WEST FLORIDA
ENVIRONMENTAL SENSITIVITY INDEX
METADATA

Prepared By:

Research Planning, Inc.
1200 Park Street
Columbia, South Carolina 29201 USA

FILE DESCRIBES: Digital data for 1995 West Florida Environmental Sensitivity Index. Data were compiled and digitized at Research Planning, Inc., Columbia, South Carolina.

FILE CREATED BY: Joanne N. Halls, Director, GIS Department
                     Scott A. Zengel
                     Research Planning, Inc.
                     Post Office Box 328
                     Columbia, SC 29202
                     Phone: (803) 256-7322
                     FAX: (803) 254-6445
                     email: joanne@rpi.columbia.sc.us

FILE CREATED ON: 19960221

COMMENTS: Information was developed using the U.S. Federal
                     Geographic Data Committee's Content Standards for Digital
                     Geospatial Metadata, June 8, 1994. The numbering scheme
                     matches the Meta Data Standard in order to facilitate
                     referencing definitions of the elements. The items in **bold**
                     are required elements and the others are optional elements.
                     The Spatial Data Transfer Standard, ver. 03/92, was
                     referenced to properly identify the geographic entities.

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

Page

LIST OF FIGURES

1.0. IDENTIFICATION INFORMATION

1.1. CITATION

    1.1.1. 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., 1200 Park Street, Post Office Box 328, Columbia, South Carolina 29202

    1.1.2. PUBLICATION DATE:

    199512

    1.1.4. TITLE:

    Sensitivity of Coastal Environments and Wildlife to Spilled Oil: West Florida

    1.1.5. EDITION:

    First

    1.1.6. GEOSPATIAL DATA PRESENTATION FORM:

    Atlas

    1.1.7. SERIES INFORMATION

        1.1.7.1. SERIES NAME:

        None

        1.1.7.2. ISSUE IDENTIFICATION:

        West Florida

    1.1.8. PUBLICATION INFORMATION

        1.1.8.1. PUBLICATION PLACE:

        St. Petersburg, Florida

        1.1.8.2. PUBLISHER:

        Florida Department of Environmental Protection (FDEP), Florida Marine Research Institute (FMRI)

    1.1.9. OTHER CITATION DETAILS:

    Prepared by Research Planning, Inc., Columbia, South Carolina for the Florida Department of Environmental Protection (FDEP), Florida Marine Research Institute (FMRI), St. Petersburg, Florida

    1.1.11. LARGER WORK CITATION:

    None

1.2.   DESCRIPTION

1.2.1.   ABSTRACT:

This data set comprises the Environmental Sensitivity Index (ESI) maps for the shoreline of West Florida. ESI data characterize 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

1.2.2.   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

1.3.   TIME PERIOD OF CONTENT

1.3.1.   TIME PERIOD INFORMATION

1.3.1.3.   RANGE OF DATES/TIMES:

The intertidal habitats were mapped during aerial and ground surveys conducted from 21-25 June 1993. The biological and human use resources data were compiled by regional biologists in 1995. The dates for these data vary and are documented in Section 2.5.1

1.4.   STATUS

1.4.1.   PROGRESS:

Complete

1.4.2.   MAINTENANCE AND UPDATE FREQUENCY:

None planned

1.5.   SPATIAL DOMAIN

1.5.1.   BOUNDING COORDINATES

1.5.1.1.   WEST BOUNDING COORDINATE:

87.625

1.5.1.2.   EAST BOUNDING COORDINATE:

83.75

1.5.1.3. NORTH BOUNDING COORDINATE:

30.625

1.5.1.4. SOUTH BOUNDING COORDINATE:

29.5

1.6   KEYWORDS

1.6.1.   THEME

1.6.1.1. THEME KEYWORD THESAURUS:

None

1.6.1.2. THEME KEYWORD:

Sensitivity maps; ESI; coastal resources; oil spill planning; and coastal zone management

1.6.2.   PLACE

1.6.2.1. THESAURUS:

None

1.6.2.2. PLACE KEYWORD:

Florida, to encompass the coastal areas from the Florida/ Alabama border to Apalachee Bay, Florida

1.7.   ACCESS CONSTRAINTS:

None

1.8.   USE CONSTRAINTS:

DO NOT USE ESI MAPS FOR NAVIGATIONAL PURPOSES.
Besides the above warning, there are no use constraints on this data. Acknowledgment of the Florida Department of Environmental Protection and other contributing sources would be appreciated in products derived from these data

1.11.   DATA SET CREDIT:

This project was supported by the Florida Department of Environmental Protection (FDEP), Florida Marine Research Institute (FMRI). Henry Norris with FMRI's Coastal and Marine Resource Assessment (CAMRA) section served as contract manager for the project. Henry Norris, Chris Friel, Bill Sargent, and Robert Warford of CAMRA contributed significantly to the project.

Much of the biological data included on the maps were provided by FDEP scientists and resource managers. Digital data for the shoreline, seagrasses, and oysters (from Apalachicola Bay to Apalachee Bay) were provide by FDEP. Digital point data for birds, and terrestrial mammals were provided by the Florida Game and Fresh Water Fish Commission (FGFWFC) and the Florida Natural Areas Inventory (FNAI). Glenn Reynolds (FGFWFC) and Lance Peterson (FNAI) assisted with data transfer. Digital data for managed land boundaries were provided by FDEP and the Geoplan Center, Department of Urban and Regional Planning, University of Florida.

At Research Planning, Inc. (RPI), Joanne Halls and Scott Zengel were the project managers. Shoreline mapping was conducted by Miles O. Hayes, Jacqueline Michel, and Todd M. Montello under a previous contract. Biological and human-use resources data were collected and compiled by Scott Zengel. Lee Diveley, Mark White, James Olsen, Christopher Locke, and William Holten entered the data and produced the final maps, under the supervision of Joanne Halls. Graphics were provided by Joe Holmes. Dot Zaino prepared the final text. Jack Moore was the project coordinator.

1.13. NATIVE DATA SET ENVIRONMENT:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO (version 7.0.3) and ORACLE RDBMS (version 6.0.36.1.1). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80 with 4 X-terminals) with unix operating system (HP-UX Release A.09.01). The following files are included in the data set: biores.dat.e00, birds.e00, esi.e00, habitats.e00, hydro.e00, index.e00, mgt.e00, m_mammals.e00, nest.e00, reptiles.e00, seasonality.dat.e00, shellfish.e00, socecon.dat.e00, socecon.e00, soceconp.e00, sources.dat.e00, species.dat.e00, t_mammals.e00, and turtles.dat.e00. The entire data set is approximately 36 megabytes.

2.0. DATA QUALITY INFORMATION

2.1. ATTRIBUTE ACCURACY

    2.1.1. ATTRIBUTE ACCURACY REPORT:

The attribute accuracy is estimated to be "good" given the years of ESI experience, the data input methodology, the quality control review sessions, and the digital logical consistency checks.

2.2. LOGICAL CONSISTENCY REPORT:

The digitization of shoreline types, biological resources, and human-use resources is a complex and highly quality-controlled process. In order to facilitate digitizing, the entire study area is split into individual quadrangles using the INDEX coverage. The first layer of information digitized is the ESI shoreline. The ESI digitization was completed under a previous contract. In this project, the ESI data were checked for completeness and topological and logical consistency. Any errors in the shoreline classification are updated prior to digitization of the biological and socio-economic layers. All layers use the shoreline as the geographic reference so that there are no slivers in the geographic coordinates.

The hardcopy biological information is compiled onto 1:24,000 USGS topographic quadrangles by a biological expert using data from regional specialists in the form of maps, tables, charts, and written descriptions of wildlife distributions. Concurrently, digital data sources are imported, projected, checked for quality control, and integrated into our spatial data structure. The hardcopy data are digitized, checked using both digital and on-screen procedures, integrated with existing data, plotted, and sent out for review by the regional specialists. The edited maps are updated, checked once again, and the final product plotted (at approximately 1:50,000 scale). A team of specialists review the entire series of maps, check all data, and make final edits. The data are then merged to form the study-wide layers. The data merging includes a final quality control check where labels, chains, and polygons are checked for attribute accuracy.

To finalize the data checking process, each coverage is checked using a standardized form by two GIS personnel (a technician and the GIS manager), and each attribute database is checked using several programs which test the files for missing or duplicate data, rules for proper coding, GIS topological

consistencies (such as dangles, unnecessary nodes, etc.), and ORACLE to ARC/INFO consistencies. A final review is made by the GIS manager, where data is written to tape and metadata is written.

2.3. COMPLETENESS REPORT:

Shoreline Habitat Mapping:

The shoreline habitats of West Florida were mapped during overflights conducted from 21-25 June 1993. The surveys were conducted at elevations of 300-500 feet and slow air speed. An experienced coastal geologist delineated the coastal types directly onto 1:24,000 scale USGS topographic maps, using a standardized classification scheme. Where appropriate, multiple habitats were delineated for each shoreline segment. Relatively simple changes to the shoreline position and shape were made during the overflights. Where there were complex changes in the shoreline, the most current aerial photographs were used to update the shoreline and habitats on the topographic maps, particularly where new canals and marinas were built.

Prediction of the behavior and persistence of oil on intertidal habitats is based on an understanding of the dynamics of the coastal environments, not just the substrate type and grain size. The vulnerability of a particular intertidal habitat is an integration of the following factors:

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

All of these factors are used to determine the relative sensitivity of intertidal habitats. Key to the sensitivity ranking is an understanding of the relationships between: physical processes; substrate; shoreline type; product type; fate and effect; and sediment transport patterns. 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.

These concepts have been used in the development of the ESI, which ranks shoreline environments as to their relative sensitivity to oil spills, potential biological injury, and ease of cleanup. 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.

<u>Sensitive Biological Resources:</u>

Regional biologists compiled the biological data. These data denote the key biological resources that are most likely at risk in the event of an oil spill. Six major categories, or elements, of biological resources were considered during data compilation: birds, habitats, marine mammals, reptiles, shellfish, and terrestrial mammals.

Each ELEMENT corresponds to a coverage or geographic theme. There are also five attribute tables, BIORES.DAT, SEASONALITY.DAT, SOURCES.DAT, SPECIES.DAT, and TURTLES.DAT, that are used to store the complex biological data (Fig. 1). Each biological coverage (BIRDS, HABITATS, M_MAMMALS, NESTS, REPTILES, and T_MAMMALS) is linked to the Biological Resources table (BIORES.DAT) using the item RARNUM. RARNUM is the resources at risk number and is determined for each unique combination of SPECIES_ID, SEASON_ID, CONC, G_SOURCE, and S_SOURCE. The items in BIORES.DAT are: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, and ELEMENT. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species and can be LOW, MEDIUM, or HIGH or an actual count of the numbers of species present in the polygon. SEASON_ID contains a numeric value according to the monthly presence of the species. Usually, there is one seasonality per species, but occasionally the same species has different monthly presence or breeding activity. When this occurs, a new record with a different seasonality is referenced.

The SEASONALITY.DAT table stores the monthly presence of each species and the characteristics of the presence (life history information). The BIORES.DAT table is linked to the SEASONALITY.DAT table using the SPECIES_ID, ELEMENT, and SEASON_ID items. The categories of the variables BREED1 through BREED4 for each ELEMENT are:

FIGURE 1. Relationships between biology coverages and attribute files.

ELEMENT	BREED 1	BREED 2	BREED 3	BREED 4
BIRD	nesting	laying	hatching	fledging
M_MAMMAL	calving	pupping	molting	
REPTILE	nesting	hatching		
SHELLFISH	spawning	juvenile		

NOTE: There are no BREED variables for HABITATS or T_MAMMALS.

The SPECIES.DAT table contains the common name (NAME), the scientific name (GEN_SPEC), the state abbreviation (STATE), the state and federal status (S_F), the threatened or endangered status (T_E), the date of the status list (DATE_PUB), the biological element (ELEMENT), and the biological subelement (SUBELEMENT). The item SUBELEMENT refers to the grouping of the species:

ELEMENT	SUBELEMENT
BIRD	diving
	gull_tern
	passerine
	pelagic
	raptor
	shorebird
	wading
	waterfowl
MARINE MAMMAL	manatee
HABITAT	sav
REPTILE	turtle
SHELLFISH	clam
	crab
	lobster
	oyster
	scallop
	shrimp
TERRESTRIAL MAMMAL	small mammals

In response to a special request from the state of Florida, additional turtle data was collected and digitized. This data includes the survey number, the county, and the name of the geographic area, such as a beach or a managed

land. The data is stored in TURTLES.DAT and is linked to the REPTILES coverage using the item WILDHAB.

Human Use Resources:

      Several human use, or socio-economic, features are included in ESI atlases. Entity points and complete chains are digitized into the coverage SOCECON. In the Florida ESI, aquaculture sites and archaeological/historical sites were collected and digitized as complex polygons in the coverage SOCECON. All managed lands are digitized as complex polygons in the MGT coverage. The coverages are linked to the database SOCECON.DAT using the item RARNUM.

      The table SOCECON.DAT contains the RARNUM, the feature type, and the geographic and attribute sources for the features. The RARNUM value is distinguished from the biology RARNUM values by an "H" preceding the unique number.

2.4. POSITIONAL ACCURACY
2.4.1. HORIZONTAL POSITIONAL ACCURACY
2.4.1.1. HORIZONTAL POSITIONAL ACCURACY REPORT:

      The ESI data uses USGS 1:24,000 topographic quadrangles as the base map. It is estimated that the ESI has a minimum mapping unit of 50 feet. The biological data sets are developed primarily using regional experts who estimate concentration areas. Unlike shorelines, which maintain relative spatial stability through time, the biological data by nature migrate across the landscape. Therefore, the 1:24,000 USGS quadrangles are used as a base map in gathering the data but the data have "fuzzy" boundaries which must be understood when utilizing this information.

2.5. LINEAGE

2.5.1. SOURCE INFORMATION:
Coverage or theme name: BIRDS
2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomina tor	2.5.1.4 Source Time Period
Kale, H.W. and D.S. Maehr	1990	Florida's Birds: A Handbook and Reference	Text tables	Pineapple Press, Inc., Sarasota, Fla., 288 pp.	N/A	1990
Jodice, P.G.R.	1992	Distribution of Wintering Loons in the Northeastern Gulf of Mexico	Report	Final Performance Report, Bureau of Nongame Wildlife, FGFWFC, Tallahassee, Fla., 11 pp.	N/A	1991-1992
U.S. Fish and Wildlife Service	1982	Gulf Coast Ecological Inventory	Maps	U.S. Geological Survey, Reston, Va.	250000	1982
Wood, D.A.	1994	Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida	Text	Florida Game and Fresh Water Fish Commission, Tallahassee, Fla., 22 pp.	N/A	1994
U.S. Dept. of the Air Force	1976	Eglin AFB Sensitive Habitat Map, Cape San Blas	Map	Unknown	24000	Unknown
Brakhage, D. FGFWFC (Tallahassee)	N/A	Regional Waterfowl Concentration Areas	Expert knowledge	N/A	N/A	1995
Williams, A. FGFWFC (Tallahassee)	N/A	Bird Concentration Sites	Expert knowledge	N/A	N/A	1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: ESI

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Research Planning, Inc.	N/A	ESI Shoreline	Digital complete chains	N/A	24000	1993
Florida Marine Research Institute	N/A	ESI Shoreline	Digital complete chains	N/A	24000	1994
Marine Spill Response Corporation	N/A	ESI Shoreline	Digital complete chains	N/A	24000	1994
Research Planning, Inc.	N/A	ESI Shoreline	Maps	N/A	24000	1993

2.5.1. SOURCE INFORMATION:

Coverage or theme name: HABITATS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Florida Department of Environmental Protection	1990	Seagrass Distribution from St. Joseph Bay to Perdido Bay	Digital complex polygons	FMRI, St. Petersburg, Fla., 813/896-8626	24000	1980
Florida Department of Environmental Protection	1990	Seagrass Distribution from St. Joseph Bay to Perdido Bay	Digital complex polygons	FMRI, St. Petersburg, Fla., 813/896-8626	58000	1984-1985
Florida Department of Environmental Protection	1986	Seagrass Distribution of Apalachicola Bay	Digital complex polygons	FMRI, St. Petersburg, Fla., 813/896-8626	58000	1984-1985

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Florida Department of Environmental Protection	1986	Seagrass Distribution of Apalachicola Bay	Digital complex polygons	FMRI, St. Petersburg, Fla., 813/896-8626	Unknown	1970-1983
Florida Department of Environmental Protection	1986	Seagrass Distribution of Apalachicola Bay	Digital complex polygons	FMRI, St. Petersburg, Fla., 813/896-8626	Unknown	1980
Florida Department of Environmental Protection	1993	Seagrass Distribution from Lighthouse Point to Shell Point	Digital complex polygons	FMRI, St. Petersburg, Fla., 813/896-8626	58000	1984-1985
Florida Department of Environmental Protection	1984	Seagrass Distribution in the Big Bend Area	Digital complex polygons	FMRI, St. Petersburg, Fla., 813/896-8626	40000	1983

2.5.1.   SOURCE INFORMATION:

Coverage or theme name: HYDRO

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Norris, H. FMRI, FDEP, St. Petersburg, Fla.	1995	Shoreline	Digital complete chains	N/A	24000	Varies

2.5.1. SOURCE INFORMATION:

Coverage or theme name: INDEX

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Research Planning, Inc.	1996	Index for West Florida ESI Maps	Digital complex polygons	Joanne Halls, GIS Manager	24000	1996

2.5.1. SOURCE INFORMATION:

Coverage or theme name: MGT

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
University of Florida, Department of Urban and Regional Planning, Geoplan Center	1994	Florida Greenways Conservation Lands Database	Digital complex polygons	Database Manager: David Lambert, 904/392-2056	250000	1994
Florida Department of Environmental Protection	N/A	Florida Aquatic Preserves	Digital complex polygons	FMRI, St. Petersburg, Fla., 813/896-8626	24000	Unknown
U.S. Geological Survey	1993	USGS 7.5-Minute Orthophoto maps (Ochlockonee River State Park Boundaries)	Maps	USGS, Reston, Va.	24000	1993

2.5.1. SOURCE INFORMATION:

Coverage or theme name: M_MAMMALS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Morris, M., Florida Department of Environmental Protection (Tallahassee)	N/A	Manatee Aerial Surveys: St. Marks and Wakulla Rivers	Maps	N/A	24000	1994-1995
Wood, D.A.	1994	Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida	Text	Florida Game and Fresh Water Fish Commission, Tallahassee, Fla., 22 pp.	N/A	1994

2.5.1. SOURCE INFORMATION:

Coverage or theme name: NESTS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Florida Game and Fresh Water Fish Commission, Nongame Wildlife Program, (Tallahassee), Glenn Reynolds, Database Manager	N/A	Wildlife Observation Database	Digital Ascii tables	N/A	Unknown	1994

Florida Natural Areas Inventory (Tallahassee), Lance Peterson, Database Manager	N/A	Rare and Endangered Element Occurrence Database	Digital Ascii tables	N/A	Unknown	1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: REPTILES

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Meylan, A. B. Schroeder, and A. Mosier	1995	Sea Turtle Nesting Activity in the State of Florida, 1979-1992	Text and tables	Florida Marine Research Institute, Publication No. 52, FDEP, FMRI, St. Petersburg, Fla., 51 pp.	N/A	1979-1995
Wood, D.A.	1994	Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida	Text	Florida Game and Fresh Water Fish Commission, Tallahassee, Fla., 22 pp.	N/A	1994
Patrick, L., U.S. Fish and Wildlife Service (Panama City)	N/A	Unsurveyed Turtle Nesting Beaches in the Panhandle Region	Expert knowledge	N/A	N/A	1995
Ogren, L., National Marine Fisheries Service (Panama City)	N/A	Marine Turtle In-Water Areas for the Panhandle and Big Bend	Expert knowledge	N/A	N/A	1995
Hoggard, R., National Park Service	N/A	Unsurveyed turtle nesting beaches for Gulf Islands National Seashore	Expert Knowledge	N/A	N/A	1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: SHELLFISH

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Steele, P., Florida Department of Environmental Protection, Florida Marine Research Institute (St. Petersburg)	N/A	Shrimp and Blue Crab Distributions for Florida	Expert knowledge	N/A	Unknown	1995
NOAA, Strategic Assessment Branch	1985	Gulf of Mexico Coastal and Ocean Zones Strategic Assessment Data Atlas	Maps	NOAA, Strategic Assessment Branch, Ocean Assessment Division, Rockville, Md.	4000000	1981-1983
Nelson, D.M. (Ed.)	1992	Distribution and Abundance of Fishes and Invertebrates in Gulf of Mexico Estuaries	Report	ELMR Report No. 10, NOAA/NOS Strategic Environmental Assessment Division, Rockville, Md., 273 pp.	Unknown	1989-1991
Guillory, V., H.M. Perry, and R.L. Leard	1995	A Profile of the Western Gulf Stone Crab of the Gulf of Mexico	Report	Gulf States Marine Fisheries Commission, Ocean Springs, Miss.	N/A	1994
Berrigan, M., Florida Department of Environmental Protection, Bureau of Marine Resource Regulation and Development (Tallahassee)	N/A	Aquaculture and Shellfish	Expert knowledge, maps, digital complex polygons	N/A	Unknown	1995

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Arnold, W., Florida Department of Environmental Protection, Florida Marine Research Institute (St. Petersburg)	N/A	Bay Scallop, and Hard Clam Concentration Areas	Expert knowledge	N/A	Unknown	1980-1994
Sargent, F., Florida Department of Environmental Protection, Florida Marine Research Institute (St. Petersburg)	1995	Oysters for Apalachicola, Ochlockonee, and Apalachee Bays	Digital complex polygons	N/A	58000	

2.5.1. SOURCE INFORMATION:
Coverage or theme name: SOCECON

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Delorme Mapping Company	1989	Florida Atlas and Gazetteer	Maps	Delorme Mapping, Freeport, Maine, 127 pp.	150000	Unknown
Tugwell, C., Christ Power Plant	N/A	Water intake locations	Expert knowledge	N/A	N/A	1995
Gilmore, C., Purdon Power Plant	N/A	Water intake locations	Expert knowledge	N/A	N/A	1995

Houston, S., Smith Power Plant	N/A	Water intake locations	Expert knowledge	N/A	N/A	1995
U.S. Geological Survey	Varies	USGS 7.5-minute Topographic Quadrangles	Maps	U.S. Geological Survey, Reston, Va.	24000	Varies

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Deloach, N.	1993	Diving Guide to Underwater Florida	Text	New World Publications, Jacksonville, Fla., 324 pp.	Unknown	1993
Research Planning, Inc.	N/A	Marinas and Boat Ramps	Maps	N/A	24000	1982-1993
Craft, N., Aquatic Preserve Manager, Florida Department of Environmental Protection	N/A	Marinas and Boat Ramps for Pensacola Bay and Vicinity	Expert knowledge	N/A	N/A	1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: SOCECONP

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Florida Bureau of Archaeological Research (Tallahassee)	None	Florida Archaeological Site File	Maps	Florida Department of State, Bureau of Archaeological Research, Tallahassee	24000	1995
Berrigan, M., Florida Department of Environmental Protection, Bureau of Marine Resource Regulation and Development (Tallahassee)	N/A	Aquaculture and Shellfish	Expert knowledge, maps, digital complex polygons	N/A	Unknown	1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: T_MAMMALS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomina tor	2.5.1.4 Source Time Period
Florida Game and Fresh Water Fish Commission, Nongame Wildlife Program, (Tallahassee), Glenn Reynolds, Database Manager	N/A	Wildlife Observation Database	Digital Ascii tables	N/A	Unknown	1994
Florida Natural Areas Inventory (Tallahassee), Lance Peterson, Database Manager	N/A	Rare and Endangered Element Occurrence Database	Digital Ascii tables	N/A	Unknown	1995
Humphrey, S.R. (Ed.)	1992	Rare and Endangered Biota of Florida, Volume I, Mammals	Text	University Press of Florida, Gainesville, Fla., 392 pp.	N/A	1992
Wood, D.A.	1994	Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida	Text	Florida Game and Fresh Water Fish Commission, Tallahassee, Fla., 22 pp.	N/A	1994

2.5.2. PROCESS STEP

2.5.2.1. PROCESS DESCRIPTION:

The digitization of ESI, biological resources, and human-use resources is a complex and highly quality controlled process. In order to facilitate digitizing, the entire study area was split into individual quadrangles using a map index coverage. The first layer of information digitized is the shoreline with

ESI classification. This layer was obtained from the Florida Marine Research Institute. The data was checked for completeness, topological and logical consistency, and edited for any error using the original overflight maps. Any errors in the shoreline classification were updated prior to digitization of the biological and human-use layers. All data use the shoreline as the geographic reference so that there are no slivers in the geographic layers. The biological information was compiled onto 1:24,000 USGS topographic quadrangles by an in-house biological expert using the data from regional specialists in the form of maps, tables, charts, and written descriptions of wildlife distributions. Concurrently, all digital data was imported, merged into the spatial data structure, and checked for completeness. The hardcopy data were digitized, merged with existing digital data, checked using both digital and on-screen procedures, plotted, checked by the biological expert, edited to remove any errors, and plotted for review by the regional specialists. The reviewed maps were updated on the computer, checked once again, and plotted at final map scale. A team of specialists reviewed the entire series of maps, checked all data, and made final edits. The data were merged to form the study-wide layers which are described in this document. The data merging included a final quality control check where topological consistency, rules for geography, and database to geography were checked and validated for all relationships.

2.5.2.3. PROCESS DATE:
199409

2.5.2.6. PROCESS CONTACT

    2.5.2.6.1. CONTACT PERSON PRIMARY

        2.5.2.6.1.1. CONTACT PERSON:
        Joanne Halls

        2.5.2.6.1.2. CONTACT ORGANIZATION:
        Research Planning, Inc.

    2.5.2.6.3. CONTACT POSITION:
    Director, GIS Department

2.5.2.6.4.   **CONTACT ADDRESS**

        2.5.2.6.4.1.   **ADDRESS TYPE:**
        Physical Address

        2.5.2.6.4.2.   **ADDRESS:**
        1200 Park Street

        2.5.2.6.4.3.   **CITY:**
        Columbia

        2.5.2.6.4.4.   **STATE OR PROVINCE:**
        SC

        2.5.2.6.4.5.   **POSTAL CODE:**
        29201

    2.5.2.6.5.   **CONTACT VOICE TELEPHONE:**
    (803) 256-7322

    2.5.2.6.7.   CONTACT FACSIMILE TELEPHONE:
    (803) 254-6445

    2.5.2.6.8.   CONTACT ELECTRONIC MAIL ADDRESS:
    joanne@rpi.columbia.sc.us

3.0. SPATIAL DATA ORGANIZATION INFORMATION

3.2. DIRECT SPATIAL REFERENCE METHOD:
Vector

3.3. POINT AND VECTOR OBJECT INFORMATION
3.3.1. SDTS TERMS DESCRIPTION:
3.3.1.1. SDTS POINT AND VECTOR OBJECT TYPE, and
3.3.1.2. POINT AND VECTOR OBJECT COUNT:

Theme	Universe Polygon	GT-Polygons	G-Polygons	Area Points	Complete Chains	Line Segments	Label Points	Entity Points	Nodes
BIRDS	1	13	1,035	1,035	2,035	219,652			2,729
ESI	1	1,179		1,179	7,463	204,448			7,030
HABITATS	1	1	1,685	1,685	1,971	198,152			2,142
HYDRO	1	824		824	1,435	181,601	355		1,251
INDEX	1	65		65	147	177			83
MGT	1	21	251	251	413	48,920			534
M_MAMMALS	1	2	4	4	5	1,421			14
NESTS								349	
REPTILES	1	108	494	494	982	85,689			747
SOCECON					21	549		67	56
SOCECONP	1		740	740	741	15,601			740
T_MAMMALS								5	

4.0. SPATIAL REFERENCE INFORMATION

4.1.   HORIZONTAL COORDINATE SYSTEM DEFINITION
    4.1.2.   PLANAR
        4.1.2.1. MAP PROJECTION
            4.1.2.1.1. MAP PROJECTION NAME:
            ALBERS
            4.1.2.1.2. MAP PROJECTION PARAMETERS :

                4.1.2.1.2.1.   1ST STANDARD PARALLEL:
                24.0
                4.1.2.1.2.2.   2ND STANDARD PARALLEL:
                31.5
                4.1.2.1.2.3.   CENTRAL MERIDIAN:
                -84.0
                4.1.2.1.2.4.   LATITUDE OF PROJECTION ORIGIN:
                24.0
                4.1.2.1.2.5.   FALSE EASTING:
                400,000
                4.1.2.1.2.6.   FALSE NORTHING:
                0
                4.1.2.1.2.7.   SCALE FACTOR AT CENTRAL MERIDIAN:
                Unknown
        4.1.2.4. PLANAR COORDINATE INFORMATION
            4.1.2.4.1. PLANAR COORDINATE ENCODING METHOD:
            Coordinate Pair
            4.1.2.4.2. COORDINATE REPRESENTATION:
                4.1.2.4.2.1.   ABSCISSA RESOLUTION:
                50 feet
                4.1.2.4.2.2.   ORDINATE RESOLUTION:
                50 feet
    4.1.4.   GEODETIC MODEL
        4.1.4.1. HORIZONTAL DATUM NAME:
        North American Datum of 1983
        4.1.4.2. ELLIPSOID NAME:
        GRS 1980

4.1.4.3. **SEMI-MAJOR AXIS:**

Unknown

4.1.4.4. **DENOMINATOR OF FLATTENING RATIO:**

Unknown

5.0. ENTITY AND ATTRIBUTE INFORMATION

5.1. DETAILED DESCRIPTION: BIRDS
The coverage BIRDS contains the polygons and regions with bird species.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygon	RARNUM	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:
RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:
An identifier which links to the BIORES.DAT table. The value of RARNUM is determined for each unique combination of SPECIES_ID, SEASON_ID, and CONC. The items in BIORES.DAT are: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, and ELEMENT. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species and can be LOW, MEDIUM, or HIGH or an actual count of the numbers of species present in the polygon. SEASON_ID contains a numeric value according to the monthly presence of the species. Usually, there is one seasonality per species, but occasionally the same species has different monthly presence or breeding activity. When this occurs, a new record with a different seasonality is referenced. G_SOURCE is a variable which links to the SOURCES.DAT table and references the source for geographic information. S_SOURCE is a variable which also links to the SOURCES.DAT table and references the source for seasonality information.

The following bird species are found in the BIRDS coverage of West Florida:

SPECIES ID   NAME

SPECIES ID	NAME
1	Common loon
8	Double-crested cormorant
12	Canada goose
17	Pintail
18	Green-winged teal
20	Northern shoveler
23	Lesser scaup
26	Bufflehead
33	Red-breasted merganser
86	Least tern
118	Brown pelican
124	Redhead
139	Snowy plover
153	Piping plover
154	Wilson's plover
162	Gadwall
167	Northern gannet
169	American wigeon
190	Blue-winged teal
191	Wood duck
1,001	Gulls
1,002	Shorebirds
1,003	Waterfowl
1,008	Terns

5.1.2.3.   ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3.   ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5.   ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

5.1. DETAILED DESCRIPTION: ESI

The coverage ESI contains arc (Complete Chain) and polygon (GT-Polygon) features for the ESI shoreline classification. The classification of the features is based upon *Guidelines for Developing Digital Environmental Sensitivity Index Atlases and Data-bases* (Michel, J. and J. Dahlin, 1993, Hazardous Materials Response and Assessment Division, NOAA). The ESI classification was performed 18-21 April 1994.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Complete Chain	ESI	character
	SOURCE_ID	binary
GT-Polygon	ESI	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ESI

5.1.2.2. ATTRIBUTE DEFINITION:

The item ESI contains values according to the ESI ranking of the shorelines and polygons. The ESI rankings progress from low to high susceptibility to oil spills. In many cases, the shorelines are also ranked with multiple codes such as 10A/5. The first number is the most landward shoreline type, fringing wetlands, with mixed sand and gravel beaches being the shoreline type closest to the water. The West Florida shoreline types are listed below.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
-9	Unlabeled Polygon
1	Exposed Vertical Rocky Shores/Seawalls
1/3	Exposed Vertical Rocky Shores/Seawalls/Fine-grained Sand Beaches
2	Exposed Rocky Platforms
3	Fine-grained Sand Beaches
3/6	Fine-grained Sand Beaches/Gravel Beaches/Riprap
3/7	Fine-grained Sand Beaches/Exposed Tidal Flats

5.1.2.4.1.1. **5.1.2.4.1.2.**

ENUMERATED DOMAIN VALUE:	ENUMERATED DOMAIN VALUE DEFINITION:
3/8	Fine-grained Sand Beaches/Sheltered Rocky Shores/Seawalls/Vegetated Banks
3/10A	Fine-grained Sand Beaches/Exposed Marshes and/or Mangroves
4	Coarse-grained Sand Beaches
4/10A	Coarse-grained Sand Beaches/Exposed Marshes and/or Mangroves
5	Mixed Sand and Gravel Beaches/Fill
6	Gravel Beaches/Riprap
6/4	Gravel Beaches/Riprap/Coarse-grained Sand Beaches
6/8	Gravel Beaches/Riprap/Sheltered Rocky Shores/Seawalls/Vegetated Banks
7	Exposed Tidal Flats
8	Sheltered Rocky Shores/Seawalls/Vegetated Banks
8/3	Sheltered Rocky Shores/Seawalls/Vegetated Banks/Fine-grained Sand Beaches
8/6	Sheltered Rocky Shores/Seawalls/Vegetated Banks/Gravel Beaches/Riprap
8/10A	Sheltered Rocky Shores/Seawalls/Vegetated Banks/Exposed Marshes and/or Mangroves
9	Sheltered Tidal Flats
10A	Exposed Marshes and/or Mangroves
10A/8	Exposed Marshes and/or Mangroves/Sheltered Rocky Shores/Seawalls/Vegetated Banks
10E	Sheltered Marshes and/or Mangroves

5.1.2.4.1.3. **ENUMERATED DOMAIN VALUE DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. **ATTRIBUTE UNITS OF MEASUREMENT:**

ordered

5.1.2.1. **ATTRIBUTE LABEL:**

SOURCE_ID

5.1.2.2. **ATTRIBUTE DEFINITION:**

Data source for the ESI

5.1.2.3. **ATTRIBUTE DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	**5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:**
0	Digital

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.   DETAILED DESCRIPTION: HABITATS

The coverage HABITATS contains the polygons with plant species.

5.1.1.   ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygon	RARNUM	character

5.1.2.   ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier which links to the BIORES.DAT table. The value of RARNUM is determined for each unique combination of SPECIES_ID, SEASON_ID, and CONC. The items in BIORES.DAT are: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, and ELEMENT. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species and can be LOW, MEDIUM, or HIGH or an actual count of the numbers of species present in the polygon. SEASON_ID contains a numeric value according to the monthly presence of the species. Usually, there is one seasonality per species, but occasionally the same species has different monthly presence or breeding activity. When this occurs, a new record with a different seasonality is referenced. G_SOURCE is a variable which links to the SOURCES.DAT table and references the source for geographic information. S_SOURCE is a variable which also links to the SOURCES.DAT table and references the source for seasonality information.

The following species are found in the HABITATS coverage of West Florida:

SPECIES ID	NAME
85	Seagrass

--

5.1.2.3. **ATTRIBUTE DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.4.1.3. **ENUMERATED DOMAIN VALUE DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

5.1.   DETAILED DESCRIPTION: HYDRO

The coverage HYDRO contains polygonal water and land features as well as linear features for rivers/streams that are tidally influenced. This coverage was created using the digital shoreline provided by the Florida Department of Environmental Protection.

5.1.1.   ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	**5.1.1.2. ENTITY TYPE DEFINITION:**
GT-Polygon	WATER_CODE character

This coverage contains all annotation used in producing the atlas. The annotation features are categorized into three subclasses in order to simplify the mapping and quality control procedures: geog or geographic features, soc or socio-economic features, and hydro or water features.

5.1.2.   ATTRIBUTES:

5.1.2.1.   ATTRIBUTE LABEL:
WATER_CODE

5.1.2.2.   ATTRIBUTE DEFINITION:
Specifies a polygon as either water or land

5.1.2.3.   ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	**5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:**
W	Water
L	Land

5.1.2.4.1.3.   ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5.   ATTRIBUTE UNITS OF MEASUREMENT:
ordered

5.1. DETAILED DESCRIPTION: INDEX

The coverage INDEX contains the map boundaries for each quad/map in the atlas.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	**5.1.1.2. ENTITY TYPE DEFINITION:**	
GT-Polygon	TILE-NAME	character
	TOPO-NAME	character
	SCALE	integer
	MAPANGLE	fraction
	PAGESIZE	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

TILE-NAME

5.1.2.2. ATTRIBUTE DEFINITION:

The TILE-NAME contains the map number according to the specified layout of the atlas. During the map production process the value of TILE-NAME is plotted on the map product to order the maps in a coherent manner. The values for each polygon are unique and range from 1 through 65.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordered

5.1.2.1. ATTRIBUTE LABEL:

TOPO-NAME

5.1.2.2. ATTRIBUTE DEFINITION:

USGS 1:24,000 topographic map name. Some polygons straddle two or more maps and all map names are included in this attribute. The date (latest/revised) of the USGS maps are also included in this field.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

ALLANTON, FLA. (1978)

APPALACHICOLA, 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.-ALA. (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.-ALA. (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.-ALA. (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.-ALA. (1987)

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
SCALE

5.1.2.2. ATTRIBUTE DEFINITION:
SCALE contains the value of the denominator of the scale at which the INDEX polygon is plotted in the final map product.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

--

50,000

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
MAPANGLE

5.1.2.2. ATTRIBUTE DEFINITION:
MAPANGLE contains a value to rotate the final map product so that it is situated straight up and down.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
PAGESIZE

5.1.2.2. ATTRIBUTE DEFINITION:
PAGESIZE contains the value of the width and height of the map in the final map product.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

11,17

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1. DETAILED DESCRIPTION: MGT

The coverage MGT contains the polygons for the managed lands data.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	SOCECON	character
	RARNUM	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier which links to the SOCECON.DAT table. The table SOCECON.DAT contains the feature type, the geographic source, and the attribute source. The RARNUM value is distinguished from the biology RARNUM values by an "H" preceding the unique number.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

5.1.2.1. ATTRIBUTE LABEL:

SOCECON

5.1.2.2. ATTRIBUTE DEFINITION:

Identifies a region with a type of managed land. This attribute allows direct access to the type of feature instead of linking to the more detailed SOCECON.DAT table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

--

**5.1.2.4.1.1. ENUMERATED   5.1.2.4.1.2.   ENUMERATED DOMAIN
DOMAIN VALUE: VALUE DEFINITION:**

W R	Wildlife Refuge
P	Sate Park
NP	National Park
MS	Marine Sanctuary

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

--

5.1. DETAILED DESCRIPTION: NESTS

The coverage NEST contains entity points representing nesting sites.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Entity Point	RARNUM	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier which links to the BIORES.DAT table. The value of RARNUM is determined for each unique combination of SPECIES_ID, SEASON_ID, and CONC. The items in BIORES.DAT are: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, and ELEMENT. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species and can be LOW, MEDIUM, or HIGH or an actual count of the numbers of species present in the polygon. SEASON_ID contains a numeric value according to the monthly presence of the species. Usually, there is one seasonality per species, but occasionally the same species has different monthly presence or breeding activity. When this occurs, a new record with a different seasonality is referenced. G_SOURCE is a variable which links to the SOURCES.DAT table and references the source for geographic information. S_SOURCE is a variable which also links to the SOURCES.DAT table and references the source for seasonality information.

The following bird species are found in the NESTS coverage of West Florida:

SPECIES ID	NAME
8	Double-crested cormorant
40	Ring-billed gull

52   Wilson's phalarope

52   Wilson's phalarope

SPECIES ID   NAME

ID	Name
54	Great blue heron
55	Whimbrel
56	Spotted sandpiper
58	Greater yellowlegs
59	Lesser yellowlegs
60	Red knot
61	Pectoral sandpiper
62	Least sandpiper
63	Dunlin
64	Short-billed dowitcher
65	Long-billed dowitcher
66	Western sandpiper
67	Sanderling
69	Semipalmated plover
70	Killdeer
71	Black-bellied plover
73	Ruddy turnstone
76	Bald eagle
77	Osprey
86	Least tern
87	Little blue heron
88	Great egret
89	Snowy egret
90	Black-crowned night heron
93	Cattle egret
94	Tricolored heron
98	Laughing gull
107	Peregrine falcon
118	Brown pelican
125	Clapper rail
132	Wood stork
133	Black skimmer
134	Gull-billed tern
135	Sandwich tern
136	Caspian tern
137	Royal tern
138	Forster's tern
139	Snowy plover
141	American avocet
142	Black-necked stilt
150	Black rail
152	American oystercatcher
153	Piping plover
154	Wilson's plover
155	Willet

156	Semipalmated sandpiper
164	Lesser-golden plover
181	Northern harrier

SPECIES ID   NAME

SPECIES ID	NAME
185	American bittern
191	Wood duck
193	Black tern
196	Common snipe
210	Marbled godwit
212	Purple gallinule
213	Stilt sandpiper
214	Solitary sandpiper
223	Upland sandpiper
237	Baird's sandpiper
238	White-rumped sandpiper
277	Seaside sparrow
284	Buff-breasted sandpiper
289	Hudsonian godwit
290	Peep
292	Sharp-tailed sandpiper
1,001	Gulls
1,002	Shorebirds
1,004	Wading birds
1,006	Diving birds
1,008	Terns

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

5.1.   DETAILED DESCRIPTION: M_MAMMALS

The coverage M_MAMMALS contains the polygons with marine mammal species.

5.1.1.   ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygon	RARNUM	character

5.1.2.   ATTRIBUTES:

5.1.2.1.   ATTRIBUTE LABEL:

RARNUM

5.1.2.2.   ATTRIBUTE DEFINITION:

An identifier which links to the BIORES.DAT table. The value of RARNUM is determined for each unique combination of SPECIES_ID, SEASON_ID, and CONC. The items in BIORES.DAT are: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, and ELEMENT. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species and can be LOW, MEDIUM, or HIGH or an actual count of the numbers of species present in the polygon. SEASON_ID contains a numeric value according to the monthly presence of the species. Usually, there is one seasonality per species, but occasionally the same species has different monthly presence or breeding activity. When this occurs, a new record with a different seasonality is referenced. G_SOURCE is a variable which links to the SOURCES.DAT table and references the source for geographic information. S_SOURCE is a variable which also links to the SOURCES.DAT table and references the source for seasonality information.

The following species are found in the M_MAMMALS coverage of West Florida:

SPECIES ID   NAME

10	West Indian manatee

5.1.2.3.   ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3.   ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5.   ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

5.1.   DETAILED DESCRIPTION: REPTILES

The coverage REPTILES contains the regions (polygons) with reptile species.

5.1.1.   ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygon	RARNUM	character

5.1.2.   ATTRIBUTES:

5.1.2.1.   ATTRIBUTE LABEL:

RARNUM

5.1.2.2.   ATTRIBUTE DEFINITION:

An identifier which links to the BIORES.DAT table. The value of RARNUM is determined for each unique combination of SPECIES_ID, SEASON_ID, and CONC. The items in BIORES.DAT are: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, and ELEMENT. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species and can be LOW, MEDIUM, or HIGH or an actual count of the numbers of species present in the polygon. SEASON_ID contains a numeric value according to the monthly presence of the species. Usually, there is one seasonality per species, but occasionally the same species has different monthly presence or breeding activity. When this occurs, a new record with a different seasonality is referenced. G_SOURCE is a variable which links to the SOURCES.DAT table and references the source for geographic information. S_SOURCE is a variable which also links to the SOURCES.DAT table and references the source for seasonality information.

The following species are found in the REPTILES coverage of West Florida:

SPECIES ID   NAME

SPECIES ID	NAME
2	Green sea turtle
4	Kemp's ridley sea turtle
5	Leatherback sea turtle
6	Atlantic loggerhead sea turtle

5.1.2.3.   ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3.   ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5.   ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

--

5.1. DETAILED DESCRIPTION: SHELLFISH

The coverage SHELLFISH contains the regions (polygons) with shellfish species.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	**5.1.1.2. ENTITY TYPE DEFINITION:**	
GT-Polygon	RARNUM	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier which links to the BIORES.DAT table. The value of RARNUM is determined for each unique combination of SPECIES_ID, SEASON_ID, and CONC. The items in BIORES.DAT are: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, and ELEMENT. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species and can be LOW, MEDIUM, or HIGH or an actual count of the numbers of species present in the polygon. SEASON_ID contains a numeric value according to the monthly presence of the species. Usually, there is one seasonality per species, but occasionally the same species has different monthly presence or breeding activity. When this occurs, a new record with a different seasonality is referenced. G_SOURCE is a variable which links to the SOURCES.DAT table and references the source for geographic information. S_SOURCE is a variable which also links to the SOURCES.DAT table and references the source for seasonality information.

The following species are found in the SHELLFISH coverage of West Florida:

SPECIES ID   NAME

SPECIES ID	NAME
4	Pink shrimp
41	Atlantic bay scallop
43	American oyster (eastern)
49	Blue crab
50	White shrimp
51	Brown shrimp
72	Spiny lobster
74	Stone crab
94	Southern quahog (hard clam)

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3.   ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

5.1. DETAILED DESCRIPTION: SOCECON

The coverage SOCECON contains the entity points and complete chains for the human use data.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	**5.1.1.2. ENTITY TYPE DEFINITION:**	
Complete Chain	SOCECON	character
Entity Point	SOCECON	character
	RARNUM	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier which links to the SOCECON.DAT table. The table SOCECON.DAT contains the RARNUM, the feature type (SOC_TYPE), the facility name (NAME), the geographic source (G_SOURCE), and the attribute source (A_SOURCE). The only features in SOCECON which link to the SOCECON.DAT table are water intakes. The RARNUM value is distinguished from the biology RARNUM values by an "H" preceding the unique number.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

5.1.2.1. ATTRIBUTE LABEL:

SOCECON

5.1.2.2. ATTRIBUTE DEFINITION:

Identifies a line or point with a socio-economic, or human-use, feature. This attribute defines all feature types in the coverage.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3.   ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
A	Airport – Points
B	Beach – Points
BR	Boat Ramp – Points
CG	Coast Guard – Points
DV	Diving – Points
M	Marina – Points
SB	State Border – Chains
SP	State Park – Chains
WI	Water Intake – Points
WR	Wildlife Refuge – Points and Chains

5.1.2.5.   ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: SOCECONP

The coverage SOCECONP contains polygons for archaeological/historical and aquaculture sites.

5.1.1. ENTITY TYPES:

5.1.1.1. **ENTITY TYPE LABEL:**	**5.1.1.2.** **ENTITY TYPE DEFINITION:**	
Complex Polygon	SOCECON	character
	RARNUM	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier which links to the SOCECON.DAT table. The table SOCECON.DAT contains the RARNUM, the feature type (SOC_TYPE), the facility name (NAME), the geographic source (G_SOURCE), and the attribute source (A_SOURCE). The only features in SOCECON which link to the SOCECON.DAT table are aquaculture sites. The RARNUM value is distinguished from the biology RARNUM values by an "H" preceding the unique number.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

5.1.2.1. ATTRIBUTE LABEL:

SOCECON

5.1.2.2. ATTRIBUTE DEFINITION:

Identifies polygons with a socio-economic, or human-use, feature. This attribute defines all feature types in the coverage.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	**5.1.2.4.1.2.** ENUMERATED DOMAIN VALUE DEFINITION:
AS	Archaeological/ Historical Site – Polygons
AQ	Aquaculture Site – Polygons

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1. DETAILED DESCRIPTION: T_MAMMALS

The coverage T_MAMMALS contains points with terrestrial mammal species.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Entity Point	RARNUM	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:
RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier which links to the BIORES.DAT table. The value of RARNUM is determined for each unique combination of SPECIES_ID, SEASON_ID, and CONC. The items in BIORES.DAT are: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, and ELEMENT. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species and can be LOW, MEDIUM, or HIGH or an actual count of the numbers of species present in the polygon. SEASON_ID contains a numeric value according to the monthly presence of the species. Usually, there is one seasonality per species, but occasionally the same species has different monthly presence or breeding activity. When this occurs, a new record with a different seasonality is referenced. G_SOURCE is a variable which links to the SOURCES.DAT table and references the source for geographic information. S_SOURCE is a variable which also links to the SOURCES.DAT table and references the source for seasonality information.

The following species are found in the T_MAMMALS coverage of West Florida:

SPECIES ID   NAME

69	Choctawhatchee beach mouse
75	Perdido Key beach mouse
80	St. Andrews beach mouse

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3.   ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

floating point number

6.0. DISTRIBUTION INFORMATION

6.1. DISTRIBUTOR
    6.1.1. CONTACT PERSON PRIMARY
        6.1.1.1. CONTACT PERSON:
            Joanne Halls
        6.1.1.2. CONTACT ORGANIZATION:
            Research Planning, Inc.
    6.1.4. CONTACT ADDRESS
        6.1.4.1. ADDRESS TYPE:
            Physical Address
        6.1.4.2. ADDRESS:
            1200 Park Street
        6.1.4.3. CITY:
            Columbia
        6.1.4.4. STATE OR PROVINCE:
            SC
        6.1.4.5. POSTAL CODE:
            29201
    6.1.5. CONTACT VOICE TELEPHONE:
        (803) 256-7322
    6.1.7. CONTACT FACSIMILE TELEPHONE:
        (803) 254-6445

6.2. RESOURCE DESCRIPTION:
ESI Atlas for West Florida

6.3. DISTRIBUTION LIABILITY:
Although this data has been processed successfully on a computer system at Research Planning, Inc., no warranty, expressed or implied, is made by Research Planning, Inc. regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. Research Planning, Inc. warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.

6.5. CUSTOM ORDER PROCESS
Contact Research Planning, Inc. for distribution options (see 6.1.1.).

7.0. METADATA REFERENCE INFORMATION

7.1. METADATA DATE:
19950710

7.2. METADATA REVIEW DATE:
19941115

7.4. METADATA CONTACT

    7.4.1. CONTACT PERSON PRIMARY

        7.4.1.1. CONTACT PERSON:
        Joanne Halls

        7.4.1.2. CONTACT ORGANIZATION:
        Research Planning, Inc.

    7.4.3. CONTACT POSITION:
    Director, GIS Department

    7.4.4. CONTACT ADDRESS

        7.4.4.1. ADDRESS TYPE:
        Physical Address

        7.4.4.2. ADDRESS:
        1200 Park Street

        7.4.4.3. CITY:
        Columbia

        7.4.4.4. STATE OR PROVINCE:
        South Carolina

        7.4.4.5. POSTAL CODE:
        29201

    7.4.5. CONTACT VOICE TELEPHONE:
    (803) 256-7322

    7.4.7. CONTACT FACSIMILE TELEPHONE:
    (803) 254-6445

    7.4.8. CONTACT ELECTRONIC MAIL ADDRESS:
    joanne@rpi.columbia.sc.us

7.5. METADATA STANDARD NAME:
Content Standards for Digital Geospatial Metadata

7.6. METADATA STANDARD VERSION:
19940608