition:
State threatened or endangered status.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
E
Enumerated_Domain_Value_Definition:
Endangered on state list
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
T
Enumerated_Domain_Value_Definition:
Threatened on state list
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
C
Enumerated_Domain_Value_Definition:
Species of Special Concern
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
  Attribute_Label: F
  Attribute_Definition: Federal threatened or endangered status.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: E
      Enumerated_Domain_Value_Definition: Endangered on federal list
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: T
      Enumerated_Domain_Value_Definition: Threatened on federal list
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: C
      Enumerated_Domain_Value_Definition: Species of Special Concern
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: I
  Attribute_Definition: International threatened or endangered status.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: E
      Enumerated_Domain_Value_Definition: Endangered on international list
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
Enumerated Domain:
Enumerated Domain Value:
T
Enumerated Domain Value Definition:
Threatened on international list
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
C
Enumerated Domain Value Definition:
Species of Special Concern
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
S_DATE
Attribute Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute Definition Source:
NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
YYYYMM
Enumerated Domain Value Definition:
YYYY for year and optionally MM for month
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
F_DATE
Attribute Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute Definition Source:
NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
YYYYMM
Enumerated Domain Value Definition:
YYYY for year and optionally MM for month
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
**Attribute**

**Attribute Label:**
I_DATE

**Attribute Definition:**
Publication date of source material used to assign international status values for each species, if used.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:** YYYYMM
  - **Enumerated Domain Value Definition:** YYYY for year and optionally MM for month
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute**

**Attribute Label:**
EL_SPE

**Attribute Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:** E####
  - **Enumerated Domain Value Definition:** Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Detailed Description:**

- **Entity Type:** SOURCES

**Entity Type Label:** SOURCES

**Entity Type Definition:**
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:** NOAA ESI Guidelines

**Attribute:**

**Attribute Label:** SOURCE_ID

**Attribute Definition:**
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Range_Domain:
  Range_Domain_Minimum: 1
  Range_Domain_Maximum: N

Attribute:
Attribute_Label: ORIGINATOR
Attribute_Definition: Author or developer of source material or data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values: Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: DATE_PUB
Attribute_Definition: Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values: Enumerated_Domain:
  Enumerated_Domain_Value: YYYYMM
  Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values: Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:

- **Attribute_Label**: DATA_FORMAT
- **Attribute_Definition**: The format of the source material.
- **Attribute_Definition_Source**: NOAA ESI Guidelines
- **Attribute_Domain_Values**: Unrepresentable_Domain
  - Acceptable values change from atlas to atlas.

Attribute:

- **Attribute_Label**: PUB_PLACE
- **Attribute_Definition**: Publication place.
- **Attribute_Definition_Source**: NOAA ESI Guidelines
- **Attribute_Domain_Values**: Unrepresentable_Domain
  - Acceptable values change from atlas to atlas.

Attribute:

- **Attribute_Label**: PUBLISHER
- **Attribute_Definition**: Publisher.
- **Attribute_Definition_Source**: NOAA ESI Guidelines
- **Attribute_Domain_Values**: Unrepresentable_Domain
  - Acceptable values change from atlas to atlas.

Attribute:

- **Attribute_Label**: PUBLICATION
- **Attribute_Definition**: Additional citation information.
- **Attribute_Definition_Source**: NOAA ESI Guidelines
- **Attribute_Domain_Values**: Unrepresentable_Domain
  - Acceptable values change from atlas to atlas.

Attribute:

- **Attribute_Label**: ONLINE_LINK
- **Attribute_Definition**: Online computer resource URL.
- **Attribute_Definition_Source**: NOAA ESI Guidelines
**Attribute**

**Attribute_Label:** SCALE

**Attribute_Definition:**
Description of the source scale.

**Attribute_Definition_Source:** NOAA ESI Guidelines

**Attribute_Domain_Values:**
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

**Attribute**

**Attribute_Label:** TIME_PERIOD

**Attribute_Definition:**
Date(s) of data collection that the source material is based upon.

**Attribute_Definition_Source:** NOAA ESI Guidelines

**Attribute_Domain_Values:**
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

**Overview_Description:**

**Entity_and_Attribute_Overview:**
In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, INVERT) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED.
data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail.

Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

Distribution_Information:
Distributor:
Contact_Information:
Contact_Person_Primary:
Contact_Person:
ESI Manager
Contact_Organization:
NOAA, Office of Response and Restoration
Contact_Address:
Address_Type:
Physical Address
Address:
7600 Sand Point Way N.E.
City:
Seattle
State_or_Province:
Washington
Postal_Code:
98115-6349
Contact_Voice_Telephone:
(206) 526-6944
Contact_Facsimile_Telephone:
(206) 526-6329
Contact_Electronic_Mail_Address:
orr.esi@noaa.gov
Resource_Description:
Downloadable Data

Distribution_Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:
Format_Name:
Multiple formats

Digital_Transfer_Option:
Online_Option:

Computer_Contact_Information:
Network_Address:
Network_Resource_Name:
http://response.restoration.noaa.gov/esi_download

Fees:
None

Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

Metadata_Reference_Information:

Metadata_Date:
20140609

Metadata_Contact:

Contact_Information:
Contact_Person_Primary:
Contact_Person:
ESI Manager
Contact_Organization:
NOAA, Office of Response and Restoration

Contact_Position:
GIS Manager
Contact_Address:
Address_Type:
Physical Address

Address:
7600 Sand Point Way, N.E.

City:
Seattle

State_or_Province:
Washington

Postal_Code:
98115-6349

Contact_Voice_Telephone:
(206) 526-6944

Contact_Facsimile_Telephone:
(206) 526-6329

Contact_Electronic_Mail_Address:
orr.esi@noaa.gov

Metadata_Standard_Name:
Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version:
FGDC-STD-001-1998
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: INVERTPT (Invertebrate Points)

Metadata:

- **Identification Information**
- **Data Quality Information**
- **Spatial Data Organization Information**
- **Spatial Reference Information**
- **Entity and Attribute Information**
- **Distribution Information**
- **Metadata Reference Information**

**Identification Information:**

**Citation Information:**

**Originator:**

**Originator:**

**Originator:**
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

**Publication Date:**
201208

**Title:**
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: INVERTPT (Invertebrate Points)

**Edition:**
Second

**Geospatial Data Presentation Form:**
vector digital data

**Series Information:**

**Series Name:**
Florida Panhandle ESI

**Issue Identification:**
Florida Panhandle

**Publication Information:**

**Publication Place:**
Seattle, Washington
**Publisher:**
NOAA's Ocean Service, Office of Response and Restoration (OR&R),
Emergency Response Division (ERD).

**Other_Citation_Details:**
Prepared by Research Planning, Inc., Columbia, South Carolina for the National
Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office
of Response and Restoration, Emergency Response Division, Seattle, Washington.

**Online_Linkage:**
- [http://response.restoration.noaa.gov/esi](http://response.restoration.noaa.gov/esi)
- [http://response.restoration.noaa.gov/esi_download](http://response.restoration.noaa.gov/esi_download)

**Description:**

**Abstract:**
This data set contains sensitive biological resource data for threatened/endangered
invertebrate species for the Florida Panhandle. Vector points in this data set represent
threatened/endangered invertebrate species. Species-specific abundance, seasonality,
status, life history, and source information are stored in relational data tables (described
below) designed to be used in conjunction with this spatial data layer. This data set
comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the
marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI
data include information for three main components: shoreline habitats, sensitive
biological resources, and human-use resources. See also the INVERT (Invertebrate
Polygons) data layer, part of the larger Florida Panhandle ESI database, for additional
invertebrate information.

**Purpose:**
The ESI data were collected, mapped, and digitized to provide environmental data for oil
spill planning and response. The Clean Water Act with amendments by the Oil Pollution
Act of 1990 requires response plans for immediate and effective protection of sensitive
resources.

**Time_Period_of_Content:**

**Time_Period_Information:**

**Range_of_Dates/Times:**

**Beginning_Date:**
2006

**Ending_Date:**
2012

**Currentness_Reference:**
The data were compiled during 2010-2012. The currentness dates for the data range from
2006 to 2012 and are documented in the Lineage section.

**Status:**

**Progress:**
Complete

**Maintenance_and_Update_Frequency:**
None Scheduled

**Spatial_Domain:**

**Bounding_Coordinates:**
West_Bounding_Coordinate: -87.62500
East_Bounding_Coordinate: -83.68400
North_Bounding_Coordinate: 30.74700
South_Bounding_Coordinate: 28.27700

Keywords:
Theme:
  Theme_Keyword_Thesaurus: ISO 19115 Topic Category
  Theme_Keyword: biota
  Theme_Keyword: environment

Theme:
  Theme_Keyword_Thesaurus: None
  Theme_Keyword: Environmental Monitoring
  Theme_Keyword: ESI
  Theme_Keyword: Sensitivity maps
  Theme_Keyword: Coastal resources
  Theme_Keyword: Oil spill planning
  Theme_Keyword: Coastal Zone Management
  Theme_Keyword: Wildlife
  Theme_Keyword: Invertebrate

Theme:
  Theme_Keyword_Thesaurus: NOS Data Explorer Topic Category
  Theme_Keyword: Environmental Monitoring

Place:
  Place_Keyword_Thesaurus: None
  Place_Keyword: Florida Panhandle

Access_Constraints:
  None
Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

**Browse Graphic:**

**Browse Graphic_File Name:**


**Browse Graphic_File_Description:**

Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

**Browse Graphic_File_Type:**

JPEG

**Browse Graphic:**

**Browse Graphic_File Name:**


**Browse Graphic_File_Description:**

Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

**Browse Graphic_File_Type:**

JPEG

**Data_Set_Credit:**

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

**Native Data_Set_Environment:**

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, soccecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.
Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical_Consistency_Report:

A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

Completeness_Report:

These data represent a synthesis of digital data on threatened/endangered invertebrate species. See also the INVERT (Invertebrate Polygons) data layer, part of the larger Florida Panhandle ESI database, for additional invertebrate information. These data do not necessarily represent all invertebrate points occurrences in Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 608, Panama City crayfish, Procambarus econfinae.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and
this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

**Lineage:**

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

FISH AND WILDLIFE COMMISSION (FWC) AND UNITED STATES FISH AND WILDLIFE SERVICE (USFWS)

**Publication Date:**

2012

**Title:**

PANAMA CITY CRAYFISH SITES 3-29-12

**Geospatial Data Presentation Form:**

vector digital data

**Other Citation Details:**

UNPUBLISHED

**Type of Source Media:**

DISC

**Source Time Period of Content:**

**Time Period Information:**

**Single Date/Time:**

**Calendar Date:**

2012

**Source Currentness Reference:**

DATE OF PUBLICATION

**Source Citation Abbreviation:**

Src_0

**Source Contribution:**

INVERTPT INFORMATION

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

PANAMA CITY CRAYFISH BIOLOGICAL REVIEW PANEL: COOK,D., R.FRAN, P. KELLY, D. LAWRENCE, P. MOLER

**Publication Date:**

2006

**Title:**

BIOLOGICAL STATUS REPORT PANAMA CITY CRAYFISH (PROCAMBARUS ECOFINAE)

**Geospatial Data Presentation Form:**

HARDCOPY TEXT

**Publication Information:**

**Publication Place:**

TALLHASSEE, FL
One main source of data was used to depict invertebrate points distribution and seasonality for this data layer. The U.S. Fish and Wildlife Service (USFWS) and Florida Fish and Wildlife Conservation Commission (FWC) provided a digital vector point dataset with 2012 Panama City crayfish site information. The above digital and/or hardcopy sources were compiled by the project biologist to create the INVERTPT data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the INVERTPT data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.
Contact_Address:
Address_Type:
   Physical address
Address:
   7600 Sand Point Way, N.E.
City:
   Seattle
State_or_Province:
   Washington
Postal_Code:
   98115-6349
Contact_Voice_Telephone:
   (206) 526-6944
Contact_Facsimile_Telephone:
   (206) 526-6329
Contact_Electronic_Mail_Address:
   orr.esi@noaa.gov

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method:
   Vector
Point_and_Vector_Object_Information:
   SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:
         Entity point
      Point_and_Vector_Object_Count:
         142

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
   Geographic:
      Latitude_Resolution:
         0.0000001
      Longitude_Resolution:
         0.0000001
      GeographicCoordinateUnits:
         Decimal degrees
Geodetic_Model:
   Horizontal_Datum_Name:
      North American Datum of 1983
   Ellipsoid_Name:
      Geodetic Reference System 80
   Semi-major_Axis:
Entity and Attribute Information:
  Detailed_Description:
  Entity_Type:
    Entity_Type_Label:
      INVERTPT.PAT
    Entity_Type_Definition:
      The INVERTPT.PAT table contains attribute information for the vector points in this
data set representing threatened/endangered invertebrate species. Note that all
attribute information is stored in a series of relational files, described below and in
the Overview_Description section. See the Browse_Graphic section for a link to the
entity-relationship diagram, which describes the relationships between attribute
tables in the ESI data structure.
  Entity_Type_Definition_Source:
    NOAA ESI Guidelines
  Attribute:
    Attribute_Label:
      ID
    Attribute_Definition:
      An identifier that links vector objects in the biology data layers to records in the
BIO_LUT data table. ID is a concatenation of atlas number (218), element number
(37), and record number.
    Attribute_Definition_Source:
      NOAA
    Attribute_Domain_Values:
      Range_Domain:
        Range_Domain_Minimum:
          2183700001
        Range_Domain_Maximum:
          2183700142
  Attribute:
    Attribute_Label:
      RARNUM
    Attribute_Definition:
      An identifier that links directly to the BIORES table or the flat format BIOFILE
table.
    Attribute_Definition_Source:
      NOAA
    Attribute_Domain_Values:
      Range_Domain:
        Range_Domain_Minimum:
          218001103
Range_Domain_Maximum:
218001106

Detailed_Description:
Entity_Type:
  Entity_Type_Label:
    BIO_LUT
  Entity_Type_Definition:
The data table BIO_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
  Entity_Type_Definition_Source:
    NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    RARNUM
  Attribute_Definition:
    An identifier that links records in the BIO_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.
  Attribute_Definition_Source:
    NOAA
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum:
        218000001
      Range_Domain_Maximum:
        218001335

Attribute:
  Attribute_Label:
    ID
  Attribute_Definition:
    An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (37), and record number. ID values of 9999 are holes in polygons and do not contain information.
  Attribute_Definition_Source:
    NOAA
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum:
        2180100002
      Range_Domain_Maximum:
        2183700142

Detailed_Description:
Entity_Type:
**Entity_Type_Label:**
BIORES

**Entity_Type_Definition:**
The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
RARNUM

**Attribute_Definition:**
An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.

**Attribute_Definition_Source:**
NOAA

**Attribute_Domain_Values:**

<table>
<thead>
<tr>
<th>Range_Domain</th>
<th>Range_Domain_Minimum</th>
<th>Range_Domain_Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>218000001</td>
<td>218001335</td>
</tr>
</tbody>
</table>

**Attribute:**

**Attribute_Label:**
SPECIES_ID

**Attribute_Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

<table>
<thead>
<tr>
<th>Range_Domain</th>
<th>Range_Domain_Minimum</th>
<th>Range_Domain_Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>N</td>
</tr>
</tbody>
</table>

**Attribute:**

**Attribute_Label:**
CONC

**Attribute_Definition:**
The field CONC refers to "concentration," abundance, or density values, and may contain counts of a species at a particular location. No quantitative data were available for the invertebrates, so the concentration fields may contain a concentration approximation, such as "<10". If no concentration information was available from any source, the field was populated with "-".

**Attribute_Definition_Source:**
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
SEASON_ID
Attribute_Definition:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute Domain Values:
Range Domain:
  Range_Domain_Minimum:
    1
  Range_Domain_Maximum:
    N

Attribute:
Attribute_Label:
G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute Domain Values:
Range Domain:
  Range_Domain_Minimum:
    1
  Range_Domain_Maximum:
    N

Attribute:
Attribute_Label:
S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute Domain Values:
Range Domain:
  Range_Domain_Minimum:
    1
  Range_Domain_Maximum:
    N
ELEMENT
Attribute_Definition:
Major categories of biological data.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    BIRD
    Enumerated_Domain_Value_Definition:
      Birds
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    FISH
    Enumerated_Domain_Value_Definition:
      Fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    HABITAT
    Enumerated_Domain_Value_Definition:
      Habitats and plants
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    INVERT
    Enumerated_Domain_Value_Definition:
      Invertebrates
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    M_MAMMAL
    Enumerated_Domain_Value_Definition:
      Marine mammals
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute_Domain_Values:
REPTILE

Enumerated_Domain_Value_Definition:
Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
T_MAMMAL

Enumerated_Domain_Value_Definition:
Terrestrial mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE

Attribute_Definition:
Concatenation of ELEMENT and SPECIES_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
E#####

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE_SEA

Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
E######

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1;
Detailed_Description:

Entity_Type:

Entity_Type_Label: SPECIES

Entity_Type_Definition: The data table SPECIES identifies all species in the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness_Report for a list of layer-specific species.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SPECIES_ID

Attribute_Definition: Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME

Attribute_Definition: Species common name for the entire ESI data set.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC

Attribute_Definition: Species scientific name for the entire ESI data set.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
  Attribute_Label: ELEMENT
  Attribute_Definition: Major categories of biological data.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        BIRD
      Enumerated_Domain_Value_Definition:
        Birds
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        FISH
      Enumerated_Domain_Value_Definition:
        Fish
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        HABITAT
      Enumerated_Domain_Value_Definition:
        Habitats and plants
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        INVERT
      Enumerated_Domain_Value_Definition:
        Invertebrates
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        M_MAMMAL
      Enumerated_Domain_Value_Definition:
        Marine Mammals
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Enumerated_Domain:
  Enumerated_Domain_Value:
    REPTILE
    Enumerated_Domain_Value_Definition:
      Reptiles and Amphibians
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    T_MAMMAL
    Enumerated_Domain_Value_Definition:
      Terrestrial Mammals
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    SUBELEMENT
  Attribute_Definition:
    Element subgroup delineating a logical grouping of species.
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
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    alligator
    Enumerated_Domain_Value_Definition:
      Alligator
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    amphibian
    Enumerated_Domain_Value_Definition:
      Amphibian
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    bear
    Enumerated_Domain_Value_Definition:
      Bear
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Enumerated_Domain_Value:
  bivalve

Enumerated_Domain_Value_Definition:
  Bivalve

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      canine
    Enumerated_Domain_Value_Definition:
      Canine
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      cephalopod
    Enumerated_Domain_Value_Definition:
      Cephalopod
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      coral
    Enumerated_Domain_Value_Definition:
      Coral
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      crab
    Enumerated_Domain_Value_Definition:
      Crab
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      crayfish
    Enumerated_Domain_Value_Definition:
      Crayfish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:

Enumerated Domain Value:
diadromous

Enumerated Domain Value Definition:
Diadromous fish

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

Enumerated Domain Value:
diving

Enumerated Domain Value Definition:
Diving bird

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

Enumerated Domain Value:
dolphin

Enumerated Domain Value Definition:
Dolphin

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

Enumerated Domain Value:
e_nursery

Enumerated Domain Value Definition:
Estuarine nursery fish

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

Enumerated Domain Value:
e_resident

Enumerated Domain Value Definition:
Estuarine resident fish

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

Enumerated Domain Value:
fav

Enumerated Domain Value Definition:
Floating aquatic vegetation

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: freshwater
Enumerated_Domain_Value_Definition: Freshwater fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: m_benthic
Enumerated_Domain_Value_Definition: Marine benthic fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
m_pelagic

Enumerated_Domain_Value_Definition:
Marine pelagic fish

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
manatee

Enumerated_Domain_Value_Definition:
Manatee

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
passerine

Enumerated_Domain_Value_Definition:
Passerine bird

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
pelagic

Enumerated_Domain_Value_Definition:
Pelagic bird

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
plant

Enumerated_Domain_Value_Definition:
Plant

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
raptor

Enumerated_Domain_Value_Definition:
Raptor

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:
Enumerated_Domain_Value: sav
Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: shorebird
  Enumerated_Domain_Value_Definition: Shorebird
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
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  Enumerated_Domain_Value: shrimp
  Enumerated_Domain_Value_Definition: Shrimp
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: sm_mammal
  Enumerated_Domain_Value_Definition: Small mammal
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: snake
  Enumerated_Domain_Value_Definition: Snake
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value: turtle
  Enumerated_Domain_Value_Definition: Turtle
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
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Enumerated_Domain_Value_Definition:
  Wading bird
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
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      waterfowl
    Enumerated_Domain_Value_Definition:
      Waterfowl
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
  Enumerated_Domain:
    Enumerated_Domain_Value:
      wetland
    Enumerated_Domain_Value_Definition:
      Wetland
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    NHP
  Attribute_Definition:
    Natural Heritage Program global ranking.
  Attribute_Definition_Source:
    Network of Natural Heritage Program
  Attribute_Domain_Values:
    Codeset_Domain:
      Codeset_Name:
        NHP Global Conservation Status Rank
      Codeset_Source:
        Natural Heritage Program

Attribute:
  Attribute_Label:
    DATE_PUB
  Attribute_Definition:
    Date of NHP listing.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        YYYYMM
      Enumerated_Domain_Value_Definition:
        YYYY for year and optionally MM for month
**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

0

**Enumerated_Domain_Value_Definition:**
Date unspecified

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE

**Attribute_Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
E#####

**Enumerated_Domain_Value_Definition:**
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**
SEASONAL

**Entity_Type_Definition:**
The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
ELEMENT

**Attribute_Definition:**
Major categories of biological data.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**
Enumerated_Domain_Value:
  BIRD
Enumerated_Domain_Value_Definition:
  Birds
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      FISH
    Enumerated_Domain_Value_Definition:
      Fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      HABITAT
    Enumerated_Domain_Value_Definition:
      Habitats and plants
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      INVERT
    Enumerated_Domain_Value_Definition:
      Invertebrates
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      M_MAMMAL
    Enumerated_Domain_Value_Definition:
      Marine Mammals
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      REPTILE
    Enumerated_Domain_Value_Definition:
      Reptiles and Amphibians
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
**Enumerated Domain Value:**
T_MAMMAL

**Enumerated Domain Value Definition:**
Terrestrial Mammals

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
SPECIES_ID

**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 1
- **Range Domain Maximum:** N

**Attribute:**

**Attribute Label:**
SEASON_ID

**Attribute Definition:**
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 1
- **Range Domain Maximum:** N

**Attribute:**

**Attribute Label:**
JAN

**Attribute Definition:**
January

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

- **Enumerated Domain Value:** X

**Enumerated Domain Value Definition:**
Present in January

**Enumerated Domain Value Definition Source:**
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<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Present in February</td>
</tr>
<tr>
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<td>March</td>
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<td></td>
<td></td>
<td></td>
<td>Present in March</td>
</tr>
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</tbody>
</table>

Attribute:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Attribute_Label</th>
<th>Attribute_Definition</th>
<th>Attribute_Definition_Source</th>
<th>Attribute_Domain_Values</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>


MAY

Attribute Definition:
May

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

Enumerated Domain Value:
X

Enumerated Domain Value Definition:
Present in May

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute

Attribute Label:
JUN

Attribute Definition:
June

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

Enumerated Domain Value:
X

Enumerated Domain Value Definition:
Present in June

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute

Attribute Label:
JUL

Attribute Definition:
July

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

Enumerated Domain Value:
X

Enumerated Domain Value Definition:
Present in July

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute

Attribute Label:
AUG

Attribute Definition:
August
Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
X

Enumerated Domain Value Definition:
Present in August

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
SEP

Attribute Definition:
September

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
X

Enumerated Domain Value Definition:
Present in September

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
OCT

Attribute Definition:
October

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
X

Enumerated Domain Value Definition:
Present in October

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
NOV

Attribute Definition:
November

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated_Domain:

Enumerated_Domain_Value:
X

Enumerated_Domain_Value_Definition:
Present in November

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
DEC

Attribute_Definition:
December

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
X

Enumerated_Domain_Value_Definition:
Present in December

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE_SEA

Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
E######

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label:
BREED

Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages
or activities for each species at a given location.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE_SEA

**Attribute_Definition:**
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
E####

**Enumerated_Domain_Value_Definition:**
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
MONTH

**Attribute_Definition:**
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**
1

**Range_Domain_Maximum:**
12

**Attribute:**

**Attribute_Label:**
BREED1

**Attribute_Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

**Attribute_Definition_Source:**
NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
Enumerated Domain Value Definition:
Life-history stage or activity present
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
N
Enumerated Domain Value Definition:
Life-history stage or activity not present or not reported
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
-
Enumerated Domain Value Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
BREED2
Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
Enumerated Domain Value Definition:
Life-history stage or activity present
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
N
Enumerated Domain Value Definition:
Life-history stage or activity not present or not reported

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**  
-  
**Enumerated_Domain_Value_Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**
**Attribute_Label:**

**BREED3**

**Attribute_Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**  
Y  
**Enumerated_Domain_Value_Definition:**
Life-history stage or activity present

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**  
N  
**Enumerated_Domain_Value_Definition:**
Life-history stage or activity not present or not reported

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**  
-  
**Enumerated_Domain_Value_Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines
BREED4

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
Enumerated Domain Value Definition:
Life-history stage or activity present
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
N
Enumerated Domain Value Definition:
Life-history stage or activity not present or not reported
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
-
Enumerated Domain Value Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
BREED5

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
Enumerated Domain Value Definition:
Life-history stage or activity present

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

- N

**Enumerated_Domain_Value_Definition:**
Life-history stage or activity not present or not reported

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

- -

**Enumerated_Domain_Value_Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**
STATUS

**Entity_Type_Definition:**
The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
ELEMENT

**Attribute_Definition:**
Major categories of biological data.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

- BIRD

**Enumerated_Domain_Value_Definition:**
Birds

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines
FISH

Enumerated_Domain_Value_Definition:
Fish

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
HABITAT

Enumerated_Domain_Value_Definition:
Habitats and Plants

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
INVERT

Enumerated_Domain_Value_Definition:
Invertebrates

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
M_MAMMAL

Enumerated_Domain_Value_Definition:
Marine Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
REPTILE

Enumerated_Domain_Value_Definition:
Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
T_MAMMAL

Enumerated_Domain_Value_Definition:
Terrestrial Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
SPECIES_ID
**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
**Range Domain:**
- **Range Domain Minimum:** 1
- **Range Domain Maximum:** N

**Attribute:**
**Attribute Label:** STATE
**Attribute Definition:** Two-letter state abbreviation.
**Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
- **Unrepresentable Domain:** Acceptable values change from atlas to atlas.

**Attribute:**
**Attribute Label:** COUNTRY
**Attribute Definition:** Three-letter country abbreviation.
**Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
- **Unrepresentable Domain:** Acceptable values change from atlas to atlas.

**Attribute:**
**Attribute Label:** S
**Attribute Definition:** State threatened or endangered status.
**Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
- **Enumerated Domain:**
  - **Enumerated Domain Value:** E
  - **Enumerated Domain Value Definition:** Endangered on state list
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
- **Enumerated Domain:**
Enumerated_Domain_Value:
  T
Enumerated_Domain_Value_Definition:
  Threatened on state list
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      C
    Enumerated_Domain_Value_Definition:
      Species of Special Concern
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    F
  Attribute_Definition:
    Federal threatened or endangered status.
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      E
    Enumerated_Domain_Value_Definition:
      Endangered on federal list
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T
    Enumerated_Domain_Value_Definition:
      Threatened on federal list
    Enumerated_Domain_Value_Definition.Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      C
    Enumerated_Domain_Value_Definition:
      Species of Special Concern
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    I
**Attribute Definition:**

International threatened or endangered status.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

E

**Enumerated Domain Value Definition:**

Endangered on international list

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

T

**Enumerated Domain Value Definition:**

Threatened on international list

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

C

**Enumerated Domain Value Definition:**

Species of Special Concern

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

S_DATE

**Attribute Definition:**

Publication date of source material used to assign state status values for each species, if used.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

YYYYMM

**Enumerated Domain Value Definition:**

YYYY for year and optionally MM for month

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

F_DATE

**Attribute Definition:**
Publication date of source material used to assign federal status values for each species, if used.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
- **Enumerated Domain:**
  - **Enumerated Domain Value:** YYYYMM
  - **Enumerated Domain Value Definition:** YYYY for year and optionally MM for month
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** I_DATE
- **Attribute Definition:**
  Publication date of source material used to assign international status values for each species, if used.
- **Attribute Definition Source:**
  NOAA ESI Guidelines

**Attribute Domain Values:**
- **Enumerated Domain:**
  - **Enumerated Domain Value:** YYYYMM
  - **Enumerated Domain Value Definition:** YYYY for year and optionally MM for month
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** EL_SPE
- **Attribute Definition:**
  Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.
- **Attribute Definition Source:**
  NOAA ESI Guidelines

**Attribute Domain Values:**
- **Enumerated Domain:**
  - **Enumerated Domain Value:** E####
  - **Enumerated Domain Value Definition:** Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**
**Entity_Type_Label:** SOURCES

**Entity_Type_Definition:**
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:** NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:** SOURCE_ID

**Attribute_Definition:**
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

**Attribute_Definition_Source:** NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Range_Domain:**
- **Range_Domain_Minimum:** 1
- **Range_Domain_Maximum:** N

**Attribute:**

**Attribute_Label:** ORIGINATOR

**Attribute_Definition:**
Author or developer of source material or data set.

**Attribute_Definition_Source:** NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:** DATE_PUB

**Attribute_Definition:**
Date of source material, publication, or date of personal communication with expert source.

**Attribute_Definition_Source:** NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**
- **Enumerated_Domain_Value:** YYYYMM
**Enumerated_Domain_Value_Definition:**
YYYY for year and optionally MM for month

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:** TITLE

**Attribute_Definition:**
Title of source material or data.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:** DATA_FORMAT

**Attribute_Definition:**
The format of the source material.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:** PUB_PLACE

**Attribute_Definition:**
Publication place.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:** PUBLISHER

**Attribute_Definition:**
Publisher.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:** PUBLICATION

**Attribute_Definition:**
Overview Description:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, INVERTPT) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas

Additional citation information.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:
ONLINE_LINK

Attribute Definition:
Online computer resource URL.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:
SCALE

Attribute Definition:
Description of the source scale.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:
TIME_PERIOD

Attribute Definition:
Date(s) of data collection that the source material is based upon.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.
number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables (described in the Detailed_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed_Description section.

Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

Distribution_Information:
Distributor: NOAA, Office of Response and Restoration

Contact_Information:
Contact_Person_Primary: ESI Manager
Contact_Organization: NOAA, Office of Response and Restoration
Contact_Address:
Address_Type: Physical Address
Address:
    7600 Sand Point Way N.E.
City:
    Seattle
State_or_Province:
    Washington
Postal_Code:
    98115-6349
Contact_Voice_Telephone:
    (206) 526-6944
Contact_Facsimile_Telephone:
    (206) 526-6329
Contact_Electronic_Mail_Address:
    orr.esi@noaa.gov

Resource_Description:
    Downloadable Data

Distribution_Liability:
    These data represent a snapshot in time and temporal changes may have occurred. These data are
not intended to include all biological or human-use resources present in an area; they focus on
species and resources particularly sensitive to oiling. In the event of a spill, they should be used
for a first assessment only. The data providers are the experts with regard to individual resources.
They should be contacted to confirm if more current data exist, and/or in-depth information is
needed about a particular resource.

Standard_Order_Process:

Digital_Form:
    Digital_Transfer_Information:
        Format_Name:
            Multiple formats
    Digital_Transfer_Option:
        Online_Option:
            Computer_Contact_Information:
                Network_Address:
                    Network_Resource_Name:
                        http://response.restoration.noaa.gov/esi_download

Fees:
    None

Custom_Order_Process:
    Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple
formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete
with database links and symbology), ARC export files, and shapefiles. The database files,
available in text and INFO(R) formats, are provided in both the NOAA standard relational
database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified
desktop flat file format. This metadata document includes information about both of these
database formats.
Metadata_Reference_Information:

Metadata_Date:
20140609

Metadata_Contact:

Contact_Information:

  Contact_Person_Primary:
    Contact_Person:
      ESI Manager

  Contact_Organization:
    NOAA, Office of Response and Restoration

Contact_Position:
  GIS Manager

Contact_Address:
  Address_Type:
    Physical Address
  Address:
    7600 Sand Point Way, N.E.
  City:
    Seattle
  State_or_Province:
    Washington
  Postal_Code:
    98115-6349

Contact_Voice_Telephone:
  (206) 526-6944

Contact_Facsimile_Telephone:
  (206) 526-6329

Contact_Electronic_Mail_Address:
  orr.esi@noaa.gov

Metadata_Standard_Name:
  Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version:
  FGDC-STD-001-1998

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Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: REPTILES (Reptile Polygons)

Metadata:

- **Identification Information**
- **Data Quality Information**
- **Spatial Data Organization Information**
- **Spatial Reference Information**
- **Entity and Attribute Information**
- **Distribution Information**
- **Metadata Reference Information**

**Identification Information:**

**Citation Information:**

- **Originator:**
  

- **Originator:**
  

- **Originator:**
  
  Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

**Publication Date:**

201208

**Title:**

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: REPTILES (Reptile Polygons)

**Edition:**

Second

**Geospatial Data Presentation Form:**

- vector digital data

**Series Information:**

- **Series Name:**
  
  Florida Panhandle ESI

**Issue Identification:**

- Florida Panhandle

**Publication Information:**

- **Publication Place:**
  
  Seattle, Washington
Description:

Abstract:
This data set contains sensitive biological resource data for sea turtles and select estuarine/freshwater reptiles for the Florida Panhandle. Vector polygons in this data set represent sea turtle and select estuarine/freshwater reptile distribution. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the REPTPT (Reptile Points) data layer, part of the larger Florida Panhandle ESI database, for additional reptile information.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date:
1992
Ending_Date:
2012

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 1992 to 2012 and are documented in the Lineage section.

Status:

Progress:
Complete

Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate:  
-87.62500
East_Bounding_Coordinate:  
-83.68400
North_Bounding_Coordinate:  
30.74700
South_Bounding_Coordinate:  
28.27700

Keywords:  
Theme:  
Theme_Keyword_Thesaurus:  
ISO 19115 Topic Category
Theme_Keyword:  
biota
Theme_Keyword:  
environment
Theme:  
Theme_Keyword_Thesaurus:  
None
Theme_Keyword:  
Environmental Monitoring
Theme_Keyword:  
ESI
Theme_Keyword:  
Sensitivity maps
Theme_Keyword:  
Coastal resources
Theme_Keyword:  
Oil spill planning
Theme_Keyword:  
Coastal Zone Management
Theme_Keyword:  
Wildlife
Theme_Keyword:  
Reptile
Theme:  
Theme_Keyword_Thesaurus:  
NOS Data Explorer Topic Category
Theme_Keyword:  
Environmental Monitoring

Place:  
Place_Keyword_Thesaurus:  
None
Place_Keyword:  
Florida Panhandle

Access_Constraints:  
None
Use_Constraints:  

DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse Graphic:

Browse Graphic File Name:

Browse Graphic File Description:
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

Browse Graphic File Type:
JPEG

Browse Graphic:

Browse Graphic File Name:

Browse Graphic File Description:
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

Browse Graphic File Type:
JPEG

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native Data Set Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial Data Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, inverpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

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**Data Quality Information:**

**Attribute Accuracy:**

**Attribute Accuracy Report:**

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

**Logical Consistency Report:**

A multi-stage error checking process, described in the above Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new IDs are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

**Completeness Report:**

These data represent a synthesis of expert knowledge, available hardcopy documents, survey data, maps, and digital data on sea turtle and select estuarine/freshwater reptile distribution. See also the REPTPT (Reptile Points) data layer, part of the larger Florida Panhandle ESI database, for additional reptile information. These data do not necessarily represent all reptile occurrences in Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 2, Green sea turtle, Chelonia mydas; 3, American alligator, Alligator mississipiensis; 4, Kemp's ridley sea turtle, Lepidochelys kempii; 5, Leatherback sea turtle, Dermochelys coriacea; 6, Loggerhead sea turtle, Caretta caretta; 7, Diamondback terrapin, Malaclemys terrapin; 9, Hawksbill sea turtle, Eretmochelys imbricata; 12, Gulf salt marsh snake, Nerodia clarkii clarkii; 21, Gopher tortoise, Gopherus polyphemus; 24, Eastern indigo snake, Drymarchon couperi; 29, Carolina gopher frog, Lithobates capito; 30, Florida pine snake, Pituophis melanoleucus mugitus; 180, Alligator snapping turtle, Macrochelys temminckii; 200, Pine Barrens treefrog, Hyla andersonii; 201, Florida Bog Frog, Lithobates okaloosae; 202, Suwannee River cooter, Pseudemys suwanniensis; 203, Barbours's map turtle, Graptemys barbouri; 204, Common kingsnake, Lampropeltis getula.

**Positional Accuracy:**

**Horizontal Positional Accuracy:**
Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

**Lineage:**

**Source Information:**

**Source Citation:**

**Citation Information:**

Originator:

APALACHICOLA RIVERKEEPER

Publication Date:

2011

Title:

APALACHICOLA RIVERKEEPER: SAVING AN AMERICAN TREASURE

Geospatial Data Presentation Form:

vector digital data

Online Linkage:

http://www.apalachicolariverkeeper.org/home0.aspx

Type of Source Media:

ONLINE

Source Time Period of Content:

Time Period Information:

Single Date/Time:

Calendar Date:

2011

Source Currentness Reference:

DATE OF PUBLICATION

Source Citation Abbreviation:

Src_0

Source Contribution:

REPTILES INFORMATION

**Source Information:**

**Source Citation:**

**Citation Information:**

Originator:

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

Publication Date:
2011

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_5

Source_Contribution:
REPTILES INFORMATION

Source_Information:
Source_Citation:
Citation_Information:

Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

Publication_Date:
2011

Title:
SUWANNEE COOTER BIOLOGICAL STATUS REVIEW REPORT

Geospatial_Data_Presentation_Form:
HARDCOPY TEXT

Publication_Information:
Publication Place:
TALLAHASSEE, FL

Publisher:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Other_Citation_Details:
15 PP.

Online_Linkage:
http://myfwc.com/media/2273412/Suwannee-Cooter-BSR.pdf

Type_of_Source_Media:
ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2011

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_6

Source_Contribution:
REPTILES INFORMATION

Source_Information:
Source_Citation:
Citation_Information:

Originator:
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- FISH AND WILDLIFE RESEARCH INSTITUTE (FWC-FWRI)
Source_Contribution:
REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
FLORIDA NATURAL AREAS INVENTORY (FNAI)

Publication_Date:
2011

Title:
ELEMENT OCCURRENCE POLYGON DATA LAYER

Geospatial_Data_Presentation_Form:
vector digital data

Publication_Information:

Publication_Place:
TALLAHASSEE, FL

Publisher:

FLORIDA NATURAL AREAS INVENTORY

Type_of_Source_Media:
EMAIL

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:
Calendar_Date:
2011

Source_Currentness_REFERENCE:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_9

Source_Contribution:
REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
FLORIDA NATURAL AREAS INVENTORY (FNAI)

Publication_Date:
2001

Title:
FIELD GUIDE TO THE RARE ANIMALS OF FLORIDA

Geospatial_Data_Presentation_Form:
HARDCOPY TEXT

Online Linkage:
http://www.fnai.org/FieldGuide/pdf/Ambystoma_cingulatum.PDF

Type_of_Source_Media:
online

Source_Time_Period_of_Content:

Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2001
Source_Currentness_Reference:
DATE OF PUBLICATION
Source_Citation_Abbreviation:
Src_10
Source_Contribution:
REPTILES INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
GULF ISLANDS NATIONAL SEASHORE, ESCAMBIA COUNTY, FLORIDA STATE PARKS
Publication_Date:
2012
Title:
GULF ISLANDS NATIONAL SEASHORE/STATE PARK/ESCAMBIA COUNTY RESOURCES: DISTRIBUTION AND ABUNDANCE
Geospatial_Data_Presentation_Form:
EXPERT KNOWLEDGE
Other_Citation_Details:
UNPUBLISHED
Type_of_Source_Media:
PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2012
Source_Currentness_Reference:
DATE OF COMMUNICATION
Source_Citation_Abbreviation:
Src_11
Source_Contribution:
REPTILES INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
HARVEY, A. (BIG LAGOON STATE PARK)
Publication_Date:
2011
Title:
STATE PARK RESOURCES FOR FLORIDA PANHANDLE
Geospatial_Data_Presentation_Form:
EXPERT KNOWLEDGE
Other_Citation_Details:
UNPUBLISHED

Type_of_Source_Media:
PERSONAL COMMUNICATION

Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2011

Source_Currentness_Reference:
DATE OF COMMUNICATION

Source_Citation_Abbreviation:
Src_12

Source_Contribution:
REPTILES INFORMATION

Source_Information:
Source_Citation:
Citation_Information:
Originator:
HIMES, J., FWC-FWRI

Publication_Date:
2011

Title:
MAPS OF HERP LOCATIONS

Geospatial_Data_Presentation_Form:
HARDCOPY MAP

Other_Citation_Details:
UNPUBLISHED

Source_Scale_Denominator:
150000

Type_of_Source_Media:
EMAIL

Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2011

Source_Currentness_Reference:
DATE OF COMMUNICATION

Source_Citation_Abbreviation:
Src_13

Source_Contribution:
REPTILES INFORMATION

Source_Information:
Source_Citation:
Citation_Information:
Originator:
Florida Panhandle ESI:  REPTILES
HIMES, J., FWC-FWRI
Publication_Date:
2011
Title:
BIRDS, REPTILES, AMPHIBIANS, AND OTHER PANHANDLE COASTAL RESOURCES
Geospatial_Data_Presentation_Form:
EXPERT KNOWLEDGE
Other_Citation_Details:
UNPUBLISHED
Type_of_Source_Media:
PERSONAL COMMUNICATION
Source_Time_Peiod_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2011
Source_Currentness_Reference:
DATE OF COMMUNICATION
Source_Citation_Abbreviation:
Src_14
Source_Contribution:
REPTILES INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
KELLY, P., USFWS
Publication_Date:
2011
Title:
DISTRIBUTION OF SHOREBIRDS AND OTHER SPECIES IN THE FL PANHANDLE
Geospatial_Data_Presentation_Form:
EXPERT KNOWLEDGE
Other_Citation_Details:
UNPUBLISHED
Type_of_Source_Media:
PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2011
Source_Currentness_Reference:
DATE OF COMMUNICATION
Source_Citation_Abbreviation:
Src_15
SEARCHING FOR DIAMONDBACK TERRAPINS IN THE FLORIDA PANHANDLE

ASSESSING THE STATUS OF THE DIAMONDBACK TERRAPIN IN NWFL AND TERRAPIN MONTHLY OCCUPANCY UPDATE
Two main sources of data were used to depict reptile distribution and seasonality for this data layer: 1) personal interviews with resource experts from: U.S. Fish and
Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission - Fish and Wildlife Research Institute (FWC-FWRI), Big Lagoon State Park, Gulf Islands National Seashore (NPS), and Escambia County; 2) digital data sets provided by: FWC-FWRI and Florida Natural Areas Inventory (FNAI); and 3) published and unpublished documents. The above digital and/or hardcopy sources were compiled by the project biologist to create the REPTILES data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the REPTILES data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201208

Process_Contact:

Contact_Information:
  Contact_Organization_Primary:
    Contact_Organization: NOAA, Office of Response and Restoration
    Contact_Person: ESI Manager
  Contact_Address:
    Address_Type: Physical address
    Address: 7600 Sand Point Way, N.E.
    City: Seattle
    State_or_Province: Washington
    Postal_Code: 98115-6349
  Contact_Voice_Telephone: (206) 526-6944
  Contact_Facsimile_Telephone: (206) 526-6329
  Contact_Electronic_Mail_Address: orr.esi@noaa.gov

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Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method:
Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
GT-polygon composed of chains
Point_and_Vector_Object_Count:
1607

SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
Area point
Point_and_Vector_Object_Count:
1608

SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
Complete chain
Point_and_Vector_Object_Count:
6265

SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
Link
Point_and_Vector_Object_Count:
574310

SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
Node, planar graph
Point_and_Vector_Object_Count:
5786

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:
Geographic:
Latitude_Resolution:
0.0000001
Longitude_Resolution:
0.0000001
Geographic_Coordinate_Units:
Decimal degrees

Geodetic_Model:
Horizontal_Datum_Name:
North American Datum of 1983
Ellipsoid_Name:
Geodetic Reference System 80
Semi-major_Axis:
Entity and Attribute Information:

Detailed Description:

Entity Type:

Entity Type Label:
REPTILES.PAT

Entity Type Definition:
The REPTILES.PAT table contains attribute information for the vector polygons in this data set representing sea turtle and select estuarine/freshwater reptile distribution. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
ID

Attribute Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (6), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute Definition Source:
NOAA

Attribute Domain Values:
Range Domain:

Range Domain Minimum:
2180600002

Range Domain Maximum:
2180602718

Attribute:

Attribute Label:
RARNUM

Attribute Definition:
An identifier that links directly to the BIORES table or the flat format BIOFILE table. RARNUM values of 0 are holes in the polygons and do not contain information.

Attribute Definition Source:
NOAA

Attribute Domain Values:
Range Domain:
Detailed_Description:

Entity_Type:

Entity_Type_Label: BIO_LUT

Entity_Type_Definition: The data table BIO_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: RARNUM

Attribute_Definition: An identifier that links records in the BIO_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 218000001

Range_Domain_Maximum: 218001335

Attribute:

Attribute_Label: ID

Attribute_Definition: An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (6), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 2180100002

Range_Domain_Maximum: 2183700142
Detailed_Description:

Entity_Type:

Entity_Type_Label: BIORES

Entity_Type_Definition: The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: RARNUM

Attribute_Definition: An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 218000001

Range_Domain_Maximum: 218001335

Attribute:

Attribute_Label: SPECIES_ID

Attribute_Definition: Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC

Attribute_Definition: The field CONC refers to "concentration," abundance, or density values of a species at a particular location. No quantitative data were available for reptiles, so the concentration may contain descriptive terms such as "HIGH" or "LOW".

Attribute_Definition_Source: Florida Panhandle ESI: REPTILES
NOAA ESI Guidelines

**Attribute Domain Values:**

**Unrepresentable Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
SEASON_ID

**Attribute Definition:**
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**
1

**Range Domain Maximum:**
N

**Attribute:**

**Attribute Label:**
G_SOURCE

**Attribute Definition:**
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**
1

**Range Domain Maximum:**
N

**Attribute:**

**Attribute Label:**
S_SOURCE

**Attribute Definition:**
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**
1

**Range Domain Maximum:**
N
ELEMENT

Attribute_Definition:
Major categories of biological data.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
\[
\begin{align*}
\text{Enumerated_Domain_Value}: \\
\text{BIRD} \\
\text{Enumerated_Domain_Value_Definition}: \\
\text{Birds} \\
\text{Enumerated_Domain_Value_Definition_Source}: \\
\text{NOAA ESI Guidelines}
\end{align*}
\]

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Enumerated_Domain:
\[
\begin{align*}
\text{Enumerated_Domain_Value}: \\
\text{FISH} \\
\text{Enumerated_Domain_Value_Definition}: \\
\text{Fish} \\
\text{Enumerated_Domain_Value_Definition_Source}: \\
\text{NOAA ESI Guidelines}
\end{align*}
\]

Attribute_Domain_Values:
Enumerated_Domain:
\[
\begin{align*}
\text{Enumerated_Domain_Value}: \\
\text{HABITAT} \\
\text{Enumerated_Domain_Value_Definition}: \\
\text{Habitats and plants} \\
\text{Enumerated_Domain_Value_Definition_Source}: \\
\text{NOAA ESI Guidelines}
\end{align*}
\]

Attribute_Domain_Values:
Enumerated_Domain:
\[
\begin{align*}
\text{Enumerated_Domain_Value}: \\
\text{INVERT} \\
\text{Enumerated_Domain_Value_Definition}: \\
\text{Invertebrates} \\
\text{Enumerated_Domain_Value_Definition_Source}: \\
\text{NOAA ESI Guidelines}
\end{align*}
\]

Attribute_Domain_Values:
Enumerated_Domain:
\[
\begin{align*}
\text{Enumerated_Domain_Value}: \\
\text{M_MAMMAL} \\
\text{Enumerated_Domain_Value_Definition}: \\
\text{Marine mammals} \\
\text{Enumerated_Domain_Value_Definition_Source}: \\
\text{NOAA ESI Guidelines}
\end{align*}
\]
REPTILE

Enumerated_Domain_Value_Definition:
Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
T_MAMMAL

Enumerated_Domain_Value_Definition:
Terrestrial mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE

Attribute_Definition:
Concatenation of ELEMENT and SPECIES_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
E#####

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE_SEA

Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
E#######

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1;
Detailed Description:

Entity Type:

Entity Type Label: SPECIES

Entity Type Definition: The data table SPECIES identifies all species in the ESI data set. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness Report for a list of layer-specific species.

Entity Type Definition Source: NOAA ESI Guidelines

Attribute:

Attribute Label: SPECIES_ID

Attribute Definition: Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Range Domain:

Range Domain Minimum: 1

Range Domain Maximum: N

Attribute:

Attribute Label: NAME

Attribute Definition: Species common name for the entire ESI data set.

Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Unrepresentable Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute Label: GEN_SPEC

Attribute Definition: Species scientific name for the entire ESI data set.

Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Unrepresentable Domain: Acceptable values change from atlas to atlas.
Attribute:
Attribute_Label:
ELEMENT
Attribute_Definition:
    Major categories of biological data.
Attribute_Definition_Source:
    NOAA ESI Guidelines
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            BIRD
        Enumerated_Domain_Value_Definition:
            Birds
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            FISH
        Enumerated_Domain_Value_Definition:
            Fish
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            HABITAT
        Enumerated_Domain_Value_Definition:
            Habitats and plants
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            INVERT
        Enumerated_Domain_Value_Definition:
            Invertebrates
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            M_MAMMAL
        Enumerated_Domain_Value_Definition:
            Marine Mammals
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    REPTILE
Enumerated_Domain_Value_Definition:
  Reptiles and Amphibians
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T_MAMMAL
Enumerated_Domain_Value_Definition:
  Terrestrial Mammals
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    SUBELEMENT
Attribute_Definition:
  Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      alligator
Enumerated_Domain_Value_Definition:
  Alligator
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      amphibian
Enumerated_Domain_Value_Definition:
  Amphibian
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      bear
Enumerated_Domain_Value_Definition:
  Bear
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: canine
Enumerated_Domain_Value_Definition: Canine
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: coral
Enumerated_Domain_Value_Definition: Coral
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: crayfish
Enumerated_Domain_Value_Definition: Crayfish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated Domain Value:  
diadromous

Enumerated Domain Value Definition:  
Diadromous fish

Enumerated Domain Value Definition Source:  
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:  
diving

Enumerated Domain Value Definition:  
Diving bird

Enumerated Domain Value Definition Source:  
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:  
dolphin

Enumerated Domain Value Definition:  
Dolphin

Enumerated Domain Value Definition Source:  
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:  
e_nursery

Enumerated Domain Value Definition:  
Estuarine nursery fish

Enumerated Domain Value Definition Source:  
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:  
e_resident

Enumerated Domain Value Definition:  
Estuarine resident fish

Enumerated Domain Value Definition Source:  
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:  
fav

Enumerated Domain Value Definition:  
Floating aquatic vegetation

Enumerated Domain Value Definition Source:  
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:
Enumerated_Domain_Value:
fish
Enumerated_Domain_Value_Definition:
Fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
freshwater
Enumerated_Domain_Value_Definition:
Freshwater fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
gull_tern
Enumerated_Domain_Value_Definition:
Gull or tern
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
invert
Enumerated_Domain_Value_Definition:
Invertebrate
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
lobster
Enumerated_Domain_Value_Definition:
Lobster
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
m_benthic
Enumerated_Domain_Value_Definition:
Marine benthic fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated Domain Value:
  m_pelagic

Enumerated Domain Value Definition:
Marine pelagic fish

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    manatee

Enumerated Domain Value Definition:
Manatee

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    passerine

Enumerated Domain Value Definition:
Passerine bird

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    pelagic

Enumerated Domain Value Definition:
Pelagic bird

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    plant

Enumerated Domain Value Definition:
Plant

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    raptor

Enumerated Domain Value Definition:
Raptor

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated_Domain_Value:
  sav
Enumerated_Domain_Value_Definition:
  Submerged aquatic vegetation
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      shorebird
    Enumerated_Domain_Value_Definition:
      Shorebird
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      shrimp
    Enumerated_Domain_Value_Definition:
      Shrimp
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      sm_mammal
    Enumerated_Domain_Value_Definition:
      Small mammal
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      snake
    Enumerated_Domain_Value_Definition:
      Snake
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      turtle
    Enumerated_Domain_Value_Definition:
      Turtle
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
**Enumerated_Domain_Value:**
- wading

**Enumerated_Domain_Value_Definition:**
- Wading bird

**Enumerated_Domain_Value_Definition_Source:**
- NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- waterfowl

**Enumerated_Domain_Value_Definition:**
- Waterfowl

**Enumerated_Domain_Value_Definition_Source:**
- NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- wetland

**Enumerated_Domain_Value_Definition:**
- Wetland

**Enumerated_Domain_Value_Definition_Source:**
- NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
- NHP

**Attribute_Definition:**
- Natural Heritage Program global ranking.

**Attribute_Definition_Source:**
- Network of Natural Heritage Program

**Attribute_Domain_Values:**

**Codeset_Domain:**

**Codeset_Name:**
- NHP Global Conservation Status Rank

**Codeset_Source:**
- Natural Heritage Program

**Attribute:**

**Attribute_Label:**
- DATE_PUB

**Attribute_Definition:**
- Date of NHP listing.

**Attribute_Definition_Source:**
- NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
- YYYYMM

**Enumerated_Domain_Value_Definition:**
- YYYY for year and optionally MM for month
**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

0

**Enumerated_Domain_Value_Definition:**
Date unspecified

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE

**Attribute_Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
E#####

**Enumerated_Domain_Value_Definition:**
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**
SEASONAL

**Entity_Type_Definition:**
The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
ELEMENT

**Attribute_Definition:**
Major categories of biological data.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**
Enumerated_Domain_Value:
  BIRD

Enumerated_Domain_Value_Definition:
  Birds

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      FISH

Enumerated_Domain_Value_Definition:
  Fish

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      HABITAT

Enumerated_Domain_Value_Definition:
  Habitats and plants

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      INVERT

Enumerated_Domain_Value_Definition:
  Invertebrates

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      M_MAMMAL

Enumerated_Domain_Value_Definition:
  Marine Mammals

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      REPTILE

Enumerated_Domain_Value_Definition:
  Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines
**Enumerated Domain Value:**
T_MAMMAL

**Enumerated Domain Value Definition:**
Terrestrial Mammals

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
SPECIES_ID

**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

<table>
<thead>
<tr>
<th>Range Domain</th>
<th>Range Domain Minimum</th>
<th>Range Domain Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>N</td>
</tr>
</tbody>
</table>

**Attribute:**

**Attribute Label:**
SEASON_ID

**Attribute Definition:**
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

<table>
<thead>
<tr>
<th>Range Domain</th>
<th>Range Domain Minimum</th>
<th>Range Domain Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>N</td>
</tr>
</tbody>
</table>

**Attribute:**

**Attribute Label:**
JAN

**Attribute Definition:**
January

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

<table>
<thead>
<tr>
<th>Enumerated Domain</th>
<th>Enumerated Domain Value</th>
<th>Enumerated Domain Value Definition</th>
<th>Enumerated Domain Value Definition Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>Present in January</td>
<td>Florida Panhandle ESI: REPTILES</td>
</tr>
</tbody>
</table>
NOAA ESI Guidelines

Attribute:
  Attribute_Label: FEB
  Attribute_Definition: February
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in February
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: MAR
  Attribute_Definition: March
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in March
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: APR
  Attribute_Definition: April
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in April
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label:
MAY
Attribute_Definition:
May
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    X
  Enumerated_Domain_Value_Definition:
    Present in May
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    JUN
  Attribute_Definition:
    June
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in June
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    JUL
  Attribute_Definition:
    July
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in July
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    AUG
  Attribute_Definition:
    August
**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
*Enumerated Domain*

- **Enumerated Domain Value:**
  - X
- **Enumerated Domain Value Definition:**
  - Present in August
- **Enumerated Domain Value Definition Source:**
  - NOAA ESI Guidelines

**Attribute:**

- **Attribute Label:** SEP
- **Attribute Definition:** September
- **Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
*Enumerated Domain*

- **Enumerated Domain Value:**
  - X
- **Enumerated Domain Value Definition:** Present in September
- **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**

- **Attribute Label:** OCT
- **Attribute Definition:** October
- **Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
*Enumerated Domain*

- **Enumerated Domain Value:**
  - X
- **Enumerated Domain Value Definition:** Present in October
- **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**

- **Attribute Label:** NOV
- **Attribute Definition:** November
- **Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**
**Enumerated Domain:**

- **Enumerated_Domain_Value:** X
- **Enumerated_Domain_Value_Definition:** Present in November
- **Enumerated_Domain_Value_Definition_Source:** NOAA ESI Guidelines

**Attribute:**

- **Attribute_Label:** DEC
- **Attribute_Definition:** December
- **Attribute_Definition_Source:** NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:** X
  - **Enumerated_Domain_Value_Definition:** Present in December
  - **Enumerated_Domain_Value_Definition_Source:** NOAA ESI Guidelines

**Attribute:**

- **Attribute_Label:** EL_SPE_SEA
- **Attribute_Definition:** Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
- **Attribute_Definition_Source:** NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:** E#######
  - **Enumerated_Domain_Value_Definition:** Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
  - **Enumerated_Domain_Value_Definition_Source:** NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

- **Entity_Type_Label:** BREED
- **Entity_Type_Definition:** The data table BREED identifies the monthly presence of certain life-history stages
or activities for each species at a given location.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
EL_SPE_SEA

**Attribute Definition:**
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
E#####

**Enumerated Domain Value Definition:**
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
MONTH

**Attribute Definition:**
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**
1

**Range Domain Maximum:**
12

**Attribute:**

**Attribute Label:**
BREED1

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

**Attribute Definition Source:**
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    Y
Enumerated_Domain_Value_Definition:
  Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    N
Enumerated_Domain_Value_Definition:
  Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    -
Enumerated_Domain_Value_Definition:
  Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute:
Attribute_Label:
  BREED2
Attribute_Definition:
  Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    Y
Enumerated_Domain_Value_Definition:
  Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    N
Enumerated_Domain_Value_Definition:
  Florida Panhandle ESI: REPTILES
Life-history stage or activity not present or not reported

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

- 

*Enumerated_Domain_Value_Definition:*
Breed category not used or not appropriate for record(s) in question

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:*
BREED3

*Attribute_Definition:*
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

*Attribute_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*
Y

*Enumerated_Domain_Value_Definition:*
Life-history stage or activity present

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*
N

*Enumerated_Domain_Value_Definition:*
Life-history stage or activity not present or not reported

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*
-

*Enumerated_Domain_Value_Definition:*
Breed category not used or not appropriate for record(s) in question

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:*

Florida Panhandle ESI: REPTILES
BREED4

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
Enumerated Domain Value Definition:
Life-history stage or activity present
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
N
Enumerated Domain Value Definition:
Life-history stage or activity not present or not reported
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
-
Enumerated Domain Value Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
BREED5

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
Enumerated Domain Value Definition:
Life-history stage or activity present

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

N

*Enumerated_Domain_Value_Definition:*

Life-history stage or activity not present or not reported

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

-

*Enumerated_Domain_Value_Definition:*

Breed category not used or not appropriate for record(s) in question

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

*Entity_Type_Label:*

STATUS

*Entity_Type_Definition:*

The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

*Entity_Type_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:*

ELEMENT

*Attribute_Definition:*

Major categories of biological data.

*Attribute_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

BIRD

*Enumerated_Domain_Value_Definition:*

Birds

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines
FISH

Enumerated_Domain_Value_Definition:
Fish

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
HABITAT

Enumerated_Domain_Value_Definition:
Habitats and Plants

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
INVERT

Enumerated_Domain_Value_Definition:
Invertebrates

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
M_MAMMAL

Enumerated_Domain_Value_Definition:
Marine Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
REPTILE

Enumerated_Domain_Value_Definition:
Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
T_MAMMAL

Enumerated_Domain_Value_Definition:
Terrestrial Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
SPECIES_ID
Attribute Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
  Range Domain Minimum:
  1
  Range Domain Maximum:
  N

Attribute:
Attribute Label:
STATE
Attribute Definition:
Two-letter state abbreviation.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label:
COUNTRY
Attribute Definition:
Three-letter country abbreviation.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label:
S
Attribute Definition:
State threatened or endangered status.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
  E
  Enumerated Domain Value Definition:
  Endangered on state list
  Enumerated Domain Value Definition Source:
  NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated_Domain_Value:
  T
Enumerated_Domain_Value_Definition:
  Threatened on state list
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      C
    Enumerated_Domain_Value_Definition:
      Species of Special Concern
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    F
  Attribute_Definition:
    Federal threatened or endangered status.
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      E
    Enumerated_Domain_Value_Definition:
      Endangered on federal list
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T
    Enumerated_Domain_Value_Definition:
      Threatened on federal list
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      C
    Enumerated_Domain_Value_Definition:
      Species of Special Concern
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    I
Attribute Definition:
International threatened or endangered status.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
E
Enumerated Domain Value Definition:
Endangered on international list
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
T
Enumerated Domain Value Definition:
Threatened on international list
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
C
Enumerated Domain Value Definition:
Species of Special Concern
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
S_DATE
Attribute Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
YYYYMM
Enumerated Domain Value Definition:
YYYY for year and optionally MM for month
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
F_DATE
Attribute Definition:
Publication date of source material used to assign federal status values for each species, if used.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

YYYYMM

**Enumerated Domain Value Definition:**

YYYY for year and optionally MM for month

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

I_DATE

**Attribute Definition:**

Publication date of source material used to assign international status values for each species, if used.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

YYYYMM

**Enumerated Domain Value Definition:**

YYYY for year and optionally MM for month

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

EL_SPE

**Attribute Definition:**

Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

E####

**Enumerated Domain Value Definition:**

Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**
Entity Type Label: SOURCES

Entity Type Definition:
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: SOURCE_ID

Attribute Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:

  Range Domain Minimum:
    1

  Range Domain Maximum:
    N

Attribute:
Attribute Label: ORIGINATOR

Attribute Definition:
Author or developer of source material or data set.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: DATE_PUB

Attribute Definition:
Date of source material, publication, or date of personal communication with expert source.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

  Enumerated Domain Value:
    YYYYMM
Enumerated_Domain_Value_Definition:
YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
  Attribute_Label:
  TITLE
  Attribute_Definition:
  Title of source material or data.
  Attribute_Definition_Source:
  NOAA ESI Guidelines
  Attribute_Domain_Values:
  Unrepresentable_Domain:
  Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label:
  DATA_FORMAT
  Attribute_Definition:
  The format of the source material.
  Attribute_Definition_Source:
  NOAA ESI Guidelines
  Attribute_Domain_Values:
  Unrepresentable_Domain:
  Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label:
  PUB_PLACE
  Attribute_Definition:
  Publication place.
  Attribute_Definition_Source:
  NOAA ESI Guidelines
  Attribute_Domain_Values:
  Unrepresentable_Domain:
  Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label:
  PUBLISHER
  Attribute_Definition:
  Publisher.
  Attribute_Definition_Source:
  NOAA ESI Guidelines
  Attribute_Domain_Values:
  Unrepresentable_Domain:
  Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label:
  PUBLICATION
  Attribute_Definition:
Overview Description:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, REPTILES) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas
number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables (described in the Detailed_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed_Description section.

Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

Distribution_Information:
Distributor:
Contact_Information:
Contact Person Primary:
Contact Person:
ESI Manager
Contact Organization:
NOAA, Office of Response and Restoration
Contact Address:
Address Type:
Physical Address
Address:
    7600 Sand Point Way N.E.
City:
    Seattle
State_or_Province:
    Washington
Postal_Code:
    98115-6349
Contact_Voice_Telephone:
    (206) 526-6944
Contact_Facsimile_Telephone:
    (206) 526-6329
Contact_Electronic_Mail_Address:
    orr esi noaa gov

Resource_Description:
Downloadable Data

Distribution_Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard_Order_Process:
Digital_Form:
    Digital_Transfer_Information:
        Format_Name:
            Multiple formats
    Digital_Transfer_Option:
        Online_Option:
            Computer_Contact_Information:
                Network_Address:
                    Network_Resource_Name:
                        http://response.restoration.noaa.gov/esi_download

Fees:
    None

Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

Back To Index
Metadata_Reference_Information:
Metadata_Date:
20140609
Metadata_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person:
ESI Manager
Contact_Organization:
NOAA, Office of Response and Restoration
Contact_Position:
GIS Manager
Contact_Address:
Address_Type:
Physical Address
Address:
7600 Sand Point Way, N.E.
City:
Seattle
State_or_Province:
Washington
Postal_Code:
98115-6349
Contact_Voice_Telephone:
(206) 526-6944
Contact_Facsimile_Telephone:
(206) 526-6329
Contact_Electronic_Mail_Address:
orr.esi@noaa.gov
Metadata_Standard_Name:
Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version:
FGDC-STD-001-1998
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: REPTPT (Reptile Points)

Metadata:

- Identification_Information
- Data_Quality_Information
- Spatial_Data_Organization_Information
- Spatial_Reference_Information
- Entity_and_Attribute_Information
- Distribution_Information
- Metadata_Reference_Information

**Identification_Information:**

**Citation:**

**Originator:**

**Originator:**

**Originator:**
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

**Publication_Date:**
201208

**Title:**
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: REPTPT (Reptile Points)

**Edition:**
Second

**Geospatial_Data_Presentation_Form:**
vector digital data

**Series_Information:**

**Series_Name:**
Florida Panhandle ESI

**Issue_Identification:**
Florida Panhandle

**Publication_Information:**

**PublicationPlace:**
Seattle, Washington
Abstract:
This data set contains sensitive biological resource data for threatened and endangered reptiles/amphibians for the Florida Panhandle. Vector points in this data set represent threatened and endangered reptile/amphibians. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the REPTILES (Reptile Polygons) data layer, part of the larger Florida Panhandle ESI database, for additional reptile information.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
  Beginning_Date:
    2001
  Ending_Date:
    2011

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 2001 to 2011 and are documented in the Lineage section.

Status:
Progress:
  Complete

Maintenance_and_Update_Frequency:
  None Scheduled

Spatial_Domain:
  Bounding_Coordinates:
West_Bounding_Coordinate:  
-87.62500
East_Bounding_Coordinate:  
-83.68400
North_Bounding_Coordinate:  
30.74700
South_Bounding_Coordinate:  
28.27700

Keywords:

Theme:

Theme_Keyword_Thesaurus:  
ISO 19115 Topic Category
Theme_Keyword:  
biota
Theme_Keyword:  
environment

Theme:

Theme_Keyword_Thesaurus:  
None
Theme_Keyword:  
Environmental Monitoring
Theme_Keyword:  
ESI
Theme_Keyword:  
Sensitivity maps
Theme_Keyword:  
Coastal resources
Theme_Keyword:  
Oil spill planning
Theme_Keyword:  
Coastal Zone Management
Theme_Keyword:  
Wildlife
Theme_Keyword:  
Reptile

Theme:

Theme_Keyword_Thesaurus:  
NOS Data Explorer Topic Category
Theme_Keyword:  
Environmental Monitoring

Place:

Place_Keyword_Thesaurus:  
None
Place_Keyword:  
Florida Panhandle

Access_Constraints:  
None
Use_Constraints:  

DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse Graphic:

Browse Graphic File Name: 

Browse Graphic File Description:
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

Browse Graphic File Type: JPEG

Browse Graphic:

Browse Graphic File Name: 
http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhdle_2012_datafig2.jpg

Browse Graphic File Description:
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

Browse Graphic File Type: JPEG

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C. and the Fish; and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native Data Set Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial Data Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, soccon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biorese.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Back To Index
Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical_Consistency_Report:

A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new IDs are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

Completeness_Report:

These data represent a synthesis of digital data on threatened and endangered reptiles/amphibians. See also the REPTILES (Reptile Polygons) data layer, part of the larger Florida Panhandle ESI database, for additional reptile information. These data do not necessarily represent all reptile points occurrences in Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 5, Leatherback sea turtle, Dermochelys coriacea; 198, Reticulated flatwoods salamander, Ambystoma bishopi; 199, Frosted flatwoods salamander, Amblystoma cingulatum.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data.
Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

**Lineage:**

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC)

**Publication Date:**

2003

**Title:**

FLATWOODS SALAMANDER RECORDS NEAR PANHANDLE COAST

**Geospatial Data Presentation Form:**

tabular digital data

**Other Citation Details:**

UNPUBLISHED

**Type of Source Media:**

THUMB DRIVE

**Source Time Period of Content:**

**Time Period Information:**

**Single Date/Time:**

**Calendar Date:**

2011

**Source Currentness Reference:**

DATE OF PUBLICATION

**Source Citation Abbreviation:**

Src_0

**Source Contribution:**

REPTPT INFORMATION

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

FNAI (FLORIDA NATURAL AREAS INVENTORY)

**Publication Date:**

2001

**Title:**

FIELD GUIDE TO THE RARE ANIMALS OF FLORIDA

**Geospatial Data Presentation Form:**

HARDCOPY TEXT

**Online Linkage:**

http://www.fnai.org/FieldGuide/pdf/Ambystoma_cingulatum.PDF

**Type of Source Media:**
Geospatial_Data_Presentation_Form:
HARDCOPY TEXT
Other_Citation_Details:
UNPUBLISHED
Online_Linkage:
http://www.natureserve.org/explorer/servlet/NatureServe?searchName=Ambystoma+bishopi

Type_of_Source_Media:
online
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
  Calendar_Date:
    2011
Source_Currentness_Reference:
DATE OF PUBLICATION
Source_Citation_Abbreviation:
  Src_3
Source_Contribution:
  REPTPT INFORMATION
Source_Information:
Source_Citation:
  Citation_Information:
    Originator:
      NICHOLAS, M., NATIONAL PARK SERVICE, GULF ISLANDS NATIONAL SEASHORE
    Publication_Date:
      2011
    Title:
      GULF ISLANDS NATIONAL SEASHORE RESOURCES
  Geospatial_Data_Presentation_Form:
    EXPERT KNOWLEDGE
Other_Citation_Details:
  UNPUBLISHED
Type_of_Source_Media:
  PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
  Calendar_Date:
    2011
Source_Currentness_Reference:
DATE OF COMMUNICATION
Source_Citation_Abbreviation:
  Src_4
Source_Contribution:
  REPTPT INFORMATION

Process_Step:
Process_Description:
One main source of data was used to depict reptile points distribution and seasonality for this data layer. Florida Fish and Wildlife Conservation Commission (FWC) provided a digital point dataset for threatened/endangered amphibians in the Florida Panhandle. The above digital and/or hardcopy sources were compiled by the project biologist to create the REPTPT data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the REPTPT data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date:
201208

Process_Contact:
Contact_Information:
  Contact_Organization_Primary:
    Contact_Organization:
      NOAA, Office of Response and Restoration
    Contact_Person:
      ESI Manager
  Contact_Address:
    Address_Type:
      Physical address
    Address:
      7600 Sand Point Way, N.E.
    City:
      Seattle
    State_orProvince:
      Washington
    Postal_Code:
      98115-6349
  Contact_Voice_Telephone:
    (206) 526-6944
  Contact_Facsimile_Telephone:
    (206) 526-6329
  Contact_Electronic_Mail_Address:
    orr.esi@noaa.gov

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method:
Vector

Point_and_Vector_Object_Information:
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
Entity point

Point_and_Vector_Object_Count:
45

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Geographic:
Latitude_Resolution:
0.0000001
Longitude_Resolution:
0.0000001
Geographic_Coordinate_Units:
Decimal degrees

Geodetic_Model:
Horizontal_Datum_Name:
North American Datum of 1983
Ellipsoid_Name:
Geodetic Reference System 80
Semi-major_Axis:
6378137.000000
Denominator_of_Flattening_Ratio:
298.257222

Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label:
REPTPT.PAT
Entity_Type_Definition:
The REPTPT.PAT table contains attribute information for the vector points in this data set representing threatened and endangered reptile/amphibians. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:
**Attribute**

**Attribute Label:**

ID

**Attribute Definition:**
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (36), and record number.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

*Range Domain*

*Range Domain Minimum:* 2183600001

*Range Domain Maximum:* 2183600045

**Attribute:**

**Attribute Label:**

RARNUM

**Attribute Definition:**
An identifier that links directly to the BIORES table or the flat format BIOFILE table.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

*Range Domain*

*Range Domain Minimum:* 218001284

*Range Domain Maximum:* 218001287

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**

BIO_LUT

**Entity Type Definition:**

The data table BIO_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

RARNUM

**Attribute Definition:**
An identifier that links records in the BIO_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.

**Attribute Definition Source:**
NOAA

Attribute Domain Values:

Range Domain:
  Range Domain Minimum: 218000001
  Range Domain Maximum: 218001335

Attribute:
  Attribute Label: ID
  Attribute Definition:
  An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table, ID is a concatenation of atlas number (218), element number (36), and record number. ID values of 9999 are holes in polygons and do not contain information.
  Attribute Definition Source: NOAA

Attribute Domain Values:
  Range Domain:
    Range Domain Minimum: 2180100002
    Range Domain Maximum: 2183700142

Detailed Description:
  Entity Type:
    Entity Type Label: BIORES
    Entity Type Definition:
    The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
    Entity Type Definition Source: NOAA ESI Guidelines

Attribute:
  Attribute Label: RARNUM
  Attribute Definition:
  An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.
  Attribute Definition Source: NOAA

Attribute Domain Values:
  Range Domain:
    Range Domain Minimum: 218000001
    Range Domain Maximum:
218001335

Attribute:

  Attribute_Label: SPECIES_ID
  Attribute_Definition: Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 1
      Range_Domain_Maximum: N

Attribute:

  Attribute_Label: CONC
  Attribute_Definition: The field CONC refers to "concentration," abundance, or density values. No concentration data were available for reptiles, so this field is populated with ".-".
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

  Attribute_Label: SEASON_ID
  Attribute_Definition: Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 1
      Range_Domain_Maximum: N

Attribute:

  Attribute_Label: G_SOURCE
  Attribute_Definition: Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute_Definition_Source: NOAA ESI Guidelines
Attribute Domain Values:

Range Domain:

Range Domain Minimum:
1

Range Domain Maximum:
N

Attribute:

Attribute Label:
S_SOURCE

Attribute Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Range Domain:

Range Domain Minimum:
1

Range Domain Maximum:
N

Attribute:

Attribute Label:
ELEMENT

Attribute Definition:
Major categories of biological data.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
BIRD

Enumerated Domain Value Definition:
Birds

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
FISH

Enumerated Domain Value Definition:
Fish

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
HABITAT

Enumerated Domain Value Definition:
Habitats and plants

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
INVERT

**Enumerated_Domain_Value_Definition:**
Invertebrates

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
M_MAMMAL

**Enumerated_Domain_Value_Definition:**
Marine mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
REPTILE

**Enumerated_Domain_Value_Definition:**
Reptiles and Amphibians

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
T_MAMMAL

**Enumerated_Domain_Value_Definition:**
Terrestrial mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE

**Attribute_Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
E#####
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE_SEA

Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
E#######

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label:
SPECIES

Entity_Type_Definition:
The data table SPECIES identifies all species in the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness_Report for a list of layer-specific species.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
SPECIES_ID

Attribute_Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum:
1
Range_Domain_Maximum:
    N

Attribute:
  Attribute_Label:
  NAME
  Attribute_Definition:
    Species common name for the entire ESI data set.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain:
      Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label:
  GEN_SPEC
  Attribute_Definition:
    Species scientific name for the entire ESI data set.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Unrepresentable_Domain:
      Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label:
  ELEMENT
  Attribute_Definition:
    Major categories of biological data.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        BIRD
        Enumerated_Domain_Value_Definition:
          Birds
          Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        FISH
        Enumerated_Domain_Value_Definition:
          Fish
          Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
HABITAT

Enumerated_Domain_Value_Definition:
Habitats and plants

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
INVERT

Enumerated_Domain_Value_Definition:
Invertebrates

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
M_MAMMAL

Enumerated_Domain_Value_Definition:
Marine Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
REPTILE

Enumerated_Domain_Value_Definition:
Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
T_MAMMAL

Enumerated_Domain_Value_Definition:
Terrestrial Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
SUBELEMENT

Attribute_Definition:
Element subgroup delineating a logical grouping of species.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
alligator
Enumerated_Domain_Value_Definition: Alligator

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: amphibian
    Enumerated_Domain_Value_Definition: Amphibian
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: bear
    Enumerated_Domain_Value_Definition: Bear
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: bivalve
    Enumerated_Domain_Value_Definition: Bivalve
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: canine
    Enumerated_Domain_Value_Definition: Canine
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: cephalopod
    Enumerated_Domain_Value_Definition: Cephalopod
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: coral
Enumerated_Domain_Value_Definition:
Coral
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
crab
Enumerated_Domain_Value_Definition:
Crab
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
crayfish
Enumerated_Domain_Value_Definition:
Crayfish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
diadromous
Enumerated_Domain_Value_Definition:
Diadromous fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
diving
Enumerated_Domain_Value_Definition:
Diving bird
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
dolphin
Enumerated_Domain_Value_Definition:
Dolphin
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
e_nursery
**Enumerated_Domain_Value_Definition:**
Estuarine nursery fish

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**
e_resident

**Enumerated_Domain_Value_Definition:**
Estuarine resident fish

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**
fav

**Enumerated_Domain_Value_Definition:**
Floating aquatic vegetation

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**
fish

**Enumerated_Domain_Value_Definition:**
Fish

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**
freshwater

**Enumerated_Domain_Value_Definition:**
Freshwater fish

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**
gull_tern

**Enumerated_Domain_Value_Definition:**
Gull or tern

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
**Enumerated_Domain:**
**Enumerated_Domain_Value:**
invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      lobster
      Enumerated_Domain_Value_Definition: Lobster
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      m_benthic
      Enumerated_Domain_Value_Definition: Marine benthic fish
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      m_pelagic
      Enumerated_Domain_Value_Definition: Marine pelagic fish
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      manatee
      Enumerated_Domain_Value_Definition: Manatee
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      passerine
      Enumerated_Domain_Value_Definition: Passerine bird
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      pelagic
Enumerated_Domain_Value_Definition: Pelagic bird

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      plant

Enumerated_Domain_Value_Definition: Plant

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      raptor

Enumerated_Domain_Value_Definition: Raptor

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      sav

Enumerated_Domain_Value_Definition: Submerged aquatic vegetation

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      shorebird

Enumerated_Domain_Value_Definition: Shorebird

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      shrimp

Enumerated_Domain_Value_Definition: Shrimp

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      sm_mammal
Enumerated Domain Value Definition:
Small mammal

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:

snake

Enumerated Domain Value Definition:
Snake

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:

turtle

Enumerated Domain Value Definition:
Turtle

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:

wading

Enumerated Domain Value Definition:
Wading bird

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:

waterfowl

Enumerated Domain Value Definition:
Waterfowl

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:

wetland

Enumerated Domain Value Definition:
Wetland

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
NHP

Attribute Definition:
Natural Heritage Program global ranking.

**Attribute Definition Source:**
Network of Natural Heritage Program

**Attribute Domain Values:**

**Codeset Domain:**

**Codeset Name:**
- NHP Global Conservation Status Rank

**Codeset Source:**
- Natural Heritage Program

**Attribute:**

**Attribute Label:**
- DATE_PUB

**Attribute Definition:**
- Date of NHP listing.

**Attribute Definition Source:**
- NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- YYYYMM

**Enumerated Domain Value Description:**
- YYY for year and optionally MM for month

**Enumerated Domain Value Source:**
- NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- 0

**Enumerated Domain Value Description:**
- Date unspecified

**Enumerated Domain Value Source:**
- NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
- EL_SPE

**Attribute Definition:**
- Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.

**Attribute Definition Source:**
- NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
- E#####

**Enumerated Domain Value Description:**
- Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
**Entity Type**

**Entity Type Label:**
SEASONAL

**Entity Type Definition:**
The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute**

**Attribute Label:**
ELEMENT

**Attribute Definition:**
Major categories of biological data.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
BIRD

**Enumerated Domain Value Definition:**
Birds

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Enumerated Domain Value:**
FISH

**Enumerated Domain Value Definition:**
Fish

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Enumerated Domain Value:**
HABITAT

**Enumerated Domain Value Definition:**
Habitats and plants

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Enumerated Domain Value:**
INVERT
**Enumerated Domain Value Definition:**
Invertebrates

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
M_MAMMAL

**Enumerated Domain Value Definition:**
Marine Mammals

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
REPTILE

**Enumerated Domain Value Definition:**
Reptiles and Amphibians

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
T_MAMMAL

**Enumerated Domain Value Definition:**
Terrestrial Mammals

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
SPECIES_ID

**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**
1

**Range Domain Maximum:**
N

**Attribute:**

**Attribute Label:**
SEASON_ID

**Attribute Definition:**
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:
  Range_Domain_Minimum:
    1
  Range_Domain_Maximum:
    N

Attribute:
  Attribute_Label:
    JAN
  Attribute_Definition:
    January
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      X
    Enumerated_Domain_Value_Definition:
      Present in January
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    FEB
  Attribute_Definition:
    February
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      X
    Enumerated_Domain_Value_Definition:
      Present in February
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    MAR
  Attribute_Definition:
    March
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: APR
  Attribute_Definition: April
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in April
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: MAY
  Attribute_Definition: May
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in May
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: JUN
  Attribute_Definition: June
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in June
Attribute:
  Attribute_Label: JUL
  Attribute_Definition: July
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in July
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: AUG
  Attribute_Definition: August
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in August
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: SEP
  Attribute_Definition: September
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in September
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute: 
  Attribute_Label: OCT 
  Attribute_Definition: October 
  Attribute_Definition_Source: NOAA ESI Guidelines 
  Attribute_Domain_Values: 
    Enumerated_Domain: 
      Enumerated_Domain_Value: X 
      Enumerated_Domain_Value_Definition: Present in October 
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute: 
  Attribute_Label: NOV 
  Attribute_Definition: November 
  Attribute_Definition_Source: NOAA ESI Guidelines 
  Attribute_Domain_Values: 
    Enumerated_Domain: 
      Enumerated_Domain_Value: X 
      Enumerated_Domain_Value_Definition: Present in November 
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute: 
  Attribute_Label: DEC 
  Attribute_Definition: December 
  Attribute_Definition_Source: NOAA ESI Guidelines 
  Attribute_Domain_Values: 
    Enumerated_Domain: 
      Enumerated_Domain_Value: X 
      Enumerated_Domain_Value_Definition: Present in December 
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute: 
  Attribute_Label: EL_SPE_SEA 
  Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.

**Attribute**

**Attribute Label:**

EL_SPE_SEA

**Attribute Definition:**

Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

E######

**Enumerated Domain Value Definition:**

Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**

BREED

**Entity Type Definition:**

The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.

**Entity Type Definition Source:**

NOAA ESI Guidelines
Attribute Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
- Range Domain Minimum: 1
- Range Domain Maximum: 12

Attribute:
Attribute Label: BREED1

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
- Enumerated Domain Value: Y
  - Enumerated Domain Value Definition: Life-history stage or activity present
    - Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
- Enumerated Domain Value: N
  - Enumerated Domain Value Definition: Life-history stage or activity not present or not reported
    - Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
- Enumerated Domain Value: -
  - Enumerated Domain Value Definition: Breed category not used or not appropriate for record(s) in question
    - Enumerated Domain Value Definition Source: NOAA ESI Guidelines
BREED2

Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
   Enumerated_Domain_Value:
      Y
   Enumerated_Domain_Value_Definition:
      Life-history stage or activity present
   Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Enumerated_Domain:
   Enumerated_Domain_Value:
      N
   Enumerated_Domain_Value_Definition:
      Life-history stage or activity not present or not reported
   Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Enumerated_Domain:
   Enumerated_Domain_Value:
      -
   Enumerated_Domain_Value_Definition:
      Breed category not used or not appropriate for record(s) in question
   Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:

Attribute_Label:
BREED3

Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
   Enumerated_Domain_Value:
      Y
Enumerated_Domain_Value_Definition:
Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
N
Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
-

Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
BREED4
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.
Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
Y
Enumerated_Domain_Value_Definition:
Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
N
Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:

Enumerated_Domain_Value_Definition:
  Breed category not used or not appropriate for record(s) in question

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute:

Attribute_Label:
  BREED5

Attribute_Definition:
  Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

Attribute_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
  Y

Enumerated_Domain_Value_Definition:
  Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
  N

Enumerated_Domain_Value_Definition:
  Life-history stage or activity not present or not reported

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:

Enumerated_Domain_Value_Definition:
  Breed category not used or not appropriate for record(s) in question

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label:
  STATUS

Entity_Type_Definition:
  The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse_Graphic
section for a link to the entity-relationship diagram, which describes the way this
table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
ELEMENT
Attribute_Definition:
Major categories of biological data.
Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
BIRD
Enumerated_Domain_Value_Definition:
Birds
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
FISH
Enumerated_Domain_Value_Definition:
Fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
HABITAT
Enumerated_Domain_Value_Definition:
Habitats and Plants
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
INVERT
Enumerated_Domain_Value_Definition:
Invertebrates
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
M_MAMMAL
Enumerated_Domain_Value_Definition:
Marine Mammals

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute Domain Values:**

*Enumerated_Domain:

*Enumerated_Domain_Value:

REPTILE

*Enumerated_Domain_Value_Definition:

Reptiles and Amphibians

*Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines

**Attribute Domain Values:**

*Enumerated_Domain:

*Enumerated_Domain_Value:

T_MAMMAL

*Enumerated_Domain_Value_Definition:

Terrestrial Mammals

*Enumerated_Domain_Value_Definition_Source:

NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:

SPECIES_ID

*Attribute_Definition:

Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

*Attribute_Definition_Source:

NOAA ESI Guidelines

**Attribute Domain Values:**

*Range_Domain:

*Range_Domain_Minimum:

1

*Range_Domain_Maximum:

N

**Attribute:**

*Attribute_Label:

STATE

*Attribute_Definition:

Two-letter state abbreviation.

*Attribute_Definition_Source:

NOAA ESI Guidelines

**Attribute Domain Values:**

*Unrepresentable_Domain:

Acceptable values change from atlas to atlas.

**Attribute:**

*Attribute_Label:

COUNTRY

*Attribute_Definition:

Three-letter country abbreviation.
Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute Label: S

Attribute Definition:
State threatened or endangered status.

Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: E

Enumerated Domain Value Definition:
Endangered on state list

Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: T

Enumerated Domain Value Definition:
Threatened on state list

Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: C

Enumerated Domain Value Definition:
Species of Special Concern

Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:

Attribute Label: F

Attribute Definition:
Federal threatened or endangered status.

Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value: E

Enumerated Domain Value Definition:
Endangered on federal list
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T
    Enumerated_Domain_Value_Definition:
      Threatened on federal list
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      C
    Enumerated_Domain_Value_Definition:
      Species of Special Concern
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    I
  Attribute_Definition:
    International threatened or endangered status.
  Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      E
    Enumerated_Domain_Value_Definition:
      Endangered on international list
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T
    Enumerated_Domain_Value_Definition:
      Threatened on international list
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      C
    Enumerated_Domain_Value_Definition:
      Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
   Attribute_Label: S_DATE
   Attribute_Definition: Publication date of source material used to assign state status values for each species, if used.
   Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
   Enumerated_Domain:
      Enumerated_Domain_Value: YYYYMM
      Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
   Attribute_Label: F_DATE
   Attribute_Definition: Publication date of source material used to assign federal status values for each species, if used.
   Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
   Enumerated_Domain:
      Enumerated_Domain_Value: YYYYMM
      Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
   Attribute_Label: I_DATE
   Attribute_Definition: Publication date of source material used to assign international status values for each species, if used.
   Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
   Enumerated_Domain:
      Enumerated_Domain_Value: YYYYMM
      Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
EL_SPE

**Attribute Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
E####

**Enumerated Domain Value Definition:**
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

**Entity Type Label:** SOURCES

**Entity Type Definition:**
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:** SOURCE_ID

**Attribute Definition:**
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**
1

**Range Domain Maximum:**
N
Attribute:
  Attribute_Label: ORIGINATOR
  Attribute_Definition: Author or developer of source material or data set.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values: Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: DATE_PUB
  Attribute_Definition: Date of source material, publication, or date of personal communication with expert source.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values: Enumerated_Domain:
    Enumerated_Domain_Value:
      YYYYMM
    Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: TITLE
  Attribute_Definition: Title of source material or data.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values: Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: DATA_FORMAT
  Attribute_Definition: The format of the source material.
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values: Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
PUB_PLACE
Attribute_Definition:
Publication place.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
PUBLISHER
Attribute_Definition:
Publisher.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
PUBLICATION
Attribute_Definition:
Additional citation information.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
ONLINE_LINK
Attribute_Definition:
Online computer resource URL.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label:
SCALE
Attribute_Definition:
Description of the source scale.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.
**Attribute:**

**Attribute Label:**
TIME_PERIOD

**Attribute Definition:**
Date(s) of data collection that the source material is based upon.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Unrepresentable Domain:**
Acceptable values change from atlas to atlas.

**Overview Description:**

**Entity and Attribute Overview:**

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, REPTPT) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonality, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables (described in the Detailed_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram,
describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed_Description section.

**Entity_and_Attribute_Detail_Citation:**
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

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**Distribution_Information:**

**Distributor:**

**Contact_Information:**

*Contact_Person_Primary:*

*Contact_Person:*

ESI Manager

*Contact_Organization:*

NOAA, Office of Response and Restoration

*Contact_Address:*

*Address_Type:*

Physical Address

*Address:*

7600 Sand Point Way N.E.

*City:*

Seattle

*State_or_Province:*

Washington

*Postal_Code:*

98115-6349

*Contact_Voice_Telephone:*

(206) 526-6944

*Contact_Facsimile_Telephone:*

(206) 526-6329

*Contact_Electronic_Mail_Address:*

orr.esi@noaa.gov

**Resource_Description:**

Downloadable Data

**Distribution_Liability:**

These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

**Standard_Order_Process:**

**Digital_Form:**

**Digital_Transfer_Information:**
Format_Name:
  Multiple formats

Digital_Transfer_Option:
  Online_Option:

  Computer_Contact_Information:
    Network_Address:
      Network_Resource_Name:
        http://response.restoration.noaa.gov/esi_download

Fees:
  None

Custom_Order_Process:
  Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

Back To Index

Metadata_Reference_Information:
  Metadata_Date:
    20140609
  Metadata_Contact:
    Contact_Information:
      Contact<Person Primary:
        Contact_Person:
          ESI Manager
        Contact_Organization:
          NOAA, Office of Response and Restoration
      Contact_Position:
        GIS Manager
    Contact_Address:
      Address_Type:
        Physical Address
      Address:
        7600 Sand Point Way, N.E.
      City:
        Seattle
      State_or_Province:
        Washington
      Postal_Code:
        98115-6349
    Contact_Voice_Telephone:
      (206) 526-6944
    Contact_Facsimile_Telephone:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: M_MAMMAL (Marine Mammal Polygons)

Metadata:

- **Identification Information**
- **Data Quality Information**
- **Spatial Data Organization Information**
- **Spatial Reference Information**
- **Entity and Attribute Information**
- **Distribution Information**
- **Metadata Reference Information**

---

**Identification Information:**

**Publication Information:**

<table>
<thead>
<tr>
<th><strong>Publication Place</strong></th>
<th><strong>Seattle, Washington</strong></th>
</tr>
</thead>
</table>

**Series Information:**

**Series Name:**

- Florida Panhandle ESI

**Issue Identification:**

- Florida Panhandle

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**Geospatial Data Presentation Form:**

- vector digital data

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**Title:**

- Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: M_MAMMAL (Marine Mammal Polygons)

**Edition:**

- Second
Publisher:
NOAA's Ocean Service, Office of Response and Restoration (OR&R), Emergency Response Division (ERD).

Other_Citation_Details:

Online_Linkage:
http://response.restoration.noaa.gov/esi

Online_Linkage:
http://response.restoration.noaa.gov/esi_download

Online_Linkage:
http://response.restoration.noaa.gov/esi_guidelines

Description:

Abstract:
This data set contains sensitive biological resource data for dolphins and manatees in the Florida Panhandle. Vector polygons in this data set represent dolphins and manatees. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:
Single_Date/Time:
Calendar_Date:
2011

Currentness_Reference:
The data were compiled during 2010-2012. The currentness date for the data is 2011 and is documented in the Lineage section.

Status:
Progress:
Complete

Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate:
-87.62500
East_Bounding_Coordinate:
-83.68400
North_Bounding_Coordinate:
30.74700
South_Bounding_Coordinate:
28.27700

Keywords:
Theme:
Theme_Keyword_Thesaurus:
ISO 19115 Topic Category
Theme_Keyword:
biota
Theme_Keyword:
environment

Theme:
Theme_Keyword_Thesaurus:
None
Theme_Keyword:
Environmental Monitoring
Theme_Keyword:
ESI
Theme_Keyword:
Sensitivity maps
Theme_Keyword:
Coastal resources
Theme_Keyword:
Oil spill planning
Theme_Keyword:
Coastal Zone Management
Theme_Keyword:
Wildlife
Theme_Keyword:
Marine Mammal

Theme:
Theme_Keyword_Thesaurus:
NOS Data Explorer Topic Category
Theme_Keyword:
Environmental Monitoring

Place:
Place_Keyword_Thesaurus:
None
Place_Keyword:
Florida Panhandle

Access_Constraints:
None

Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of
field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

**BrowseGraphic:**

**BrowseGraphic_File_Name:**

**BrowseGraphic_File_Description:**
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

**BrowseGraphic_File_Type:**
JPEG

**BrowseGraphic:**

**BrowseGraphic_File_Name:**

**BrowseGraphic_File_Description:**
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

**BrowseGraphic_File_Type:**
JPEG

**DataSetCredit:**
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

**NativeDataSetEnvironment:**
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, soccon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

**DataQualityInformation:**

**AttributeAccuracy:**

**AttributeAccuracy_Report:**
A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

**Logical_Consistency_Report:**

A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUM's are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

**Completeness_Report:**

These data represent a synthesis of expert knowledge and digital data on marine mammal distribution and hot spots, specifically for dolphins and manatees. These data do not necessarily represent all marine mammal occurrences in Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 10, West Indian manatee, Trichechus manatus; 17, Bottlenose dolphin, Tursiops truncatus; 87, Rough-toothed dolphin, Steno bredanensis.

**Positional_Accuracy:**

**Horizontal_Positional_Accuracy:**

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.
Lineage:

Source Information:
Source Citation:

Citation Information:
Originator:
FWC-FWRI; DAUPHIN ISLAND SEA LAB; U.S. GEOLOGICAL SURVEY
Publication Date:
2011
Title:
ESI_TMRELABUNDANCE_2011_05_06 (MANATEE DISTRIBUTION)
Geospatial Data Presentation Form:
vector digital data
Other Citation Details:
UNPUBLISHED

Type of Source Media:
FTP SITE
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
2011
Source Currentness Reference:
DATE OF COMMUNICATION
Source Citation Abbreviation:
Src_0
Source Contribution:
M_MAMMAL INFORMATION
Source Information:
Source Citation:

Citation Information:
Originator:
HARVEY, A. (BIG LAGOON STATE PARK)
Publication Date:
2011
Title:
STATE PARK RESOURCES FOR FLORIDA PANHANDLE
Geospatial Data Presentation Form:
EXPERT KNOWLEDGE
Other Citation Details:
UNPUBLISHED

Type of Source Media:
PERSONAL COMMUNICATION
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date:
Two main sources of data were used to depict marine mammal distribution and seasonality for this data layer: 1) personal interviews with resource experts from Big Lagoon State Park and NOAA, and 2) a digital data set (manatees) provided by Florida Fish and Wildlife Conservation Commission-Fish and Wildlife Research Institute (FWFCC-FWRI), Dauphin Island Sea Lab, and U.S. Geological Survey (USGS). The above digital and/or hardcopy sources were compiled by the project biologist to create the M_MAMMAL data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled
ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the M_MAMMAL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

*Process_Date:*

201208

*Process Contact:*

*Contact Information:*

  *Contact_Organization_Primary:*
  *Contact_Organization:*
  NOAA, Office of Response and Restoration

  *Contact_Person:*
  ESI Manager

*Contact_Address:*

  *Address_Type:*
  Physical address

  *Address:*
  7600 Sand Point Way, N.E.

  *City:*
  Seattle

  *State_or_Province:*
  Washington

  *Postal_Code:*
  98115-6349

*Contact_Voice_Telephone:*

  (206) 526-6944

*Contact_Facsimile_Telephone:*

  (206) 526-6329

*Contact_Electronic_Mail_Address:*

  orr.esi@noaa.gov

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*Spatial_Data_Organization_Information:*

  *Direct_Spatial_Reference_Method:*
  Vector

  *Point_and_Vector_Object_Information:*

    *SDTS_Terms_Description:*

      *SDTS_Point_and_Vector_Object_Type:*
      GT-polygon composed of chains

      *Point_and_Vector_Object_Count:*
      2017

    *SDTS_Terms_Description:*

      *SDTS_Point_and_Vector_Object_Type:*
      Area point

      *Point_and_Vector_Object_Count:*
2018

**SDTS_Terms_Description:**
- **SDTS_Point_and_Vector_Object_Type:** Complete chain
  - **Point_and_Vector_Object_Count:** 21535

**SDTS_Terms_Description:**
- **SDTS_Point_and_Vector_Object_Type:** Link
  - **Point_and_Vector_Object_Count:** 493286

**SDTS_Terms_Description:**
- **SDTS_Point_and_Vector_Object_Type:** Node, planar graph
  - **Point_and_Vector_Object_Count:** 21243

**Spatial_Reference_Information:**

**Horizontal_Coordinate_System_Definition:**

**Geographic:**
- **Latitude_Resolution:** 0.0000001
- **Longitude_Resolution:** 0.0000001
- **Geographic_Coordinate_Units:** Decimal degrees

**Geodetic_Model:**
- **Horizontal_Datum_Name:** North American Datum of 1983
- **Ellipsoid_Name:** Geodetic Reference System 80
- **Semi-major_Axis:** 6378137.000000
- **Denominator_of_Flattening_Ratio:** 298.257222

**Entity_and_Attribute_Information:**

**Detailed_Description:**

**Entity_Type:**
- **Entity_Type_Label:** M_MAMMAL.PAT
- **Entity_Type_Definition:** The M_MAMMAL.PAT table contains attribute information for the vector polygons
in this data set representing dolphins and manatees. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
ID

**Attribute_Definition:**
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (4), and record number. ID values of 9999 are holes in polygons and do not contain information.

**Attribute_Definition_Source:**
NOAA

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**
2180400002

**Range_Domain_Maximum:**
2180410641

**Attribute:**

**Attribute_Label:**
RARNUM

**Attribute_Definition:**
An identifier that links directly to the BIORES table or the flat format BIOFILE table. RARNUM values of 0 are holes in the polygons and do not contain information.

**Attribute_Definition_Source:**
NOAA

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**
218001247

**Range_Domain_Maximum:**
218001264

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**
BIO_LUT

**Entity_Type_Definition:**
The data table BIO_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other
attribute tables in the ESI data structure.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
RARNUM

Attribute_Definition:
An identifier that links records in the BIO_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.

Attribute_Definition_Source:
NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum:
218000001

Range_Domain_Maximum:
218001335

Attribute:

Attribute_Label:
ID

Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (4), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source:
NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum:
2180100002

Range_Domain_Maximum:
2183700142

Detailed_Description:

Entity_Type:

Entity_Type_Label:
BIORES

Entity_Type_Definition:
The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
RARNUM

**Attribute Definition:**
An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 218000001
- **Range Domain Maximum:** 218001335

**Attribute:**

**Attribute Label:** SPECIES_ID

**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 1
- **Range Domain Maximum:** N

**Attribute:**

**Attribute Label:** CONC

**Attribute Definition:**
The field CONC refers to "concentration," abundance, or density values. No quantitative data were available for marine mammals, so the concentration field may contain descriptive terms such as "HIGH" or "LOW" or a concentration approximation such as "<100". Counts were derived from a variety of surveys and may range in date (see Lineage).

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Unrepresentable Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:** SEASON_ID

**Attribute Definition:**
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

**Attribute Definition Source:**
NOAA ESI Guidelines
Attribute Domain Values:
Range Domain:
  Range Domain Minimum:
    1
  Range Domain Maximum:
    N

Attribute:
  Attribute Label: G_SOURCE
  Attribute Definition: Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
  Range Domain:
    Range Domain Minimum:
      1
    Range Domain Maximum:
      N

Attribute:
  Attribute Label: S_SOURCE
  Attribute Definition: Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
  Range Domain:
    Range Domain Minimum:
      1
    Range Domain Maximum:
      N

Attribute:
  Attribute Label: ELEMENT
  Attribute Definition: Major categories of biological data.
  Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      BIRD
    Enumerated Domain Value Definition:
      Birds
    Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

**Attribute Domain Values**:

- **Enumerated Domain**:
  - **Enumerated Domain Value**: FISH
    - **Enumerated Domain Value Definition**: Fish
    - **Enumerated Domain Value Definition Source**: NOAA ESI Guidelines

- **Enumerated Domain**:
  - **Enumerated Domain Value**: HABITAT
    - **Enumerated Domain Value Definition**: Habitats and plants
    - **Enumerated Domain Value Definition Source**: NOAA ESI Guidelines

- **Enumerated Domain**:
  - **Enumerated Domain Value**: INVERT
    - **Enumerated Domain Value Definition**: Invertebrates
    - **Enumerated Domain Value Definition Source**: NOAA ESI Guidelines

- **Enumerated Domain**:
  - **Enumerated Domain Value**: M_MAMMAL
    - **Enumerated Domain Value Definition**: Marine mammals
    - **Enumerated Domain Value Definition Source**: NOAA ESI Guidelines

- **Enumerated Domain**:
  - **Enumerated Domain Value**: REPTILE
    - **Enumerated Domain Value Definition**: Reptiles and Amphibians
    - **Enumerated Domain Value Definition Source**: NOAA ESI Guidelines

- **Enumerated Domain**:
  - **Enumerated Domain Value**: T_MAMMAL
    - **Enumerated Domain Value Definition**: Terrestrial mammals
    - **Enumerated Domain Value Definition Source**: NOAA ESI Guidelines
NOAA ESI Guidelines

Attribute:
Attribute_Label:
EL_SPE
Attribute_Definition:
Concatenation of ELEMENT and SPECIES_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
E####
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
E########
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Detailed_Description:
Entity_Type:
Entity_Type_Label:
SPECIES
Entity_Type_Definition:
The data table SPECIES identifies all species in the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness Report for list of layer specific species.
**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
SPECIES_ID

**Attribute_Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Range_Domain:**
  - **Range_Domain_Minimum:** 1
  - **Range_Domain_Maximum:** N

**Attribute:**

**Attribute_Label:**
NAME

**Attribute_Definition:**
Species common name for the entire ESI data set.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Unrepresentable_Domain:**
  Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**
GEN_SPEC

**Attribute_Definition:**
Species scientific name for the entire ESI data set.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Unrepresentable_Domain:**
  Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**
ELEMENT

**Attribute_Definition:**
Major categories of biological data.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

- **Enumerated_Domain:**
  - **Enumerated_Domain_Value:** BIRD
    **Enumerated_Domain_Value_Definition:**
    - Florida Panhandle ESI: M_MAMMAL
Birds

\textit{Enumerated\_Domain\_Value\_Definition\_Source:}
NOAA ESI Guidelines

\textbf{Attribute\_Domain\_Values:}

\textit{Enumerated\_Domain:}

\textit{Enumerated\_Domain\_Value:}
FISH

\textit{Enumerated\_Domain\_Value\_Definition:}
Fish

\textit{Enumerated\_Domain\_Value\_Definition\_Source:}
NOAA ESI Guidelines

\textbf{Attribute\_Domain\_Values:}

\textit{Enumerated\_Domain:}

\textit{Enumerated\_Domain\_Value:}
HABITAT

\textit{Enumerated\_Domain\_Value\_Definition:}
Habitats and plants

\textit{Enumerated\_Domain\_Value\_Definition\_Source:}
NOAA ESI Guidelines

\textbf{Attribute\_Domain\_Values:}

\textit{Enumerated\_Domain:}

\textit{Enumerated\_Domain\_Value:}
INVERT

\textit{Enumerated\_Domain\_Value\_Definition:}
Invertebrates

\textit{Enumerated\_Domain\_Value\_Definition\_Source:}
NOAA ESI Guidelines

\textbf{Attribute\_Domain\_Values:}

\textit{Enumerated\_Domain:}

\textit{Enumerated\_Domain\_Value:}
M\_MAMMAL

\textit{Enumerated\_Domain\_Value\_Definition:}
Marine Mammals

\textit{Enumerated\_Domain\_Value\_Definition\_Source:}
NOAA ESI Guidelines

\textbf{Attribute\_Domain\_Values:}

\textit{Enumerated\_Domain:}

\textit{Enumerated\_Domain\_Value:}
REPTILE

\textit{Enumerated\_Domain\_Value\_Definition:}
Reptiles and Amphibians

\textit{Enumerated\_Domain\_Value\_Definition\_Source:}
NOAA ESI Guidelines

\textbf{Attribute\_Domain\_Values:}

\textit{Enumerated\_Domain:}

\textit{Enumerated\_Domain\_Value:}
T\_MAMMAL

\textit{Enumerated\_Domain\_Value\_Definition:}
Terrestrial Mammals

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:* SUBELEMENT

*Attribute_Definition:* Element subgroup delineating a logical grouping of species.

*Attribute_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:
  *Enumerated_Domain_Value:* alligator
  *Enumerated_Domain_Value_Definition:* Alligator
  *Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:
  *Enumerated_Domain:
    *Enumerated_Domain_Value:* amphibian
    *Enumerated_Domain_Value_Definition:* Amphibian
    *Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:
  *Enumerated_Domain:
    *Enumerated_Domain_Value:* bear
    *Enumerated_Domain_Value_Definition:* Bear
    *Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:
  *Enumerated_Domain:
    *Enumerated_Domain_Value:* bivalve
    *Enumerated_Domain_Value_Definition:* Bivalve
    *Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:
  *Enumerated_Domain:
    *Enumerated_Domain_Value:* canine
    *Enumerated_Domain_Value_Definition:* Canine
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
cephalopod
Enumerated_Domain_Value_Definition:
Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
coral
Enumerated_Domain_Value_Definition:
Coral
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
crab
Enumerated_Domain_Value_Definition:
Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
crayfish
Enumerated_Domain_Value_Definition:
Crayfish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
diadromous
Enumerated_Domain_Value_Definition:
Diadromous fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
diving
Enumerated_Domain_Value_Definition:
Diving bird
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
dolphin
Enumerated Domain Value Definition: Dolphin
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
e_nursery
Enumerated Domain Value Definition: Estuarine nursery fish
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
e_resident
Enumerated Domain Value Definition: Estuarine resident fish
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
fav
Enumerated Domain Value Definition: Floating aquatic vegetation
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
fish
Enumerated Domain Value Definition: Fish
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
freshwater
Enumerated Domain Value Definition: Freshwater fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
gull_tern
Enumerated_Domain_Value_Definition:
Gull or tern
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
invert
Enumerated_Domain_Value_Definition:
Invertebrate
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
lobster
Enumerated_Domain_Value_Definition:
Lobster
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
m_benthic
Enumerated_Domain_Value_Definition:
Marine benthic fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
m_pelagic
Enumerated_Domain_Value_Definition:
Marine pelagic fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
manatee
Enumerated_Domain_Value_Definition:
Manatee
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
  passerine
Enumerable_Domain_Value_Definition:
  Passerine bird
Enumerable_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
  pelagic
Enumerable_Domain_Value_Definition:
  Pelagic bird
Enumerable_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
  plant
Enumerable_Domain_Value_Definition:
  Plant
Enumerable_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
  raptor
Enumerable_Domain_Value_Definition:
  Raptor
Enumerable_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
  sav
Enumerable_Domain_Value_Definition:
  Submerged aquatic vegetation
Enumerable_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
  shorebird
Enumerable_Domain_Value_Definition:
  Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      shrimp
    Enumerated_Domain_Value_Definition:
      Shrimp
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      sm_mammal
    Enumerated_Domain_Value_Definition:
      Small mammal
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      snake
    Enumerated_Domain_Value_Definition:
      Snake
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      turtle
    Enumerated_Domain_Value_Definition:
      Turtle
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      wading
    Enumerated_Domain_Value_Definition:
      Wading bird
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      waterfowl
    Enumerated_Domain_Value_Definition:
      Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
    wetland
Enumerated_Domain_Value_Definition:
    Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
Attribute_Label:
    NHP
Attribute_Definition:
    Natural Heritage Program global ranking.
Attribute_Definition_Source:
    Network of Natural Heritage Program
Attribute_Domain_Values:
Codeset_Domain:
    Codeset_Name:
        NHP Global Conservation Status Rank
    Codeset_Source:
        Natural Heritage Program

Attribute:
Attribute_Label:
    DATE_PUB
Attribute_Definition:
    Date of NHP listing.
Attribute_Definition_Source:
    NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        YYYYMM
    Enumerated_Domain_Value_Definition:
        YYYY for year and optionally MM for month
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        0
    Enumerated_Domain_Value_Definition:
        Date unspecified
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
Attribute_Label:
**EL_SPE**

**Attribute Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
E####

**Enumerated Domain Value Definition:**
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**
SEASONAL

**Entity Type Definition:**
The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
ELEMENT

**Attribute Definition:**
Major categories of biological data.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
BIRD

**Enumerated Domain Value Definition:**
Birds

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines
Attribute Definition: Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum: 1
    Range_Domain_Maximum: N

Attribute:
  Attribute_Label: SEASON_ID
  Attribute_Definition: Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
  Attribute_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: JAN
  Attribute_Definition: January
  Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: X
    Enumerated_Domain_Value_Definition: Present in January
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: FEB
  Attribute_Definition: February
  Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: X
*Enumerated_Domain_Value_Definition:*  
Present in February

*Enumerated_Domain_Value_Definition_Source:*  
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
MAR

**Attribute_Definition:**
March

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*  
**Enumerated_Domain_Value:**
X

*Enumerated_Domain_Value_Definition:*  
Present in March

*Enumerated_Domain_Value_Definition_Source:*  
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
APR

**Attribute_Definition:**
April

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*  
**Enumerated_Domain_Value:**
X

*Enumerated_Domain_Value_Definition:*  
Present in April

*Enumerated_Domain_Value_Definition_Source:*  
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
MAY

**Attribute_Definition:**
May

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*  
**Enumerated_Domain_Value:**
X

*Enumerated_Domain_Value_Definition:*  
Present in May

*Enumerated_Domain_Value_Definition_Source:*  
Florida Panhandle ESI:  M_MAMMAL
NOAA ESI Guidelines

Attribute:
  Attribute_Label: JUN
  Attribute_Definition: June
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in June
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: JUL
  Attribute_Definition: July
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in July
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: AUG
  Attribute_Definition: August
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
      Enumerated_Domain_Value_Definition: Present in August
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label:
Attribute_Definition:
  September
Attribute_Definition_Source:
  NOAA ESI Guidelines
Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      X
    Enumerated_Domain_Value_Definition:
      Present in September
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    OCT
  Attribute_Definition:
    October
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in October
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    NOV
  Attribute_Definition:
    November
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition:
        Present in November
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    DEC
  Attribute_Definition:
    December
**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

\[ X \]

**Enumerated Domain Value Definition:**

Present in December

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

EL_SPE_SEA

**Attribute Definition:**

Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

E#######

**Enumerated Domain Value Definition:**

Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

**Entity Type Label:**

BREED

**Entity Type Definition:**

The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.

**Entity Type Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

EL_SPE_SEA

**Attribute Definition:**

Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.

**Attribute Definition Source:**

NOAA ESI Guidelines
**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

E######

**Enumerated Domain Value Definition:**

Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g., ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**

MONTH

**Attribute Definition:**

Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**

1

**Range Domain Maximum:**

12

**Attribute:**

**Attribute Label:**

BREED1

**Attribute Definition:**

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

Y

**Enumerated Domain Value Definition:**

Life-history stage or activity present

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

N
*Enumerated_Domain_Value_Definition:*
  Life-history stage or activity not present or not reported

*Enumerated_Domain_Value_Definition_Source:*
  NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

- 

*Enumerated_Domain_Value_Definition:*
  Breed category not used or not appropriate for record(s) in question

*Enumerated_Domain_Value_Definition_Source:*
  NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
  BREED2

**Attribute_Definition:**
  Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

*Attribute_Definition_Source:*
  NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
  Y

*Enumerated_Domain_Value_Definition:*
  Life-history stage or activity present

*Enumerated_Domain_Value_Definition_Source:*
  NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
  N

*Enumerated_Domain_Value_Definition:*
  Life-history stage or activity not present or not reported

*Enumerated_Domain_Value_Definition_Source:*
  NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**

- 

*Enumerated_Domain_Value_Definition:*
  Breed category not used or not appropriate for record(s) in question

*Enumerated_Domain_Value_Definition_Source:*
  NOAA ESI Guidelines

**Attribute:**
**Attribute Label:**
BREED3

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    - Y
  - **Enumerated Domain Value Definition:**
    Life-history stage or activity present
  - **Enumerated Domain Value Definition Source:**
    NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    - N
  - **Enumerated Domain Value Definition:**
    Life-history stage or activity not present or not reported
  - **Enumerated Domain Value Definition Source:**
    NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    - 
  - **Enumerated Domain Value Definition:**
    Breed category not used or not appropriate for record(s) in question
  - **Enumerated Domain Value Definition Source:**
    NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
BREED4

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    - 
  - **Enumerated Domain Value Definition:**
    Breed category not used or not appropriate for record(s) in question
  - **Enumerated Domain Value Definition Source:**
    NOAA ESI Guidelines
Y

Enumerated_Domain_Value_Definition:
Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
N

Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
-

Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
BREED5

Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
Y

Enumerated_Domain_Value_Definition:
Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
N

Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated Domain:
  Enumerated Domain Value:
    -

Enumerated Domain Value Definition:
  Breed category not used or not appropriate for record(s) in question

Enumrated Domain Value Definition Source:
  NOAA ESI Guidelines

Detailed Description:

Entity Type:
  Entity Type Label:
    STATUS
  Entity Type Definition:
    The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity Type Definition Source:
  NOAA ESI Guidelines

Attribute:
  Attribute Label:
    ELEMENT
  Attribute Definition:
    Major categories of biological data.

Attribute Definition Source:
  NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      BIRD
    Enumerated Domain Value Definition:
      Birds
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      FISH
    Enumerated Domain Value Definition:
      Fish
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      HABITAT
    Enumerated Domain Value Definition:
      Habitats and Plants
    Enumerated Domain Value Definition Source:
Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
INVERT
Enumerated Domain Value Definition:
Invertebrates
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Enumerated Domain Value:
M_MAMMAL
Enumerated Domain Value Definition:
Marine Mammals
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Enumerated Domain Value:
REPTILE
Enumerated Domain Value Definition:
Reptiles and Amphibians
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Enumerated Domain Value:
T_MAMMAL
Enumerated Domain Value Definition:
Terrestrial Mammals
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
SPECIES_ID
Attribute Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Range Domain:

Range Domain Minimum:
1
Range Domain Maximum:
N
**Attribute Label:**
STATE

**Attribute Definition:**
Two-letter state abbreviation.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Unrepresentable Domain:**
  Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
COUNTRY

**Attribute Definition:**
Three-letter country abbreviation.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Unrepresentable Domain:**
  Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
S

**Attribute Definition:**
State threatened or endangered status.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    E

  **Enumerated Domain Value Definition:**
  Endangered on state list

  **Enumerated Domain Value Definition Source:**
  NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    T

  **Enumerated Domain Value Definition:**
  Threatened on state list

  **Enumerated Domain Value Definition Source:**
  NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    C

  **Enumerated Domain Value Definition:**
  Species of Special Concern
Attribute:
  Attribute_Label:
    F
  Attribute_Definition:
    Federal threatened or endangered status.
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      E
    Enumerated_Domain_Value_Definition:
      Endangered on federal list
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T
    Enumerated_Domain_Value_Definition:
      Threatened on federal list
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      C
    Enumerated_Domain_Value_Definition:
      Species of Special Concern
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    I
  Attribute_Definition:
    International threatened or endangered status.
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      E
    Enumerated_Domain_Value_Definition:
      Endangered on international list
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines
Attribute Domain Values:
   Enumerated Domain:
     Enumerated Domain Value: T
     Enumerated Domain Value Definition: Threatened on international list
     Enumerated Domain Value Definition Source: NOAA ESI Guidelines
   Enumerated Domain Values:
     Enumerated Domain Value: C
     Enumerated Domain Value Definition: Species of Special Concern
     Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
   Attribute Label: S_DATE
   Attribute Definition: Publication date of source material used to assign state status values for each species, if used.
   Attribute Definition Source: NOAA ESI Guidelines
   Attribute Domain Values:
     Enumerated Domain:
       Enumerated Domain Value: YYYYMM
       Enumerated Domain Value Definition: YYYY for year and optionally MM for month
       Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:
   Attribute Label: F_DATE
   Attribute Definition: Publication date of source material used to assign federal status values for each species, if used.
   Attribute Definition Source: NOAA ESI Guidelines
   Attribute Domain Values:
     Enumerated Domain:
       Enumerated Domain Value: YYYYMM
       Enumerated Domain Value Definition: YYYY for year and optionally MM for month
       Enumerated Domain Value Definition Source: NOAA ESI Guidelines
Attribute:
  Attribute_Label:
  I_DATE
  Attribute_Definition:
  Publication date of source material used to assign international status values for each
  species, if used.
  Attribute_Definition_Source:
  NOAA ESI Guidelines
  Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      YYYYMM
    Enumerated_Domain_Value_Definition:
      YYYY for year and optionally MM for month
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    EL_SPE
  Attribute_Definition:
    Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data
    table to the BIORES and SPECIES data tables.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        E#####
      Enumerated_Domain_Value_Definition:
        Where E is the first character of ELEMENT and the next five characters
        are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1;
        EL_SPE = 'B00001').
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Detailed_Description:
  Entity_Type:
    Entity_Type_Label:
      SOURCES
    Entity_Type_Definition:
      The data table SOURCES contains the primary sources used to create the ESI data
      set. See the Browse_Graphic section for a link to the entity-relationship diagram,
      which describes the way this table relates to other attribute tables in the ESI data
      structure.
    Entity_Type_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    SOURCE_ID
Attribute Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Range Domain:

Range Domain Minimum:
1

Range Domain Maximum:
N

Attribute:

Attribute Label:
ORIGINATOR

Attribute Definition:
Author or developer of source material or data set.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:
DATE_PUB

Attribute Definition:
Date of source material, publication, or date of personal communication with expert source.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
YYYYMM

Enumerated Domain Value Definition:
YYYYY for year and optionally MM for month

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
TITLE

Attribute Definition:
Title of source material or data.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source:
Overview_Description:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, M_MAMMAL) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables (described in the Detailed_Description sections), except the BREED1-BREED5 and BREED items.
BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed_Description section.

**Entity and Attribute Detail Citation:**
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

---

**Distribution Information:**

**Distributor:**

**Contact Information:**

**Contact Person Primary:**

**Contact Person:**

ESI Manager

**Contact Organization:**

NOAA, Office of Response and Restoration

**Contact Address:**

**Address Type:**

Physical Address

**Address:**

7600 Sand Point Way N.E.

**City:**

Seattle

**State or Province:**

Washington

**Postal Code:**

98115-6349

**Contact Voice Telephone:**

(206) 526-6944

**Contact Facsimile Telephone:**

(206) 526-6329
Contact Electronic Mail Address: 
orr esi@noaa.gov

Resource Description: 
Downloadable Data

Distribution Liability: 
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard Order Process: 
Digital Form:

Digital Transfer Information:
Format Name: 
Multiple formats

Digital Transfer Option:
Online Option:

Computer Contact Information:
Network Address:

Network Resource Name: 
http://response.restoration.noaa.gov/esi_download

Fees:
None

Custom Order Process: 
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

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Metadata Reference Information: 
Metadata Date: 
20140609

Metadata Contact: 
Contact Information: 

Contact Person Primary: 
Contact Person: 
ESI Manager

Contact Organization: 
NOAA, Office of Response and Restoration

Contact Position: 
GIS Manager
Contact Address:
Address Type:
Physical Address
Address:
7600 Sand Point Way, N.E.
City:
Seattle
State or Province:
Washington
Postal Code:
98115-6349
Contact Voice Telephone:
(206) 526-6944
Contact Facsimile Telephone:
(206) 526-6329
Contact Electronic Mail Address:
orrs.esi@noaa.gov

Metadata Standard Name:
Content Standards for Digital Geospatial Metadata
Metadata Standard Version:
FGDC-STD-001-1998

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Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: T_MAMMAL (Terrestrial Mammal Polygons)

Metadata:

- **Identification Information**
- **Data Quality Information**
- **Spatial Data Organization Information**
- **Spatial Reference Information**
- **Entity and Attribute Information**
- **Distribution Information**
- **Metadata Reference Information**

**Identification Information:**

**Citation Information:**

**Originator:**

**Originator:**

**Originator:**
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

**Publication Date:**
201208

**Title:**
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: T_MAMMAL (Terrestrial Mammal Polygons)

**Edition:**
Second

**Geospatial Data Presentation Form:**
vector digital data

**Series Information:**

**Series Name:**
Florida Panhandle ESI

**Issue Identification:**
Florida Panhandle

**Publication Information:**

**Publication Place:**
Seattle, Washington
Abstract:
This data set contains sensitive biological resource data for beach mice, red wolf, and Florida black bear for the Florida Panhandle. Vector polygons in this data set represent rare terrestrial mammal distribution. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_Of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date:
2006
Ending_Date:
2011

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 2006 to 2011 and are documented in the Lineage section.

Status:
Progress:
Complete
Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate:
-87.62500
East_Bounding_Coordinate: -83.68400
North_Bounding_Coordinate: 30.74700
South_Bounding_Coordinate: 28.27700

Keywords: Theme:
Theme_Keyword_Thesaurus: ISO 19115 Topic Category
Theme_Keyword: biota
Theme_Keyword: environment

Theme:
Theme_Keyword_Thesaurus: None
Theme_Keyword: Environmental Monitoring
Theme_Keyword: ESI
Theme_Keyword: Sensitivity maps
Theme_Keyword: Coastal resources
Theme_Keyword: Oil spill planning
Theme_Keyword: Coastal Zone Management
Theme_Keyword: Wildlife
Theme_Keyword: Terrestrial mammals

Theme:
Theme_Keyword_Thesaurus: NOS Data Explorer Topic Category
Theme_Keyword: Environmental Monitoring

Place:
Place_Keyword_Thesaurus: None
Place_Keyword: Florida Panhandle

Access_Constraints: None

Use_Constraints: DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the
exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

**Browse Graphic:**

**Browse_Graphic_File_Name:**

**Browse_Graphic_File_Description:**
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

**Browse_Graphic_File_Type:**
JPEG

**Browse Graphic:**

**Browse_Graphic_File_Name:**
http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhdle_2012_datafig2.jpg

**Browse_Graphic_File_Description:**
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

**Browse_Graphic_File_Type:**
JPEG

**Data_Set_Credit:**
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management; and Preparedness Washington, D.C. and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

**Native_Data_Set_Environment:**
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, soccon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

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**Data Quality Information:**

**Attribute Accuracy:**

**Attribute Accuracy Report:**

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

**Logical Consistency Report:**

A multi-stage error checking process, described in the above Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new IDs are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

**Completeness Report:**

These data represent a synthesis of expert knowledge, available hardcopy documents, and digital data on rare terrestrial mammal distribution. These data do not necessarily represent all terrestrial mammal occurrences in Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 67, Red wolf, Canis rufus; 69, Choctawhatchee beach mouse, Peromyscus polionotus allophrys; 75, Perdido Key beach mouse, Peromyscus polionotus trissylepesis; 80, St. Andrews beach mouse, Peromyscus polionotus peninsularis; 103, Florida black bear, Ursus americanus floridanus; 205, Santa Rosa beach mouse, Peromyscus polionotus leucocephalus.

**Positional Accuracy:**

**Horizontal Positional Accuracy:**

**Horizontal Positional Accuracy Report:**

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data.
Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

**Lineage:**

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

USAF EGLIN AIR FORCE BASE

**Publication Date:**

2011

**Title:**

SANTA ROSA ISLAND BEACH MOUSE

**Geospatial Data Presentation Form:**

vector digital data

**Other Citation Details:**

UNPUBLISHED

**Type of Source Media:**

EMAIL

**Source Time Period of Content:**

**Time Period Information:**

**Single Date/Time:**

**Calendar Date:**

2011

**Source Currentness Reference:**

DATE OF COMMUNICATION

**Source Citation Abbreviation:**

Src_0

**Source Contribution:**

T_MAMMAL INFORMATION

**Source Information:**

**Source Citation:**

**Citation Information:**

**Originator:**

FLORIDA NATURAL AREAS INVENTORY (FNAI)

**Publication Date:**

2011

**Title:**

ELEMENT OCCURRENCE POLYGON DATA LAYER

**Geospatial Data Presentation Form:**

vector digital data

**Publication Information:**

**Publication Place:**

TALLAHASSEE, FL

**Publisher:**

FLORIDA NATURAL AREAS INVENTORY
Source_Citation_Abbreviation: Src_4
Source_Contribution: T_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
U.S. FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date: 2006
Title: PKBM_FCH (PERDIDO KEY BEACH MOUSE CRITICAL HABITAT)
Geospatial_Data_Presentation_Form: vector digital data
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: CD-ROM
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2006
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: Src_5
Source_Contribution: T_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
U.S. FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date: 2006
Title: SABM_FCH (ST. ANDREW BEACH MOUSE CRITICAL HABITAT)
Geospatial_Data_Presentation_Form: vector digital data
Publication_Information:
Publication_Place: PANAMA CITY, FL
Publisher:
USFWS

Type_of_Source_Media:
CD-ROM

Source_Time_Period_of_Content:

Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2006

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_6

Source_Contribution:
T_MAMMAL INFORMATION

Process_Step:

Process_Description:

Two main sources of data were used to depict terrestrial mammal distribution and seasonality for this data layer: 1) personal interviews with resource experts from St. Marks National Wildlife Refuge (USFWS) and 2) digital data provided by U.S. Fish and Wildlife Service (USFWS), Eglin Air Force Base, and Florida Natural Areas Inventory (FNAI). The above digital and/or hardcopy sources were compiled by the project biologist to create the T_MAMMAL data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the T_MAMMAL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201208

Process_Contact:
Contact_Information:

Contact_Organization_Primary:
Contact_Organization:
NOAA, Office of Response and Restoration

Contact_Person:
ESI Manager

Contact_Address:
Address_Type:
Physical address
Address:
7600 Sand Point Way, N.E.
City:
Seattle
State or Province:
Washington
Postal Code:
98115-6349
Contact Voice Telephone:
(206) 526-6944
Contact Facsimile Telephone:
(206) 526-6329
Contact Electronic Mail Address:
orr.esi@noaa.gov

Spatial Data Organization Information:
Direct Spatial Reference Method:
Vector
Point and Vector Object Information:
SDTS Terms Description:
SDTS Point and Vector Object Type:
GT-polygon composed of chains
Point and Vector Object Count:
249
SDTS Terms Description:
SDTS Point and Vector Object Type:
Area point
Point and Vector Object Count:
250
SDTS Terms Description:
SDTS Point and Vector Object Type:
Complete chain
Point and Vector Object Count:
312
SDTS Terms Description:
SDTS Point and Vector Object Type:
Link
Point and Vector Object Count:
39676
SDTS Terms Description:
SDTS Point and Vector Object Type:
Node, planar graph
Point and Vector Object Count:
309

Spatial Reference Information:

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Horizontal Coordinate System Definition:
Geographic:
  Latitude Resolution:
    0.0000001
  Longitude Resolution:
    0.0000001
Geographic Coordinate Units:
  Decimal degrees

Geodetic Model:
  Horizontal Datum Name:
    North American Datum of 1983
  Ellipsoid Name:
    Geodetic Reference System 80
  Semi-major Axis:
    6378137.000000
  Denominator of Flattening Ratio:
    298.257222

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Entity and Attribute Information:
  Detailed Description:
    Entity Type:
      Entity Type Label:
        T_MAMMAL.PAT
      Entity Type Definition:
        The T_MAMMAL.PAT table contains attribute information for the vector polygons in this data set representing rare terrestrial mammal distribution. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.
      Entity Type Definition Source:
        NOAA ESI Guidelines
    Attribute:
      Attribute Label:
        ID
      Attribute Definition:
        An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (9), and record number. ID values of 9999 are holes in polygons and do not contain information.
      Attribute Definition Source:
        NOAA
      Attribute Domain Values:
        Range Domain:
          Range Domain Minimum:
2180900002
\textit{Range\_Domain\_Maximum}: 2180900250

\textit{Attribute}:

\textit{Attribute\_Label}: RARNUM

\textit{Attribute\_Definition}:
An identifier that links directly to the BIORES table or the flat format BIOFILE table. RARNUM values of 0 are holes in the polygons and do not contain information.

\textit{Attribute\_Definition\_Source}: NOAA

\textit{Attribute\_Domain\_Values}:
\textit{Range\_Domain}:
\textit{Range\_Domain\_Minimum}: 218001330
\textit{Range\_Domain\_Maximum}: 218001335

\textit{Detailed\_Description}:

\textit{Entity\_Type}:

\textit{Entity\_Type\_Label}: BIO\_LUT

\textit{Entity\_Type\_Definition}:
The data table BIO\_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the \textit{Overview\_Description} section. See the \textit{Browse\_Graphic} section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

\textit{Entity\_Type\_Definition\_Source}: NOAA ESI Guidelines

\textit{Attribute}:

\textit{Attribute\_Label}: RARNUM

\textit{Attribute\_Definition}:
An identifier that links records in the BIO\_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.

\textit{Attribute\_Definition\_Source}: NOAA

\textit{Attribute\_Domain\_Values}:
\textit{Range\_Domain}:
\textit{Range\_Domain\_Minimum}: 218000001
\textit{Range\_Domain\_Maximum}: 218001335
ID

**Attribute Definition:**
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (9), and record number. ID values of 9999 are holes in polygons and do not contain information.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

- **Range Domain:**
  - **Range Domain Minimum:** 2180100002
  - **Range Domain Maximum:** 2183700142

**Detailed Description:**

**Entity Type:**

- **Entity Type Label:** BIORES

**Entity Type Definition:**
The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

- **Attribute Label:** RARNUM

**Attribute Definition:**
An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

- **Range Domain:**
  - **Range Domain Minimum:** 218000001
  - **Range Domain Maximum:** 218001335

**Attribute:**

- **Attribute Label:** SPECIES_ID

**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines
Attribute: CONC
  Attribute Definition: The field CONC refers to "concentration," abundance, or density values. No concentration data were available for terrestrial mammals, so this field is populated with "."
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values: Unrepresentable Domain: Acceptable values change from atlas to atlas.

Attribute: SEASON_ID
  Attribute Definition: Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values: Range Domain:
    Range Domain Minimum: 1
    Range Domain Maximum: N

Attribute: G_SOURCE
  Attribute Definition: Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values: Range Domain:
    Range Domain Minimum: 1
    Range Domain Maximum: N
**S_SOURCE**

*Attribute_Definition:*

Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.

*Attribute_Definition_Source:*

NOAA ESI Guidelines

*Attribute_Domain_Values:*

*Range_Domain:*

*Range_Domain_Minimum:*

1

*Range_Domain_Maximum:*

N

**Attribute:**

*Attribute_Label:*

ELEMENT

*Attribute_Definition:*

Major categories of biological data.

*Attribute_Definition_Source:*

NOAA ESI Guidelines

*Attribute_Domain_Values:*

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

BIRD

*Enumerated_Domain_Value_Definition:*

Birds

*Enumerated_Domain_Value_Definition_Source:*

NOAA ESI Guidelines

*Attribute_Domain_Values:*

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

FISH

*Enumerated_Domain_Value_Definition:*

Fish

*Enumerated_Domain_Value_Definition_Source:*

NOAA ESI Guidelines

*Attribute_Domain_Values:*

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

HABITAT

*Enumerated_Domain_Value_Definition:*

Habitats and plants

*Enumerated_Domain_Value_Definition_Source:*

NOAA ESI Guidelines

*Attribute_Domain_Values:*

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

INVERT

*Enumerated_Domain_Value_Definition:*

Florida Panhandle ESI: T_MAMMAL
Invertebrates

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:

M_MAMMAL

Enumerated Domain Value Definition:

Marine mammals

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:

REPTILE

Enumerated Domain Value Definition:

Reptiles and Amphibians

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:

T_MAMMAL

Enumerated Domain Value Definition:

Terrestrial mammals

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute:

Attribute Label:

EL_SPE

Attribute Definition:

Concatenation of ELEMENT and SPECIES_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:

E#####

Enumerated Domain Value Definition:

Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute:

Attribute Label:

EL_SPE_SEA
Attribute Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:

Enumerated Domain Value:
E####

Enumerated Domain Value Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Detailed Description:
Entity Type:

Entity Type Label:
SPECIES

Entity Type Definition:
The data table SPECIES identifies all species in the ESI data set. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness Report for list of layer specific species.

Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
SPECIES_ID

Attribute Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:

Range Domain Minimum:
1

Range Domain Maximum:
N
NOAA ESI Guidelines

Attribute: Domain_Values:
  Unrepresentable_Domain:
    Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: GEN_SPEC
  Attribute_Definition: Species scientific name for the entire ESI data set.
  Attribute_Definition_Source: NOAA ESI Guidelines

Attribute: Domain_Values: Unrepresentable_Domain:
  Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: ELEMENT
  Attribute_Definition: Major categories of biological data.
  Attribute_Definition_Source: NOAA ESI Guidelines

Attribute: Domain_Values: Enumerated_Domain:
  Enumerated_Domain_Value: BIRD
    Enumerated_Domain_Value_Definition: Birds
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute: Domain_Values: Enumerated_Domain:
  Enumerated_Domain_Value: FISH
    Enumerated_Domain_Value_Definition: Fish
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute: Domain_Values: Enumerated_Domain:
  Enumerated_Domain_Value: HABITAT
    Enumerated_Domain_Value_Definition: Habitats and plants
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute: Domain_Values: Enumerated_Domain:
  Enumerated_Domain_Value:
INVERT

**Enumerated_Domain_Value_Definition:**
Invertebrates

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
M_MAMMAL

**Enumerated_Domain_Value_Definition:**
Marine Mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
REPTILE

**Enumerated_Domain_Value_Definition:**
Reptiles and Amphibians

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
T_MAMMAL

**Enumerated_Domain_Value_Definition:**
Terrestrial Mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
SUBELEMENT

**Attribute_Definition:**
Element subgroup delineating a logical grouping of species.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
alligator

**Enumerated_Domain_Value_Definition:**
Alligator

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
amphibian
Enumerated_Domain_Value_Definition: Amphibian

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: bear
    Enumerated_Domain_Value_Definition: Bear
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: bivalve
    Enumerated_Domain_Value_Definition: Bivalve
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: canine
    Enumerated_Domain_Value_Definition: Canine
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: cephalopod
    Enumerated_Domain_Value_Definition: Cephalopod
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: coral
    Enumerated_Domain_Value_Definition: Coral
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      crayfish
    Enumerated_Domain_Value_Definition: Crayfish
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      diadromous
    Enumerated_Domain_Value_Definition: Diadromous fish
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      diving
    Enumerated_Domain_Value_Definition: Diving bird
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      dolphin
    Enumerated_Domain_Value_Definition: Dolphin
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      e_nursery
    Enumerated_Domain_Value_Definition: Estuarine nursery fish
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      e_resident
Enumerated_Domain_Value_Definition:
Estuarine resident fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
fav
Enumerated_Domain_Value_Definition:
Floating aquatic vegetation
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
fish
Enumerated_Domain_Value_Definition:
Fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
freshwater
Enumerated_Domain_Value_Definition:
Freshwater fish
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
gull_tern
Enumerated_Domain_Value_Definition:
Gull or tern
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
invert
Enumerated_Domain_Value_Definition:
Invertebrate
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
lobster
Enumerated_Domain_Value_Definition:
Lobster
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    m_benthic
Enumerated_Domain_Value_Definition:
  Marine benthic fish
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    m_pelagic
Enumerated_Domain_Value_Definition:
  Marine pelagic fish
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    manatee
Enumerated_Domain_Value_Definition:
  Manatee
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    passerine
Enumerated_Domain_Value_Definition:
  Passerine bird
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    pelagic
Enumerated_Domain_Value_Definition:
  Pelagic bird
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
sav
Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
shrimp
Enumerated_Domain_Value_Definition: Shrimp
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
sm_mammal
Enumerated_Domain_Value_Definition: Small mammal
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
snake
Enumerated_Domain_Value_Definition:
Snake

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
turtle

Enumerated_Domain_Value_Definition:
Turtle

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
wading

Enumerated_Domain_Value_Definition:
Wading bird

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
waterfowl

Enumerated_Domain_Value_Definition:
Waterfowl

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
wetland

Enumerated_Domain_Value_Definition:
Wetland

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
NHP

Attribute_Definition:
Natural Heritage Program global ranking.

Attribute_Definition_Source:
Network of Natural Heritage Program

Attribute_Domain_Values:
Codeset_Domain:
Codeset_Name:
NHP Global Conservation Status Rank

Codeset_Source:
Natural Heritage Program

Attribute:

Attribute_Label:
DATE_PUB

Attribute_Definition:
Date of NHP listing.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
YYYYMM

Enumerated_Domain_Value_Definition:
YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
0

Enumerated_Domain_Value_Definition:
Date unspecified

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE

Attribute_Definition:
Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
E####*

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label:
SEASONAL

Entity_Type_Definition:
The data table SEASONAL contains information on the seasonal presence of each
species associated with each spatial vector object. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
ELEMENT

**Attribute_Definition:**
Major categories of biological data.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
BIRD

**Enumerated_Domain_Value_Definition:**
Birds

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
FISH

**Enumerated_Domain_Value_Definition:**
Fish

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
HABITAT

**Enumerated_Domain_Value_Definition:**
Habitats and plants

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
INVERT

**Enumerated_Domain_Value_Definition:**
Invertebrates

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
M_MAMMAL
**Enumerated_Domain_Value_Definition:**
Marine Mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
  **Enumerated_Domain:**
  **Enumerated_Domain_Value:**
  REPTILE

**Enumerated_Domain_Value_Definition:**
Reptiles and Amphibians

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**
  **Enumerated_Domain_Value:**
  T_MAMMAL

**Enumerated_Domain_Value_Definition:**
Terrestrial Mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
SPECIES_ID

**Attribute_Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Range_Domain:**
  **Range_Domain_Minimum:**
  1
  **Range_Domain_Maximum:**
  N

**Attribute:**

**Attribute_Label:**
SEASON_ID

**Attribute_Definition:**
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Range_Domain:**
  **Range_Domain_Minimum:**
  1
  **Range_Domain_Maximum:**
  N
Attribute:
  Attribute_Label: JAN
  Attribute_Definition: January
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition: Present in January
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: FEB
  Attribute_Definition: February
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition: Present in February
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: MAR
  Attribute_Definition: March
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        X
      Enumerated_Domain_Value_Definition: Present in March
      Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: APR
April

April

 Attribute Definition Source: NOAA ESI Guidelines

 Attribute Domain Values:

 Enumerated Domain:

 Enumerated Domain Value:

 X

 Enumerated Domain Value Definition:

 Present in April

 Enumerated Domain Value Definition Source:

 NOAA ESI Guidelines

Attribute:

 Attribute Label:

 MAY

 Attribute Definition:

 May

 Attribute Definition Source:

 NOAA ESI Guidelines

 Attribute Domain Values:

 Enumerated Domain:

 Enumerated Domain Value:

 X

 Enumerated Domain Value Definition:

 Present in May

 Enumerated Domain Value Definition Source:

 NOAA ESI Guidelines

Attribute:

 Attribute Label:

 JUN

 Attribute Definition:

 June

 Attribute Definition Source:

 NOAA ESI Guidelines

 Attribute Domain Values:

 Enumerated Domain:

 Enumerated Domain Value:

 X

 Enumerated Domain Value Definition:

 Present in June

 Enumerated Domain Value Definition Source:

 NOAA ESI Guidelines

Attribute:

 Attribute Label:

 JUL

 Attribute Definition:

 July

 Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    X
Enumerated Domain Value Definition:
  Present in July
Enumerated Domain Value Definition Source:
  NOAA ESI Guidelines

Attribute:
  Attribute Label: AUG
  Attribute Definition: August
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      X
    Enumerated Domain Value Definition:
      Present in August
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute:
  Attribute Label: SEP
  Attribute Definition: September
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      X
    Enumerated Domain Value Definition:
      Present in September
    Enumerated Domain Value Definition Source:
      NOAA ESI Guidelines

Attribute:
  Attribute Label: OCT
  Attribute Definition: October
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
Enumerated Domain Value: X

Enumerated Domain Value Definition:
Present in October

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: NOV
Attribute Definition:
November
Attribute Definition Source:
NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: X

Enumerated Domain Value Definition:
Present in November

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: DEC
Attribute Definition:
December
Attribute Definition Source:
NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: X

Enumerated Domain Value Definition:
Present in December

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: EL_SPE_SEA
Attribute Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute Definition Source:
NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Enumerated Domain Value Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Detailed Description:
Entity Type:
Entity Type Label:
BREED
Entity Type Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
EL_SPE_SEA
Attribute Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
E#######

Enumerated Domain Value Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
MONTH
Attribute Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
Range Domain Minimum:
Range Domain Maximum: 12

Attribute:

Attribute Label: BREED1

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
Enumerated Domain Value Definition:
Life-history stage or activity present
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
N
Enumerated Domain Value Definition:
Life-history stage or activity not present or not reported
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
-
Enumerated Domain Value Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute:

Attribute Label: BREED2

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    Y
  Enumerated Domain Value Definition:
    Life-history stage or activity present
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    N
  Enumerated Domain Value Definition:
    Life-history stage or activity not present or not reported
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    -
  Enumerated Domain Value Definition:
    Breed category not used or not appropriate for record(s) in question
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute:
  Attribute Label:
    BREED3
  Attribute Definition:
    Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    Y
  Enumerated Domain Value Definition:
    Life-history stage or activity present
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
  Enumerated Domain Value:
    N
Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:

Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
BREED4

Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
Y

Enumerated_Domain_Value_Definition:
Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
N

Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:

Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines
Attribute Label: 
BREED5

Attribute Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
Y
Enumerated Domain Value Definition:
Life-history stage or activity present
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
N
Enumerated Domain Value Definition:
Life-history stage or activity not present or not reported
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
-
Enumerated Domain Value Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Detailed Description:
Entity Type:
Entity Type Label: 
STATUS
Entity Type Definition:
The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
ELEMENT
Attribute Definition:
Major categories of biological data.

**Attribute Definition Source:**
- NOAA ESI Guidelines

**Attribute Domain Values:**

1. **Enumerated Domain:**
   - **Enumerated Domain Value:** BIRD
     - **Enumerated Domain Value Definition:** Birds
     - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

2. **Enumerated Domain:**
   - **Enumerated Domain Value:** FISH
     - **Enumerated Domain Value Definition:** Fish
     - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

3. **Enumerated Domain:**
   - **Enumerated Domain Value:** HABITAT
     - **Enumerated Domain Value Definition:** Habitats and Plants
     - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

4. **Enumerated Domain:**
   - **Enumerated Domain Value:** INVERT
     - **Enumerated Domain Value Definition:** Invertebrates
     - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

5. **Enumerated Domain:**
   - **Enumerated Domain Value:** M_MAMMAL
     - **Enumerated Domain Value Definition:** Marine Mammals
     - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

6. **Enumerated Domain:**
   - **Enumerated Domain Value:** REPTILE
     - **Enumerated Domain Value Definition:**
Reptiles and Amphibians

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
T_MAMMAL
Enumerated Domain Value Definition:
Terrestrial Mammals
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: SPECIES_ID
Attribute Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Range Domain:
Range Domain Minimum:
1
Range Domain Maximum:
N

Attribute:
Attribute Label: STATE
Attribute Definition:
Two-letter state abbreviation.
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: COUNTRY
Attribute Definition:
Three-letter country abbreviation.
Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: S
Attribute Definition:
State threatened or endangered status.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
E
Enumerated Domain Value Definition:
Endangered on state list
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
T
Enumerated Domain Value Definition:
Threatened on state list
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
C
Enumerated Domain Value Definition:
Species of Special Concern
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
F
Attribute Definition:
Federal threatened or endangered status.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
E
Enumerated Domain Value Definition:
Endangered on federal list
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
T
Enumerated Domain Value Definition:
Threatened on federal list

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

C

*Enumerated_Domain_Value_Definition:*

Species of Special Concern

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:*

I

*Attribute_Definition:*

International threatened or endangered status.

*Attribute_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

E

*Enumerated_Domain_Value_Definition:*

Endangered on international list

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

T

*Enumerated_Domain_Value_Definition:*

Threatened on international list

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*

C

*Enumerated_Domain_Value_Definition:*

Species of Special Concern

*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:*

S_DATE

*Attribute_Definition:*

Publication date of source material used to assign state status values for each species, if used.
**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
YYYYMM

**Enumerated Domain Value Definition:**
YYYY for year and optionally MM for month

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
F_DATE

**Attribute Definition:**
Publication date of source material used to assign federal status values for each species, if used.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
YYYYMM

**Enumerated Domain Value Definition:**
YYYY for year and optionally MM for month

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
I_DATE

**Attribute Definition:**
Publication date of source material used to assign international status values for each species, if used.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
YYYYMM

**Enumerated Domain Value Definition:**
YYYY for year and optionally MM for month

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
EL_SPE

**Attribute Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.
**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**

E#####

**Enumerated Domain Value Definition:**

Where E is the first character of ELEMENT and the next five characters
are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1;
EL_SPE = 'B00001').

**Enumerated Domain Value Definition Source:**

NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

**Entity Type Label:** SOURCES

**Entity Type Definition:**

The data table SOURCES contains the primary sources used to create the ESI data
set. See the Browse Graphic section for a link to the entity-relationship diagram,
which describes the way this table relates to other attribute tables in the ESI data
structure.

**Entity Type Definition Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute Label:** SOURCE_ID

**Attribute Definition:**

Source identifier that links records in the SOURCES data table to the items
G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and
S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL
data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO
data layer.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

**Range Domain Minimum:**

1

**Range Domain Maximum:**

N

**Attribute:**

**Attribute Label:** ORIGINATOR

**Attribute Definition:**

Author or developer of source material or data set.

**Attribute Definition Source:**

NOAA ESI Guidelines

**Attribute Domain Values:**
Unrepresentable_Domain:
   Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label:
      DATE_PUB
   Attribute_Definition:
      Date of source material, publication, or date of personal communication with expert source.
   Attribute_Definition_Source:
      NOAA ESI Guidelines
   Attribute_Domain_Values:
      Enumerated_Domain:
         Enumerated_Domain_Value:
            YYYYMM
         Enumerated_Domain_Value_Definition:
            YYYY for year and optionally MM for month
         Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute:
   Attribute_Label:
      TITLE
   Attribute_Definition:
      Title of source material or data.
   Attribute_Definition_Source:
      NOAA ESI Guidelines
   Attribute_Domain_Values:
      Unrepresentable_Domain:
         Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label:
      DATA_FORMAT
   Attribute_Definition:
      The format of the source material.
   Attribute_Definition_Source:
      NOAA ESI Guidelines
   Attribute_Domain_Values:
      Unrepresentable_Domain:
         Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label:
      PUB_PLACE
   Attribute_Definition:
      Publication place.
   Attribute_Definition_Source:
      NOAA ESI Guidelines
   Attribute_Domain_Values:
      Unrepresentable_Domain:
         Acceptable values change from atlas to atlas.
Attribute:
  Attribute_LABEL: PUBLISHER
  Attribute_DEFINITION: Publisher.
  Attribute_DEFINITION_SOURCE: NOAA ESI Guidelines
  Attribute_DOMAIN_VALUES:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_LABEL: PUBLICATION
  Attribute_DEFINITION: Additional citation information.
  Attribute_DEFINITION_SOURCE: NOAA ESI Guidelines
  Attribute_DOMAIN_VALUES:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_LABEL: ONLINE_LINK
  Attribute_DEFINITION: Online computer resource URL.
  Attribute_DEFINITION_SOURCE: NOAA ESI Guidelines
  Attribute_DOMAIN_VALUES:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_LABEL: SCALE
  Attribute_DEFINITION: Description of the source scale.
  Attribute_DEFINITION_SOURCE: NOAA ESI Guidelines
  Attribute_DOMAIN_VALUES:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_LABEL: TIME_PERIOD
  Attribute_DEFINITION: Date(s) of data collection that the source material is based upon.
  Attribute_DEFINITION_SOURCE: NOAA ESI Guidelines
  Attribute_DOMAIN_VALUES:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, T_MAMMAL) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables (described in the Detailed_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed_Description section.

Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).
Distribution Information:
Distributor:

Contact Information:
Contact Person Primary:
Contact Person:
ESI Manager
Contact Organization:
NOAA, Office of Response and Restoration

Contact Address:
Address Type:
Physical Address
Address:
7600 Sand Point Way N.E.
City:
Seattle
State or Province:
Washington
Postal Code:
98115-6349

Contact Voice Telephone:
(206) 526-6944

Contact Facsimile Telephone:
(206) 526-6329

Contact Electronic Mail Address:
orr.esi@noaa.gov

Resource Description:
Downloadable Data

Distribution Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard Order Process:
Digital Form:

Digital Transfer Information:
Format Name:
Multiple formats

Digital Transfer Option:
Online Option:
Computer Contact Information:
Network Address:
Network Resource Name:
http://response.restoration.noaa.gov/esi_download
Fees:
None

Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 20140609

Metadata_Contact:

Contact Information:
Contact Person Primary:
Contact Person: ESI Manager
Contact Organization: NOAA, Office of Response and Restoration
Contact Position: GIS Manager
Contact Address:
Address Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State or Province: Washington
Postal Code: 98115-6349
Contact Voice Telephone: (206) 526-6944
Contact Facsimile Telephone: (206) 526-6329
Contact Electronic Mail Address: orr.esi@noaa.gov

Metadata Standard Name: Content Standards for Digital Geospatial Metadata
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: HABITATS (Habitat Polygons)

Metadata:

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

**Identification Information:**

**Citation Information:**

**Originator:**

**Originator:**

**Originator:**
- Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

**Publication Date:**
- 201208

**Title:**
- Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: HABITATS (Habitat Polygons)

**Edition:**
- Second

**Geospatial Data Presentation Form:**
- vector digital data

**Series Information:**
- **Series Name:**
  - Florida Panhandle ESI

**Issue Identification:**
- Florida Panhandle

**Publication Information:**
- **Publication Place:**
  - Seattle, Washington
Publisher:
NOAA's Ocean Service, Office of Response and Restoration (OR&R),
Emergency Response Division (ERD).

Other_Citation_Details:
Prepared by Research Planning, Inc., Columbia, South Carolina for the National
Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office
of Response and Restoration, Emergency Response Division, Seattle, Washington.

Online_Linkage:
http://response.restoration.noaa.gov/esi

Description:
Abstract:
This data set contains sensitive biological resource data for rare plants for the Florida
Panhandle. Vector polygons in this data set represent rare plant occurrences. Species
specific abundance, seasonality, status, life history, and source information are stored in
relational data tables (described below) designed to be used in conjunction with this spatial
data layer. This data set comprises a portion of the ESI data for the Florida Panhandle. ESI
data characterize the marine and coastal environments and wildlife by their sensitivity to
spilled oil. The ESI data include information for three main components: shoreline
habitats, sensitive biological resources, and human-use resources.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil
spill planning and response. The Clean Water Act with amendments by the Oil Pollution
Act of 1990 requires response plans for immediate and effective protection of sensitive
resources.

Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date:
2007
Ending_Date:
2011

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from
2007 to 2011 and are documented in the Lineage section.

Status:
Progress:
Complete
Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate:
-87.62500
East_Bounding_Coordinate:
-83.68400

North_Bounding_Coordinate: 30.74700
South_Bounding_Coordinate: 28.27700

Keywords:
  Theme:
  Theme_Keyword_Thesaurus: ISO 19115 Topic Category
  Theme_Keyword:
    biota
  Theme_Keyword:
    environment

Theme:
  Theme_Keyword_Thesaurus: None
  Theme_Keyword:
    Environmental Monitoring
  Theme_Keyword:
    ESI
  Theme_Keyword:
    Sensitivity maps
  Theme_Keyword:
    Coastal resources
  Theme_Keyword:
    Oil spill planning
  Theme_Keyword:
    Coastal Zone Management
  Theme_Keyword:
    Wildlife
  Theme_Keyword:
    Habitat

Theme:
  Theme_Keyword_Thesaurus: NOS Data Explorer Topic Category
  Theme_Keyword:
    Environmental Monitoring

Place:
  Place_Keyword_Thesaurus: None
  Place_Keyword:
    Florida Panhandle

Access_Constraints:
  None

Use_Constraints:
  DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other
organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse Graphic:

Browse Graphic File Name: http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhdle_2012_datafig.jpg

Browse Graphic File Description: Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.

Browse Graphic File Type: JPEG

Browse Graphic:

Browse Graphic File Name: http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhdle_2012_datafig2.jpg

Browse Graphic File Description: Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.

Browse Graphic File Type: JPEG

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native Data Set Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial Data Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biore.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

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**Attribute_Accuracy:**

**Attribute_Accuracy_Report:**

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

**Logical_Consistency_Report:**

A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new IDs are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

**Completeness_Report:**

These data represent a synthesis of digital data sets on rare plant occurrences. These data do not necessarily represent all habitat occurrences in Florida Panhandle. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 228, Chapman's sedge, Carex chapmanii; 241, Bumpy jointtail grass, Mnesithea tuberculosa; 242, Pond spice, Litsea aestivalis; 246, Southern milkweed, Asclepias viridula; 663, Beaked spikerush, Eleocharis rostellata; 684, Violet butterwort, Pinguicula ionantha; 796, Manyflower grasspink, Calopogon multiflorus; 800, Godfrey's goldenaster, Chrysopsis godfreyi; 813, Sarvis holly, Ilex amelanchier; 815, Panhandle lily, Lilium iridollae; 816, Bog spicebush, Lindera subcoriacea; 820, Flameflower, Macranthera flammae; 830, Largeleaf jointweed, Polygonella macrophylla; 832, Florida pondweed, Potamogeton floridanus; 836, Mosquito beardsedge, Rynchospora crinipes; 840, Nightflowering wild petunia, Ruellia noctiflora; 842, Georgia bully, Sideroxyton thornei; 845, Harper's yelloweyed grass, Xyris scabriofila; 848, Crimson pitcherplant, Sarracenia leucophylla; 925, Perforate reindeer lichen, Cladonia perforata; 953, Pinewoods bluestem, Andropogon arctatus; 955, Florida wild indigo, Baptisia calycosa var. villosa; 956, Apalachicola aster, Eurybia spinulosa; 957, Scareweed, Baptisia simplicifolia; 958, Flyr's nemesia, Brickellia cordifolia; 959, Florida calamint, Clinopodium dentatum; 960, Florida sandreed, Calamovilfa curtissii; 961, Eastern sweetshrub, Calycanthus floridus; 962, Baltzell's sedge, Carex baltzellii; 963, Cruise's goldenaster, Chrysopsis gossypina ssp. Cruiseana; 965, Tropical waxweed, Cuphea aspera; 966, Threadleaf sundew, Drosera filiformis; 967, Spoonleaf...
sundew, Drosera intermedia; 968, Florida burhead, Echinodorus floridanus; 969, Trailing arbutus, Epigaea repens; 970, Blackbract pipewort, Eriocaulon nigrobracteatum; 971, Telephus spurge, Euphorbia telephioides; 972, Wiregrass gentian, Gentiana pennelliana; 974, Godfrey's spiderlily, Hymenocallis godfreyi; 975, Henry's spiderlily, Hymenocallis henryae; 976, Smoothbark St. Johnswort, Hypericum lissophloeus; 977, Pennsylvania rush, Juncus gymnocarpus; 978, Thickleaf water-willow, Justicia crassifolia; 979, Mountain laurel, Kalmia latifolia; 980, Corkwood, Leitneria floridana; 981, Krall's yelloweyed grass, Xyris longisepala; 982, Petiteplant, Lepuropetalum spathulatum; 983, Godfrey's blazing star, Liatris provincialis; 984, West's flax, Linum westii; 985, Gulf Coast lupine, Lupinus westianus; 986, Curtiss' loosestrife, Lythrum curtissii; 987, White birds-in-a-nest, Macbridea alba; 988, Ashe's magnolia, Magnolia ashei; 989, Pyramid magnolia, Magnolia pyramidata; 990, Green adder's-mouth orchid, Malaxis unifolia; 991, Alabama milkvine, Matelea alabamensis; 992, Pinesap, Monotropa hypopithys; 993, Florida beargrass, Nolina atopocarpa; 994, Giant cowbane, Oxypolis greenmanii; 995, Naked-stemmed panicgrass, Dianthus nudicaule; 996, Carolina grass of Parnassus, Parnassia caroliniana; 997, Paper nailwort, Paronychia chartacea var. minima; 998, Pineland false sunflower, Phoebanthus tenuifolius; 1000, Godfrey's false dragonhead, Physostegia godfreyi; 1059, Southern butterwort, Pinguicula primuliflora; 1060, Zigzag silkgrass, Pityopsis flexuosa; 1061, Small green wood orchid, Platanthera clavellata; 1062, Arkansas oak, Quercus arkansana; 1063, White meadowbeauty, Rhexia parviflora; 1064, Panhandle meadowbeauty, Rhexia salicifolia; 1065, Orange azalea, Rhododendron austrinum; 1066, Sweet pitcherplant, Sarracenia rubra; 1067, Bay starvine, Schisandra glabra; 1068, Florida skullcap, Scutellaria floridana; 1069, Mock pennroyal, Stachydeoma graveolens; 1070, Silky camellia, Stewartia malacodendron; 1071, Pineland hoarypea, Tephrosia mohrii; 1072, Cooley's meadow-rue, Thalictrum cooleyi; 1073, Chapman's crownbeard, Verbesina chapmanii; 1074, Quillwort yelloweyed grass, Xyris isotoifolia.

Positional_Accuracy:
Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:
Source_Information:
Source_Citation:
Citation_Information:
Originator:
FLORIDA NATURAL AREAS INVENTORY (FNAI)
Publication_Date:
2011
The main sources of data used to depict habitat distribution and seasonality for this data layer were digital data sets provided by Florida Fish and Wildlife Conservation Commission-Fish and Wildlife Research Institute (FWC-FWRI), Eglin Air Force Base, and Florida Natural Areas Inventory (FNAI). The above digital and/or hardcopy sources were compiled by the project biologist to create the HABITATS data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the HABITATS data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date:
201208

Process_Contact:

Contact_Information:

Contact_Organization_Primary:
Contact_Organization:
NOAA, Office of Response and Restoration
Contact_Person:
ESI Manager
Contact_Address:
Address_Type:
Physical address
Address:
7600 Sand Point Way, N.E.
City:
Seattle
State_orProvince:
Washington
Postal_Code:
98115-6349
Contact_Voice_Telephone:
(206) 526-6944
Contact_Facsimile_Telephone:
(206) 526-6329
Contact_Electronic_Mail_Address:
orr.esi@noaa.gov
Spatial Data Organization Information:

Direct Spatial Reference Method:
Vector

Point and Vector Object Information:

SDTS Terms Description:

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<th>SDTS Point and Vector Object Type</th>
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SDTS Terms Description:

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SDTS Terms Description:

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SDTS Terms Description:

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SDTS Terms Description:

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</thead>
<tbody>
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Spatial Reference Information:

Horizontal Coordinate System Definition:

Geographic:

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</tr>
<tr>
<td>0.0000001</td>
</tr>
<tr>
<td>Longitude Resolution:</td>
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<tr>
<td>0.0000001</td>
</tr>
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Geodetic Model:

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</thead>
<tbody>
<tr>
<td>Horizontal Datum Name:</td>
</tr>
<tr>
<td>North American Datum of 1983</td>
</tr>
</tbody>
</table>

Ellipsoid Name:
Geodetic Reference System 80

**Semi-major Axis:**
6378137.000000

**Denominator of Flattening Ratio:**
298.257222

---

**Entity_and_Attribute_Information:**

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**
HABITATS.PAT

**Entity_Type_Definition:**

The HABITATS.PAT table contains attribute information for the vector polygons in this data set representing rare plant occurrences. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
ID

**Attribute_Definition:**

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (3), and record number. ID values of 9999 are holes in polygons and do not contain information.

**Attribute_Definition_Source:**

NOAA

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**
2180300002

**Range_Domain_Maximum:**
2180303019

**Attribute:**

**Attribute_Label:**
RARNUM

**Attribute_Definition:**

An identifier that links directly to the BIORES table or the flat format BIOFILE table. RARNUM values of 0 are holes in the polygons and do not contain information.

**Attribute_Definition_Source:**

NOAA
Attribute Domain Values:
  Range Domain:
    Range Domain Minimum:
      218000731
    Range Domain Maximum:
      218001079

Detailed Description:

Entity Type:
  Entity Type Label:
    BIO_LUT

Entity Type Definition:
The data table BIO_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity Type Definition Source:
  NOAA ESI Guidelines

Attribute:
  Attribute Label:
    RARNUM

Attribute Definition:
  An identifier that links records in the BIO_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.

Attribute Definition Source:
  NOAA

Attribute Domain Values:
  Range Domain:
    Range Domain Minimum:
      218000001
    Range Domain Maximum:
      218001335

Attribute:
  Attribute Label:
    ID

Attribute Definition:
  An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (3), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute Definition Source:
  NOAA

Attribute Domain Values:
  Range Domain:
    Range Domain Minimum:
      2180100002
    Range Domain Maximum:
      218001335
Detailed_Description:
Entity_Type:

- **Entity_Type_Label:** BIORES
- **Entity_Type_Definition:**
  The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

- **Entity_Type_Definition_Source:** NOAA ESI Guidelines

Attribute:

- **Attribute_Label:** RARNUM
- **Attribute_Definition:**
  An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.

- **Attribute_Definition_Source:** NOAA

- **Attribute_Domain_Values:**
  - **Range_Domain:**
    - **Range_Domain_Minimum:** 218000001
    - **Range_Domain_Maximum:** 218001335

Attribute:

- **Attribute_Label:** SPECIES_ID
- **Attribute_Definition:**
  Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

- **Attribute_Definition_Source:** NOAA ESI Guidelines

- **Attribute_Domain_Values:**
  - **Range_Domain:**
    - **Range_Domain_Minimum:** 1
    - **Range_Domain_Maximum:** N

Attribute:

- **Attribute_Label:** CONC
- **Attribute_Definition:**
  The field CONC refers to "concentration," abundance, or density values. No concentration data were available for habitats, so this field is populated with "-".
Attribute Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
  Unrepresentable Domain:
    Acceptable values change from atlas to atlas.

Attribute:
  Attribute Label: SEASON_ID
  Attribute Definition:
    Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values:
    Range Domain:
      Range Domain Minimum: 1
      Range Domain Maximum: N

Attribute:
  Attribute Label: G_SOURCE
  Attribute Definition:
    Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values:
    Range Domain:
      Range Domain Minimum: 1
      Range Domain Maximum: N

Attribute:
  Attribute Label: S_SOURCE
  Attribute Definition:
    Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
  Attribute Definition Source: NOAA ESI Guidelines
  Attribute Domain Values:
    Range Domain:
      Range Domain Minimum: 1
      Range Domain Maximum: N

Attribute:
Attribute Label: ELEMENT
Attribute Definition: Major categories of biological data.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: BIRD
Enumerated Domain Value Definition: Birds
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: FISH
Enumerated Domain Value Definition: Fish
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: HABITAT
Enumerated Domain Value Definition: Habitats and plants
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: INVERT
Enumerated Domain Value Definition: Invertebrates
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value: M_MAMMAL
Enumerated Domain Value Definition: Marine mammals
Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated_Domain_Value:
  REPTILE
Enumerated_Domain_Value_Definition:
  Reptiles and Amphibians
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T_MAMMAL
    Enumerated_Domain_Value_Definition:
      Terrestrial mammals
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    EL_SPE
  Attribute_Definition:
    Concatenation of ELEMENT and SPECIES_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        E####
      Enumerated_Domain_Value_Definition:
        Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    EL_SPE_SEA
  Attribute_Definition:
    Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        E#######
      Enumerated_Domain_Value_Definition:
        Where E is the first character of ELEMENT and the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g.
ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1;
EL_SPE_SEA = 'B0000101').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**

SPECIES

**Entity_Type_Definition:**

The data table SPECIES identifies all species in the ESI data set. See the
Browse_Graphic section for a link to the entity-relationship diagram, which
describes the way this table relates to other attribute tables in the ESI data structure.
Refer to the Completeness_Report for a list of layer-specific species.

**Entity_Type_Definition_Source:**

NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**

SPECIES_ID

**Attribute_Definition:**

Numeric identifier for each species that is unique within each element and refers to a
nationwide master ESI species list maintained at NOAA.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**

1

**Range_Domain_Maximum:**

N

**Attribute:**

**Attribute_Label:**

NAME

**Attribute_Definition:**

Species common name for the entire ESI data set.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**

Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**

GEN_SPEC

**Attribute_Definition:**

Species scientific name for the entire ESI data set.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**


Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute _Label:_**

ELEMENT

**Attribute _Definition:_**

Major categories of biological data.

**Attribute _Definition Source:_**

NOAA ESI Guidelines

**Attribute _Domain _Values:_**

Enumerated _Domain:

Enumerated _Domain _Value:

BIRD

Enumerated _Domain _Value _Definition:

Birds

Enumerated _Domain _Value _Definition _Source:

NOAA ESI Guidelines

**Attribute _Domain _Values:_**

Enumerated _Domain:

Enumerated _Domain _Value:

FISH

Enumerated _Domain _Value _Definition:

Fish

Enumerated _Domain _Value _Definition _Source:

NOAA ESI Guidelines

**Attribute _Domain _Values:_**

Enumerated _Domain:

Enumerated _Domain _Value:

HABITAT

Enumerated _Domain _Value _Definition:

Habitats and plants

Enumerated _Domain _Value _Definition _Source:

NOAA ESI Guidelines

**Attribute _Domain _Values:_**

Enumerated _Domain:

Enumerated _Domain _Value:

INVERT

Enumerated _Domain _Value _Definition:

Invertebrates

Enumerated _Domain _Value _Definition _Source:

NOAA ESI Guidelines

**Attribute _Domain _Values:_**

Enumerated _Domain:

Enumerated _Domain _Value:

M_MAMMAL

Enumerated _Domain _Value _Definition:

Marine Mammals

Enumerated _Domain _Value _Definition _Source:

NOAA ESI Guidelines
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      REPTILE
  Enumerated Domain Value Definition:
    Reptiles and Amphibians
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      T_MAMMAL
  Enumerated Domain Value Definition:
    Terrestrial Mammals
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute:
  Attribute Label:
    SUBELEMENT
  Attribute Definition:
    Element subgroup delineating a logical grouping of species.
  Attribute Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      alligator
  Enumerated Domain Value Definition:
    Alligator
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      amphibian
  Enumerated Domain Value Definition:
    Amphibian
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value:
      bear
  Enumerated Domain Value Definition:
    Bear
  Enumerated Domain Value Definition Source:
    NOAA ESI Guidelines

Attribute Domain Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    bivalve
  Enumerated_Domain_Value_Definition:
    Bivalve
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
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      canine
    Enumerated_Domain_Value_Definition:
      Canine
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
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    Enumerated_Domain_Value:
      cephalopod
    Enumerated_Domain_Value_Definition:
      Cephalopod
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
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    Enumerated_Domain_Value_Definition:
      Coral
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

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    Enumerated_Domain_Value_Definition:
      Crab
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

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    Enumerated_Domain_Value_Definition:
      Crayfish
    Enumerated_Domain_Value_Definition_Source:
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Attribute_Domain_Values:
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    Enumerated_Domain_Value_Definition:
      Diadromous fish
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
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    Enumerated_Domain_Value:
      diving
      Enumerated_Domain_Value_Definition:
        Diving bird
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
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      Enumerated_Domain_Value_Definition:
        Dolphin
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
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    Enumerated_Domain_Value:
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      Enumerated_Domain_Value_Definition:
        Estuarine nursery fish
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
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    Enumerated_Domain_Value:
      e_resident
      Enumerated_Domain_Value_Definition:
        Estuarine resident fish
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      fav
      Enumerated_Domain_Value_Definition:
        Floating aquatic vegetation
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    fish
Enumerated_Domain_Value_Definition:
  Fish
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
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Enumerated_Domain_Value_Definition:
  Freshwater fish
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
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    Enumerated_Domain_Value:
      gull_tern
Enumerated_Domain_Value_Definition:
  Gull or tern
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      invert
Enumerated_Domain_Value_Definition:
  Invertebrate
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      lobster
Enumerated_Domain_Value_Definition:
  Lobster
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      m_benthic
Enumerated_Domain_Value_Definition:
  Marine benthic fish
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines
Enumerated_Domain:
    Enumerated_Domain_Value:
        m_pelagic
    Enumerated_Domain_Value_Definition:
        Marine pelagic fish
    Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            manatee
        Enumerated_Domain_Value_Definition:
            Manatee
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            passerine
        Enumerated_Domain_Value_Definition:
            Passerine bird
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            pelagic
        Enumerated_Domain_Value_Definition:
            Pelagic bird
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            plant
        Enumerated_Domain_Value_Definition:
            Plant
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            raptor
        Enumerated_Domain_Value_Definition:
            Raptor
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines
Enumerated_Domain:
    Enumerated_Domain_Value:
        sav
        Enumerated_Domain_Value_Definition:
            Submerged aquatic vegetation
        Enumerated_Domain_Value_Definition_Source:
            NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            shorebird
            Enumerated_Domain_Value_Definition:
                Shorebird
            Enumerated_Domain_Value_Definition_Source:
                NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            shrimp
            Enumerated_Domain_Value_Definition:
                Shrimp
            Enumerated_Domain_Value_Definition_Source:
                NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            sm_mammal
            Enumerated_Domain_Value_Definition:
                Small mammal
            Enumerated_Domain_Value_Definition_Source:
                NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            snake
            Enumerated_Domain_Value_Definition:
                Snake
            Enumerated_Domain_Value_Definition_Source:
                NOAA ESI Guidelines

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value:
            turtle
            Enumerated_Domain_Value_Definition:
                Turtle
            Enumerated_Domain_Value_Definition_Source:
                NOAA ESI Guidelines
Enumerated Domain:

Enumerated Domain Value:
wading

Enumerated Domain Value Definition:
Wading bird

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
waterfowl

Enumerated Domain Value Definition:
Waterfowl

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
wetland

Enumerated Domain Value Definition:
Wetland

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:

Attribute Label:
NHP

Attribute Definition:
Natural Heritage Program global ranking.

Attribute Definition Source:
Network of Natural Heritage Program

Attribute Domain Values:

Codeset Domain:

Codeset Name:
NHP Global Conservation Status Rank

Codeset Source:
Natural Heritage Program

Attribute:

Attribute Label:
DATE_PUB

Attribute Definition:
Date of NHP listing.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated Domain Value:
YYYYMM

Enumerated Domain Value Definition:
YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
0
Enumerated_Domain_Value_Definition:
Date unspecified
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
EL_SPE
Attribute_Definition:
Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
E######
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Detailed_Description:

Entity_Type:
Entity_Type_Label:
SEASONAL
Entity_Type_Definition:
The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
ELEMENT
Attribute_Definition:
Major categories of biological data.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
    BIRD
Enumerated_Domain_Value_Definition:
  Birds
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      FISH
Enumerated_Domain_Value_Definition:
  Fish
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      HABITAT
Enumerated_Domain_Value_Definition:
  Habitats and plants
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      INVERT
Enumerated_Domain_Value_Definition:
  Invertebrates
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      M_MAMMAL
Enumerated_Domain_Value_Definition:
  Marine Mammals
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      REPTILE
Enumerated_Domain_Value_Definition:
  Reptiles and Amphibians
Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines
Enumerated_Domain:

Enumerated_Domain_Value:
T_MAMMAL

Enumerated_Domain_Value_Definition:
Terrestrial Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
SPECIES_ID

Attribute_Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum:
1

Range_Domain_Maximum:
N

Attribute:

Attribute_Label:
SEASON_ID

Attribute_Definition:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum:
1

Range_Domain_Maximum:
N

Attribute:

Attribute_Label:
JAN

Attribute_Definition:
January

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
X

Enumerated_Domain_Value_Definition:
Present in January
**Attribute:**

*Attribute_Label:* FEB  
*Attribute_Definition:* February  
*Attribute_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:*

**Enumerated_Domain:**

*Enumerated_Domain_Value:* X  
*Enumerated_Domain_Value_Definition:* Present in February  
*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:* MAR  
*Attribute_Definition:* March  
*Attribute_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:*

**Enumerated_Domain:**

*Enumerated_Domain_Value:* X  
*Enumerated_Domain_Value_Definition:* Present in March  
*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**

*Attribute_Label:* APR  
*Attribute_Definition:* April  
*Attribute_Definition_Source:* NOAA ESI Guidelines

*Attribute_Domain_Values:*

**Enumerated_Domain:**

*Enumerated_Domain_Value:* X  
*Enumerated_Domain_Value_Definition:* Present in April  
*Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

**Attribute:**
Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: X
        Enumerated_Domain_Value_Definition: Present in May
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
    Attribute_Label: JUN
    Attribute_Definition: June
    Attribute_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: X
            Enumerated_Domain_Value_Definition: Present in June
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
    Attribute_Label: JUL
    Attribute_Definition: July
    Attribute_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: X
            Enumerated_Domain_Value_Definition: Present in July
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
    Attribute_Label: AUG
    Attribute_Definition:
August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      Present in August
    Enumerated_Domain_Value_Source: NOAA ESI Guidelines
Attribute:
  Attribute_Label: SEP
  Attribute_Definition:
    September
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        Present in September
      Enumerated_Domain_Value_Source: NOAA ESI Guidelines
Attribute:
  Attribute_Label: OCT
  Attribute_Definition:
    October
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        Present in October
      Enumerated_Domain_Value_Source: NOAA ESI Guidelines
Attribute:
  Attribute_Label: NOV
  Attribute_Definition:
    November
  Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:
  Enumerated_Domain_Value:
    X
  Enumerated_Domain_Value_Definition:
    Present in November
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute:

Attribute_Label:
  DEC
Attribute_Definition:
  December
Attribute_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:
  Enumerated_Domain_Value:
    X
  Enumerated_Domain_Value_Definition:
    Present in December
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute:

Attribute_Label:
  EL_SPE_SEA
Attribute_Definition:
  Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:
  Enumerated_Domain_Value:
    E#####
  Enumerated_Domain_Value_Definition:
    Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Detailed_Description:

Entity_Type:
  Entity_Type_Label:
    BREED
  Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** EL_SPE_SEA
- **Attribute Definition:**
  Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
  **Attribute Definition Source:**
  NOAA ESI Guidelines

**Attribute Domain Values:**
- **Enumerated Domain:**
  - **Enumerated Domain Value:** E########
  **Enumerated Domain Value Definition:**
  Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
  **Enumerated Domain Value Definition Source:**
  NOAA ESI Guidelines

**Attribute:**
- **Attribute Label:** MONTH
- **Attribute Definition:**
  Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
- **Attribute Definition Source:**
  NOAA ESI Guidelines

**Attribute Domain Values:**
- **Range Domain:**
  - **Range Domain Minimum:** 1
  - **Range Domain Maximum:** 12

**Attribute:**
- **Attribute Label:** BREED1
- **Attribute Definition:**
  Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.
- **Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute**

**Label:** BREED2

**Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

**Definition Source:**
NOAA ESI Guidelines

**Domain Values:**

- **Enumerated Domain:**
  - **Value:** Y
    - **Definition:** Life-history stage or activity present
    - **Source:** NOAA ESI Guidelines
  - **Value:** N
    - **Definition:** Life-history stage or activity not present or not reported
    - **Source:** NOAA ESI Guidelines
  - **Value:** -
    - **Definition:** Breed category not used or not appropriate for record(s) in question
    - **Source:** NOAA ESI Guidelines
**Enumerated Domain Value Definition:**
Life-history stage or activity not present or not reported

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
-

**Enumerated Domain Value Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
BREED3

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
Y

**Enumerated Domain Value Definition:**
Life-history stage or activity present

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
N

**Enumerated Domain Value Definition:**
Life-history stage or activity not present or not reported

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:**
-

**Enumerated Domain Value Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**
**Attribute Label:**
BREED4

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:** Y
  - **Enumerated Domain Value Definition:** Life-history stage or activity present
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:** N
  - **Enumerated Domain Value Definition:** Life-history stage or activity not present or not reported
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:** -
  - **Enumerated Domain Value Definition:** Breed category not used or not appropriate for record(s) in question
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
BREED5

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:** Y
**Enumerated_Domain_Value_Definition:**
Life-history stage or activity present

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**
**Enumerated_Domain_Value:**
N

**Enumerated_Domain_Value_Definition:**
Life-history stage or activity not present or not reported

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**
**Enumerated_Domain_Value:**
-

**Enumerated_Domain_Value_Definition:**
Breed category not used or not appropriate for record(s) in question

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:**
STATUS

**Entity_Type_Definition:**
The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
ELEMENT

**Attribute_Definition:**
Major categories of biological data.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**
**Enumerated_Domain_Value:**
BIRD

**Enumerated_Domain_Value_Definition:**
Birds

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**
Enumerated_Domain_Value:
  FISH

Enumerated_Domain_Value_Definition:
  Fish

Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      HABITAT
    Enumerated_Domain_Value_Definition:
      Habitats and Plants
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      INVERT
    Enumerated_Domain_Value_Definition:
      Invertebrates
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      M_MAMMAL
    Enumerated_Domain_Value_Definition:
      Marine Mammals
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      REPTILE
    Enumerated_Domain_Value_Definition:
      Reptiles and Amphibians
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T_MAMMAL
    Enumerated_Domain_Value_Definition:
      Terrestrial Mammals
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
SPECIES_ID

**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**
- **Range Domain Minimum:** 1
- **Range Domain Maximum:** N

**Attribute:**

**Attribute Label:** STATE

**Attribute Definition:**
Two-letter state abbreviation.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Unrepresentable Domain:** Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:** COUNTRY

**Attribute Definition:**
Three-letter country abbreviation.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Unrepresentable Domain:** Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:** S

**Attribute Definition:**
State threatened or endangered status.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**
- **Enumerated Domain Value:** E

**Enumerated Domain Value Definition:**
Endangered on state list

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
Enumerated_Domain:
  Enumerated_Domain_Value:
    T
  Enumerated_Domain_Value_Definition:
    Threatened on state list
  Enumerated_Domain_Value_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      C
    Enumerated_Domain_Value_Definition:
      Species of Special Concern
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
    F
  Attribute_Definition:
    Federal threatened or endangered status.
  Attribute_Definition_Source:
    NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      E
    Enumerated_Domain_Value_Definition:
      Endangered on federal list
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      T
    Enumerated_Domain_Value_Definition:
      Threatened on federal list
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value:
      C
    Enumerated_Domain_Value_Definition:
      Species of Special Concern
    Enumerated_Domain_Value_Definition_Source:
      NOAA ESI Guidelines

Attribute:
  Attribute_Label:
Attribute Definition:
International threatened or endangered status.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
E
Enumerated Domain Value Definition:
Endangered on international list
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
T
Enumerated Domain Value Definition:
Threatened on international list
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
C
Enumerated Domain Value Definition:
Species of Special Concern
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: S_DATE
Attribute Definition:
Publication date of source material used to assign state status values for each species, if used.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
YYYYMM
Enumerated Domain Value Definition:
YYYY for year and optionally MM for month
Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
  YYYYMM
  Enumerated_Domain_Value_Definition:
  YYYY for year and optionally MM for month
  Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute:
Attribute_Label:
  I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
  YYYYMM
  Enumerated_Domain_Value_Definition:
  YYYY for year and optionally MM for month
  Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Attribute:
Attribute_Label:
  EL_SPE
Attribute_Definition:
Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
  Enumerated_Domain_Value:
  E#####
  Enumerated_Domain_Value_Definition:
  Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
  Enumerated_Domain_Value_Definition_Source:
  NOAA ESI Guidelines

Detailed_Description:
**Entity_Type:**

**Entity_Type_Label:** SOURCES

**Entity_Type_Definition:**
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:** SOURCE_ID

**Attribute_Definition:**
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Range_Domain:**
- **Range_Domain_Minimum:** 1
- **Range_Domain_Maximum:** N

**Attribute:**

**Attribute_Label:** ORIGINATOR

**Attribute_Definition:**
Author or developer of source material or data set.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:** DATE_PUB

**Attribute_Definition:**
Date of source material, publication, or date of personal communication with expert source.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**
- **Enumerated_Domain_Value:** Florida Panhandle ESI: HABITATS
YYYYMM

*Enumerated_Domain_Value_Definition:*  
YYYY for year and optionally MM for month

*Enumerated_Domain_Value_Definition_Source:*  
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**

TITLE

**Attribute_Definition:**

Title of source material or data.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Unrepresentable_Domain:*

Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**

DATA_FORMAT

**Attribute_Definition:**

The format of the source material.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Unrepresentable_Domain:*

Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**

PUB_PLACE

**Attribute_Definition:**

Publication place.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Unrepresentable_Domain:*

Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**

PUBLISHER

**Attribute_Definition:**

Publisher.

**Attribute_Definition_Source:**

NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Unrepresentable_Domain:*

Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:**

PUBLICATION
Attribute_Definition:
Additional citation information.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label:
ONLINE_LINK

Attribute_Definition:
Online computer resource URL.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label:
SCALE

Attribute_Definition:
Description of the source scale.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label:
TIME_PERIOD

Attribute_Definition:
Date(s) of data collection that the source material is based upon.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Unrepresentable_Domain:
Acceptable values change from atlas to atlas.

Overview_Description:
Entity_and_Attribute_Overview:
In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, HABITATS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of
these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables (described in the Detailed_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed_Description section.

Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

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Distribution_Information:
Distributor:
Contact Information:
Contact Person Primary:
Contact Person:
ESI Manager
Contact Organization:
NOAA, Office of Response and Restoration
Contact Address:
Address Type:
Physical Address

Address:
7600 Sand Point Way N.E.

City:
Seattle

State_or_Province:
Washington

Postal_Code:
98115-6349

Contact_Voice_Telephone:
(206) 526-6944

Contact_Facsimile_Telephone:
(206) 526-6329

Contact_Electronic_Mail_Address:
orr.esi@noaa.gov

Resource_Description:
Downloadable Data

Distribution_Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name:
Multiple formats

Digital_Transfer_Option:

Online_Option:

Computer_Contact_Information:

Network_Address:

Network_Resource_Name:
http://response.restoration.noaa.gov/esi_download

Fees:
None

Custom_Order_Process:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information about both of these database formats.
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Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: BENTHIC (Benthic Polygons)

Metadata:

- Identification_Information
- Data_Quality_Information
- Spatial_Data_Organization_Information
- Spatial_Reference_Information
- Entity_and_Attribute_Information
- Distribution_Information
- Metadata_Reference_Information

Identification_Information:

Citation Information:

Originator:

Originator:

Originator:
Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

Publication_Date:
201208

Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Florida Panhandle: BENTHIC (Benthic Polygons)

Edition:
Second

Geospatial_Data_Presentation_Form:
vector digital data

Series_Information:

Series_Name:
Florida Panhandle ESI

Issue_Identification:
Florida Panhandle

Publication_Information:

Publication_Place:
Seattle, Washington
Description:

Abstract:
This data set contains submerged aquatic vegetation (SAV) and corals for the Florida Panhandle. Vector polygons in the data set represent SAV and coral distribution. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Florida Panhandle. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date:
1987

Ending_Date:
2011

Currentness_Reference:
The data were compiled during 2010-2012. The currentness dates for the data range from 1987 to 2011 and are documented in the Lineage section.

Status:

Progress:
Complete

Maintenance_and_Update_Frequency:
None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate:
-87.62500

East_Bounding_Coordinate:
Keywords:

Theme:

Theme_Keyword_Thesaurus:
ISO 19115 Topic Category

Theme_Keyword:
biota

Theme_Keyword:
environment

Theme:

Theme_Keyword_Thesaurus:
None

Theme_Keyword:
Environmental Monitoring

Theme_Keyword:
ESI

Theme_Keyword:
Sensitivity maps

Theme_Keyword:
Coastal resources

Theme_Keyword:
Oil spill planning

Theme_Keyword:
Coastal Zone Management

Theme_Keyword:
Wildlife

Theme_Keyword:
Benthic

Theme_Keyword:
Submerged aquatic vegetation

Theme_Keyword:
Coral

Theme:

Theme_Keyword_Thesaurus:
NOS Data Explorer Topic Category

Theme_Keyword:
Environmental Monitoring

Place:

Place_Keyword_Thesaurus:
None

Place_Keyword:
Florida Panhandle

Access_Constraints:
None
Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse_Graphic:
Browse_Graphic_File_Name:  
Browse_Graphic_File_Description:  
Depicts the relationships between spatial data layers and attribute data tables for the Florida Panhandle ESI data.
Browse_Graphic_File_Type:  
JPEG

Browse_Graphic:
Browse_Graphic_File_Name:  
http://response.restoration.noaa.gov/sites/default/files/esimaps/gisdata/FloridaPanhdle_2012_datafig2.jpg
Browse_Graphic_File_Description:  
Depicts the relationships between spatial data layers and desktop data tables for the Florida Panhandle ESI data.
Browse_Graphic_File_Type:  
JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida.

Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PCs with Windows Operating System (2000/XP/2003). The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, habitats.e00, hydro.e00, index.e00, invert.e00, invertpt.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, reptpt.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.
Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

Logical_Consistency_Report:

A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks.

Completeness_Report:

These data represent digital data sets and expert knowledge on submerged aquatic vegetation (SAV) and coral distribution.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:

FLORIDA NATURAL AREAS INVENTORY (FNAI)

Publication_Date:

2001
Title:
FIELD GUIDE TO THE RARE PLANTS AND ANIMALS OF FLORIDA: ONLINE

Geospatial_Data_Presentation_Form:
HARDCOPY TEXT

Online_Linkage:
http://fwcg.myfwc.com/docs/purple_bankclimber.pdf

Type_of_Source_Media:
ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date:
2001

Source_Currentness_Reference:
DATE OF PUBLICATION

Source_Citation_Abbreviation:
Src_0

Source_Contribution:
BENTHIC INFORMATION

Process_Step:

Process_Description:
Two main sources of data were used to depict benthic habitat distribution and seasonality for this data layer: 1) digital data provided by Florida Fish and Wildlife Conservation Commission-Fish and Wildlife Research Institute (FWC-FWRI) and 2) personal interviews from resource experts from Florida Department of Environmental Protection (DEP).

Process_Date:
201208

Process_Contact:

Contact Information:

Contact_Organization_Primary:
Contact_Organization:
NOAA, Office of Response and Restoration

Contact_Person:
ESI Manager

Contact_Address:
Address_Type:
Physical address

Address:
7600 Sand Point Way, N.E.

City:
Seattle

State_or_Province:
Washington

Postal_Code:
98115-6349

Contact_Voice_Telephone:
Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method:
Vector
Point_and_Vector_Object_Information:
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 4542
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 4543
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 6624
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 551521
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 5674

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Geographic:
Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic Coordinate Units:
Decimal degrees

Geodetic Model:
Horizontal Datum Name:
North American Datum of 1983
Ellipsoid Name:
Geodetic Reference System 80
Semi-major Axis:
6378137.000000
Denominator of Flattening Ratio:
298.257222

Entity and Attribute Information:
Detailed Description:
Entity Type:
Entity Type Label:
BENTHIC.PAT
Entity Type Definition:
The BENTHIC.PAT table contains attribute information for the vector polygons in this data set representing submerged aquatic vegetation (SAV) and coral distribution. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.
Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
ID
Attribute Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (3), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute Definition Source:
NOAA
Attribute Domain Values:
Range Domain:
Range Domain Minimum:
2180303021
Range Domain Maximum:
2180307562

Attribute:
Attribute Label:
RARNUM
Attribute Definition:
An identifier that links directly to the BIORES table or the flat format BIOFILE table. RARNUM values of 0 are holes in the polygons and do not contain information.

Attribute Definition Source:
NOAA

Attribute Domain Values:
Range Domain:
  Range Domain Minimum: 218000797
  Range Domain Maximum: 218000814

Detailed Description:
Entity Type:
  Entity Type Label: BIO_LUT
  Entity Type Definition:
The data table BIO_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity Type Definition Source:
NOAA ESI Guidelines

Attribute:
  Attribute Label: RARNUM
  Attribute Definition:
An identifier that links records in the BIO_LUT data table to records in the BIORES data table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.

Attribute Definition Source:
NOAA

Attribute Domain Values:
  Range Domain:
    Range Domain Minimum: 218000001
    Range Domain Maximum: 218001335

Attribute:
  Attribute Label: ID
  Attribute Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (218), element number (3), and record number. ID values of 9999 are holes in polygons and do not contain information.
**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 2180100002
- **Range Domain Maximum:** 2183700142

**Detailed Description:**

**Entity Type:**

**Entity Type Label:** BIORES

**Entity Type Definition:**

The data table BIORES contains both biological attribute data and items necessary for linking vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:** RARNUM

**Attribute Definition:**

An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.

**Attribute Definition Source:**
NOAA

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 218000001
- **Range Domain Maximum:** 218001335

**Attribute:**

**Attribute Label:** SPECIES_ID

**Attribute Definition:**

Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

**Range Domain:**

- **Range Domain Minimum:** 1
- **Range Domain Maximum:** N
Attribute:
Attribute_Label: CONC
Attribute Definition:
The field CONC refers to "concentration," abundance, or density values. No concentration data were available for benthic, so this field is populated with ".-".
Attribute Definition Source:
NOAA ESI Guidelines
Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label: SEASON_ID
Attribute Definition:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
Attribute Definition Source:
NOAA ESI Guidelines
Attribute Domain Values:
Range Domain: 
Range Domain Minimum: 
1 
Range Domain Maximum: 
N

Attribute:
Attribute Label: G_SOURCE
Attribute Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute Definition Source:
NOAA ESI Guidelines
Attribute Domain Values:
Range Domain: 
Range Domain Minimum: 
1 
Range Domain Maximum: 
N

Attribute:
Attribute Label: S_SOURCE
Attribute Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute Definition Source:
NOAA ESI Guidelines
Attribute Domain Values:
Range_Domain:
  Range_Domain_Minimum:
    1
  Range_Domain_Maximum:
    N

Attribute:
  Attribute_Label:
    ELEMENT
  Attribute_Definition:
    Major categories of biological data.
  Attribute_Definition_Source:
    NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        BIRD
      Enumerated_Domain_Value_Definition:
        Birds
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        FISH
      Enumerated_Domain_Value_Definition:
        Fish
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        HABITAT
      Enumerated_Domain_Value_Definition:
        Habitats and plants
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        INVERT
      Enumerated_Domain_Value_Definition:
        Invertebrates
      Enumerated_Domain_Value_Definition_Source:
        NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value:
        M_MAMMAL
**Enumerated_Domain_Value_Definition:**
Marine mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
REPTILE

**Enumerated_Domain_Value_Definition:**
Reptiles and Amphibians

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
T_MAMMAL

**Enumerated_Domain_Value_Definition:**
Terrestrial mammals

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE

**Attribute_Definition:**
Concatenation of ELEMENT and SPECIES_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Enumerated_Domain:**

**Enumerated_Domain_Value:**
E####

**Enumerated_Domain_Value_Definition:**
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:**
EL_SPE_SEA

**Attribute_Definition:**
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**
Enumerated_Domain:

Enumerated_Domain_Value:
E#######

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Detailed_Description:
Entity_Type:

Entity_Type_Label:
SPECIES

Entity_Type_Definition:
The data table SPECIES identifies all species in the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness_Report for a list of layer-specific species.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
SPECIES_ID

Attribute_Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum:
1
Range_Domain_Maximum:
N

Attribute:

Attribute_Label:
NAME

Attribute_Definition:
Species common name for the entire ESI data set.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Attribute:

Attribute_Label:
GEN_SPEC

Acceptable values change from atlas to atlas.
Attribute Definition:
Species scientific name for the entire ESI data set.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label:
ELEMENT

Attribute Definition:
Major categories of biological data.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
BIRD

Enumerated Domain Value Definition:
Birds

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
FISH

Enumerated Domain Value Definition:
Fish

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
HABITAT

Enumerated Domain Value Definition:
Habitats and plants

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
INVERT

Enumerated Domain Value Definition:
Invertebrates

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated_Domain_Value:
 M_MAMMAL

Enumerated_Domain_Value_Definition:
 Marine Mammals

Enumerated_Domain_Value_Definition_Source:
 NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
 REPTILE

Enumerated_Domain_Value_Definition:
 Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source:
 NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
 T_MAMMAL

Enumerated_Domain_Value_Definition:
 Terrestrial Mammals

Enumerated_Domain_Value_Definition_Source:
 NOAA ESI Guidelines

Attribute:
 Attribute_Label:
 SUBELEMENT

Attribute_Definition:
 Element subgroup delineating a logical grouping of species.

Attribute_Definition_Source:
 NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
 alligator

Enumerated_Domain_Value_Definition:
 Alligator

Enumerated_Domain_Value_Definition_Source:
 NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
 amphibian

Enumerated_Domain_Value_Definition:
 Amphibian

Enumerated_Domain_Value_Definition_Source:
 NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
bear
Enumerated_Domain_Value_Definition:
Bear
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
bivalve
Enumerated_Domain_Value_Definition:
Bivalve
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
canine
Enumerated_Domain_Value_Definition:
Canine
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
cephalopod
Enumerated_Domain_Value_Definition:
Cephalopod
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
coral
Enumerated_Domain_Value_Definition:
Coral
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
crab
Enumerated_Domain_Value_Definition:
Crab
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
crayfish

*Enumerated_Domain_Value_Definition*: Crayfish
*Enumerated_Domain_Value_Definition_Source*: NOAA ESI Guidelines

**Attribute_Domain_Values:**
*Enumerated_Domain*:
- *Enumerated_Domain_Value*: diadromous
  *Enumerated_Domain_Value_Definition*: Diadromous fish
  *Enumerated_Domain_Value_Definition_Source*: NOAA ESI Guidelines

**Attribute_Domain_Values:**
*Enumerated_Domain*:
- *Enumerated_Domain_Value*: diving
  *Enumerated_Domain_Value_Definition*: Diving bird
  *Enumerated_Domain_Value_Definition_Source*: NOAA ESI Guidelines

**Attribute_Domain_Values:**
*Enumerated_Domain*:
- *Enumerated_Domain_Value*: dolphin
  *Enumerated_Domain_Value_Definition*: Dolphin
  *Enumerated_Domain_Value_Definition_Source*: NOAA ESI Guidelines

**Attribute_Domain_Values:**
*Enumerated_Domain*:
- *Enumerated_Domain_Value*: e_nursery
  *Enumerated_Domain_Value_Definition*: Estuarine nursery fish
  *Enumerated_Domain_Value_Definition_Source*: NOAA ESI Guidelines

**Attribute_Domain_Values:**
*Enumerated_Domain*:
- *Enumerated_Domain_Value*: e_resident
  *Enumerated_Domain_Value_Definition*: Estuarine resident fish
  *Enumerated_Domain_Value_Definition_Source*: NOAA ESI Guidelines

**Attribute_Domain_Values:**
*Enumerated_Domain*:
- *Enumerated_Domain_Value*: e_resident
fav

Enumerated Domain Value Definition:
Floating aquatic vegetation

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
fish

Enumerated Domain Value Definition:
Fish

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
freshwater

Enumerated Domain Value Definition:
Freshwater fish

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
gull_tern

Enumerated Domain Value Definition:
Gull or tern

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
invert

Enumerated Domain Value Definition:
Invertebrate

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
lobster

Enumerated Domain Value Definition:
Lobster

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain: 
m_benthic
Enumerated_Domain_Value_Definition: Marine benthic fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: m_pelagic
Enumerated_Domain_Value_Definition: Marine pelagic fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: manatee
Enumerated_Domain_Value_Definition: Manatee
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: passerine
Enumerated_Domain_Value_Definition: Passerine bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: pelagic
Enumerated_Domain_Value_Definition: Pelagic bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
raptor

*Enumerated_Domain_Value_Definition:*
Raptor

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*
sav

*Enumerated_Domain_Value_Definition:*
Submerged aquatic vegetation

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*
shorebird

*Enumerated_Domain_Value_Definition:*
Shorebird

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*
shrimp

*Enumerated_Domain_Value_Definition:*
Shrimp

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*
sm_mammal

*Enumerated_Domain_Value_Definition:*
Small mammal

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:*
snake

*Enumerated_Domain_Value_Definition:*
Snake

*Enumerated_Domain_Value_Definition_Source:*
NOAA ESI Guidelines

**Attribute_Domain_Values:**

*Enumerated_Domain:*

*Enumerated_Domain_Value:
turtle

Enumerated_Domain_Value_Definition:
Turtle

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
wading

Enumerated_Domain_Value_Definition:
Wading bird

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
waterfowl

Enumerated_Domain_Value_Definition:
Waterfowl

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
wetland

Enumerated_Domain_Value_Definition:
Wetland

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
NHP

Attribute_Definition:
Natural Heritage Program global ranking.

Attribute_Definition_Source:
Network of Natural Heritage Program

Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name:
NHP Global Conservation Status Rank

Codeset_Source:
Natural Heritage Program

Attribute:

Attribute_Label:
DATE_PUB

Attribute_Definition:
Date of NHP listing.

Attribute_Definition_Source:
NOAA ESI Guidelines

**Attribute Domain Values**:

**Enumerated Domain**:  
**Enumerated Domain Value**: YYYMM  
**Enumerated Domain Value Definition**: YYYY for year and optionally MM for month  
**Enumerated Domain Value Definition Source**: NOAA ESI Guidelines

**Attribute Domain Values**:

**Enumerated Domain**:  
**Enumerated Domain Value**: 0  
**Enumerated Domain Value Definition**: Date unspecified  
**Enumerated Domain Value Definition Source**: NOAA ESI Guidelines

**Attribute**:  
**Attribute Label**: EL_SPE  
**Attribute Definition**: Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.  
**Attribute Definition Source**: NOAA ESI Guidelines

**Attribute Domain Values**:

**Enumerated Domain**:  
**Enumerated Domain Value**: E#####  
**Enumerated Domain Value Definition**: Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').  
**Enumerated Domain Value Definition Source**: NOAA ESI Guidelines

**Detailed Description**:

**Entity Type**:  
**Entity Type Label**: SEASONAL  
**Entity Type Definition**: The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.  
**Entity Type Definition Source**: NOAA ESI Guidelines

**Attribute**:  
**Attribute Label**: Florida Panhandle ESI: BENTHIC
ELEMENT
Attribute_Definition:
Major categories of biological data.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
   Enumerated_Domain_Value:
      BIRD
      Enumerated_Domain_Value_Definition:
         Birds
      Enumerated_Domain_Value_Definition_Source:
         NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
   Enumerated_Domain_Value:
      FISH
      Enumerated_Domain_Value_Definition:
         Fish
      Enumerated_Domain_Value_Definition_Source:
         NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
   Enumerated_Domain_Value:
      HABITAT
      Enumerated_Domain_Value_Definition:
         Habitats and plants
      Enumerated_Domain_Value_Definition_Source:
         NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
   Enumerated_Domain_Value:
      INVERT
      Enumerated_Domain_Value_Definition:
         Invertebrates
      Enumerated_Domain_Value_Definition_Source:
         NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
   Enumerated_Domain_Value:
      M_MAMMAL
      Enumerated_Domain_Value_Definition:
         Marine Mammals
      Enumerated_Domain_Value_Definition_Source:
         NOAA ESI Guidelines
Attribute_Domain_Values:
REPTILE

Enumerated_Domain_Value_Definition:
Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
T_MAMMAL

Enumerated_Domain_Value_Definition:
Terrestrial Mammals

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
SPECIES_ID

Attribute_Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum:
1

Range_Domain_Maximum:
N

Attribute:

Attribute_Label:
SEASON_ID

Attribute_Definition:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum:
1

Range_Domain_Maximum:
N

Attribute:

Attribute_Label:
JAN

Attribute_Definition:
January

Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute Domain Values:
    Enumerated Domain:
        Enumerated Domain Value:
            X
        Enumerated Domain Value Definition:
            Present in January
        Enumerated Domain Value Definition Source:
            NOAA ESI Guidelines

Attribute:
    Attribute Label:
        FEB
    Attribute Definition:
        February
    Attribute Definition Source:
        NOAA ESI Guidelines
    Attribute Domain Values:
        Enumerated Domain:
            Enumerated Domain Value:
                X
            Enumerated Domain Value Definition:
                Present in February
            Enumerated Domain Value Definition Source:
                NOAA ESI Guidelines

Attribute:
    Attribute Label:
        MAR
    Attribute Definition:
        March
    Attribute Definition Source:
        NOAA ESI Guidelines
    Attribute Domain Values:
        Enumerated Domain:
            Enumerated Domain Value:
                X
            Enumerated Domain Value Definition:
                Present in March
            Enumerated Domain Value Definition Source:
                NOAA ESI Guidelines

Attribute:
    Attribute Label:
        APR
    Attribute Definition:
        April
    Attribute Definition Source:
        NOAA ESI Guidelines
    Attribute Domain Values:
        Enumerated Domain:
            Enumerated Domain Value:
X
Enumerated_Domain_Value_Definition:
Present in April
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
MAY
Attribute_Definition:
May
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
X
Enumerated_Domain_Value_Definition:
Present in May
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
JUN
Attribute_Definition:
June
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
X
Enumerated_Domain_Value_Definition:
Present in June
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
JUL
Attribute_Definition:
July
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
X
Enumerated_Domain_Value_Definition:
Present in July
Attribute:
  Attribute_Label: AUG
  Attribute_Definition: August
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
    Enumerated_Domain_Value_Definition: Present in August
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: SEP
  Attribute_Definition: September
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
    Enumerated_Domain_Value_Definition: Present in September
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: OCT
  Attribute_Definition: October
  Attribute_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: X
    Enumerated_Domain_Value_Definition: Present in October
    Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute Label: NOV
Attribute Definition: November
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value: X
    Enumerated Domain Value Definition: Present in November
    Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Label: DEC
Attribute Definition: December
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value: X
    Enumerated Domain Value Definition: Present in December
    Enumerated Domain Value Definition Source: NOAA ESI Guidelines

Attribute Label: EL_SPE_SEA
Attribute Definition: Concatenation of ELEMENT, SPECIES ID, and SEASON ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute Definition Source: NOAA ESI Guidelines
Attribute Domain Values:
  Enumerated Domain:
    Enumerated Domain Value: E#######
    Enumerated Domain Value Definition: Where E is the first character of ELEMENT, the next five characters are SPECIES ID, and the last two characters are SEASON ID (e.g. ELEMENT = 'BIRD', SPECIES ID = 1 and SEASON ID = 1; EL_SPE_SEA = 'B0000101').
    Enumerated Domain Value Definition Source: Florida Panhandle ESI: BENTHIC
NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label:
BREED

Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.

Entity_Type_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE_SEA

Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value:
E######_##

Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
MONTH

Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum:
1

Range_Domain_Maximum:
12

Attribute:

Attribute_Label:
BREED1

Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:** Y
  - **Enumerated Domain Value Definition:** Life-history stage or activity present
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:** N
  - **Enumerated Domain Value Definition:** Life-history stage or activity not present or not reported
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:** -
  - **Enumerated Domain Value Definition:** Breed category not used or not appropriate for record(s) in question
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**

**Attribute Label:** BREED2

**Attribute Definition:**
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**

- **Enumerated Domain:**
  - **Enumerated Domain Value:** Y
  - **Enumerated Domain Value Definition:** Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
N
Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:

Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
Attribute_Label: BREED3
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
Y
Enumerated_Domain_Value_Definition:
Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
N
Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
BREED4

Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
Y

Enumerated_Domain_Value_Definition:
Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
N

Enumerated_Domain_Value_Definition:
Life-history stage or activity not present or not reported

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
-

Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
BREED5

Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.
**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
**Enumerated Domain:**
- **Enumerated Domain Value:** Y
  - **Enumerated Domain Value Definition:** Life-history stage or activity present
  - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:** N
    - **Enumerated Domain Value Definition:** Life-history stage or activity not present or not reported
    - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

- **Enumerated Domain:**
  - **Enumerated Domain Value:**
    - **Enumerated Domain Value Definition:** Breed category not used or not appropriate for record(s) in question
    - **Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Detailed Description:**

**Entity Type:**

**Entity Type Label:** STATUS

**Entity Type Definition:**
The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity Type Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:** ELEMENT

**Attribute Definition:**
Major categories of biological data.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
**Enumerated Domain:**
- **Enumerated Domain Value:** BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
HABITAT
Enumerated_Domain_Value_Definition: Habitats and Plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
M_MAMMAL
Enumerated_Domain_Value_Definition: Marine Mammals
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
REPTILE
Enumerated_Domain_Value_Definition: Reptiles and Amphibians
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
T_MAMMAL
**Enumerated Domain Value Definition:**
Terrestrial Mammals

**Enumerated Domain Value Definition Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute Label:**
SPECIES_ID

**Attribute Definition:**
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
Range Domain:
- **Range Domain Minimum:** 1
- **Range Domain Maximum:** N

**Attribute:**

**Attribute Label:**
STATE

**Attribute Definition:**
Two-letter state abbreviation.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
COUNTRY

**Attribute Definition:**
Three-letter country abbreviation.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute Label:**
S

**Attribute Definition:**
State threatened or endangered status.

**Attribute Definition Source:**
NOAA ESI Guidelines

**Attribute Domain Values:**
Enumerated Domain:

```plaintext
Enumerated Domain Value:
Florida Panhandle ESI:  BENTHIC
```
Enumerated_Domain_Value_Definition:
Endangered on state list

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        T

Enumerated_Domain_Value_Definition:
Threatened on state list

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        C

Enumerated_Domain_Value_Definition:
Species of Special Concern

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:
Attribute_Label:
    F

Attribute_Definition:
Federal threatened or endangered status.

Attribute_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        E

Enumerated_Domain_Value_Definition:
Endangered on federal list

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        T

Enumerated_Domain_Value_Definition:
Threatened on federal list

Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute_Domain_Values:
Enumerated_Domain:
    Enumerated_Domain_Value:
        C
**Attribute:**

**Attribute Label:** I

**Attribute Definition:**
International threatened or endangered status.

**Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:** E

**Enumerated Domain Value Definition:** Endangered on international list

**Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:** T

**Enumerated Domain Value Definition:** Threatened on international list

**Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:** C

**Enumerated Domain Value Definition:** Species of Special Concern

**Enumerated Domain Value Definition Source:** NOAA ESI Guidelines

**Attribute:**

**Attribute Label:** S_DATE

**Attribute Definition:**
Publication date of source material used to assign state status values for each species, if used.

**Attribute Definition Source:** NOAA ESI Guidelines

**Attribute Domain Values:**

**Enumerated Domain:**

**Enumerated Domain Value:** YYYYMM

**Enumerated Domain Value Definition:**
Attribute:

Attribute_Label:
F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
YYYYMM
Enumerated_Domain_Value_Definition:
YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
YYYYMM
Enumerated_Domain_Value_Definition:
YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source:
NOAA ESI Guidelines

Attribute:

Attribute_Label:
EL_SPE
Attribute_Definition:
Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.
Attribute_Definition_Source:
NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
E#####
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

**Enumerated_Domain_Value_Definition_Source:**
NOAA ESI Guidelines

**Detailed_Description:**

**Entity_Type:**

**Entity_Type_Label:** SOURCES

**Entity_Type_Definition:**
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

**Entity_Type_Definition_Source:**
NOAA ESI Guidelines

**Attribute:**

**Attribute_Label:** SOURCE_ID

**Attribute_Definition:**
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; SOURCE_ID and ESI_SOURCE in the ESIL data layer; ESI_SOURCE in the ESIP data layer; and SOURCE_ID in the HYDRO data layer.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Range_Domain:**

**Range_Domain_Minimum:**
1

**Range_Domain_Maximum:**
N

**Attribute:**

**Attribute_Label:** ORIGINATOR

**Attribute_Definition:**
Author or developer of source material or data set.

**Attribute_Definition_Source:**
NOAA ESI Guidelines

**Attribute_Domain_Values:**

**Unrepresentable_Domain:**
Acceptable values change from atlas to atlas.

**Attribute:**

**Attribute_Label:** DATE_PUB

**Attribute_Definition:**
Date of source material, publication, or date of personal communication with expert.
source.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Enumerated Domain:
Enumerated Domain Value:
YYYYMM

Enumerated Domain Value Definition:
YYYY for year and optionally MM for month

Enumerated Domain Value Definition Source:
NOAA ESI Guidelines

Attribute:
Attribute Label:
TITLE
Attribute Definition:
Title of source material or data.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label:
DATA_FORMAT
Attribute Definition:
The format of the source material.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label:
PUB_PLACE
Attribute Definition:
Publication place.

Attribute Definition Source:
NOAA ESI Guidelines

Attribute Domain Values:
Unrepresentable Domain:
Acceptable values change from atlas to atlas.

Attribute:
Attribute Label:
PUBLISHER
Attribute Definition:
Publisher.

Attribute Definition Source:
NOAA ESI Guidelines
Attribute: 
Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values: Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute: 
Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values: Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute: 
Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values: Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute: 
Attribute_Label: TIME_PERIOD
Attribute_Definition: Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values: Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Overview_Description: 
Entity_and_Attribute_Overview: In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological
resource information (in this case, BENTHIC) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Florida Panhandle atlas, the number is 218), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonality, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in the Detailed_Description sections. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables (described in the Detailed_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed_Description section.

Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (http://response.restoration.noaa.gov/esi_guidelines).

Back To Index
Contact Person:  
ESI Manager

Contact Organization:  
NOAA, Office of Response and Restoration

Contact Address:  
Address Type:  
Physical Address

Address:  
7600 Sand Point Way N.E.

City:  
Seattle

State or Province:  
Washington

Postal Code:  
98115-6349

Contact Voice Telephone:  
(206) 526-6944

Contact Facsimile Telephone:  
(206) 526-6329

Contact Electronic Mail Address:  
orr.esi@noaa.gov

Resource Description:  
Downloadable Data

Distribution Liability:
These data represent a snapshot in time and temporal changes may have occurred. These data are not intended to include all biological or human-use resources present in an area; they focus on species and resources particularly sensitive to oiling. In the event of a spill, they should be used for a first assessment only. The data providers are the experts with regard to individual resources. They should be contacted to confirm if more current data exist, and/or in-depth information is needed about a particular resource.

Standard Order Process:  
Digital Form:  

Digital Transfer Information:  
Format Name:  
Multiple formats

Digital Transfer Option:  
Online Option:  

Computer Contact Information:  
Network Address:  
Network Resource Name:  
http://response.restoration.noaa.gov/esi_download

Fees:  
None

Custom Order Process:  
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats. Distribution formats include a Geodatabase (including an ArcMap .mxd file, complete with database links and symbology), ARC export files, and shapefiles. The database files, available in text and INFO(R) formats, are provided in both the NOAA standard relational
database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified
desktop flat file format. This metadata document includes information about both of these
database formats.

Metadata Reference Information:

Metadata Date:
20140609

Metadata Contact:

Contact Information:

Contact Person Primary:
Contact Person:
ESI Manager

Contact Organization:
NOAA, Office of Response and Restoration

Contact Position:
GIS Manager

Contact Address:

Address Type:
Physical Address
Address:
7600 Sand Point Way, N.E.
City:
Seattle

State or Province:
Washington

Postal Code:
98115-6349

Contact Voice Telephone:
(206) 526-6944

Contact Facsimile Telephone:
(206) 526-6329

Contact Electronic Mail Address:
or.r.esi@noaa.gov

Metadata Standard Name:
Content Standards for Digital Geospatial Metadata

Metadata Standard Version:
FGDC-STD-001-1998
Florida Panhandle ESI – August 2012
Entity Relationship Diagram for the Relational Data Tables

Geographic Themes

- ESI (LINES)
- ESI (10,10,C)
- LINE (1,1,C)
- SOURCE_ID (6,6,I)
- ENVIR (1,1,C)
- ESI_SOURCE (6,6,I)
- ESIP (POLYS)
- WATER_CODE (1,1,C)
- ENVIR (1,1,C)
- ESI_SOURCE (6,6,I)
- HYDRO (LINES)
- LINE (1,1,C)
- SOURCE_ID (6,6,I)
- ENVIR (1,1,C)
- ESI_SOURCE (6,6,I)
- HYDRO (POLYS)
- WATER_CODE (1,1,C)
- INDEX (POLYS)
  - TILE-NAME (32,32,C)
  - TOPO-NAME (255,255,C)
  - SCALE (7,7,I)
  - MAPANGLE (4,8,F,3)
  - PAGESIZE (11,11,C)
- MGT (POLYS)
  - TYPE (2,2,C)
  - ID (10,10,I)
  - HUNUM (9,9,I)
- SOCECON (POINTS)
  - TYPE (2,2,C)
  - ID (10,10,I)
  - HUNUM (9,9,I)
  - SOCECON (LINES)
  - TYPE (2,2,C)
- BENTHIC (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
- BIRDS (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
- FISH (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
- HABITATS (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
- INVERT (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - INVERTPT (POINTS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
- M_MAMMAL (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
- NESTS (POINTS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
- REPTILES (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - REPTPT (POINTS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
- T_MAMMAL (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)

Lookup Tables

- SOURCES
  - SOURCE_ID (6,6,I)
  - ORIGINATOR (255,255,C)
  - DATE_PUB (10,10,I)
  - TITLE (255,255,C)
  - DATA_FORMAT (80,80,C)
  - PUB_PLACE (255,255,C)
  - PUBLISHER (255,255,C)
  - PUBLICATION (255,255,C)
  - ONLINE_LINK (255,255,C)
  - SCALE (20,20,C)
  - TIME_PERIOD (22,22,C)
- SOC_DAT
  - HUNUM (9,9,I)
  - TYPE (20,20,C)
  - NAME (40,40,C)
  - CONTACT (80,80,C)
  - PHONE (20,20,C)
  - G_SOURCE (6,6,I)
  - A_SOURCE (6,6,I)
- BIORES
  - RARNUM (9,9,I)
  - SPECIES_ID (5,5,I)
  - CONC (20,20,C)
  - SEASON_ID (2,2,I)
  - G_SOURCE (6,6,I)
  - S_SOURCE (6,6,I)
  - ELEMENT (10,10,C)
  - EL_SPE (6,6,C)
  - EL_SPE_SEA (8,8,C)
- SEASONAL
  - ELEMENT (10,10,C)
  - SPECIES_ID (5,5,I)
  - SEASON_ID (2,2,I)
  - JAN (1,1,C)
  - FEB (1,1,C)
  - MAR (1,1,C)
  - APR (1,1,C)
  - MAY (1,1,C)
  - JUN (1,1,C)
  - JUL (1,1,C)
  - AUG (1,1,C)
  - SEP (1,1,C)
  - OCT (1,1,C)
  - NOV (1,1,C)
  - DEC (1,1,C)
  - EL_SPE (6,6,C)
  - EL_SPE_SEA (8,8,C)
- BREED
  - EL_SPE_SEA (8,8,C)
  - MONTH (2,2,I)
  - BREED1 (1,1,C)
  - BREED2 (1,1,C)
  - BREED3 (1,1,C)
  - BREED4 (1,1,C)
  - BREED5 (1,1,C)

Data Tables

- (The SOC_LUT table can be bypassed by linking the human-use tables to SOC_DAT using HUNUM)
- (The BIO_LUT table can be bypassed by linking the biology tables to BIORES using RARNUM)
Entity Relationship Diagram for the Desktop / Flat File Approach

Geographic Themes

- ESIL (LINES)
  - ESI (10,10,C)
  - LINE (1,1,C)
  - SOURCE_ID (6,6,I)
  - ENVIR (1,1,C)
- ESIP (POLYS)
  - ESI (10,10,C)
- HYDRO (LINES)
  - LINE (1,1,C)
  - SOURCE_ID (6,6,I)
- HYDRO (POLYS)
  - WATER_CODE (1,1,C)
  - INDEX (POLYS)
    - TILE-NANE (32,32,C)
    - TOPO-NAME (255,255,C)
    - MAPANGLE (4,8,f,3)
    - PAGESIZE (11,11,C)

Lookup Tables

- SOC_LUT
  - HUNUM (9,9,I)
  - ID (10,10,I)

Data Tables

- SOURCES
  - SOURCE_ID (6,6,I)
  - ORIGINATOR (255,255,C)
  - DATE_PUB (10,10,I)
  - TITLE (255,255,C)
  - DATA_FORMAT (80,80,C)
  - PUB_PLACE (255,255,C)
  - PUBLISHER (255,255,C)
  - PUBLICATION (255,255,C)
  - ONLINE_LINK (255,255,C)
  - SCALE (20,20,C)
  - TIME_PERIOD (22,22,C)

- SOC_DAT
  - HUNUM (9,9,I)
  - TYPE (20,20,C)
  - NAME (40,40,C)
  - CONTACT (80,80,C)
  - PHONE (20,20,C)
  - G_SOURCE (6,6,I)
  - A_SOURCE (6,6,I)

- BIOFILE
  - ELEMENT (10,10,C)
  - SUBELEMENT (10,10,C)
  - NAME (35,35,C)
  - GEN_SPEC (45,45,C)
  - S_F (3,3,C)
  - T_E (3,3,C)
  - NHP (10,10,C)
  - DATE_PUB (10,10,I)
  - CONC (20,20,C)
  - JAN (1,1,C)
  - FEB (1,1,C)
  - MAR (1,1,C)
  - APR (1,1,C)
  - MAY (1,1,C)
  - JUN (1,1,C)
  - JUL (1,1,C)
  - AUG (1,1,C)
  - SEP (1,1,C)
  - OCT (1,1,C)
  - NOV (1,1,C)
  - DEC (1,1,C)
  - BREED1 (8,8,C)
  - BREED2 (8,8,C)
  - BREED3 (8,8,C)
  - BREED4 (8,8,C)
  - BREED5 (8,8,C)
  - RARNUM (9,9,I)
  - G_SOURCE (6,6,I)
  - S_SOURCE (6,6,I)
  - BREED (4,4,I)

- MGT (POLYS)
  - TYPE (2,2,C)
  - ID (10,10,I)
  - HUNUM (9,9,I)
- SOCECON (POINTS)
  - TYPE (2,2,C)
  - ID (10,10,I)
  - HUNUM (9,9,I)
- SOCECON (LINES)
  - TYPE (2,2,C)
- BENTHIC (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - BIRDS (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - FISH (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - HABITATS (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - INVERT (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - INVERTPT (POINTS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - M_MAMMAL (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - NESTS (POINTS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - REPTILES (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - REPTPT (POINTS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
  - T_MAMMAL (POLYS)
  - ID (10,10,I)
  - RARNUM (9,9,I)
- BIO_LUT
  - RARNUM (9,9,I)
  - ID (10,10,I)

(The SOC_LUT table can be bypassed by linking the human-use tables to SOC_DAT using HUNUM)

(The BIO_LUT table can be bypassed by linking the biology tables to BIORES using RARNUM)