

# Environmental Sensitivity Index Maps

*A Guide to Coastal Resources at Risk to Spilled Oil*

## **Maine and New Hampshire: Volume 1**



**Office of Response and Restoration**

September 2016





# NOAA

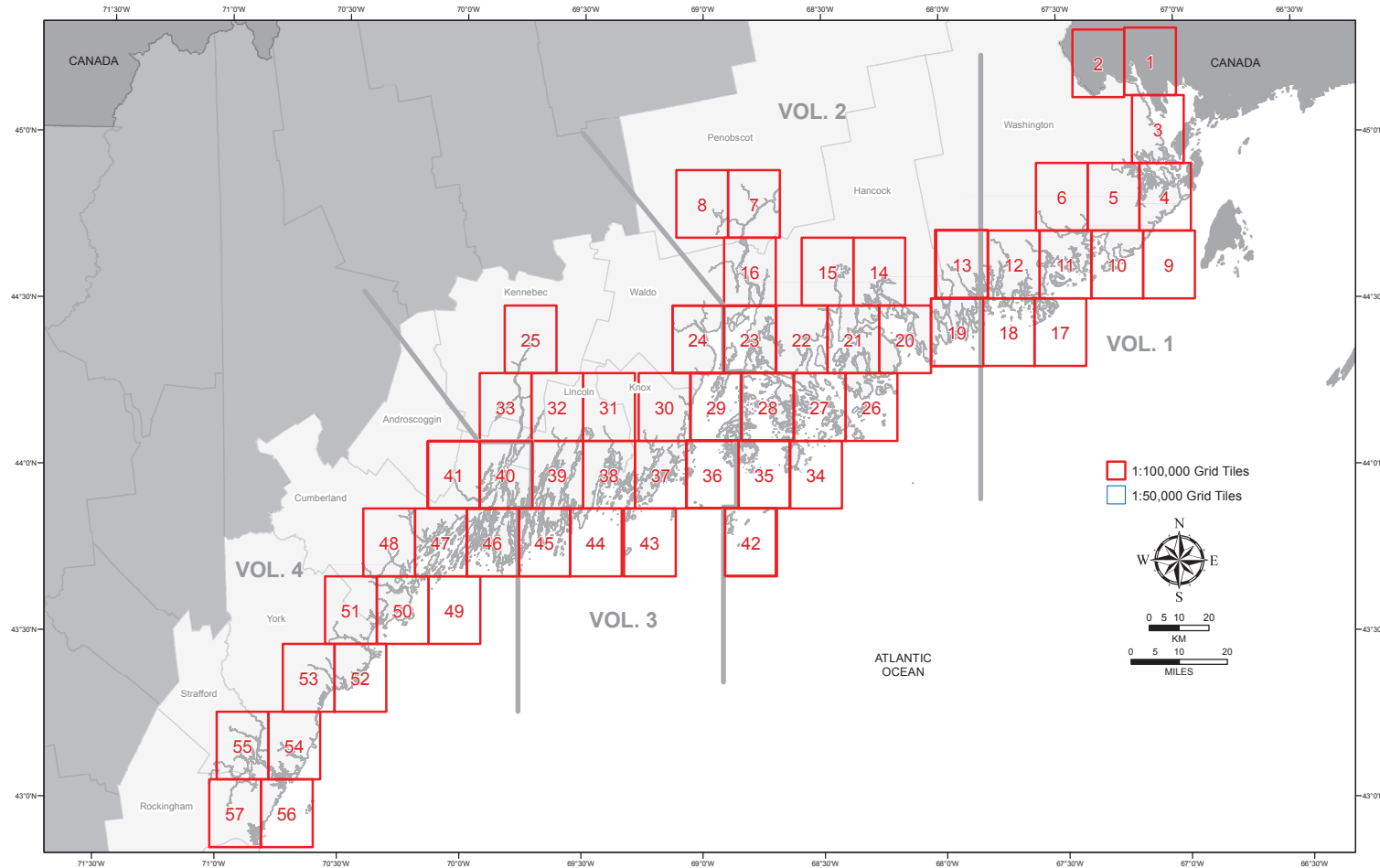
## Environmental Sensitivity

### Index Maps

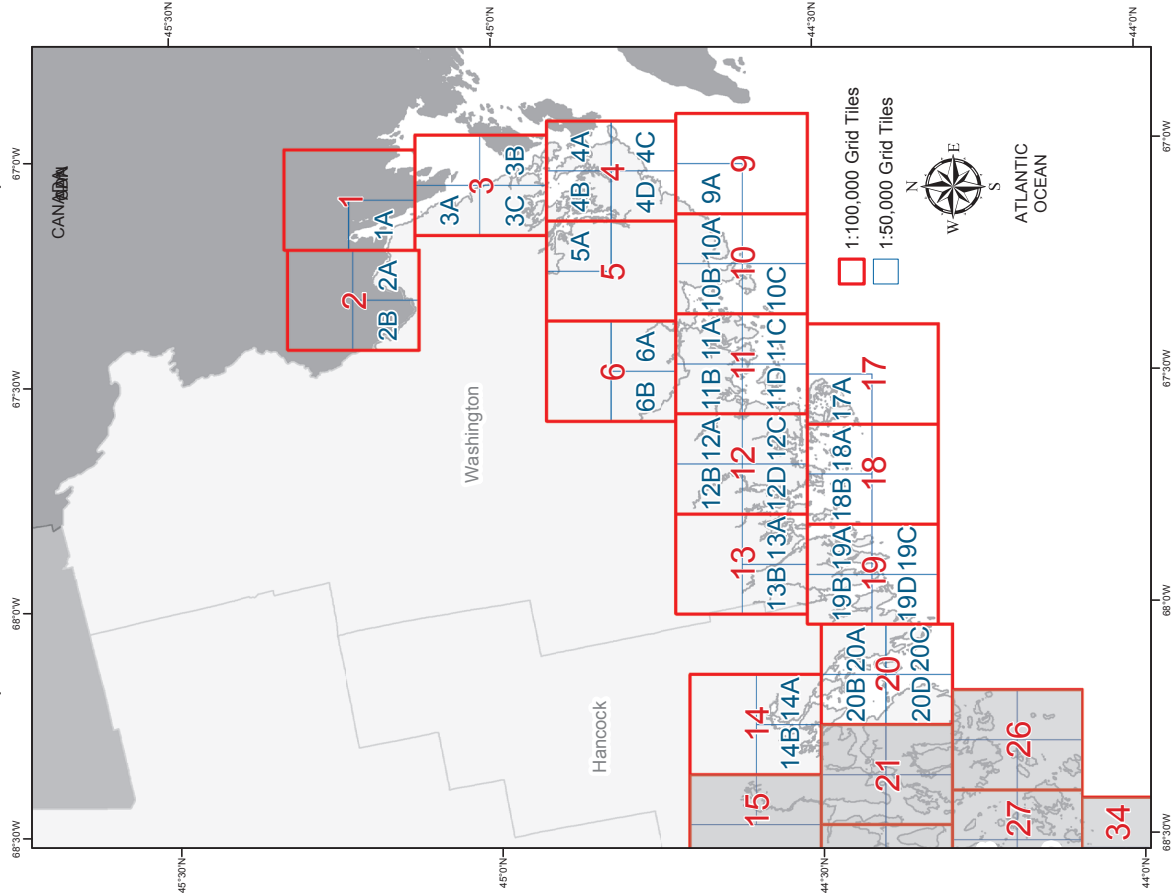
A Guide to Coastal Resources at Risk to Spilled Oil

## Maine and New Hampshire

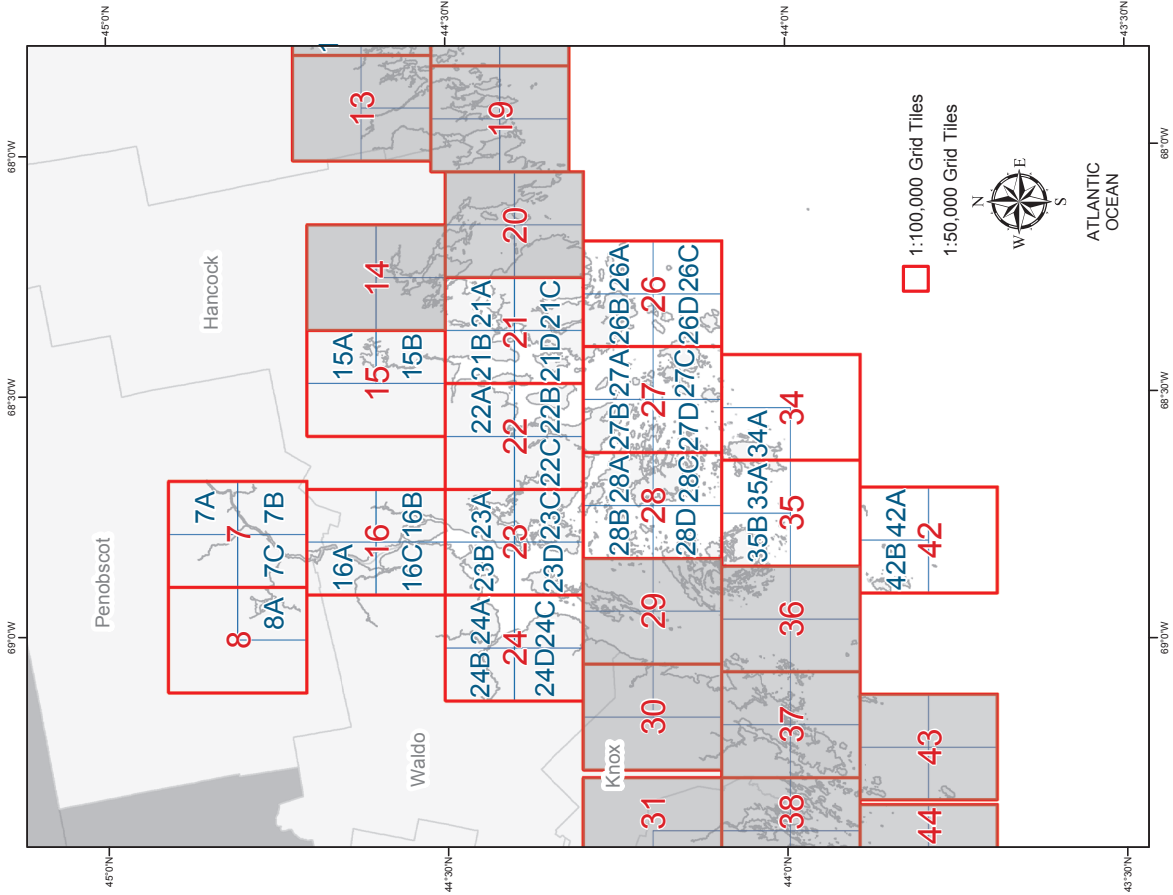
Maine and New Hampshire



Maine and New Hampshire: Volume 1  
(Downeast Maine and Midcoast Maine)



Maine and New Hampshire: Volume 2  
(Midcoast Maine)



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# ENVIRONMENTAL SENSITIVITY INDEX: MAINE AND NEW HAMPSHIRE

## INTRODUCTION

This Environmental Sensitivity Index (ESI) atlas was developed for the marine and coastal areas of Maine and New Hampshire. The atlas covers the coastal areas of Maine from the international border between the United States and Canada along the Saint Croix River, westward to the New Hampshire and Massachusetts state borders. The study area also includes Great Bay and approximately 70 bays that open into the Gulf of Maine, but does not include the Bay of Fundy, which is between the Canadian provinces of New Brunswick and Nova Scotia. Major tidal tributary rivers include the Piscataque, Saco, Nonesuch, Fore, Royal, Harraseeket, Kennebec, Black, Sheepscot, Damariscotta, Oyster, Passagassawakeag, Penobscot, Orland, Union, Narraguagus, Machias, Pennamaquan, and Saint Croix Rivers in Maine, and the Piscataque, Lamprey, Squamscott in New Hampshire. The inland extent of the study area includes lands and fresh waters to five nautical miles from the shoreline of tidal waters. The ESI represents a compilation of information about three main categories: shoreline habitats, sensitive biological resources, and human-use resources. Though the data will be useful for many shoreline applications, the goal of the ESI data is to present a concise summary of resources that may be particularly vulnerable to spilled oil. The intent of the data should caveat other uses. As an example, the ESI is not intended to present a catalog or comprehensive listing of species present in an area, rather the focus is on species particularly sensitive to oiling and life stages where vulnerability may increase.

## SHORELINE HABITAT MAPPING

The shoreline and classifications were fully updated using the following sources and methods. The shoreline and intertidal habitats were delineated using a mapped sequence of Light Detection and Ranging (LiDAR) and high resolution digital orthophotography datasets. The LiDAR data was obtained from the U.S. Geological Survey (USGS) Topographic LiDAR: LiDAR for the North East program (2011) and the Federal Emergency Management Agency (FEMA) Topographic LiDAR: Cumberland and York Counties, Maine program (2006).

The base shoreline was compiled at Mean Higher High Water (MHHW) first by LiDAR extraction, then refined within a Geographic Information System (GIS) utilizing high resolution digital orthophotos. After the shoreline was delineated, digital orthoimagery from various sources was used to classify shoreline segments using the nationally, standardized ESI scale (see below). Imagery from the Maine Office of Geographic Information Systems (2014), USDA-FSA Aerial Photography Field Office (2014), and the Piscataqua Region Estuaries Partnership (2013), as well as various imagery sources for Google Earth and Bing Maps (2014) was used during the classification phase.

Shoreline features of 10 meters (m) or greater in length were classified. In addition, wetland polygon datasets originally created by the United States Fish and Wildlife Service National Wetland Inventory (NWI) were modified and updated to be used in conjunction with the ESI shoreline. The data was visually reviewed and classified against the aerial imagery and adjusted where necessary to allow for proper classification. All classifications were determined by the specifications outlined in the Environmental Sensitivity Index Guidelines version 3.0 (2002). Where necessary, multiple types were used to describe shoreline segments. GIS quality control measures were implemented to ensure that all data met the required specifications.

The ESI shoreline classification and ranking scale has been used to assess vulnerability of shoreline to spilled oil since the mid-1970s. Rankings range from 1 – least vulnerable, to 10 – most vulnerable, with a variety of qualifiers unique to the geographic region. The scale incorporates the following considerations:

- 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 shoreline ranking. Thus, shorelines 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 shorelines with associated high biological activity have the highest ranking. The shoreline types delineated for Maine and New Hampshire presented in order of increasing sensitivity to spilled oil, are listed below.

- |  |  |
|--|--|
| 1A) Exposed Rocky Shores                   | 8A) Sheltered Scarps (Bedrock/Mud/Clay)  |
| 1B) Exposed, Solid Man-made Structures     | 8A) Sheltered, Impermeable, Rocky Shores |
| 2A) Exposed, Wave-cut Platforms in Clay    | 8B) Sheltered, Solid Man-made Structures |
| 2B) Exposed Scarps and Steep Slopes in Mud | 8C) Sheltered Riprap                     |
| 3A) Fine- to Medium-grained Sand Beaches   | 8D) Sheltered, Rocky, Rubble Shores      |
| 3B) Scarps and Steep Slopes in Sand        | 9A) Sheltered Tidal Flats                |
| 4) Coarse-grained Sand Beaches             | 9B) Vegetated Low Banks                  |
| 5) Mixed Sand and Gravel Beaches           | 10A) Salt- and Brackish-water Marshes    |
| 6A) Gravel Beaches                         | 10B) Freshwater Marshes                  |
| 6B) Riprap                                 | 10C) Swamps                              |
| 7) Exposed Tidal Flats                     | 10D) Scrub-Shrub Wetlands                |

For each of these shoreline types, a photo and description of the physical attributes, predicted oil behavior, and response considerations is included at the end of the introductory pages.

## SENSITIVE BIOLOGICAL RESOURCES

Biological information presented in this atlas was collected, compiled, and reviewed with the assistance of biologists and resource managers from the following agencies:

- Maine Department of Environmental Protection (MDEP)
- Maine Department of Marine Resources (MDMR)
- Maine Department of Inland Fisheries and Wildlife (MDIFW)
- U.S. Fish and Wildlife Service (USFWS)
- New Hampshire Audubon
- New Hampshire Fish and Game Department
- New Hampshire Department of Environmental Services (NH DES)
- University of New Hampshire
- NOAA Office for Coastal Management
- The Nature Conservancy
- Northeast Regional Ocean Council
- New Hampshire Seacoast Science Center

The biological resources shown in this atlas were extracted from the ESI GIS data compiled for this region. The extracted features were mapped at scale of 1:50,000 and appear on the maps referenced by a combination of number and letter. For example, Map 1B will show the biological features in conjunction with the ESI shoreline. The biology maps on these maps is “layered” in the PDF maps. This allows the user to turn off the biological features to more clearly see the underlying shoreline and habitat polygons. The data published date appearing at the bottom of the maps and on the cover page reflect when the data collection and compilation was completed. This atlas represents those data and was published November 2016.



## KEY BIOLOGICAL FEATURES ON ESI MAPS

- 1) Occurrences of animal and plant species that are at risk to spilled oil or may be impacted during a spill response are represented in the database by polygons, points, and lines.
- 2) To avoid clutter, the front of the map features occurrences that cover less than 10 kilometers of the map extent. A Map ID is associated with each of these polygonal, linear or point features.
- 3) Each map includes a tabular report summarizing the species found in the area. Features that are shown on the map are referenced by their Map ID. Features that cover more than 10 kilometers are presented in the report as Widespread in Mapped Area. Species occurrences that appear in the database as General Distribution are listed in a third category, Also Present in Mapped Area. To fully understand the diversity of species present, ALL sections of the map report should be reviewed.
- 4) Associated with each species in the table is the state (S) and federal (F) protected status as threatened (T) or endangered (E), as well as concentration, seasonality, and life-history information. Federal listings were provided by USFWS. State listings were provided by New Hampshire Fish and Game and Maine Department of Inland Fish and Wildlife.
- 5) The table includes a Mapping Qualifier with each species record (see table of mapping qualifiers and guidelines below). The mapping qualifier should help users understand particular vulnerabilities associated with the map data.
- 6) Feature level source information is included in the GIS database used to create these maps. The GIS data also provides the extent polygons for all mapped features; it can be queried, filtered, and used with other GIS datasets.
- 7) Species have been divided into groups and subgroups based on their behavior, morphology, taxonomic classification, and spill vulnerability and sensitivity. The icons below reflect this grouping scheme.
- 8) Colors depicting monthly seasonality roughly reflect Winter/Spring/Summer/Fall, but are primarily intended to ease readability.

### MARINE MAMMAL



Dolphin



Pinniped



Whale

### HERPETOFAUNA



Amphibian/Snake



Turtle

### HABITAT



Upland/Wetland/Plant

### BIRD



Alcid/Pelagic



Diving



Gull/Tern



Passerine



Raptor



Shorebird



Wading



Waterfowl

### INVERTEBRATE



Bivalve



Cephalopod



Crab/Invertebrate/  
Shellfish



Echinoderm



Gastropod



Insect



Lobster

### FISH



Fish



Nursery

## Mapping Qualifiers and Guidelines

Element	Qualifier	Guidelines
All	Concentration Area	Areas where concentrations are considerably higher than other records of the same species in the area of interest.
All	General Distribution	Used for broad, general distributions of species that are often mapped to landscape- or habitat-scale features.
All	Vulnerable Occurrence	Intended for records of rare species with discrete occurrences, where the conservation value of the species should be highlighted for spill response.
Birds, Herpetofauna, Marine Mammals, Fish, Invertebrates	Migration	Used when an area is a known staging area of high importance to the species for birds; and/or areas are potential or known migration corridors in the marine environment for other elements.
Birds, Herpetofauna	Nesting	Applicable to all nesting birds and herps. Should represent known nesting areas rather than all potential nesting habitat.
Birds	Rafting	Similar to 'Concentration Area' qualifier, but specific to large on-water concentrations.
Birds	Wintering	Designates known areas of importance to wintering birds.
Benthic	High Ecological Value	For use in areas where benthic organisms provide high ecological services, high quality habitat, or known areas of high biodiversity.
Fish and Invertebrates	Harvest Area	May be used as a qualifier for distributions in special cases, where the general distribution was not mapped and/or widespread and the distribution of the harvested resources is used to depict important areas.
Fish and Invertebrates	Nursery Area	Refers to specific areas of known importance to early life history stages (e.g., larvae, juveniles) of a species.
Fish and Invertebrates	Spawning Area	Areas where animals are spawning. Spawning is loosely defined as the release of gametes or eggs from the adult.

## MARINE MAMMALS

Marine mammals depicted in the Maine and New Hampshire atlas include whales, dolphins, porpoises and seals. Marine mammal concentration areas were mapped based on interviews with local resource experts from the Seacoast Science Center, Maine DMR, and University of New Hampshire. Harbor Seals (*Phoca vitulina*) and Gray Seals (*Halichoerus grypus*) are present year-round in Maine and New Hampshire Coastal Waters although the vast majority is harbor seals. Harp Seals (*Pagophilus groenlandicus*) and Hooded Seals (*Cystophora cristata*) also occur in winter months although are not common. In Maine, data for Harbor and Gray Seals were obtained from the "Digital Atlas of Seal Haul-out Sites in Maine: 1981-2001", authored by Dow, et al, December, 2005. The atlas covers the coastal waters of Maine, from the Isles of Shoals to Cobscook Bay. Aerial surveys were conducted between 1981 and 2001.

Data for whales, dolphins and porpoises were generally mapped as large polygons based on "Marine Mammals Sightings per Unit Effort" data set created by The Nature Conservancy and obtained from the Northeast Regional Ocean Council, as well as through interviews with local resource experts.

### Expert contacts for Maine/New Hampshire marine mammals\*:

Name	Agency	City	Phone	Species
Erin Summers	Maine DMR	West Boothbay Harbor, ME	207-633-9556	Marine Mammals
Ashley Stokes	Seacoast Science Center	Rye, NH	603-997-8043	Marine Mammals
Stranding/Rescue Hotline (NH)	Seacoast Science Center	Rye, NH	603-997-9448	Marine Mammals
Stranding/Rescue Hotline (ME)	Marine Mammals of Maine	Bath, ME	207-233-3199	Marine Mammals
Stranding/Rescue Hotline (NE)	New England Aquarium	Boston, MA	617-973-5247	Marine Mammals

**\*Note: this list is not meant to represent all marine mammal experts for the region.**

### Major Data Sources Used: Marine Mammals

Digital Atlas of Seal Haul-out Sites in Maine: 1981-2001, authored by Dow, et al, December, 2005

Ashley Stokes, Marine Mammal Rescue Coordinator, Seacoast Science Center. Distribution and Abundance of Marine Mammals, Personal Communication.

The Nature Conservancy, 2010. Marine Mammals Sightings Per Unit Effort. Boston, MA. Vector digital data. <http://www.northeastoceandata.org>

## BIRDS

Major Sources for bird concentration areas depicted in this atlas include the Maine Department of Inland Fisheries and Wildlife (MDFW) and New Hampshire Audubon. Pamela Hunt, Senior Biologist with New Hampshire Audubon, and NH Important Bird Area (IBA) Coordinator, provided specific locations of nesting sites, concentration areas, and general distribution notes for 96 species of birds. NH Important Bird Areas within this atlas include Great Bay, Hampton/Seabrook Estuary, Isles of Shoals, and Pease Grasslands. Dr. Adrienne Kovach, UNH, provided additional nesting information on the Salt Marsh Sparrow (*Ammodramus caudacutus*) and Nelson's Sparrow (*Ammodramus nelsoni*). Dr. James Coyer, UNH provided additional information on bird concentrations on the Isles of Shoals.

*Piping Plover, Least Tern Essential Wildlife Habitats-* Piping Plover (*Charadrius melodus*) and Least Tern (*Sterna antillarum*) nesting, feeding, and brood-rearing areas are identified and mapped as Essential Habitat by the Maine Department of Inland Fisheries and Wildlife (MDIFW). Essential Wildlife Habitats are areas currently or historically providing physical or biological features essential to the conservation of an endangered or threatened species in Maine and which may require special management considerations. As required under the Maine Endangered Species Act, a state agency or municipal government shall not permit, license, fund or carry out projects that will significantly alter an Essential Habitat or violate protection guidelines adopted for the habitat. Landowners, project planners, municipalities or state agencies considering a project in or near an Essential Habitat should immediately contact an MDIFW Regional Wildlife Biologist for assistance.

These data are provided by the MDIFW solely for individual use or the use of a company or agency for the purpose stated. Boundaries may change as additional survey data become available. The designation of essential habitats is an ongoing process, where sites may be added, deleted and/or revised following public rulemaking. As a result, information and maps will be periodically updated. To be certain the most current essential habitat maps and documents are consulted, users are advised to carefully monitor update notices and version dates. Landowners, project planners, municipalities or state agencies considering a project in or near an Essential Habitat should immediately contact an MDIFW Regional Wildlife Biologist for assistance.

*Roseate Tern Nesting Areas Essential Habitat-* Roseate Tern (*Sterna dougallii*) nesting areas identified and mapped as Essential Habitat by the MDIFW.

*High Value Habitat Areas for Harlequin Ducks in Maine-* This feature class contains a subset of habitat areas for Harlequin Ducks (*Histrionicus histrionicus*) from MDIFW's "Endangered, Threatened, & Special Concern" (ETSC) observations database. Some Harlequin Duck areas in this feature class may not be in the ETSC database yet (as of Aug 2015). Because this is a state listed Threatened Species and there are less than 2,000 Harlequins wintering in Maine the Harlequin Dataset includes all sites where Harlequins were documented during the coast wide survey conducted in 2008 and the most recent survey of the core wintering area (outer Penobscot and Jericho Bays) conducted in March 2012. Intended use is to protect these habitats from degradation from oil spill, development projects and impacts from associated human activities.



*NRPA-Protected Inland Waterfowl/Wading Bird Habitats*- This layer represents Inland Waterfowl / Wading bird Habitat (IWWH), a Significant Wildlife Habitat defined under Maine's Natural Resources Protection Act (NRPA; <http://www.maine.gov/dep/blwq/docstand/nrpapage.htm>). IWWHs with a high or moderate rating meet the Significant Wildlife Habitat definition and are protected under NRPA. Low-rated IWWHs are NOT included in this layer because they do not meet the definition and are not protected under NRPA. Boundaries and attributes of polygons in organized townships were updated in 2008 by MDIFW staff using recent (2001-2007), high-resolution ( $\leq 1$  m), color orthoimagery. For most polygons, multiple images from different years and seasons were used. Polygons in unorganized townships were mapped by MDIFW regional staff in the 1990s from lower-resolution orthoimagery, various wetland data sets, and field visits or via an automated process developed by Heather Rustigian and William Krohn (USGS Biological Resources Division) using statewide digital NWI (National Wetlands Inventory) data, aerial imagery, and hydrology data. Each IWWH boundary includes a 250-foot upland zone around the wetland perimeter. Upland zones were edited to exclude areas of intensive development, slivers crossing major roads into non-wetland habitat, and shorelines >250 feet from a vegetated, non-forested wetland on Great Pond. Changes to polygon boundaries and IWWH ratings are occasionally made based on a field visit by an MDIFW regional biologist. The last such modification was made 2012-08-22.

*High Value Habitat Areas for Purple Sandpipers in Maine*- This feature class contains a subset of habitat areas for Purple Sandpipers (*Calidris maritima*) from MDIFW's "Endangered, Threatened, & Special Concern" (ETSC) observations database but may also contain areas that have not yet been incorporated (as of Aug 2015) into ETSC.

This dataset represents a subset of Purple Sandpiper wintering areas documented during a coast wide systematic survey effort conducted between 2001 and 2007. Areas selected for this dataset represents all sites with documented use by flocks of 100 or more Purple Sandpipers. This dataset does not include areas with documented use of less than 100 Purple Sandpipers. This subset represents 124 Purple Sandpiper areas out of a total of 380 areas with documented use by Purple Sandpipers

*NRPA – Significant Shorebird Wildlife Habitat*- Extensive field surveys began in 1993 to identify, map, and document use of feeding and roosting areas for shorebirds. Surveyed species for mapping Significant Wildlife Habitat under the Maine Natural Resources Protection Act include American Golden Plover (*Pluvialis dominica*), American Oystercatcher (*Haematopus palliatus*), Baird's Sandpiper (*Calidris bairdii*), Black-bellied Plover (*Pluvialis squatarola*), Buff-breasted Sandpiper (*Tryngites subruficollis*), Dunlin (*Calidris alpina*), Greater Yellowlegs (*Tringa melanoleuca*), Hudsonian Godwit (*Limosa haemastica*), Least Sandpiper (*Calidris minutilla*), Lesser Yellowlegs (*Tringa flavipes*), Pectoral Sandpiper (*Calidris melanotos*), Red Knot (*Calidris canutus*), Ruddy Turnstone (*Arenaria interpres*), Sanderling (*Calidris alba*), Semipalmated Plover (*Charadrius semipalmatus*), Semipalmated Sandpiper (*Calidris pusilla*), Short-billed Dowitcher (*Limnodromus griseus*), Solitary Sandpiper (*Tringa solitaria*), Stilt Sandpiper (*Actitis macularia*), Western Sandpiper (*Calidris mauri*), Whimbrel (*Numenius phaeopus*), White-rumped Sandpiper (*Calidris fuscicollis*), and Willet (*Catoptrophorus semipalmatus*). Other surveyed species not used for mapping Significant Wildlife Habitat but that may also occur in these areas include two inland species, Killdeer (*Charadrius vociferous*) and Spotted Sandpiper (*Actitis macularia*), that use coastal areas during migration, Piping Plover (*Charadrius melodus*) (MDIFW maps Essential Wildlife Habitats for Piping Plovers as a separate GIS data set), and

Purple Sandpipers (*Calidris maritima*) that winter offshore on rocky islands and ledges are included in MDIFW's "Endangered, Threatened, & Special Concern" (ETSC) GIS data set. Polygons have been modified by Maine Department of Inland Fisheries & Wildlife to better align habitat boundaries with natural features based on high resolution, low tide imagery from Maine DMR.

*NPRA – Significant Wading Bird Colony Habitat*- These areas represent wading bird colonies that have been active in recent years (2009-2013). These wading bird colonies contain nesting pairs of one or more of the following species: great blue heron (*Ardea Herodias*), black-crowned night-heron (*Nycticorax nycticorax*), snowy egret (*Egretta thula*), great egret (*Ardea alba*), little blue heron (*Egretta caerulea*), and glossy ibis (*Plegadis falcinellus*). The layer was created from aerial survey or ground survey data. The polygons primarily include the island on which the birds are nesting. The one exception is Seven-hundred Acre Island in Islesboro, which was created by only capturing the colony and the two nearby coves and corresponding shoreline.

*High Concentration Areas of Winter Waterfowl*- This layer uses annual mid-winter waterfowl inventory data from 2003-2013 to determine areas along the Maine coast that support high concentrations of wintering waterfowl. Mid-winter survey sub-sections (minus land area) were used as area units.

Point data from the mid-winter inventory was spatially joined to the survey sub-section polygons (minus the land area) and the number of ducks per unit area was calculated. The resulting polygons were converted to a raster format, using the "DucksPerSquareMile" attribute as the raster value. A separate raster layer was completed for each year from 2003-2013. The "Raster Calculator" tool in ArcGIS was then used to get the average ducks per unit area for the 10 year period. The raster was then classified using "natural breaks" and the two highest categories were subsequently reclassified into a new raster layer. This final layer represents areas that had an average of between 149-421 ducks per square mile from 2003-2013.

*Rafting Bird Concentration Areas*- Rafting bird areas are based on data collected by MDIFW staff in cooperation with the U.S. Fish and Wildlife Service (USFWS). The data are from aerial surveys of coastal waterbirds conducted over several seasons from 2000 through 2004. Winter data were obtained from coastal mid-winter waterfowl surveys of 2004. Bird counts were combined with vulnerability rankings to calculate a density number in order to pinpoint the most important rafting bird habitat areas. Density contours were plotted, and areas with numbers indicating concentrations of 200 or more individuals are shown on the maps.

*Bald Eagle Nests*- Bald eagle (*Haliaeetus leucocephalus*, Maine Species of Special Concern) nest sites in Maine are mapped as Essential Habitat by the MDIFW. The 2005 data set consists of polygons representing quarter mile circular buffer around bald eagle nests. There are 298 nest locations within Maine included in this atlas

### Expert contacts for Maine/New Hampshire Birds\*:

Name	Agency	City	Phone	Species
Donald Katnik	MDIFW	Bangor, ME	207-941-4455	Birds
Pamela Hunt	NH Audubon	Concord, NH	603-224-9909 x328	Birds
Adrienne Kovach	University of New Hampshire	Durham, NH	603-862-1603	Saltmarsh Sparrow, Nelsons Sparrow
James Coyer	University of New Hampshire	Durham, NH	603-862-1202 603-964-9011(May-Sept)	Isle of Shoals birds
Mark McCollough	USFWS – Maine Field Office	Orono, ME	207-866-3344	Endangered Species
Scott Lindsay	MDIFW	Gray, ME	207-657-2345	Region A Biologist
Keel Kemper	MDIFW	Sidney, ME	207-547-5319	Region B Biologist
Thomas Schaeffer	MDIFW	Jonesboro, ME	207-434-5925	Region C Biologist

**\*Note: this list is not meant to represent all bird experts for the region.**

### Major Data Sources Used: Birds

Pamela Hunt, NH Audubon, Concord NH. Bird Locations in New Hampshire. Expert Knowledge

MDIFW. 2003. ehplvtrn (piping plover, least tern essential wildlife habitats). Augusta, Maine. Vector digital data. Content available from Maine Office of Geographic Information Systems.

MDIFW. 2005. evi\_roseate05 (roseate tern nesting areas essential habitat). Augusta, Maine. Vector digital data. Content available from Maine Office of Geographic Information Systems.

MDIFW. 2005. evi\_sni05\_t\_e (natural resource protection act regulated coastal seabird nesting islands). Augusta, Maine. Vector digital data. Content available from Maine Office of Geographic Information Systems.

MDIFW. 2015. harlequinducks2015 (high value habitat areas for harlequin ducks in maine). Augusta, Maine. Vector digital data.

MDIFW. 2012. iwwh (nrpa-protected inland waterfowl / wading bird habitats). Augusta, Maine. Vector digital data. Content available from Maine Office of Geographic Information Systems.

MDIFW. 2015. purplesandpipers2015 (high value habitat areas for purple sandpipers in Maine). Augusta, Maine. Vector digital data.

MDIFW 2009. raftingbirds (rafting bird concentration areas). Augusta, Maine. Vector digital data.

MDIFW 2015. shorebird\_2015 (npra - significant shorebird wildlife habitat). Augusta, Maine. Vector digital data.

MDIFW 2015. wadingbirdcolonies2015 (nrpa - significant wading bird colony habitat). Augusta, Maine. Vector digital data.

MDIFW 2015. winterwaterfowl2015 (high concentration areas of winter waterfowl). Augusta, Maine. Vector digital data.

## HERPETOFAUNA

Herpetofauna depicted in the Maine and New Hampshire atlas include a few species of sea turtles and inland species of turtles, frogs, and salamanders that are Endangered, Threatened or of Special Concern.

Sea turtles depicted in this atlas for both Maine and New Hampshire include Kemp's ridley (*Lepidochelys kempi*, federally endangered), loggerhead (*Caretta caretta*, federally threatened), green (*Chelonia mydas*, federally threatened), and leatherback (*Dermochelys coriacea*, federally endangered). While these sea turtles are uncommon off the coast of Maine and New Hampshire, there are occasional seasonal sightings within the Gulf of Maine based on the 2010 "Sea Turtle Sightings Per Unit Effort" data prepared by The Nature Conservancy, as well as from interviews with local subject matter experts.

In New Hampshire, inland species data were obtained from NH Fish & Game Department Reptile and Amphibian Reporting Program and through interview with local resource experts. In Maine, inland species data were obtained from MDIFW's mapped habitats based on observations of wildlife species that are Endangered, Threatened, or of Special Concern, as well as from MDIFW significant vernal pool buffers. MDIFW notes that this data is updated very regularly to reflect new observations and ideally updated monthly.

### Expert contacts for Maine/New Hampshire herpetofauna\*:

Name	Agency	City	Phone	Species
Amanda Shearin, PhD	MDIFW	Augusta, ME	207-592-4967	Reptiles and Amphibians
Michael Marchand	NH Fish and Game	Concord, NH	603-271-3016	Reptiles and Amphibians
Erin Summers	Maine DMR	West Boothbay Harbor, ME	207-633-9556	Sea Turtles
Kate Sampson	NOAA GARFO	Gloucester, MA	978-282-8470	Sea Turtles
Stranding/Rescue Hotline	New England Aquarium	Boston, MA	617-973-5247	Sea Turtles

**\*Note: this list is not meant to represent all herpetofauna experts for the region.**



### Major Data Sources Used: Herpetofauna

MDIFW 2015. ETSC (Endangered, Threatened, or Species of Concern). Augusta, Maine. Vector digital data.

MDIFW 2016. Significant Vernal Pool Buffers. Augusta, Maine. Vector digital data.

NH Fish & Game Department, Nongame & Endangered Wildlife Program, NH Reptile and Amphibian Reporting Program. Concord, NH. PDF Maps.

The Nature Conservancy, 2010. Sea Turtle Sightings Per Unit Effort. Boston, MA. Vector digital data. <http://www.northeastoceandata.org>

### TERRESTRIAL MAMMALS

The terrestrial mammals depicted in this atlas are limited to the New England Cottontail (*Sylvilagus transitionalis*, state/federally endangered), northern river otter (*Lutra Canadensis*), muskrat (*Ondatra zibethicus*), and beaver (*Castor canadensis*). Other mammals are potentially occurring in the study area, but are not mapped due to their relatively wide distribution, a lack of information regarding particular concentration areas, and/or the unlikelihood of impact during coastal and marine oil spills due to their use of more upland and inland habitats.

#### Expert contacts for Maine/New Hampshire terrestrial mammals\*:

Name	Agency	City	Phone	Species
Walter Jakubas	MDIFW	Bangor, ME	207-941-4471	Terrestrial Mammals
Heidi Holman	NH Fish and Game	Concord, NH	603-271-2461	Terrestrial Mammals
Kelly Boland	USFWS, Rachel Carson National Wildlife Refuge	Wells, ME	207-646-9226	New England Cottontail
Steve Jones	University of New Hampshire	Durham, NH	603-862-5124	Estuarine species

**\*Note: this list is not meant to represent all terrestrial mammal experts for the region.**

### Major Data Sources Used: Terrestrial Mammals

MDIFW 2015. ETSC (Endangered, Threatened, or Species of Concern). Augusta, Maine. Vector digital data. Content available from Maine Office of Geographic Information Systems.

USFWS, 2016. Distribution of New England Cottontail in New England.

## FISH

Finfish depicted in this atlas include selected marine, estuarine, and diadromous species of commercial, recreational, ecological and/or conservation interest. Fish species distributions and associated data were provided by the USFWS Gulf of Maine Coastal Program (GOMCP), Maine Department of Marine Resources (DMR) – Division of Sea Run Fisheries and Habitat, the MDIFW, NOAA National Marine Fisheries Service, and through interviews with local resource experts.

The GOMCP provided a GIS data set for all 12 species of diadromous fish in Maine; American eel (*Anguilla rostrata*), rainbow smelt (*Osmerus mordax*), alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), American shad (*Alosa sapidissima*), sea lamprey, shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus*), striped bass (*Morone saxatilis*), Atlantic tomcod (*Microgadus tomcod*), sea-run brook trout (*Salvelinus fontinalis*), and Atlantic Salmon (*Salmo salar*). The data includes the current and historic extent of each species coded into the National Hydrography Dataset (NHD). For this atlas, the original NHD-based linear data was integrated with the ESI Hydro polygons to form both linear (FISHL) and polygon (FISH) feature classes. Note that while the Atlantic sturgeon is listed as a federally endangered species throughout its range in the coastal U.S., the Gulf of Maine population of Atlantic Sturgeon is listed as threatened.

The Maine DMR provided additional GIS data sets for smelt and alewife distributions (lines and polygons). Both the Maine DMR and GOMCP also recommended including the 1984 Coastal Marine Resources Inventory data set “ACFISH2”, which contains point locations of streams and rivers in Maine with runs and passages of anadromous and catadromous fish. This data set is included in the FISHPT feature class for this atlas.

The Maine DMR also provided the 2013 Maine Atlantic Salmon Habitat Survey data set which identifies important Atlantic salmon habitat including spawning and rearing areas. This data was developed from field surveys conducted on the mainstem and selected tributaries of the Aroostook, Dennys, Ducktap, East Machias, Kennebec, Machias, Passagassawakeag, Penobscot, Pleasant, Presumpscot, Saco, Sheepscot, St. George, Tunk and Union Rivers in Maine. Originally in a linear format, this data was integrated into both polygons (FISH) and lines (FISHL) for this atlas.

The Maine DMR provided the “elvers11” GIS point data set, which provides locations where elver (juvenile eels) harvest activities have been observed by the Maine Marine Patrol in 1996 and 2011. These locations are passage ways for the catadromous species, *Anguilla rostrata*, which migrate each spring from salt water to fresh water.

Distribution, abundance and seasonality of other estuarine and marine fish species in both New Hampshire and Maine waters was based primarily on interviews with UNH scientists Dr. Hunt Howell and Dr. Larry Harris and data collected as part of NOAA Essential Fish Habitat (EFH) of the Northeast Region. Estuarine and marine fish species were mapped using broad distributions on most maps and some important spawning areas have been indicated (i.e., striped bass).

**Expert contacts for Maine/New Hampshire fish\*:**

Name	Agency	City	Phone	Species
Bob Houston	USFWS, Gulf of Maine Coastal Program	Falmouth, ME	207-781-8364	Fish
Oliver Cox	Maine DMR, Division of Sea-Run Fisheries and Habitat	Bangor, ME	207-941-4487	Diadromous
Hunt Howell	University of New Hampshire	Durham, NH	603-862-2109	Marine/Estuarine
Larry Harris	University of New Hampshire	Durham, NH	603-862-3897	Marine/Estuarine
Cheri Patterson	NH Fish and Game	Durham, NH	603-868-1095	Marine Fisheries

**\*Note: this list is not meant to represent all fish experts for the region.**

**Major Data Sources Used: Fish**

USFWS, Gulf of Maine Coastal Program. 2007. Statewide Distribution of Diadromous Fish. Falmouth, ME. Vector Digital Data.

MEDMR. 2007. ACFISH2 (Runs and Passages of Diadromous Fish). West Boothbay Harbor, ME. Vector Digital Data. Content available from Maine Office of Geographic Information Systems.

MEDMR. 2007. MEDMR\_SPAWNPTS (Important Herring Spawning Areas). West Boothbay Harbor, ME. Vector Digital Data.

MEDMR. 2014. MAINE\_ALEWIFE\_PONDS\_020614 (Alewife Ponds in Maine). West Boothbay Harbor, ME. Vector Digital Data.

MEDMR. 2014. MAINE\_ALEWIFE\_STREAMS\_020614 (Alewife Streams in Maine). West Boothbay Harbor, ME. Vector Digital Data.

MEDMR. 2014. MAINE\_SMELT\_JAN2014\_REVISIONV3III (Maine Smelt Habitat). West Boothbay Harbor, ME. Vector Digital Data. Content available from Maine Office of Geographic Information Systems.

MEDMR. 2013. AHAB3 (Maine Atlantic Salmon Habitat Survey). Jonesboro, ME. Vector Digital Data.

MEDMR. 2011. ELVERS11 (Sensitive Elver Run Sites). West Boothbay Harbor, ME. Vector Digital Data.

NOAA National Marine Fisheries Service, Essential Fish Habitat (EFH). 2015. New England Fishery Management Council, NMFS Northeast Region Habitat Conservation Division. Vector Digital Data.

## INVERTEBRATES

Invertebrates depicted in this atlas include bivalves, rare/threatened insects, lobster, horseshoe crab, green urchin, and northern shrimp. Species of commercial, recreational, ecological and/or conservation interest are emphasized. Invertebrate distributions were mapped using GIS data sets provided by MEDMR, MDIFW and NH DES, as well as through interviews with local resource experts.

The MEDMR provided shellfish GIS data that included individual polygon data sets for eight species of molluscan shellfish; sea scallop (*Placopectin magellanicus*), american oysters (*Crassostrea virginica*), atlantic surf clams (*Spisula solidissima*), blue mussels (*Mytilus edulis*), european oysters (*Ostrea edulis*), hard clams (*Mercenaria mercenaria*), razor clam (*Ensis directus*) and softshell clams (*Mya arenaria*). This data was based on locations indicated by town officials, harvesters, Harbormasters, MEDMR biologists, MEDMR specialists, MEDMR Marine Patrol officers or MEDMR scientists from February 2008 to September 2010. The MEDMR also provided GIS data for locations of Maine mussel seed conservation areas as outlined in the Maine Department of Marine Resources' Rule 12.06.

NH DES provided current and historic GIS data on softshell clams, oysters, blue mussels, surf clams, and razor clams. Other invertebrate concentrations, as well as larger, more general distribution areas in NH and ME coastal waters were developed through interviews with resource experts at UNH, NH DES and NH Fish and Game.

Horseshoe crab (*Limulus polyphemus*) distributions in this atlas include general distribution polygons as well as known spawning sites based on GIS data sets provided by the MEDMR, and from expert opinion provided by UNH.

The MDIFW "ETSC" GIS data set was used to map distributions of invertebrate species classified as endangered, threatened, or of special concern within Maine. NH Freshwater mussel distribution maps were used from the NH Fish & Game Nongame & Endangered Wildlife Program. Species depicted in this atlas include the butterfly Hessel's Hairstreak (*Callophrys hesseli*, ME endangered), and freshwater mussels Brook Floater (*Alasmodonta varicose*, NH endangered/ME threatened), and Yellow Lampmussel (*Lampsilis cariosa*, ME threatened).

**Expert contacts for Maine/New Hampshire invertebrates\*:**

<b>Name</b>	<b>Agency</b>	<b>City</b>	<b>Phone</b>	<b>Species</b>
Molly Docherty	MDIFW Endangered Species Program	Augusta, ME	207-941-4466	Rare Insects
Denis-Marc Nault	Maine DMR, Municipal Shellfish Program	West Boothbay Harbor, ME	207-633-2092	Shellfish, marine invertebrates
Kathleen Reardon	Maine DMR	West Boothbay Harbor, ME	207-633-9404	Lobster
Chris Nash	NH DES	Portsmouth, NH	603-559-1509	Shellfish
Larry Harris	UNH	Durham, NH	603-862-3897	Sea Urchins, Marine Invertebrates
Ray Grizzle	UNH	Durham, NH	603-862-5130	Shellfish, Crab
Win Watson	UNH	Durham, NH	603-862-1629	Horseshoe Crab, Lobster
Cheri Patterson	NH Fish and Game	Durham, NH	603-868-1095	Marine Invertebrates

**\*Note: this list is not meant to represent all invertebrate experts for the region.**

**Major Data Sources Used: Invertebrates**

NH DES. 2015. Current Shellfish Beds 20130923 Update. Vector Digital Data.

NH Fish and Game. 2014. Nongame & Endangered Wildlife Program. Concord, NH. Freshwater Mussel Distribution Maps. PDF Maps.

MEDMR. 2010. Molluscan Shellfish. Augusta, ME. Vector Digital Data. Content available from Maine Office of Geographic Information Systems.

MEDMR. 2007. MEDMR\_SEED (Maine Mussel Seed Conservation Areas). West Boothbay Harbor, ME. Vector Digital Data.

MEDMR. 2006. HSCLOCATIONS (Maine Horseshoe Crab Locations). West Boothbay Harbor, ME. Vector Digital Data.

MEDMR. 2006. BWHHSCBREEDINGSITES (Horseshoe Crab Known Spawning Sites). West Boothbay Harbor, ME. Vector Digital Data.

MDIFW 2015. ETSC (Endangered, Threatened, or Species of Concern). Augusta, Maine. Vector digital data.

## BENTHIC HABITATS

Benthic species mapped in this atlas include submerged aquatic vegetation (eelgrass) and marine worms. Eelgrass meadows in NH and ME form an important marine and estuarine coastal aquatic habitat. Along with other plants, eelgrass forms the base of food production in the sea. Eelgrass provides shelter for juvenile fish, and invertebrates, is a site for primary settlement of the larvae of some bivalve mollusks, and in certain locations helps to stabilize unconsolidated sediments and shorelines. Polygons depicting eelgrass (*Zostera marina*) in Maine's coastal waters are based on the 2010 data set produced by MEDMR, Bureau of Resource Management, and a 2013 data set for Casco Bay produced by the Casco Bay Estuary Partnership. Polygons depicting eelgrass in NH coastal waters are based on the Great Bay Estuary Eelgrass 2013 data set developed by Dr. Frederick Short, UNH.

Polygons depicting marine worm beds are based on the 2005 marine worm data set provided by MEDMR. This layer is based on interviews with commercial marine bait worm harvesters and site visits carried out between October 2004 and May 2005. Information was compiled on a 1:24000 base and screen digitized from original paper documents. Areas represented are known harvest locations and those areas that historically have sustained significant populations of the two annelid worm species, *Nereis virens* (sand worm) and *Glycera dibranchiata* (blood worm). The habitat delineated is primarily mixed and fine grained sediment which can be categorized as predominantly intertidal mud flats. Site specific studies associated with this mapping are documented in Atherton, Chen, and Thayer, unpublished.

### Expert contacts for Maine/New Hampshire benthic\*:

Name	Agency	City	Phone	Species
Erin Summers	Maine DMR	West Boothbay Harbor, ME	207-633-9556	Benthic
Frederick Short	UNH	Durham, NH	603-862-5134	eelgrass

**\*Note: this list is not meant to represent all invertebrate experts for the region.**



## Major Data Sources Used: Benthic

Dr. Frederick Short, 2015. Great Bay Estuary Eelgrass 2013. University of New Hampshire, Durham, NH. Vector Digital Data.

MEDMR. 2010. EELGRASS2010 (Maine Eelgrass Distribution, 2001-2010). West Boothbay Harbor, ME. Vector Digital Data.

Casco Bay Estuary Partnership. 2013. EELGRASS2013 (Casco Bay Eelgrass). Vector Digital Data. Content available from Maine Office of Geographic Information Systems.

Thomas Atherton, Yong Chen, and Peter Thayer, unpublished . ""A Comprehensive Study of Maine's Baitworm Industry". Submitted in 2005 to Maine Department of Marine Resources in fulfillment of contract #804291.

## HABITATS

Habitat features depicted in this atlas include rare plant species and communities from the Maine Natural Areas Program and fringe marsh habitat from the MDIFW. Rare plant species in NH are tracked by the NH Natural Heritage Bureau and not included on this atlas due to vulnerability of collection concerns by the Bureau. The NH Natural Heritage Bureau should be contacted directly for up-to-date information or review of specific locations for rare plants, animals, and communities in NH.

*Rare Plants and Rare and Exemplary Natural Community and Ecosystem Types*- Developed by the Maine Natural Areas Program (MNAP), this data maps location of rare plants and rare and exemplary natural community and ecosystem types in the organized towns of Maine. This dataset is used for status assessment, species management, and habitat conservation of rare plant species and rare and exemplary natural communities and ecosystems in Maine. This subset of data published by MNAP represents species and natural community and ecosystem records for which the Maine Natural Areas Program has precise mapping information and it excludes examples of common natural community and ecosystem occurrences that are not exemplary.

*Fringe Marsh*- The Fringe Marsh (2015) polygon data set from MDIFW identify segments of fringe marsh along Maine's coast which provide important habitat for fish and wildlife, especially when adjacent to other coastal habitats such as tidal flats and eelgrass beds. Fringe marsh differs from other coastal "meadow" marshes by location, shape, and vegetation. Fringe marsh tends to be at the edge of the salt water. It tends to be long and linear. Both of these characteristics make fringe marsh different from "meadow" marshes, which can extend much farther inland and have more complex vegetative communities. Fringe marsh may grade into low or high meadow marsh or may be isolated. Although the amount of fringe marsh can affect its value as wildlife habitat, the length of a particular fringe marsh segment probably is not that important. Pieces of fringe marsh separated by other landscape features such as rock may still function as a single ecological unit. The draft data set attempts to map Maine's fringe marsh. The mapping is based on high-resolution, low-tide imagery. Most of the polygons in this data set have not been field verified, but the ability to map fringe marsh from aerial imagery was developed by comparing sample polygons with field evaluations. That work demonstrated a capability to

accurately identify fringe marsh segments at least 6 feet wide. This draft data is still being edited (as of Aug 2015), but the fringe marsh areas are not expected to change significantly in the final version of this data. Field verification of specific fringe marsh areas is always recommended when the accuracy of a single polygon is critical to the purpose for which the data is being used.

**Expert contacts for Maine/New Hampshire habitats and rare plants\*:**

<b>Name</b>	<b>Agency</b>	<b>City</b>	<b>Phone</b>	<b>Species</b>
Molly Docherty	Maine Natural Areas Program, DACF	Augusta, ME	207-297-9044	Plants and Natural Communities
Sabrina Stanword	NH Natural Heritage Bureau	Concord, NH	603-271-2215 x303	Plants and Natural Communities
William Nichols	NH Natural Heritage Bureau	Concord, NH	603-271-2215 x444	Plants and Natural Communities
Donald Katnik	MDIFW	Bangor, ME	207-941-4455	Fringe Marsh

**\*Note: this list is not meant to represent all habitat and rare plant experts for the region.**

**Major Data Sources Used: Habitats**

Maine Natural Areas Program. 2015. MNAP\_EOS\_ORG (Rare Plant Species And Rare And Exemplary Natural Communities And Ecosystems In Maine). Augusta, ME. Vector Digital Data. Content available from Maine Office of Geographic Information Systems.

MDIFW. 2015. FRINGEMARSH2015 (Fringe Marsh Habitat along Maine's Coast). Augusta, ME. Vector Digital Data.

## INVASIVE SPECIES

The spread of invasive or non-native species can degrade habitat, increase the potential for crop damage and diseases in humans, livestock and natural resources, reduce biodiversity through competition and limit recreational opportunities. Invasive species often opportunistically spread after disturbance events alter the natural landscape. Oil spill response and clean up often alters the landscape in a manner conducive to the spread of invasive species as crews often mobilize from all over the U.S. in response to large scale spill events. Boats, trailers, waders and clean up equipment can spread invasive species from waterbody to waterbody unless properly cleaned after use. Invasive species that were mapped are shown on the HUMAN-USE RESOURCE maps.

### **Invasive Species Contacts:**

Nancy Olmstead	Maine Natural Areas Program, Invasive Plant Biologist	Augusta, ME	207-287-3200
Amy P. Smagula	NH DES, Limnologist/Exotic Species Program Coordinator	Concord, NH	603-271-2248

## WILDLIFE REHABILITATION

The following contact provides veterinary care and/or retrieval of wildlife adversely affected by an event: Tri-State Bird Rescue & Research. 170 Possum Hollow Road, Newark, DE 19711. (302)-737-9543.

## HUMAN-USE RESOURCES

The human-use resources shown in this atlas were extracted from the ESI GIS data compiled for this region. The extracted features were mapped at scale of 1:100,000 and appear on the maps referenced by a number. For example, Map 1 will show the human-use features in conjunction with the ESI shoreline.

Management areas such as wildlife refuges and state parks are mapped as polygons. Where the feature is a known point location (e.g., marinas, airports, water intakes), the specific location is displayed.

Map IDs can be found in the accompanying data tables for point and polygon features mapped. The Map ID may provide more information (i.e., name, contact) for that particular resource. The types of human use resources mapped in this atlas are depicted below.

	Abandoned Vessel		Management Area
	Access		Marina
	Airport		Military Installation
	Anchorage		Mine Site
	Aquaculture		National Estuarine Research Reserve
	Army Corps of Engineers		National Park
	Beach		Nature Conservancy
	Boat Ramp		Oil Facility
	Campground		Park
	Critical Habitat		Port
	EPA Facility		Renewable Energy
	Essential Habitat		Repeated Measurement Site
	Heliport		River Mile
	Historic Wreck		State Protected Area
	Historical Site		Tribal Land
	Lock and Dam		Water Intake
			Wildlife Refuge

**Abandoned Vessel:** Data on locations of abandoned and derelict vessels comes from the U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), Nation Ocean Service (NOS), and the Coastal Service Center (CSC)

**Access Site:** Locations where it is possible to gain access to the shoreline were mapped from data provided by the Maine Department of Environmental Protection (MEDEP) and the Complex System Research Center at the University of New Hampshire.

**Airport:** Locations of airports, airfields, landing strips etc. whether they are manned or unmanned. Data was collected from the U.S. DOC, U.S. Census Bureau Geography Division and the Maine Department of Transportation.

**Anchorage:** Locations where commercial vessels can be anchored offshore were provided by the U.S. Department of Commerce (DOC) and NOAA's Nation Ocean Service (NOS) and the Coastal Service Center (CSC).

**Aquaculture:** Locations where farmed or managed aquaculture/mariculture occurs were obtained from MEDMR , NHDES, and NH Fish and Game. Lobster

**Archaeological Site:** Maine law (statute) governing archaeology is contained in Chapter 27 of the Maine Revised Statutes Annotated, sections 371-378. This statute is unofficially called "Maines Antiquities Law" Both Maine and New Hampshire preferred to protect the archaeological. In the event of an oil spill or clean up activity please contact the State Archaeologist who can provide precise locational information of all sites.

Dr. Arthur "Art" Spiess, State Archaeologist  
Maine Historic Preservation Commission  
Mailing Address: 55 Capitol Street, 65 State House Station  
Augusta, Maine 04333-0065  
Phone: 207-287-2789

Tanya Krajcik: Archaeologist and Records Coordinator  
New Hampshire Division of Historical Resources  
Mailing Address: 19 Pillsbury Street, 2<sup>nd</sup> Floor  
Concord, NH 03301-3570  
Phone: 603-271-6569

**Army Corps of Engineers:** U.S. Army Corps of Engineers (ACE) data were downloaded from Marine Cadastre which originated from the U.S. Army Engineer Corps of Engineers.

**Beach:** Locations of recreational beaches used for activities such as swimming, sun-bathing, surf fishing, etc. were created by Woolpert, Inc. using Google Maps

**Boat Ramp:** Boat ramp location data were provided by the Maine office of Geographical Information Systems and the Complex System Research Center at the University of New Hampshire.

**Camp Ground:** Locations of campgrounds were obtained for New Hampshire from NH Office of Energy and Planning and the locations of campgrounds were created by Woolpert, Inc. using the ESRI Data and Maps

**County Boundary:** Boundaries for counties were downloaded from the US Census Bureau Geography Division.

**Critical Habitat:** Designated Critical Habitat was mapped for the Atlantic salmon. Data were provided by the USFWS and NOAA NMFS.

**Environmental Protection Agency:** Jurisdictional region boundaries were provided by the U.S. Environmental Protection Agency (EPA).

**Environmental Protection Agency Facility:** Represents facilities required to file a Risk Management Plan (RMP) due to the presence of extremely hazardous substances that may result in a chemical accident. The data comes from the USEPA.

**Essential Habitat:** Significant vernal pools are classified by abundance of fairy shrimp, blue spotted salamanders, spotted salamanders, and wood frogs, or by the presence of a state-listed rare, endangered, or threatened species that commonly require a vernal pool to complete a critical portion of their life history. Examples of these species are Blanding's turtles, Spotted Turtles, and Bog haunter dragonflies.. These data were provided by the Maine Department of Environmental Protection.

**Federal Emergency Management Agency Region:** Jurisdictional region boundaries were provided by the Federal Emergency Management Agency (FEMA) Mapping and Analysis Center.

**Ferry Route:** Ferry routes were obtained from Maine DOT.

**Heliport:** Locations of heliports, whether they are manned or unmanned, were extracted from data collected from the U.S. DOC, U.S. Census Bureau Geography Division and the Maine Department of Transportation.

**Historical Site:** Maine and New Hampshire Historical sites were provided by the National Park Service's (NPS) National Register of Historic Places (2014) and supplemented with appropriate sites from the state's conservation lands database. In the event of an oil spill or clean up activity please contact the Maine Historic Preservation Commission or New Hampshire Division of Historical Resources contacts found in the Archaeological Site (above) who can provide precise location information.



**Historic Wreck:** Data on locations of historic wrecks comes from the U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), Nation Ocean Service (NOS), and the Coastal Service Center (CSC)

**Lock and Dam:** The mapped points are dams within the area of interest. The data was compiled from various sources including the US ACE, Maine Emergency Management Agency (MEMA), MEDEP, MEGIS and New Hampshire Department of Environmental Services, Dam Safety Engineer.

**Management Area:** Management areas in this ESI atlas include Maine’s department of Marine Resources shellfish management program areas and the department of Public Health Shellfish Management Areas. These are areas where biologists are responsible for assisting municipalities manage shellfish ordinances, conservation closure permits, transplant permits, and intertidal management plans. The management area within New Hampshire includes natural lands that the state is managing for various reasons through conservation.

**Marina:** Marina location data were digitized as points from address matching from Marinas.com and verified with Google Earth imagery.

**Military Installation:** Military installation data were provided by the U.S. Census Bureau Geography Division

**Mining Sites:** Mining site locations were provided by Maine Department of Environmental Protection

**National Estuarine Research Reserve (NERR):** NERR boundary data were provided by the National Estuarine Research Reserve System’s Centralized Data Management Office as a part of the Protected Areas Geographic Information System (PAGIS) Project

**National Guard:** Army National Guard Units were provided by U.S. Geological Survey and the U.S. Department of the Interior.

**National Landmark:** National landmark locations were obtained from the National Parks Service. Houses remained in the database that may be disturbed during cleanup activities.

**National Park:** National park boundaries were obtained from the National Parks Service. The National Park within the area of interest includes Acadia National Park.

**Nature Conservancy:** Boundaries of The Nature Conservancy (TNC) properties in Maine and New Hampshire were obtained from The Nature Conservancy.

**Oil Facility:** Petroleum product terminal locations were obtained from NOAA’s Coastal Service Center Coastal Energy Facilities database.

**Park:** State park boundaries were obtained from Maine’s Department of Conservation Bureau of Parks and Land, Land Use Regulatory Commission, Department of Inland Fisheries and Wildlife and State Planning offices. New Hampshire’s regional and state park boundaries were obtained from New Hampshire’s Office of Energy and Planning

**Pipeline:** This refers to oil and gas pipeline infrastructure that was publically available.

**Port:** Major port location data were compiled from the National Atlas of the United States.

**Rail Route:** Locations of railways were obtained from the U.S. Census Bureau Geography Division

**Recreational Fishing:** Locations of recreational fishing were not included as a human-use resource in Maine or New Hampshire since they are common throughout the study area in these states. In the event of an oil spill or clean up activity please contact nearby marinas or boat ramp locations.

**Renewable Energy:** Renewable energy locations were obtained from the EPA’s Office of Atmospheric Programs, Clean Air Markets Division and include solar and nuclear facilities.

**Repeated Measurement Site:** Repeated measurement sites for Maine and New Hampshire represent NOAA national data buoy locations (DB).

**River Miles:** River miles within Maine and New Hampshire was created by Woolpert using ArcGIS10, the USGS stream lines, and the generated hydro layer for the AOI.

**Shipping Lane:** Shipping lanes in Maine and New Hampshire waters were obtained from NOAA’s Office for Coastal Management

**State Protected Areas:** State protected areas presented in this ESI Map represent Wildlife Management Areas (WMA). The data was obtained from US Fish and Wildlife and the states conservation land data.

**State Waters:** The Maine and New Hampshire state waters boundary was created by Woolpert by buffering three nautical miles offshore of the new shoreline created for this project.

**Tribal Lands:** The Passamaquoddy Tribe in Maine is the only tribe within the ESI map AOI.

**Water Intake:** Location of a water intake was provided by James Coyer for the Shoals Marine Laboratory.

**Wildlife Refuge:** National Wildlife Refuges (NWR) fall within the ESI atlas area: Great Bay NWR in New Hampshire and Crabtree Neck Wildlife Refuge, Cross Island Archipelago NWR, Lake Umbagog NWR, Petit Manan NWR, Rachel Carson NWR, Seal Island NWR, and Sunhaze NWR in Maine.

## **GEOGRAPHIC INFORMATION SYSTEM**

The entire atlas product is stored in digital form in a Geographic Information System (GIS) as spatial data layers and associated databases. The format for the data varies depending on the type of information or features for which the data are being stored.

Under separate cover is a metadata document that details the data dictionary, processing techniques, data lineage, and other descriptive information for the digital datasets and maps that were used to create this atlas. Below is a brief synopsis of the information contained in the digital version. Refer to the metadata file for a full explanation of the data and its structure.

### **MAJOR ROADS**

The major roads polyline layer represents major thoroughfares within the United States (ArcGIS Content Team (ESRI) and Tele Atlas North America Inc., U.S. Major Roads, ed. 10, published June 30, 2010, ESRI® Data & Maps series, Redlands, CA, USA). These roads are shown on the maps, but are not part of the underlying ESI GIS data.

### **SHORELINE CLASSIFICATIONS**

The ESI shoreline habitat classification is stored as lines and polygons with associated attributes. In many cases, a shoreline may have two or three different classifications or colored lines on the shoreline. These multiple classifications are represented in the database by ESI#1/ESI#2, where ESI#1 is the landward-most classification and ESI#2 is the seaward-most classification. In addition to the line features, marshes (ESI=10A, ESI=10B), swamps (ESI=10C), and scrub-shrub wetlands (ESI=10D) are also stored as polygons.

### **SENSITIVE BIOLOGICAL RESOURCES**

Biological resources are stored as points and polygons. Associated with each feature is a unique identification number that is linked to a series of data tables that further identify the resources. The main biological resource table consists of a list of species identification numbers for each site, the concentration of each species at each site, a mapping qualifier, and identification codes for seasonality and source information. This data table is linked to other tables that describe the seasonality and life-history time periods for each species (at month resolution) for the specified map feature. Other data tables linked to the first table include: the species identification table, which includes common and scientific names; the species status table, which gives information for state and/or federal threatened or endangered listings; and the source database, which provides source metadata at the feature-species level (specific sources are listed for each species occurring at each mapped feature in the biology feature classes).

## **HUMAN-USE FEATURES**

Human-use features are represented as polygons, points or lines. Management areas such as wildlife refuges, national parks and state parks are mapped as polygons. Known locations such as marinas, high use beaches, airports and water intakes are displayed as points when security risks allow. Bridges and railroads are mapped as line features.

## **ACKNOWLEDGMENTS**

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## **APPROPRIATE USE OF ATLAS AND DATA**

This atlas and the associated database were developed to provide summary information on sensitive natural and human-use resources for the purposes of oil and chemical spill planning and response. Although the atlas and database should be very useful for other environmental and natural resource planning purposes, it should not be used in place of data held by the New Hampshire Department of Environmental Service, Maine Department of Environmental Protection, New Hampshire Audubon, University of New Hampshire, Maine Department of Inland Fisheries and Wildlife, Maine Department of Marine Resources, New Hampshire Fish and Game Department, the State Natural Heritage Program, the U.S. Fish and Wildlife Service, or other agencies. Likewise, information contained in the atlas and database cannot be used in place of consultations with natural and cultural resource agencies, or in place of field surveys. This atlas should not be used for navigation.

# SPECIES LIST

Common Name	Scientific Name
<b>BENTHIC</b>	
Eelgrass	<i>Zostera marina</i>
Worm bed	-

<b>BIRDS</b>	
<b>ALCID</b>	
<u>Atlantic puffin</u>	<i>Fratercula arctica</i>
Black guillemot	<i>Cephus grylle</i>
Common murre	<i>Uria aalge</i>
Dovekie	<i>Alle alle</i>
<u>Razorbill</u>	<i>Alca torda</i>
Thick-billed murre	<i>Uria lomvia</i>

<b>DIVING</b>	
<u>Common Loon</u>	<i>Gavia immer</i>
Double-crested cormorant	<i>Phalacrocorax auritus</i>
<u>Great cormorant</u>	<i>Phalacrocorax carbo</i>
Horned grebe	<i>Podiceps auritus</i>
<u>Pied-billed grebe</u>	<i>Podilymbus podiceps</i>
Red-necked grebe	<i>Podiceps grisegena</i>
Red-throated loon	<i>Gavia stellata</i>

<b>GULL_TERN</b>	
<u>Arctic tern</u>	<i>Sterna paradisaea</i>
<u>Black tern</u>	<i>Chlidonias niger</i>
Bonaparte's gull	<i>Larus philadelphia</i>
<u>Common tern</u>	<i>Sterna hirundo</i>
Glaucous-winged/herring gull hybrid	<i>Larus spp.</i>
Great black-backed gull	<i>Larus marinus</i>
Herring gull	<i>Larus argentatus</i>
Laughing gull	<i>Larus atricilla</i>
<u>Least tern</u>	<i>Sterna antillarum</i>
Ring-billed gull	<i>Larus delawarensis</i>
<u>Roseate tern</u>	<i>Sterna dougallii</i>

<b>PASSERINE</b>	
<u>Grasshopper sparrow</u>	<i>Ammodramus savannarum</i>
<u>Horned lark</u>	<i>Eremophila alpestris</i>
Marsh wren	<i>Cistothorus palustris</i>
Nelson's sharp-tailed sparrow	<i>Ammodramus nelsoni</i>
Saltmarsh sharp-tailed sparrow	<i>Ammodramus caudacutus</i>
Seaside sparrow	<i>Ammodramus maritimus</i>
<u>Sedge wren</u>	<i>Cistothorus platensis</i>
Vesper sparrow	<i>Poocetes gramineus</i>

Common Name	Scientific Name
<b>BIRDS, cont.</b>	

<b>PELAGIC</b>	
Cory's shearwater	<i>Calonectris diomedea</i>
Great shearwater	<i>Puffinus gravis</i>
Leach's storm-petrel	<i>Oceanodroma leucorhoa</i>
Manx shearwater	<i>Puffinus puffinus</i>
Northern fulmar	<i>Fulmarus glacialis</i>
Northern gannet	<i>Morus bassanus</i>
Sooty shearwater	<i>Puffinus griseus</i>
Wilson's storm-petrel	<i>Oceanites oceanicus</i>

<b>RAPTOR</b>	
<u>Bald eagle</u>	<i>Haliaeetus leucocephalus</i>
<u>Northern harrier</u>	<i>Circus cyaneus</i>
Osprey	<i>Pandion haliaetus</i>
<u>Peregrine falcon</u>	<i>Falco peregrinus</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Snowy owl	<i>Nyctea scandiaca</i>

<b>SHOREBIRD</b>	
American golden-plover	<i>Pluvialis dominica</i>
American oystercatcher	<i>Haematopus palliatus</i>
Baird's sandpiper	<i>Calidris bairdii</i>
Black-bellied plover	<i>Pluvialis squatarola</i>
Buff-breasted sandpiper	<i>Tryngites subruficollis</i>
Dunlin	<i>Calidris alpina</i>
Greater yellowlegs	<i>Tringa melanoleuca</i>
Hudsonian godwit	<i>Limosa haemastica</i>
Least sandpiper	<i>Calidris minutilla</i>
Lesser yellowlegs	<i>Tringa flavipes</i>
Pectoral sandpiper	<i>Calidris melanotos</i>
<u>Piping plover</u>	<i>Charadrius melodius</i>
Purple sandpiper	<i>Calidris maritima</i>
<u>Red Knot</u>	<i>Calidris canutus</i>
Red phalarope	<i>Phalaropus fulicaria</i>
Red-necked phalarope	<i>Phalaropus lobatus</i>
Ruddy turnstone	<i>Arenaria interpres</i>
Sanderling	<i>Calidris alba</i>
Semipalmated plover	<i>Charadrius semipalmatus</i>
Semipalmated sandpiper	<i>Calidris pusilla</i>
Short-billed dowitcher	<i>Limnodromus griseus</i>
Solitary sandpiper	<i>Tringa solitaria</i>
Spotted sandpiper	<i>Actitis macularia</i>
Stilt sandpiper	<i>Calidris himantopus</i>
<u>Upland sandpiper</u>	<i>Bartramia longicauda</i>

# SPECIES LIST

Common Name	Scientific Name	Common Name	Scientific Name
<b>BIRDS, cont.</b>		<b>BIRDS, cont.</b>	
Western sandpiper	<i>Calidris mauri</i>	Long-tailed duck	<i>Clangula hyemalis</i>
Whimbrel	<i>Numenius phaeopus</i>	Mallard	<i>Anas platyrhynchos</i>
White-rumped sandpiper	<i>Calidris fuscicollis</i>	Northern pintail	<i>Anas acuta</i>
Willet	<i>Catoptrophorus semipalmatus</i>	Red-breasted merganser	<i>Mergus serrator</i>
<b>WADING</b>		Ring-necked duck	<i>Aythya collaris</i>
American bittern	<i>Botaurus lentiginosus</i>	Ruddy duck	<i>Oxyura jamaicensis</i>
<u>Black-crowned night-heron</u>	<u><i>Nycticorax nycticorax</i></u>	Scaup	<i>Aythya spp.</i>
Glossy ibis	<i>Plegadis falcinellus</i>	Scoters	<i>Melanitta spp.</i>
Great blue heron	<i>Ardea herodias</i>	Surf scoter	<i>Melanitta perspicillata</i>
Great egret	<i>Ardea alba</i>	Waterfowl	-
Green heron	<i>Butorides virescens</i>	White-winged scoter	<i>Melanitta fusca</i>
<u>Least bittern</u>	<u><i>Ixobrychus exilis</i></u>	Wood duck	<i>Aix sponsa</i>
Little blue heron	<i>Egretta caerulea</i>	<b>FISH</b>	
Snowy egret	<i>Egretta thula</i>	Alewife	<i>Alosa pseudoharengus</i>
Sora	<i>Porzana carolina</i>	American eel	<i>Anguilla rostrata</i>
Virginia rail	<i>Rallus limicola</i>	American plaice	<i>Hippoglossoides platessoides</i>
Wading birds	-	American sand lance	<i>Ammodytes americanus</i>
Yellow rail	<i>Coturnicops noveboracensis</i>	American shad	<i>Alosa sapidissima</i>
<b>WATERFOWL</b>		Atlantic cod	<i>Gadus morhua</i>
American black duck	<i>Anas rubripes</i>	Atlantic herring	<i>Clupea harengus</i>
American coot	<i>Fulica americana</i>	Atlantic mackerel	<i>Scomber scombrus</i>
American wigeon	<i>Anas americana</i>	Atlantic menhaden	<i>Brevoortia tyrannus</i>
Black Scoter	<i>Melanitta nigra</i>	<u>Atlantic salmon</u>	<u><i>Salmo salar</i></u>
Blue-winged teal	<i>Anas discors</i>	Atlantic silverside	<i>Menidia menidia</i>
Brant	<i>Branta bernicla</i>	<u>Atlantic sturgeon</u>	<u><i>Acipenser oxyrinchus</i></u>
Bufflehead	<i>Bucephala albeola</i>	Atlantic tomcod	<i>Microgadus tomcod</i>
Canada goose	<i>Branta canadensis</i>	Atlantic Wolffish	<i>Anarhichas lupus</i>
Canvasback	<i>Aythya valisineria</i>	Black Seabass	<i>Centropristis striata</i>
Common eider	<i>Somateria mollissima</i>	Blueback herring	<i>Alosa aestivalis</i>
Common gallinule	<i>Gallinula galeata</i>	Bluefish	<i>Pomatomus saltatrix</i>
Common goldeneye	<i>Bucephala clangula</i>	Brook trout (sea run)	<i>Salvelinus fontinalis (sea run)</i>
Common merganser	<i>Mergus merganser</i>	Brown trout (sea run)	<i>Salmo trutta (sea run)</i>
Gadwall	<i>Anas strepera</i>	Butterfish	<i>Peprilus triacanthus</i>
Goldeneye	<i>Bucephala spp.</i>	Cunner	<i>Tautoglabrus adspersus</i>
Greater scaup	<i>Aythya marila</i>	Fourspine stickleback	<i>Apeltes quadracus</i>
Green-winged teal	<i>Anas crecca</i>	Grubby	<i>Myoxocephalus aeneus</i>
<u>Harlequin duck</u>	<u><i>Histrionicus histrionicus</i></u>	Haddock	<i>Melanogrammus aeglefinus</i>
Hooded merganser	<i>Lophodytes cucullatus</i>	Longhorn sculpin	<i>Myoxocephalus octodecemspinosus</i>
Lesser scaup	<i>Aythya affinis</i>		



# SPECIES LIST

Common Name	Scientific Name
<b>FISH, cont.</b>	
Mummichog	<i>Fundulus heteroclitus</i>
Ninespine stickleback	<i>Pungitius pungitius</i>
Northern pipefish	<i>Syngnathus fuscus</i>
Northern searobin	<i>Prionotus carolinus</i>
Ocean pout	<i>Macrozoarces americanus</i>
Pollock	<i>Pollachius virens</i>
Rainbow smelt	<i>Osmerus mordax</i>
Red hake	<i>Urophycis chuss</i>
Rock gunnel	<i>Pholis gunnellus</i>
Sea lamprey	<i>Petromyzon marinus</i>
Shorthorn sculpin	<i>Myoxocephalus scorpius</i>
<u>Shortnose sturgeon</u>	<u><i>Acipenser brevirostrum</i></u>
Silver hake	<i>Merluccius bilinearis</i>
Skates	-
Smooth flounder	<i>Pleuronectes putnami</i>
Striped bass	<i>Morone saxatilis</i>
Striped killifish	<i>Fundulus majalis</i>
Threespine stickleback	<i>Gasterosteus aculeatus</i>
White hake	<i>Urophycis tenuis</i>
White perch	<i>Morone americana</i>
Windowpane flounder	<i>Scophthalmus aquosus</i>
Winter flounder	<i>Pleuronectes americanus</i>
Yellowtail flounder	<i>Pleuronectes ferrugineus</i>

## HABITATS

### PLANT

<u>Allegheny vine</u>	<u><i>Adlumia fungosa</i></u>
Annual water minerslettuce	<i>Montia fontana</i>
Appalachian stitchwort	<i>Minuartia glabra</i>
Atlantic white cedar	<i>Chamaecyparis thyoides</i>
<u>Beach plum</u>	<u><i>Prunus maritima</i></u>
<u>Beaked spikerush</u>	<u><i>Eleocharis rostellata</i></u>
Bearded flatsedge	<i>Cyperus squarrosus</i>
Birdeye primrose	<i>Primula laurentiana</i>
<u>Bitternut hickory</u>	<u><i>Carya cordiformis</i></u>
Button sedge	<i>Carex bullata</i>
Coastal sweetpepperbush	<i>Clethra alnifolia</i>
<u>Combleaf mermaidweed</u>	<u><i>Proserpinaca pectinata</i></u>
Dryspike sedge	<i>Carex siccata</i>
Dwarf saltwort	<i>Salicornia bigelovii</i>

Common Name	Scientific Name
<b>HABITATS, cont.</b>	
<u>Eastern annual saltmarsh aster</u>	<u><i>Symphyotrichum subulatum</i></u>
Eastern grasswort	<i>Lilaeopsis chinensis</i>
Eaton's beggarticks	<i>Bidens eatonii</i>
<u>Endangered plant</u>	-
Estuary beggarticks	<i>Bidens hyperborea</i>
Estuary pipewort	<i>Eriocaulon parkeri</i>
<u>Foxtail clubmoss</u>	<u><i>Lycopodiella alopecuroides</i></u>
Fragrant woodfern	<i>Dryopteris fragrans</i>
Hooded arrowhead	<i>Sagittaria calycina</i> var. <i>spongiosa</i>
<u>Horned pondweed</u>	<u><i>Zannichellia palustris</i></u>
<u>Indiangrass</u>	<u><i>Sorghastrum nutans</i></u>
<u>Jesuit's bark</u>	<u><i>Iva frutescens</i> ssp. <i>oraria</i></u>
<u>Lesser brown sedge</u>	<u><i>Carex adusta</i></u>
<u>Limber honeysuckle</u>	<u><i>Lonicera dioica</i></u>
<u>Long's bittercress</u>	<u><i>Cardamine longii</i></u>
<u>Marsh felwort</u>	<u><i>Lomatogonium rotatum</i></u>
Meadow garlic	<i>Allium canadense</i>
<u>Meadow spikemoss</u>	<u><i>Selaginella apoda</i></u>
<u>Middleton false foxglove</u>	<u><i>Agalinis neoscotica</i></u>
Mountain laurel	<i>Kalmia latifolia</i>
<u>Nantucket serviceberry</u>	<u><i>Amelanchier nantucketensis</i></u>
<u>New England blazing star</u>	<u><i>Liatris scariosa</i> var. <i>novae-angliae</i></u>
<u>New England bulrush</u>	<u><i>Bolboschoenus novae-angliae</i></u>
Northern blueberry	<i>Vaccinium boreale</i>
<u>Orangefruit horse-gentian</u>	<u><i>Triosteum aurantiacum</i></u>
<u>Pickering's reedgrass</u>	<u><i>Calamagrostis pickeringii</i></u>
<u>Pursh seepweed</u>	<u><i>Suaeda calceoliformis</i></u>
Ramp	<i>Allium tricoccum</i>
Rare plant	-
<u>Roundleaf thoroughwort</u>	<u><i>Eupatorium rotundifolium</i> var. <i>ovatum</i></u>
Saltmarsh false foxglove	<i>Agalinis maritima</i>
Sassafras	<i>Sassafras albidum</i>
<u>Scarlet oak</u>	<u><i>Quercus coccinea</i></u>
Seaside brookweed	<i>Samolus valerandi</i> ssp. <i>parviflorus</i>

# SPECIES LIST

Common Name	Scientific Name
<b>HABITATS, cont.</b>	
Sessilefruit arrowhead	<i>Sagittaria rigida</i>
<u>Slender blue iris</u>	<i>Iris prismatica</i>
<u>Smallflower halfchaff sedge</u>	<i>Lipocarpa micrantha</i>
Smooth winterberry	<i>Ilex laevigata</i>
<u>Striped prince's pine</u>	<i>Chimaphila maculata</i>
<u>Swamp azalea</u>	<i>Rhododendron viscosum</i>
<u>Tall horned beaksedge</u>	<i>Rhynchospora macrostachya</i>
Threadleaf arrowhead	<i>Sagittaria filiformis</i>
<u>Threatened plant</u>	-
Tidal spikerush	<i>Eleocharis aestuum</i>
<u>Twining screwestem</u>	<i>Bartonia paniculata</i>
<u>Variable sedge</u>	<i>Carex polymorpha</i>
<u>Velvet sedge</u>	<i>Carex vestita</i>
Water pygmyweed	<i>Crassula aquatica</i>
Welsh mudwort	<i>Limosella australis</i>
<b>UPLAND</b>	
Coastal dune grassland	-
Northern comandra	<i>Geocaulon lividum</i>
Rare upland community	-
Spruce pine-hardwood mesic flatwood	-
<b>WETLAND</b>	
Brackish marsh	-
Estuarine scrub-shrub	-
Forested wetland	-
Freshwater tidal marsh	-
<u>Long's bulrush</u>	<i>Scirpus longii</i>
<u>Moonwort</u>	<i>Botrychium lunaria</i>
Rare ecological community	-
Rare wetland community	-
<u>Red goosefoot</u>	<i>Chenopodium rubrum</i>
Salt marsh	-
Salt meadow cordgrass (wiregrass)	<i>Spartina patens</i>
Tidal Marsh	-
<b>HERPETOFAUNA</b>	
<b>AMPHIBIAN</b>	
Blue-spotted salamander	<i>Ambystoma laterale</i>
Jefferson salamander	<i>Ambystoma opacum</i>

Common Name	Scientific Name
<b>HERPETOFAUNA, cont.</b>	
Northern leopard frog	<i>Rana pipiens</i>
Rare salamander	-
Spotted salamander	<i>Ambystoma maculatum</i>
Wood Frog	<i>Lithobates sylvaticus</i>
<b>SNAKE</b>	
<u>Eastern ribbon snake</u>	<i>Thamnophis sauritus</i>
Northern black racer	<i>Coluber constrictor constrictor</i>
<b>TURTLE</b>	
<u>Blanding's turtle</u>	<i>Emydoidea blandingii</i>
<u>Green sea turtle</u>	<i>Chelonia mydas</i>
<u>Kemp's ridley sea turtle</u>	<i>Lepidochelys kempii</i>
<u>Leatherback sea turtle</u>	<i>Dermochelys coriacea</i>
<u>Loggerhead sea turtle</u>	<i>Caretta caretta</i>
<u>Spotted turtle</u>	<i>Clemmys guttata</i>
Wood turtle	<i>Glyptemys insculpta</i>
<b>INVERTEBRATES</b>	
<b>BIVALVE</b>	
Alewite floater	<i>Anodonta implicata</i>
Atlantic jackknife clam	<i>Ensis directus</i>
Atlantic surfclam	<i>Spisula solidissima</i>
Blue mussel	<i>Mytilus edulis</i>
<u>Brook floater</u>	<i>Alasmidonta varicosa</i>
Eastern oyster	<i>Crassostrea virginica</i>
European flat oyster	<i>Ostrea edulis</i>
Northern quahog	<i>Mercenaria mercenaria</i>
Sea scallop	<i>Placopecten magellanicus</i>
Softshell clam	<i>Mya arenaria</i>
Squawfoot	<i>Strophitus undulatus</i>
<u>Yellow lampmussel</u>	<i>Lampsilis cariosa</i>
<b>CRAB</b>	
Atlantic rock crab	<i>Cancer irroratus</i>
Blue crab	<i>Callinectes sapidus</i>
Horseshoe crab	<i>Limulus polyphemus</i>
Jonah crab	<i>Cancer borealis</i>
<b>ECHINODERM</b>	
Green urchin	<i>Strongylocentrotus droebachiensis</i>
<b>GASTROPOD</b>	
Rare snail	-

# SPECIES LIST

Common Name	Scientific Name
<b>INVERTEBRATES, cont.</b>	

**INSECT**

Arrowhead spiketail	<i>Cordulegaster obliqua</i>
<u>Hessel's hairstreak</u>	<u><i>Callophrys hesseli</i></u>
Little bluet	<i>Enallagma minusculum</i>
Pale swallowtail	<i>Papilio eurymedon</i>
Rare insect	-
<u>Ringed boghaunter</u>	<u><i>Williamsonia lintneri</i></u>
Saltmarsh tiger beetle	<i>Cicindela marginata</i>
Scarlet bluet	<i>Enallagma pictum</i>
Zebra clubtail	<i>Stylurus scudderi</i>

**LOBSTER**

American lobster	<i>Homarus americanus</i>
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**SHRIMP**

Daggerblade grass shrimp	<i>Palaemonetes pugio</i>
Northern shrimp	<i>Pandalus borealis</i>
Sevenspine bay shrimp	<i>Crangon septemspinosa</i>

## MARINE MAMMALS

**DOLPHIN**

Atlantic white-sided dolphin	<i>Lagenorhynchus acutus</i>
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Dolphins	-
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Harbor porpoise	<i>Phocoena phocoena</i>
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**PINNIPED**

Gray seal	<i>Halichoerus grypus</i>
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Harbor seal	<i>Phoca vitulina</i>
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Harp seal	<i>Pagophilus</i>
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*groenlandicus*

Hooded seal	<i>Cystophora cristata</i>
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**WHALE**

<u>Fin whale</u>	<u><i>Balaenoptera physalus</i></u>
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<u>Humpback whale</u>	<u><i>Megaptera novaeangliae</i></u>
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Long-finned pilot whale	<i>Globicephala melas</i>
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Minke whale	<i>Balaenoptera acutorostrata</i>
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<u>North Atlantic right whale</u>	<u><i>Eubalaena glacialis</i></u>
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<u>Sei whale</u>	<u><i>Balaenoptera borealis</i></u>
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<u>Sperm whale</u>	<u><i>Physeter macrocephalus</i></u>
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Common Name	Scientific Name
<b>TERRESTRIAL MAMMALS</b>	

Beaver	<i>Castor canadensis</i>
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Muskrat	<i>Ondatra zibethicus</i>
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<u>New England cottontail</u>	<u><i>Sylvilagus transitionalis</i></u>
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Northern river otter	<i>Lutra canadensis</i>
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\* Underlined species are listed as either threatened or endangered under the federal ESA, and/or are listed as Threatened, Endangered, or Special Concern by Maine and/or New Hampshire.

# SHORELINE DESCRIPTIONS

## EXPOSED, ROCKY SHORES

ESI = 1A

### DESCRIPTION

- Common along the outer, exposed coast of the study area
- The intertidal zone is steep (greater than 30° slope), solid and composed of large boulders and/or of bedrock
- Sediment accumulations are uncommon because waves and currents remove debris slumped from the eroding cliffs
- There is strong vertical zonation of intertidal biological communities in the estuarine parts of the river
- This shoreline type is regularly exposed to wave action and strong currents
- Wave reflection is a common phenomenon along these shorelines
- Species density and diversity vary greatly depending on exposure and salinity, but barnacles, snails, mussels, amphipods, and macroalgae can be abundant

### PREDICTED OIL BEHAVIOR

- In the lower estuary and outer coast, oil is held offshore by waves reflecting off the steep, hard surfaces; Any oil that is deposited is rapidly removed from exposed faces



- Along the river, oil can form a band at the high water line
- The most resistant oil would remain as a patchy band at or above the high-water line
- Impacts to intertidal communities are expected to be short-term in duration; An exception would be where heavy concentrations of a light refined product comes ashore very quickly

### RESPONSE CONSIDERATIONS

- Cleanup is usually not required
- Access can be difficult and dangerous

# SHORELINE DESCRIPTIONS

## EXPOSED, SOLID MAN-MADE STRUCTURES

ESI = 1B

### DESCRIPTION

- These structures are solid, man-made structures such as seawalls, jetties, breakwaters, groins, revetments, piers, and port facilities
- Many structures are constructed of concrete, wood, or metal
- Often there is no exposed substrate at low tide, but multiple habitats are indicated if present
- They are built to protect the shore from erosion by waves, boat wakes, and currents, and thus are exposed to relatively high-energy processes
- Attached animals and plants are variable in cover, with sparse biota in fresh/brackish areas and higher biota in salt water areas
- Present in highly developed industrial and port areas and scattered along residential waterfronts

### PREDICTED OIL BEHAVIOR

- Oil is held offshore by waves reflecting off the steep, hard surface in exposed settings
- Oil readily adheres to the dry, rough surfaces, but it does not adhere to wet substrates
- The most resistant oil would remain as a band at or above the high-tide line



### RESPONSE CONSIDERATIONS

- Cleanup is usually not required
- High-pressure water spraying may be conducted to:
  - remove persistent oil in crevices;
  - minimize aesthetic damage; and
  - prevent chronic leaching of oil from the structure

# SHORELINE DESCRIPTIONS

## EXPOSED, WAVE-CUT PLATFORMS IN BEDROCK

ESI = 2A

### DESCRIPTION

- They are characterized by a narrow shelf or platform that can be flooded depending on water levels
- The substrate is solid and portions of the platform may be covered by a relatively thin veneer of sand or gravel
- Species density and diversity very greatly, but barnacles, snails, mussels, polychaetes, and macroalgae are often very abundant
- Attached organisms are accustomed to the impacts of the waves and the associated hydraulic pressure
- They are often found with gravel and mixed sediment beaches along the high tide line. Also Common at the foot of exposed rocky shores

### PREDICTED OIL BEHAVIOR

- Oil will not adhere to the wet rock surface, but could penetrate crevices, sediment veneers, or associated beaches if present
- Persistence of oil is usually short-term, except in wave shadows or where the oil was deposited high above normal wave activity



### RESPONSE CONSIDERATIONS

- Cleanup is usually not required except for areas of high recreational use
- Where the high-tide area is accessible, it may be feasible to manually remove heavy oil accumulations and oiled debris



# SHORELINE DESCRIPTIONS

## EXPOSED SCARPS AND STEEP SLOPES IN CLAY

ESI = 2B

### DESCRIPTION

- Regular exposure to high wave energy or tidal currents
- Scarp heights vary from about 1 to 3 feet and usually consist of a heavily rooted, peaty soil
- May be fronted by a narrow beach of fine- to medium-grained sand
- Low biological utilization due to strong currents
- Typically backed by wetland vegetation
- Uncommon in study area

### PREDICTED OIL BEHAVIOR

- Oil is not expected to adhere to the wet, impermeable clay surface
- There may be a thin band of oil left at or above the high water line
- Biological impacts can be immediate and severe, particularly if oil is left to pool on the landward side of scarp



### RESPONSE CONSIDERATIONS

- Cleanup is usually not required, because any stranded oil is quickly removed by wave action
- Access may be difficult
- Where the high-tide area is accessible, it may be feasible to remove heavy oil accumulations and oiled debris in order to protect a nearshore marine resource, such as marine birds

# SHORELINE DESCRIPTIONS

## FINE- TO MEDIUM-GRAINED SAND BEACHES

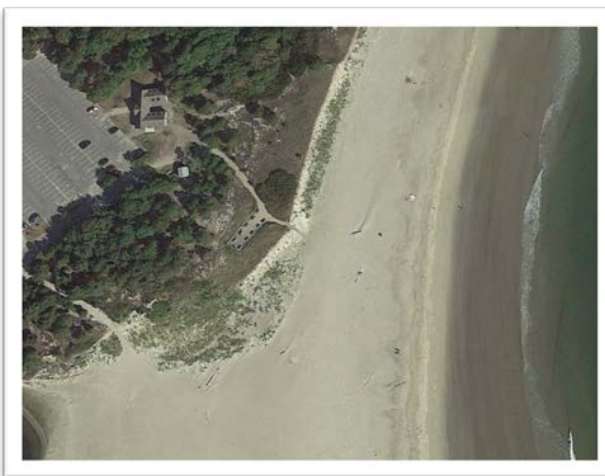
ESI = 3A

### DESCRIPTION

- These beaches are broad, gently sloping and relatively hard packed
- They are composed of quartz sand
- There can be heavy accumulations of wrack present
- They are utilized by birds and turtles
- Upper beach fauna are scarce; lower beach fauna can be moderate, but are highly variable
- They are generally areas of heavy recreational use

### PREDICTED OIL BEHAVIOR

- Light oil accumulations will be deposited as oily swashes or bands along the upper intertidal zone
- Heavy oil accumulations will cover the entire beach surface; oil will be lifted off the lower beach with the rising tide
- Maximum penetration of oil into fine- to medium-grained sand is about 10-15 cm
- Burial of oiled layers by clean sand within the first week after a spill typically will be less than 30 cm along the upper beach face
- Organisms living in the beach sediment may be killed by smothering or lethal oil concentrations in the interstitial water
- Biological impacts include temporary declines in infauna, which can affect important shorebird foraging areas



### RESPONSE CONSIDERATIONS

- These beaches are among the easiest shoreline types to clean
- Cleanup should concentrate on removing oil and oily debris from the upper swash zone once oil has come ashore
- Traffic through dune areas should be severely limited to prevent contamination of clean areas
- Manual cleanup, rather than road graders and front-end loaders, is advised to minimize the volume of sand removed from the shore and requiring disposal
- All efforts should focus on preventing the mixing of oil deeper into the sediments by vehicular and foot traffic
- Mechanical reworking of lightly oiled sediments from the high-tide line to the upper intertidal zone and be effective along outer beaches

# SHORELINE DESCRIPTIONS

## SCARPS AND STEEP SLOPES IN SAND

ESI = 3B

### DESCRIPTION

- This shoreline type occurs where sandy bluffs are undercut by waves or currents and slump
- Some scarps are fronted by narrow beaches, if the erosion rates are moderate and episodic
- Trees growing at the top of these slopes are eventually undercut and woody debris can accumulate at the base of the scarp
- Biological utilization by birds and infauna is low

### PREDICTED OIL BEHAVIOR

- Any stranded oil will concentrate at the high-water line and may penetrate sandy sediments if a beach is present
- Oil will also adhere to the dry surfaces of any woody debris that has accumulated at the base of the scarp
- Burial risk is low except when slumping of the bluff occurs
- Active erosion of the scarp will remove the oil



- In most cases, cleanup is not necessary because of the short residence time of the oil
- The need for removal of oiled sediments and debris should be carefully evaluated because of the potential for increased erosion
- Closely supervised manual labor should be used so that the minimal amount of material is removed during cleanup

# SHORELINE DESCRIPTIONS

## COARSE-GRAINED SAND BEACHES

ESI = 4

### DESCRIPTION

- These beaches are moderately sloping and are of variable width.
- Species density and diversity is generally lower than on fine-grained sand beaches
- Substrate permeability is moderate
- They are very common along the shoreline of the bay and banks of major rivers

### PREDICTED OIL BEHAVIOR

- During small spills, oil will be deposited primarily as a band along the high-tide line
- Under very heavy accumulations, oil may spread across the entire beach face, though the oil will be lifted off the lower part of the beach with the rising tide
- Penetration of oil into coarse-grained sand can reach 25 cm
- Burial of oiled layers by clean sand can be as rapid as one tidal cycle and to depths of 60 cm or more
- Burial to depths of over one meter is possible if the oil comes ashore at the start of a depositional period
- Organisms living in the beach sediment may be killed by smothering or lethal oil concentrations in the interstitial water
- Biological impacts include temporary declines in infaunal populations, which can also affect important shorebird foraging areas



### RESPONSE CONSIDERATIONS

- Removed oil primarily from the upper swash lines
- Removal of sediment should be limited to avoid erosion problems
- Mechanical reworking of the sediment into the surf zone may be used as a final polishing step to treat stained sand without sediment removal
- Activity in the oiled sand should be limited to prevent mixing oil deeper into the beach
- Use of heavy equipment for oil/sand removal may result in the removal of excessive amounts of sand; manual cleanup may be more effective

# SHORELINE DESCRIPTIONS

## MIXED SAND AND GRAVEL BEACHES

ESI = 5

### DESCRIPTION

- Moderately sloping beaches composed of a mixture of sand and gravel (gravel component comprises between 20 to 80 percent of total sediments)
- Because of the mixed sediment sizes, there may be some areas on the beach of pure sand, pebbles, or cobbles
- There can be large-scale changes in the sediment distribution patterns depending upon season, because of transport of the sand offshore during storms
- Substrate has medium-to-high permeability

### PREDICTED OIL BEHAVIOR

- During small spills, oil will be deposited along and above the high-tide swash
- Large spills will spread across the entire intertidal area
- Oil penetration into the beach sediments may be up to 50 cm; however, the sand fraction can be quite mobile, and oil behavior is much like on a sand beach if the sand fraction exceeds about 40 percent
- Burial of oil may be deep at and above the high-tide line, where oil tends to persist, particularly where beaches are only intermittently exposed to waves
- In sheltered pockets on the beach, pavements of asphalted sediments can form if there is no removal of heavy oil accumulations because most of the oil remains on the surface
- Once formed, these asphalt pavements can persist for years

### RESPONSE CONSIDERATIONS

- Remove heavy accumulations of pooled oil as soon as possible



- All oiled debris should be removed
- Sediment removal should be limited as much as possible
- Low-pressure flushing can be used to float liquid oil away from the sediments for recovery by skimmers or sorbents. High-pressure spraying should be avoided because of potential for transporting contaminated finer sediments (sand) to the lower intertidal or subtidal zones
- Mechanical reworking of lightly oiled sediments from the high-tide zone to the middle intertidal zone can be effective in areas regularly exposed to wave activity (as evidenced by storm berms). However, oiled sediments should not be relocated below the mid-tide-zone
- In-place tilling/excavation may be used to reach deeply buried oil in layers in the middle zone on exposed beaches



# SHORELINE DESCRIPTIONS

## GRAVEL BEACHES

ESI = 6A

### DESCRIPTION

- Gravel beaches can be steep, with multiple wave-built berms forming the upper bench
- Gravel beaches have the lowest trafficability of all beach types and may contain shell and woody debris
- Because of the high mobility of sediments on exposed gravel beaches, there are low densities of animals and plants
- Most permeable of all beach types

### PREDICTED OIL BEHAVIOR

- Deep penetration of stranded oil is likely on wave-built gravel beaches because of their high permeability
- On exposed beaches, oil can be pushed over the high-tide and storm berms, pooling and persisting above the normal zone of wave wash
- Deeply penetrated oil can become sources of chronic sheening
- Long-term persistence will be controlled by the depth of the routine reworking by waves or boat wakes

### RESPONSE CONSIDERATIONS

- Heavy accumulations of pooled oil should be removed quickly from the upper beach
- All oiled debris should be removed
- Sediment removal should be limited as much as possible
- Low-pressure flushing can be used to float fresh oil away from the sediments for recovery by skimmers or sorbents



- High-pressure spraying should be avoided because of the potential for transporting contaminated finer sediments (sand) to the lower intertidal or subtidal zones
- Mechanical reworking of oiled sediments from the high-tide line to the upper intertidal zone can be effective in areas regularly exposed to wave activity (as evidenced by storm berms). However, oiled sediments should not be relocated below the mid-tide-zone.
- In-place tilling may be used to reach deeply buried oil layers along the mid-intertidal zone on exposed beaches

# SHORELINE DESCRIPTIONS

## **RIPRAP**

ESI = 6B

### DESCRIPTION

- Riprap structures are composed of cobble- to boulder-sized blocks of granite, limestone, or concrete
- Riprap structures are used for shoreline protection and tidal inlet stabilization
- Attached biota are sparse to moderate on exposed riprap
- Common along highly developed commercial waterfronts and residential areas

### PREDICTED OIL BEHAVIOR

- Deep penetration of oil between the blocks is likely
- Oil adheres readily to the rough surfaces of the blocks
- Uncleaned oil can cause chronic leaching until the oil hardens



### RESPONSE CONSIDERATIONS

- When the oil is fresh and liquid, high-pressure spraying and/or water flooding may be effective, making sure to recover all mobilized oil
- Heavy and weathered oils are more difficult to remove, requiring scraping and/or hot-water spraying
- It may be necessary to remove and replace heavily oiled blocks in high-use areas



# SHORELINE DESCRIPTIONS

## EXPOSED TIDAL FLATS

ESI = 7

### DESCRIPTION

- Flat accumulations of sediment, less than three degrees
- Highly permeable substrate is dominated by sand, although there may be silt and gravel components
- Sediments are soft with low trafficability
- Biological utilization can be very high, with large numbers of infauna, heavy use by birds for roosting and foraging, and by foraging fish

### PREDICTED OIL BEHAVIOR

- Oil does not usually adhere to the surface of exposed tidal flats, but rather moves across the flat and accumulates at the high-tide line
- Deposition of oil on the flat may occur on a falling tide if concentrations are heavy
- Oil does not penetrate water-saturated sediments, but can penetrate into the tops of the bars and burrows when they dry out at low tide
- Biological damage may be severe, primarily to infauna, thereby reducing food sources for birds and other predators



### RESPONSE CONSIDERATIONS

- Currents and waves can be very effective in natural removal of the oil
- Cleanup is very difficult (and possible only during low tides)
- The use of machinery should be restricted to prevent mixing of oil into the sediments

# SHORELINE DESCRIPTIONS

## SHELTERED, IMPERMEABLE, ROCKY SHORES

ESI = 8A

### DESCRIPTION

- The substrate is solid and composed of bedrock
- Sediments (rock debris, etc.) may accumulate at the base of this shoreline type
- The slope of the intertidal zone is generally moderate to steep (greater than 15°)
- Located in calm, interior environments and particularly common throughout the study area

### PREDICTED OIL BEHAVIOR

- Stranded oil will persist because of low energy setting

### RESPONSE CONSIDERATIONS

- Low-pressure flushing at ambient temperatures is most effective when the oil is fresh and still liquid
- Care must be taken during flushing operations to prevent oily effluents from affecting biologically rich, lower intertidal levels



- Where the high-tide area is accessible, it may be feasible to remove heavy oil accumulations and oiled debris

# SHORELINE DESCRIPTIONS

## SHELTERED, SOLID MAN-MADE STRUCTURES

ESI = 8B

### DESCRIPTION

- These structures are solid man-made structures such as seawalls, groins, revetments, piers, and port facilities
- Most of the structures are designed to protect a single lot, thus their composition, design, and condition are highly variable; most are constructed of concrete, wood, or metal
- Often there is no exposed beach at low tide, but multiple habitats are indicated if present
- High densities of attached biota may be present at lower tidal elevations
- Common in highly developed commercial areas and along residential waterfront areas throughout the bays

### PREDICTED OIL BEHAVIOR

- Oil will adhere readily to rough surfaces, particularly along the high-tide line, forming a distinct oil band
- If the oil is not removed, it may cause chronic sheening until the oil hardens
- The lower intertidal zone usually stays wet (particularly if algae-covered), preventing oil from adhering to the surface



### RESPONSE CONSIDERATIONS

- Cleanup of seawalls is usually conducted for aesthetic reasons or to prevent sheening
- Low- to high-pressure spraying at ambient water temperatures is most effective when the oil is fresh

# SHORELINE DESCRIPTIONS

## SHELTERED RIPRAP

ESI = 8C

### DESCRIPTION

- Riprap structures are composed of cobble- to boulder-sized blocks of granite, limestone, or concrete
- These structures are found inside harbors and bays in developed areas, sheltered from direct exposure to waves
- High densities of attached biota may be present at lower tidal elevations
- Common in highly developed commercial and residential waterfront areas primarily along the shorelines of bridges

### PREDICTED OIL BEHAVIOR

- Oil adheres readily to the rough surfaces
- Deep penetration of oil between the blocks is likely
- If oil is left uncleaned, it may cause chronic leaching until the oil hardens



### RESPONSE CONSIDERATIONS

- High-pressure spraying may be required to remove oil for aesthetic reasons and to prevent leaching of oil from the structure
- Cleanup crews should make sure to recover all released oil
- It may be necessary to remove and replace heavily oiled riprap in high-use areas

# SHORELINE DESCRIPTIONS

## SHELTERED TIDAL FLATS

ESI = 9A

### DESCRIPTION

- They are present in calm-water habitats, sheltered from regular wave activity, and are usually backed by marshes
- The sediments are very soft and cannot support even light foot traffic in many areas
- Sheltered tidal flats can be sparsely to heavily covered with algae and/or seagrasses
- They can have heavy wrack deposits along the upper fringe
- Large concentrations of shellfish, worms, and snails can be found on and in the sediments
- Bird life is seasonally abundant and flats are heavily utilized by birds for feeding
- Common within sheltered coves and bays

### PREDICTED OIL BEHAVIOR

- Oil does not usually adhere to the surface of sheltered tidal flats, but rather moves across the flat and accumulates at the high-tide line
- Deposition of oil on the flat may occur on a falling tide if concentrations are heavy
- Oil will not penetrate the water-saturated sediments, but could penetrate burrows or other crevices in muddy sediments
- In areas of high suspended sediments, sorption of oil can result in deposition of contaminated sediments on the flats



- Biological damage may be severe

### RESPONSE CONSIDERATIONS

- These are high-priority areas necessitating the use of spill protection devices to limit oil-spill impact; deflection or sorbent booms and open water skimmers should be used
- Cleanup of the flat surface is very difficult because of the soft substrate; many methods may be restricted
- Low-pressure flushing, vacuum, and deployment of sorbents from shallow-draft boats may be helpful

# SHORELINE DESCRIPTIONS

## VEGETATED LOW BANKS

ESI = 9B

### DESCRIPTION

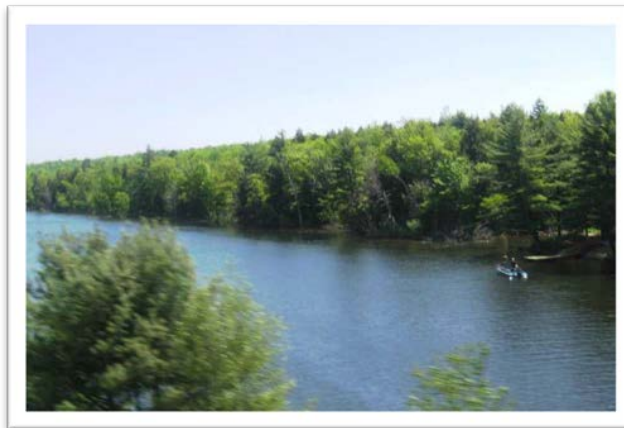
- These habitats are either low banks with grasses or trees and tree roots exposed to the water
- They are flooded occasionally by high water
- Sporadic along many tidal channels

### PREDICTED OIL BEHAVIOR

- During low water stages there is little impact, with the oil coating a narrow band of sediment at the water level
- During high water stages, the oil could cover and coat the vegetation
- Oiling may cause loss of the grasses, but the trees should survive unless oil penetrates and persists in the substrate

### RESPONSE CONSIDERATIONS

- Low-pressure flushing of oiled areas is effective in removing moderate to heavy accumulations of fresh oil from along the banks
- Sorbent and containment boom should be placed on the water side of the cleanup operations to contain and collect oil outflow



- Low- to high-pressure flushing can be used to remove weathered oil from tree roots and trunks, if deemed necessary in areas of high-use area



# SHORELINE DESCRIPTIONS

## SALT- AND BRACKISH-WATER MARSHES

ESI = 10A

### DESCRIPTION

- Intertidal wetlands containing emergent, herbaceous vegetation
- Width of the marsh can vary widely, from a narrow fringe to a broad area within estuaries
- Exposed areas are located along bays with wide fetches and along heavily trafficked waterways
- Sheltered areas and tidal creeks are not exposed to significant wave or boat wake activity
- Resident flora and fauna are abundant and diverse, with high utilization by birds, fish, and shellfish

### PREDICTED OIL BEHAVIOR

- Oil adheres readily to intertidal vegetation
- The band of coating will vary widely, depending upon the water level at the time oil slicks are in the vegetation; there may be multiple bands
- Large slicks will persist through multiple tidal cycles and coat the entire stem from the high-tide line to the base
- If the vegetation is thick, heavy oil coating will be restricted to the outer fringe, although lighter oils can penetrate deeper, to the limit of tidal influence
- Medium to heavy oils do not readily adhere to or penetrate the fine sediments, but can pool on the surface or penetrate into burrows
- Light oils can penetrate the top few centimeters of sediment and deeply into burrows and cracks (up to 1 meter)



### RESPONSE CONSIDERATIONS

- Under light oiling, the best practice is natural recovery; natural removal processes and rates should be evaluated prior to conducting cleanup
- Heavy accumulations of pooled oil can be removed by vacuum, sorbents, or low-pressure flushing. During flushing, care must be taken to prevent transporting oil to sensitive areas down slope or along shore
- Cleanup activities should be carefully supervised to avoid vegetation damage
- Any cleanup activity must not mix the oil deeper into the sediments; trampling of the roots must be minimized
- Cutting of oiled vegetation should only be considered when other resources present are at great risk from leaving the oiled vegetation in place



# SHORELINE DESCRIPTIONS

## FRESHWATER MARSHES

ESI = 10B

### DESCRIPTION

- These are grassy wetlands composed of emergent herbaceous vegetation
- They occur upstream of brackish vegetation along major rivers and tributary creeks
- Those along major channels are exposed to strong currents and boat wakes; smaller channels tend to be sheltered
- The sediment substrate is seldom exposed because daily water level changes are low; greater changes result from floods and wind-generated tides
- Resident flora and fauna are abundant and diverse, with high utilization by birds and fish

### PREDICTED OIL BEHAVIOR

- Oil adheres readily to the vegetation
- The band of coating will vary widely, depending upon the water level at the time oil slicks are in the vegetation; there may be multiple bands
- If the vegetation is thick, heavy oil coating will be restricted to the outer fringe, although lighter oils can penetrate deeper
- Medium to heavy oils do not readily adhere to or penetrate the fine sediments, but can pool on the surface or penetrate into burrows



### RESPONSE CONSIDERATIONS

- Under light oiling, the best practice is natural recovery; natural removal processes and rates should be evaluated prior to conducting cleanup
- Heavy accumulations of pooled oil can be removed by vacuum, sorbents, or low-pressure flushing
- Cleanup activities should be carefully supervised to avoid vegetation damage
- Any cleanup activity must not mix the oil deeper into the sediments; trampling of the roots should be minimized through the use of walking boards
- Cutting of oiled vegetation should only be considered when other resources present are at great risk from leaving the oiled vegetation in place

# SHORELINE DESCRIPTIONS

## SWAMPS

ESI = 10C

### DESCRIPTION

- Swamps consist of shrubs and hardwood forested wetlands, essentially flooded forests; vegetation is taller, on average, greater than 6 m
- The sediment tends to be silty clay with large amounts of organic debris
- They are seasonally flooded, though there are many low, permanently flooded areas
- Resident flora and fauna are abundant with numerous species

### PREDICTED OIL BEHAVIOR

- Oil behavior depends on whether the swamp is flooded or not
- During floods, most of the oil passes through the forest, coating the vegetation at the waterline, which changes levels throughout the flood event
- Woody vegetation is less sensitive than grasses to oil coating
- Some oil can be trapped and pooled on the swamp floodplain as water levels drop
- Penetration into the floodplain soils is usually limited because of high water levels, saturated soils, muddy composition, surface organic debris, and vegetation cover
- There can be large amounts of oily debris
- During dry periods, terrestrial spills flow downhill and accumulate in depressions or reach water bodies



### RESPONSE CONSIDERATIONS

- Under light oiling, the best practice is to let the area recover naturally
- Heavy accumulations of pooled oil can be removed by vacuum, sorbents, or low-pressure flushing. During flushing, care must be taken to prevent transporting oil to sensitive areas down slope or along shore
- Under stagnant water conditions, herding of oil with water spray may be needed to push oil to collection areas
- Oily debris can be removed where there is access
- Any cleanup activity must not mix the oil deeper into the sediments

# SHORELINE DESCRIPTIONS

## SCRUB-SHRUB WETLANDS

ESI = 10D

### DESCRIPTION

- Scrub-shrub wetlands consist of woody vegetation less than 6 m tall including true shrubs, small trees, and trees and shrubs that are stunted due to environmental conditions
- The sediments are silty clay mixed with organic debris
- They are seasonally flooded, though there are many low, permanently flooded areas
- Resident flora and fauna are abundant and diverse
- Present along sheltered portions of bays and tidal channels

### PREDICTED OIL BEHAVIOR

- Oil behavior depends on water level
- During high water, most of the oil passes through the wetland, coating the vegetation above the waterline
- Woody vegetation is less sensitive than grasses to oil
- Some oil can be trapped and pooled on the surface as water levels drop
- Penetration into the soils is usually limited because of high water levels, muddy composition, surface organic debris, and vegetation cover
- Large amounts of oily debris can remain
- During dry periods, terrestrial spills flow downhill and accumulate in depressions or reach water bodies

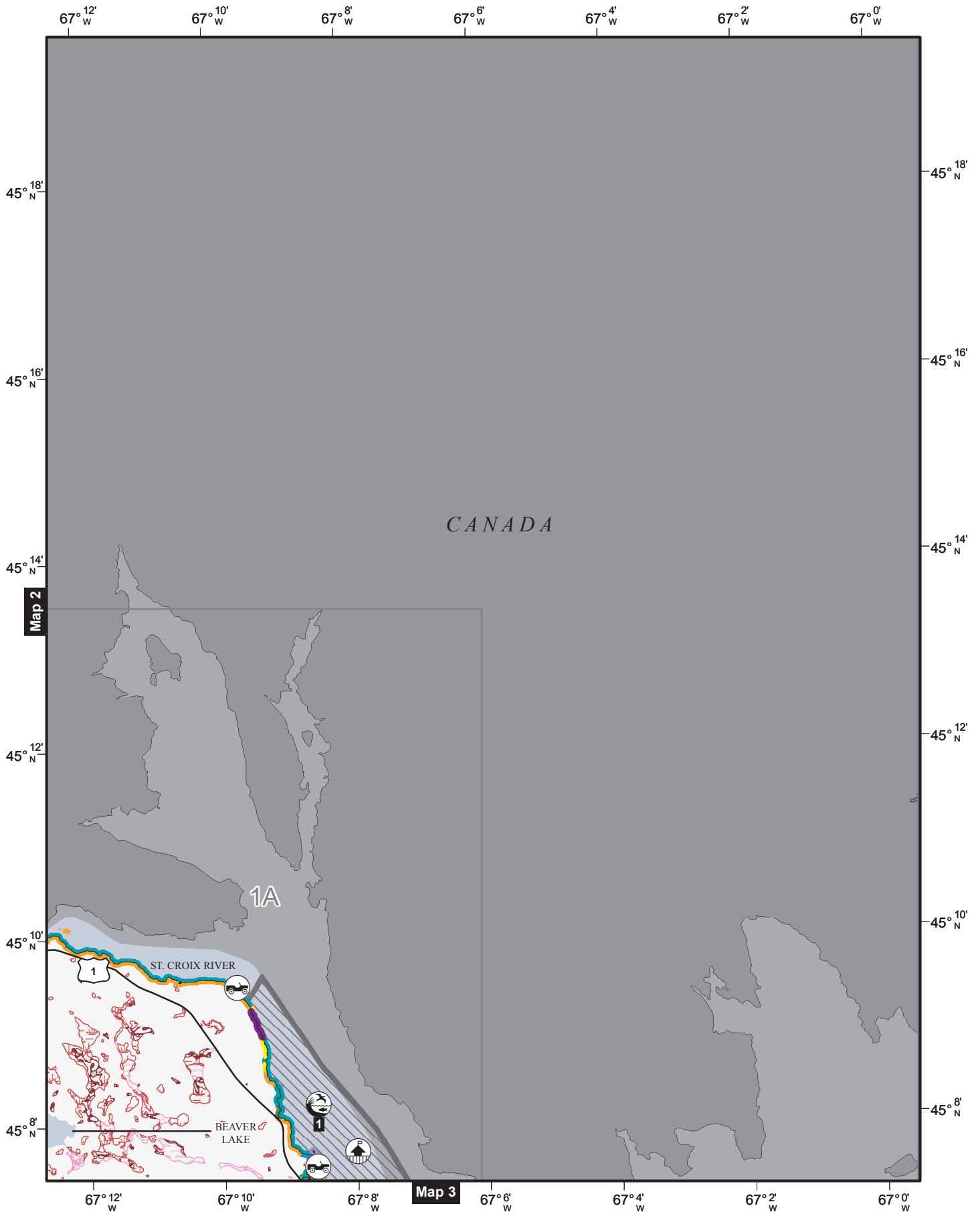


### RESPONSE CONSIDERATIONS

- Under light oiling, the best practice is natural recovery
- Heavy accumulations of pooled oil can be removed by vacuum, sorbents, or low-pressure flushing
- Under stagnant water conditions, herding of oil with water spray may be needed to push oil to collection areas
- Oily debris can be removed where there is access
- Any cleanup activity must not mix the oil deeper into the sediments. Trampling of the roots must be minimized
- Woody vegetation should not be cut

# ENVIRONMENTAL SENSITIVITY INDEX MAPS





**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

**Map 1**  
**Downeast Maine**

**HUMAN USE RESOURCES**

DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Contact
1	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
			Phone 207-624-6650

**JURISDICTIONS**

<b>COUNTY:</b>	WASHINGTON	<b>FEMA:</b>	REGION I
<b>COAST GUARD:</b>	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	<b>EPA:</b>	REGION 1
<b>USACE:</b>	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT		

**SHORELINE RESOURCES**

ESI POLYGON HABITAT TYPES		
ESI Rank	Habitat Classification	Area (Acres)
10B	Freshwater Marshes	173.12
10C	Swamps	343.70
10D	Scrub and Shrub Wetlands	127.28
9A	Sheltered Tidal Flats	3.67
5	Mixed Sand and Gravel Beaches	67.96
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	5.71



ESI SHORELINE HABITAT TYPES		
ESI Rank	Shoreline Habitat Classification	Length (Meters)
9B	Vegetated Low Banks	7,032.98
8A	Sheltered, Impermeable, Rocky Shores	696.65
6B	Riprap	337.87
5	Mixed Sand and Gravel Beaches	9,449.98
4	Coarse Grained Sand Beaches	368.30
3A	Fine to Medium Grained Sand Beaches	317.49
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	734.63
1A	Exposed, Rocky Shores	748.75
Total ESI Shoreline:		19,686.66
Total Shoreline:		11,177.76

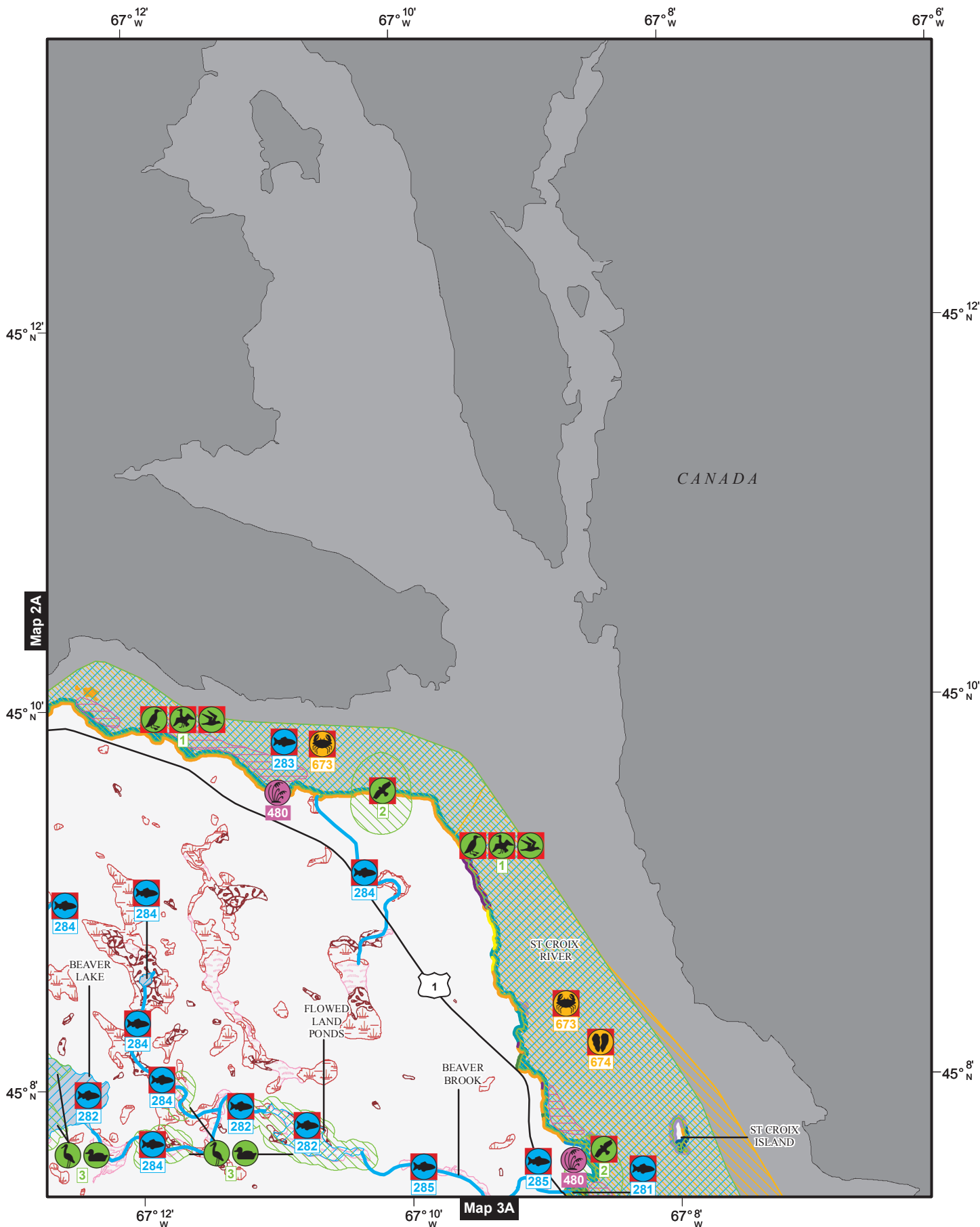
Length (Miles)	% of ESI Shoreline
4.37	36%
0.43	4%
0.21	2%
5.87	48%
0.23	2%
0.20	2%
0.46	4%
0.47	4%

Total ESI Shoreline:	12.23
Total Shoreline:	6.95

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

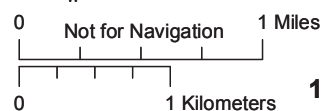




**Map 1A**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016



**1:50,000**



Map 1A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
							J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area				High												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
								J	F	M	A	M	J	J	A	S	O	N	D
1	Alcid	Razorbill	General Distribution	T/-			-												
	Diving	Common Loon	General Distribution	-/T			-												
	Diving	Great cormorant	General Distribution	T/-			-												
	Gull/Tern	Arctic tern	General Distribution	T/C			-												
	Gull/Tern	Common tern	General Distribution	C/T			-												
2	Gull/Tern	Roseate tern	General Distribution	E/E	E		-												
	Raptor	Bald eagle	Vulnerable Occurrence	C/T			-												
	Wading	Wading birds	Vulnerable Occurrence				-												
3	Wading	Wading birds	Vulnerable Occurrence				-												
	Waterfowl	Waterfowl	Vulnerable Occurrence				-												

FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
								J	F	M	A	M	J	J	A	S	O	N	D
281	Diadromous	American eel	Harvest Area	-/C			-												
282	Diadromous	Alewife	Migration	-/C			-												
	Diadromous	Sea lamprey	Migration	-/C			-												
283	Diadromous	Alewife	Migration	-/C			-												
	Diadromous	American eel	Migration	-/C			-												
	Diadromous	American shad	Migration	-/C			-												
	Diadromous	Atlantic salmon	Migration	-/C	E		-												
	Diadromous	Atlantic sturgeon	Migration	-/T	T		-												
	Diadromous	Blueback herring	Migration	-/C			-												
	Diadromous	Brook trout (sea run)	Migration	C/-			-												
	Diadromous	Sea lamprey	Migration	-/C			-												
	Diadromous	Shortnose sturgeon	Migration	E/E	E		-												
	Diadromous	Striped bass	Migration				-												
	Freshwater	Rainbow smelt	Migration	-/C			-												
	Marine Benthic	Atlantic tomcod	Migration				-												
284	Diadromous	Sea lamprey	Migration	-/C			-												
	Diadromous	Alewife	Migration	-/C			-												
285	Diadromous	Brook trout (sea run)	Migration	C/-			-												
	Diadromous	Sea lamprey	Migration	-/C			-												

## HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D
480	Wetland	Tidal Marsh	High Ecological Value	-														

## INVERTEBRATES

Map ID	Subelement	Species	ME/NH		Mapping Qualifier	Concentration	Monthly Presence											
			S	F			J	F	M	A	M	J	J	A	S	O	N	D
673	Crab	Horseshoe crab			General Distribution	Low												
674	Bivalve	Sea scallop	-/C	-/C	Harvest Area	-												

## ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Alcid	Black guillemot													May-Aug	-	-	-
	Dovekie														-	-	-
	Thick-billed murre														-	-	-
Diving	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe														-	-	-
	Red-necked grebe														-	-	-
Gull/Tern	Red-throated loon														-	-	-
	G. black-backed gull														-	-	-
	Herring gull														-	-	-
Pelagic	Ring-billed gull														-	-	-
	Northern gannet														-	-	-


## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Bivalve	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
Echinoderm	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Pinniped	Harbor seal													-	-	-	-


TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence											
		J	F	M	A	M	J	J	A	S	O	N	D
	Beaver												
	Muskrat												
Northern river otter													

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

SHORELINE RESOURCES

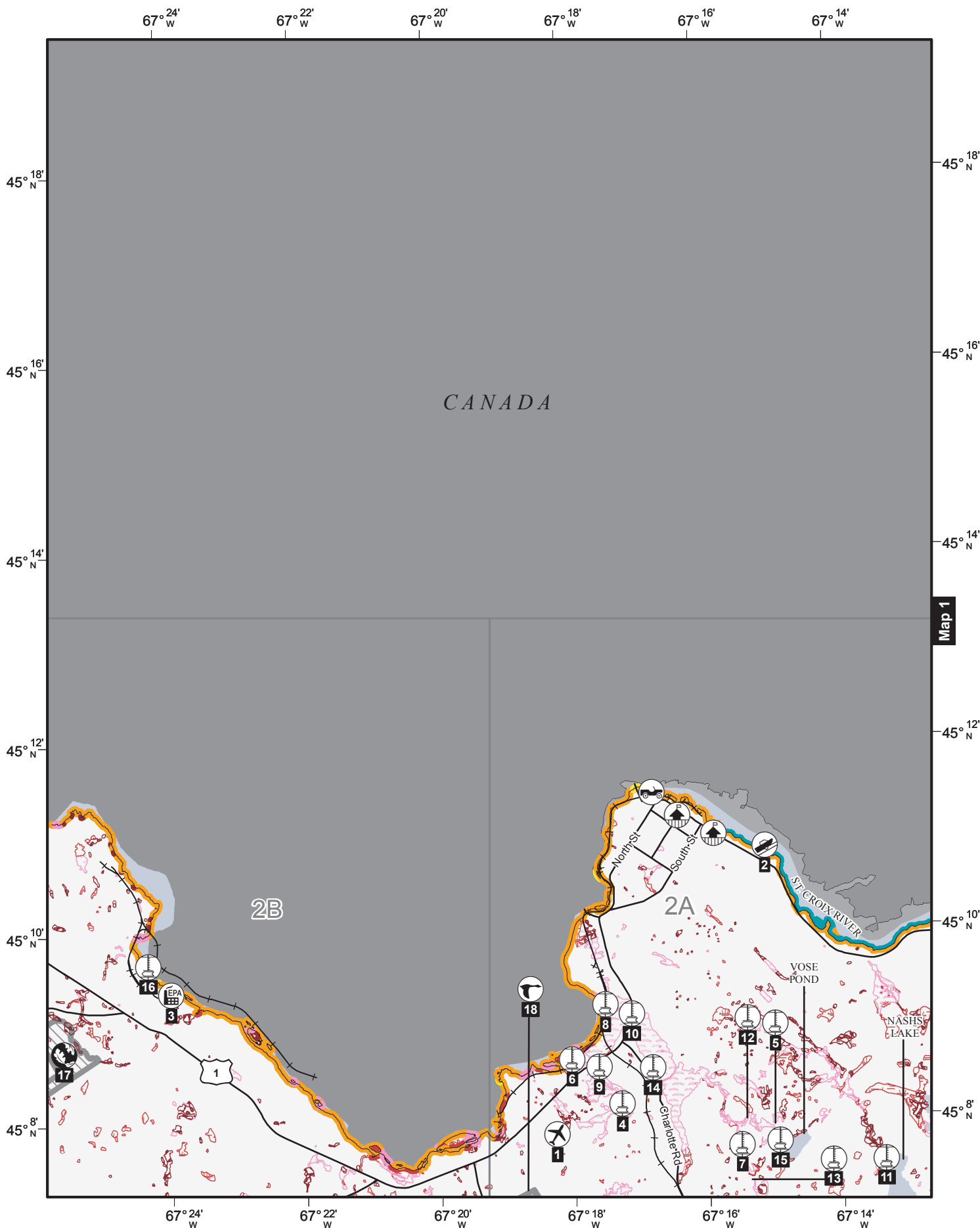
ESI POLYGON HABITAT TYPES		
ESI Rank	Habitat Classification	Area (Sq. Miles)
 10B	Freshwater Marshes	173.07
10C	Swamps	343.71
10D	Scrub and Shrub Wetlands	127.28
9A	Sheltered Tidal Flats	3.67
5	Mixed Sand and Gravel Beaches	67.93
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	5.71

ESI SHORELINE HABITAT TYPES		
ESI Rank	Shoreline Habitat Classification	% of ESI Shoreline
 9B	Vegetated Low Banks	36%
8A	Sheltered, Impermeable, Rocky Shores	4%
6B	Riprap	2%
5	Mixed Sand and Gravel Beaches	48%
4	Coarse Grained Sand Beaches	2%
3A	Fine to Medium Grained Sand Beaches	2%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	4%
1A	Exposed, Rocky Shores	4%
Total ESI Shoreline:		12.23
Total Shoreline:		6.94

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 2**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

**1:100,000**



Map 2  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)			
Map ID	Type	Name	Phone
1	AIRPORT	AIRFIELD	
2	BOAT RAMP	STEAMBOAT STREET	
3	EPA FACILITY	WOODLAND PULP LLC	207-427-4004
4	LOCK AND DAM	BARN MEADOWS CROSS DIKE	DOI FWS
5	LOCK AND DAM	BOUNDARY FLOWAGE DIKE	
6	LOCK AND DAM	LOWER BARN MEADOW DIKE	
7	LOCK AND DAM	LOWER GOODALL HEATH DIKE	
8	LOCK AND DAM	LOWER MAGURREWOCK DIKE	
9	LOCK AND DAM	MIDDLE BARN MEADOW DIKE	
10	LOCK AND DAM	MIDDLE MAGURREWOCK DAM	STATE OF ME HC
11	LOCK AND DAM	NASH LAKE DAM	CITY OF CALAIS
12	LOCK AND DAM	POPPLE FLOWAGE DAM	DOI FWS
13	LOCK AND DAM	UPPER GOODALL HEATH DAM	DOI FWS
14	LOCK AND DAM	UPPER MAGURREWOCK DAM	DOI FWS
15	LOCK AND DAM	VOSE POND DAM	DOI FWS
16	LOCK AND DAM	WOODLAND DAM	GEORGIA PACIFIC CORP

DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Phone
17	NATURE CONSERVANCY	DOWNEAST LAKES MATRIX EASEMENT	THE NATURE CONSERVANCY 207-729-5181
18	WILDLIFE REFUGE	MOOSEHORN (BARING UNIT) WILDERNESS	U.S. FISH & WILDLIFE SERVICE

ALSO PRESENT IN MAPPED AREA (POLYGONS)			
Type	Name	Contact	Phone
STATE PROTECTED AREA	ST. CROIX RIVER	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	

JURISDICTIONS

COUNTY: WASHINGTON  
COAST GUARD: DISTRICT 1, SECTOR NORTHERN NEW ENGLAND  
USACE: NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT

FEMA: REGION I  
EPA: REGION 1

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10B	Freshwater Marshes	949.76	1.48
10C	Swamps	514.83	0.80
10D	Scrub and Shrub Wetlands	438.97	0.69
9A	Sheltered Tidal Flats	38.21	0.06
5	Mixed Sand and Gravel Beaches	72.60	0.11



## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10B	Freshwater Marshes	3,939.52	2.45	6%
10C	Swamps	8,204.71	5.10	12%
10D	Scrub and Shrub Wetlands	2,850.99	1.77	4%
9A	Sheltered Tidal Flats	3,266.34	2.03	5%
9B	Vegetated Low Banks	43,021.63	26.73	63%
8A	Sheltered, Impermeable, Rocky Shores	269.56	0.17	< 1%
8B	Sheltered, Solid Man-Made Structures	585.51	0.36	1%
8C	Sheltered Riprap	47.01	0.03	< 1%
6B	Riprap	75.42	0.05	< 1%
5	Mixed Sand and Gravel Beaches	6,148.68	3.82	9%

Total ESI Shoreline: 68,409.38  
Total ESI Shoreline: 42.51  
Total Shoreline: 47,863.24  
Total Shoreline: 29.74

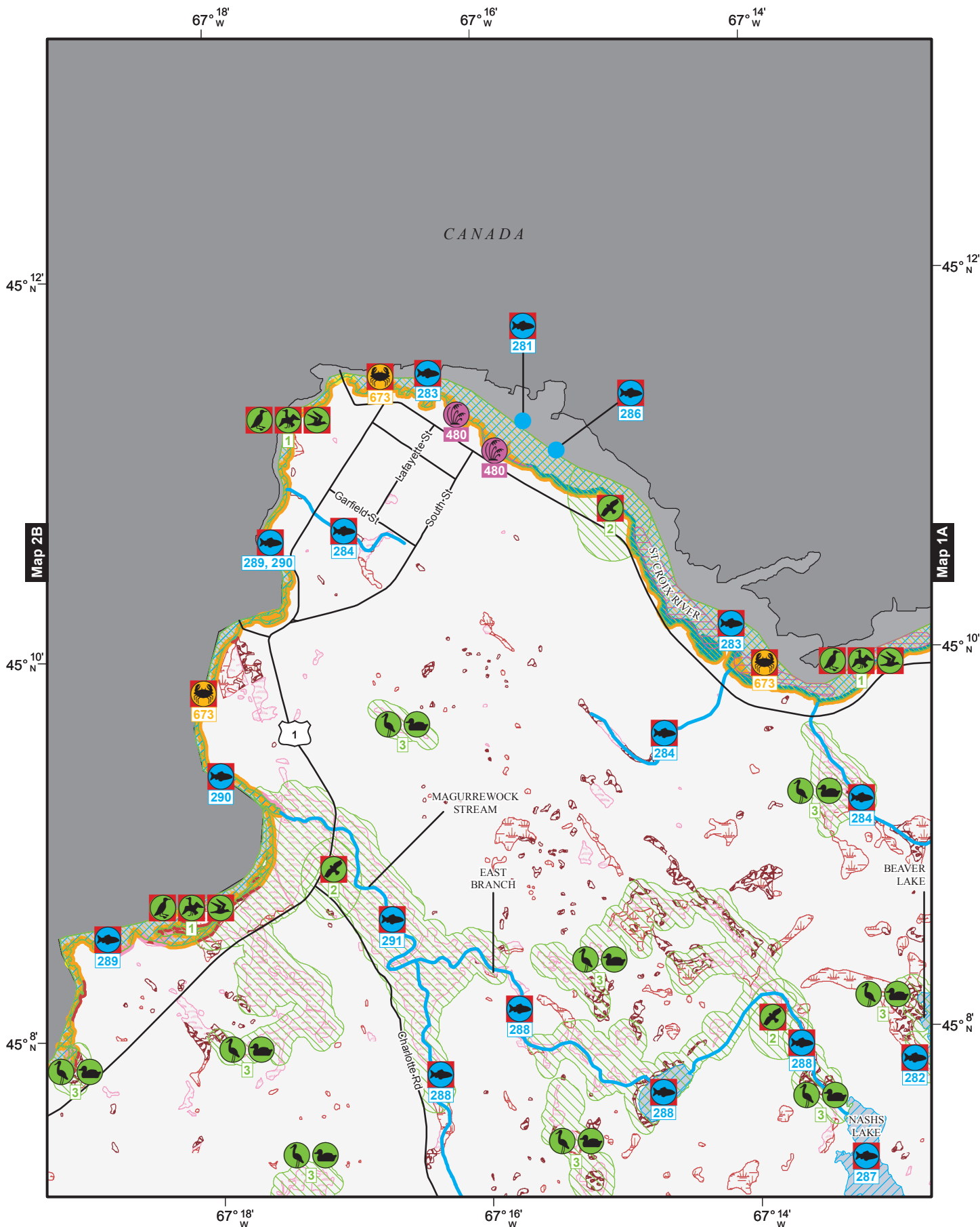
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









**Map 2A**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**



Map 2A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
			S	F		J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area			High												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N					
1	Alcid	Razorbill	General Distribution	T/-		-												-	-	-		
	Diving	Common Loon	General Distribution	-/T		-												-	-	-		
	Diving	Great cormorant	General Distribution	T/-		-												-	-	-		
	Gull/Tern	Arctic tern	General Distribution	T/C		-												May-Oct	-	-		
	Gull/Tern	Common tern	General Distribution	C/T		-												May-Aug	-	-		
2	Gull/Tern	Roseate tern	General Distribution	E/E	E	-												-	-	-		
	Raptor	Bald eagle	Vulnerable Occurrence	C/T		-												Mar-May	-	-		
3	Wading	Wading birds	Vulnerable Occurrence			-												Apr-Nov	Apr-Jun	Jul-Nov		
	Waterfowl	Waterfowl	Vulnerable Occurrence			-												Apr-Nov	Apr-Jun	Jul-Nov		

FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C		-											-	-	Mar-Oct	Mar-Oct			
282	Diadromous	Alewife	Migration	-/C		-											-	-	Apr-Dec	Apr-Jul			
	Diadromous	Sea lamprey	Migration	-/C		-											-	-	Apr-Dec	Apr-Jul			
283	Diadromous	Alewife	Migration	-/C		-											-	-	Apr-Dec	Apr-Jul			
	Diadromous	American eel	Migration	-/C		-											-	-	Mar-Oct	Mar-Oct			
	Diadromous	American shad	Migration	-/C		-											-	-	May-Feb	May-Jul			
	Diadromous	Atlantic salmon	Migration	-/C	E	-											-	-	Jan-Dec	May-Mar			
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-											-	-	Jan-Dec	Jan-Dec			
	Diadromous	Blueback herring	Migration	-/C		-											-	-	Jan-Dec	Jan-Dec			
	Diadromous	Brook trout (sea run)	Migration	C/-		-											-	-	Jan-May	Jan-May			
	Diadromous	Sea lamprey	Migration	-/C		-											-	-	Apr-Dec	Apr-Jul			
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-											-	-	Jan-Dec	Jan-Dec			
	Diadromous	Striped bass	Migration			-											-	-	Jan-Dec	Jan-Dec			
Freshwater		Rainbow smelt	Migration	-/C		-											-	-	Oct-Apr	Jan-Dec			
Marine Benthic		Atlantic tomcod	Migration			-											Dec-Feb	-	Jan-Dec	Jan-Dec			
	284	Diadromous	Sea lamprey	-/C		-											-	-	Apr-Dec	Apr-Jul			
286	Diadromous	Alewife	Migration	-/C		-											-	-	Apr-Dec	Apr-Jul			
	Diadromous	American eel	Migration	-/C		-											-	-	Mar-Oct	Mar-Oct			
	Diadromous	American shad	Migration	-/C		-											-	-	May-Feb	May-Jul			

FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
287	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
288	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C		-												-	-	May-Feb	May-Jul
289	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec
290	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration	-/C		-												Dec-Feb	-	Jan-Dec	Jan-Dec
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
291	Diadromous	American shad	Migration	-/C		-												-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Diadromous	Atlantic tomcod	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec





HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
480	Wetland	Tidal Marsh	High Ecological Value			-												-	-	-	-




INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
673	Crab	Horseshoe crab	General Distribution	-/C		Low												May-Jul	-	Jan-Dec	Jan-Dec

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid													May-Aug	-	-	-
	Black guillemot																
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Northern gannet													-	-	-	-


## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Bivalve													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Atlantic rock crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Blue crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Jonah crab													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	Green urchin													Jun-Oct	-	-	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Pinniped													-	-	-	-
	Harbor seal													-	-	-	-

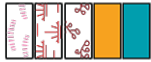
## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Small Mammal													-	-	-	-
	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10B	Freshwater Marshes	855.83	1.34
10C	Swamps	352.18	0.55
10D	Scrub and Shrub Wetlands	270.55	0.42
9A	Sheltered Tidal Flats	38.21	0.06
5	Mixed Sand and Gravel Beaches	72.60	0.11



## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10B	Freshwater Marshes	1,409.82	0.88	4%
10C	Swamps	4,659.48	2.90	12%
10D	Scrub and Shrub Wetlands	359.07	0.22	1%
9A	Sheltered Tidal Flats	3,266.34	2.03	8%
9B	Vegetated Low Banks	23,069.69	14.33	58%
8A	Sheltered, Impermeable, Rocky Shores	269.56	0.17	1%
8B	Sheltered, Solid Man-Made Structures	394.81	0.25	1%
8C	Sheltered Riprap	47.01	0.03	< 1%
5	Mixed Sand and Gravel Beaches	6,148.36	3.82	16%

Total ESI Shoreline: 39,624.15      Total ESI Shoreline: 24.62  
 Total Shoreline: 25,190.89      Total Shoreline: 15.65

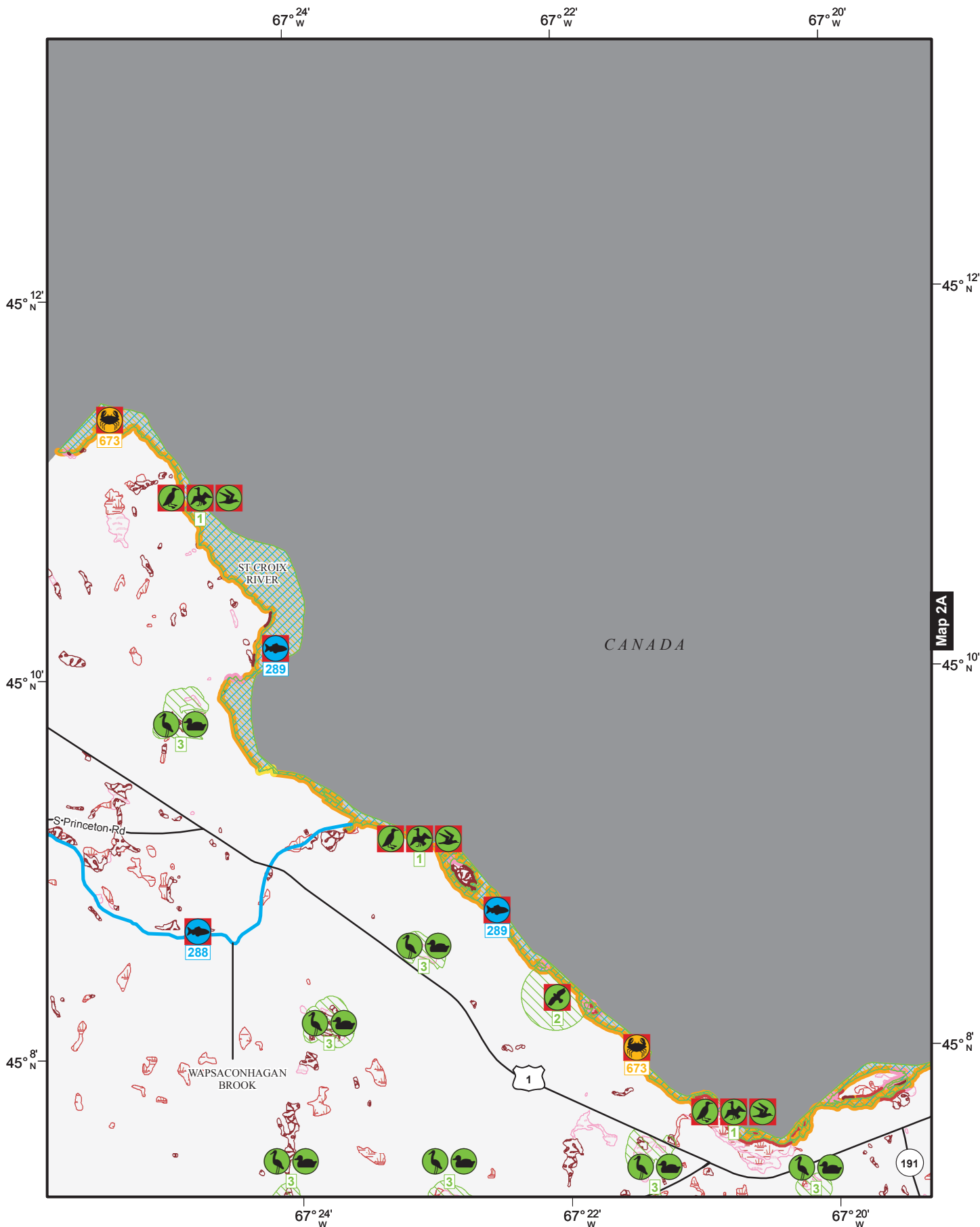
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









**Map 2B**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**



Map 2B  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
1	Acid	Razorbill	General Distribution	T/-	-													-	-	-	-
		Common Loon	General Distribution	-/T	-													-	-	-	-
		Great cormorant	General Distribution	T/-	-													-	-	-	-
		Arctic tern	General Distribution	T/C	-													May-Oct	-	-	-
		Common tern	General Distribution	C/T	-													May-Aug	-	-	-
2	Raptor	Roseate tern	General Distribution	E/E	E													-	-	-	-
		Bald eagle	Vulnerable Occurrence	C/T	-													Mar-May	-	-	-
3	Wading	Wading birds	Vulnerable Occurrence	-	-													Apr-Nov	Apr-Jun	Jul-Nov	-
		Waterfowl	Vulnerable Occurrence	-	-													Apr-Nov	Apr-Jun	Jul-Nov	-





FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
288	Diadromous	Alewife	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
		Atlantic salmon	Migration	-/C	E													-	-	-	Jan-Dec	May-Mar
289	Diadromous	Sea lamprey	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
		Alewife	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
		American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
		American shad	Migration	-/C	-													-	-	-	May-Feb	May-Jul
		Atlantic salmon	Migration	-/C	E													-	-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-/C	-													-	-	-	Jan-Dec	Jan-Dec
		Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
		Sea lamprey	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul



INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
673	Crab	Horseshoe crab	General Distribution	-/C	Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid													May-Aug	-	-	-
	Black guillemot																
	Dovekie																
	Thick-billed murre																
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe																
	Red-necked grebe																
	Red-throated loon																
	G. black-backed gull																
	Herring gull																
	Ring-billed gull																
	Northern gannet																


## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Bivalve													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Pinniped													-	-	-	-
	Harbor seal																

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Small Mammal													-	-	-	-
	Beaver																
	Muskrat																
	Northern river otter																

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES



ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10B	Freshwater Marshes	93.61	0.15
10C	Swamps	162.30	0.25
10D	Scrub and Shrub Wetlands	168.18	0.26

## ESI SHORELINE HABITAT TYPES



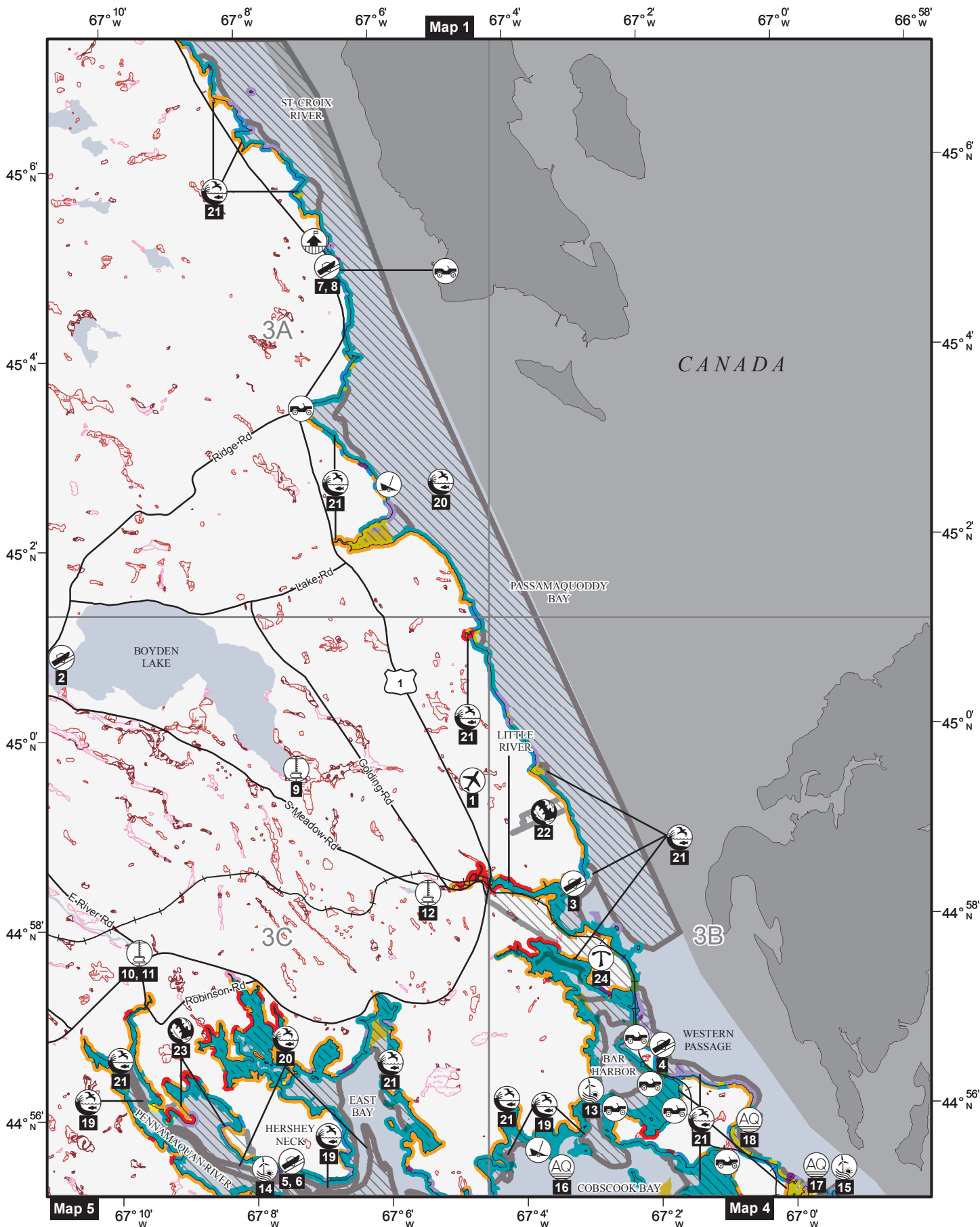
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10B	Freshwater Marshes	2,529.70	1.57	9%
10C	Swamps	3,545.23	2.20	12%
10D	Scrub and Shrub Wetlands	2,491.91	1.55	9%
9B	Vegetated Low Banks	19,951.62	12.40	69%
8B	Sheltered, Solid Man-Made Structures	190.70	0.12	1%
6B	Riprap	75.42	0.05	< 1%

Total ESI Shoreline: 28,784.59      Total ESI Shoreline: 17.89  
Total Shoreline: 22,672.02      Total Shoreline: 14.09

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 3**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

1:100,000



**Map 3**  
**Downeast Maine**

**HUMAN USE RESOURCES**

DISPLAYED ON MAP (POINTS)				
Map ID	Type	Name	Contact	Phone
1	AIRPORT	MORRISON'S AIRPORT	MAYNARD C. MORRISON	207-853-6666
2	BOAT RAMP	BOYDEN LAKE BOAT RAMP	ROBBINSON	
3	BOAT RAMP	GLEASON COVE BOAT RAMP	DOC	
4	BOAT RAMP	PASSAMAQUODDY BAY BOAT RAMP	PASSAMAQUODDY TRIBE	
5	BOAT RAMP	PEMBROKETOWN BOAT LANDING	PEMBROKE	
6	BOAT RAMP	PENNAQUAN RIVER BOAT RAMP	PEMBROKE	
7	BOAT RAMP	ST CROIX RIVER BOAT RAMP	DOC	
8	BOAT RAMP	STATE BOAT LANDING	ROBBINSON	
9	LOCK AND DAM	BOYDEN LAKE DAM	EASTPORT WATER CO	
10	LOCK AND DAM	LOWER RIVER DAM	TOWN OF PEMBROKE	
11	LOCK AND DAM	PEMBROKE COTTAGE DAM	FRANK SUTTON	
12	LOCK AND DAM	PERRY PUMP STATION DAM	EASTPORT WATER CO	
13	RENEWABLE ENERGY	HALF MOON TIDAL ENERGY	TIDEWALKER ASSOCIATES	
14	RENEWABLE ENERGY	PENNAQUAN TIDAL POWER PLANT	PENNAQUAN TIDAL POWER, LLC	
15	RENEWABLE ENERGY	WESTERN PASSAGE OCGEN POWER PROJECT	ORPC MAINE, LLC	

DISPLAYED ON MAP (POLYGONS)				
Map ID	Type	Name	Contact	Phone
16	AQUACULTURE	COB BP - BIRCH POINT, COBSCOOK BAY	COOKE AQUACULTURE USA, INC.	207-255-6714
17	AQUACULTURE	COB HP - HARRIS COVE, COBSCOOK BAY	COOKE AQUACULTURE USA, INC.	207-255-6714
18	AQUACULTURE	COB JK - SOUTH OF KENDALL HEAD, JOHNSON COVE, COBS	COOKE AQUACULTURE USA, INC.	207-255-6714
19	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
20	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
21	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
22	NATURE CONSERVANCY	COBSCOOK BAY - NASH PROPERTY	THE NATURE CONSERVANCY	207-729-5181
23	NATURE CONSERVANCY	HERSEY COVE	THE NATURE CONSERVANCY	207-729-5181
24	TRIBAL LANDS	PASSAMAQUODDY TRIBE (PLEASANT POINT)		207-796-5296

ALSO PRESENT IN MAPPED AREA (POLYGONS)			
Type	Name	Contact	Phone
STATE PROTECTED AREA	COBSCOOK BAY WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925
STATE PROTECTED AREA	PENNAMAQUAN WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925
STATE PROTECTED AREA	SMALL'S ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	



# JURISDICTIONS

**COUNTY:** WASHINGTON  
**COAST GUARD:** DISTRICT 1, SECTOR NORTHERN NEW ENGLAND  
**USACE:** NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT

**FEMA:** REGION I  
**EPA:** REGION 1

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	113.27	0.18
10B	Freshwater Marshes	480.55	0.75
10C	Swamps	943.93	1.47
10D	Scrub and Shrub Wetlands	499.18	0.78
9A	Sheltered Tidal Flats	1.36	0.00
7	Exposed Tidal Flats	186.80	0.29
5	Mixed Sand and Gravel Beaches	2,210.94	3.45
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	121.69	0.19

## ESI SHORELINE HABITAT TYPES

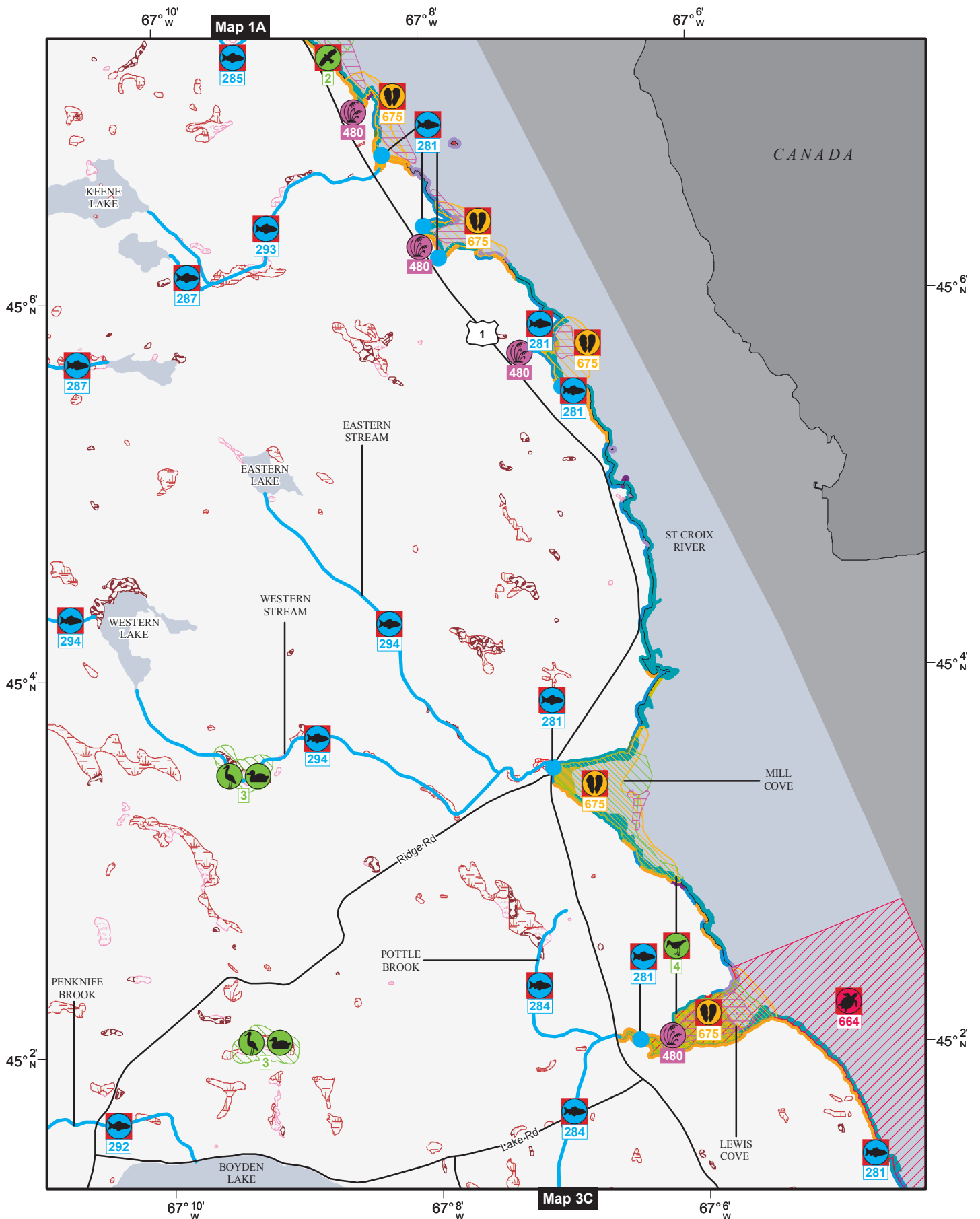
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	14,838.89	9.22	6%
10B	Freshwater Marshes	1,056.68	0.66	< 1%
10C	Swamps	973.64	0.60	< 1%
10D	Scrub and Shrub Wetlands	674.58	0.42	< 1%
9A	Sheltered Tidal Flats	476.99	0.30	< 1%
9B	Vegetated Low Banks	71,284.73	44.29	28%
8A	Sheltered, Impermeable, Rocky Shores	1,997.63	1.24	1%
8B	Sheltered, Solid Man-Made Structures	85.58	0.05	< 1%
7	Exposed Tidal Flats	8,490.29	5.28	3%
6A	Gravel Beaches	365.02	0.23	< 1%
6B	Riprap	3,954.53	2.46	2%
5	Mixed Sand and Gravel Beaches	119,180.90	74.06	46%
4	Coarse Grained Sand Beaches	18,833.75	11.70	7%
3B	Scarps and Steep Slopes (Sand)	168.63	0.10	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	13,142.18	8.17	5%
1A	Exposed, Rocky Shores	1,491.76	0.93	1%
1B	Exposed, Solid Man-Made Structures	477.54	0.30	< 1%
Total ESI Shoreline:		257,493.32	160.00	
Total Shoreline:		139,275.71	86.54	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







Map 3A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
			S	F		J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area			High												
SAV	Eelgrass	High Ecological Value			0% To 10% Cover												
SAV	Eelgrass	High Ecological Value			10% To 40% Cover												
SAV	Eelgrass	High Ecological Value			40% To 70% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence			-												
3	Wading	Wading birds	Vulnerable Occurrence			-												
	Waterfowl	Waterfowl	Vulnerable Occurrence			-												
4	Shorebird	American golden-plover	Concentration Area			Foraging												
	Shorebird	American oystercatcher	Concentration Area			Foraging												
	Shorebird	Baird's sandpiper	Concentration Area			Foraging												
	Shorebird	BB sandpiper	Concentration Area			Foraging												
	Shorebird	Black-bellied plover	Concentration Area			Foraging												
	Shorebird	Dunlin	Concentration Area			Foraging												
	Shorebird	Greater yellowlegs	Concentration Area			Foraging												
	Shorebird	Hudsonian godwit	Concentration Area			Foraging												
	Shorebird	Least sandpiper	Concentration Area			Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area			Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area			Foraging												
	Shorebird	Red Knot	Concentration Area			Foraging												
	Shorebird	Ruddy turnstone	Concentration Area			Foraging												
	Shorebird	Sanderling	Concentration Area			Foraging												
	Shorebird	Semipalmated plover	Concentration Area			Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area			Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area			Foraging												
	Shorebird	Solitary sandpiper	Concentration Area			Foraging												
	Shorebird	Stilt sandpiper	Concentration Area			Foraging												
	Shorebird	Western sandpiper	Concentration Area			Foraging												
	Shorebird	Whimbrel	Concentration Area			Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area			Foraging												
	Shorebird	Willet	Concentration Area			Foraging												

# FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D				
281	Diadromous	American eel	Harvest Area	-/C	-													-	-	Mar-Oct	Mar-Oct
284	Diadromous	Sea lamprey	Migration	-/C	-													-	-	Apr-Dec	Apr-Jul
285	Diadromous	Alewife	Migration	-/C	-													-	-	Apr-Dec	Apr-Jul
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C	-													-	-	Apr-Dec	Apr-Jul
287	Diadromous	Alewife	Migration	-/C	-													-	-	Apr-Dec	Apr-Jul
292	Diadromous	Alewife	Migration	-/C	-													-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C	-													-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	Migration	-/C E	-													-	-	Jan-Dec	May-Mar
	Diadromous	Sea lamprey	Migration	-/C	-													-	-	Apr-Dec	Apr-Jul
293	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C	-													-	-	Apr-Dec	Apr-Jul
294	Diadromous	American eel	Migration	-/C	-													-	-	Mar-Oct	Mar-Oct
	Diadromous	Sea lamprey	Migration	-/C	-													-	-	Apr-Dec	Apr-Jul

# HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
480	Wetland	Tidal Marsh	High Ecological Value		-												

# REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F T	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
664	Turtle	Green sea turtle	General Distribution	-/T	Rare													-	-	-	Jun-Nov	Jun-Nov
	Turtle	K. ridley sea turtle	General Distribution	E/-	Rare													-	-	-	Jun-Nov	Jun-Nov
	Turtle	Leatherback sea turtle	General Distribution	E/-	Low													-	-	-	Jun-Nov	Jun-Nov
	Turtle	Loggerhead sea turtle	General Distribution	E/-	Low													-	-	-	Jun-Nov	Jun-Nov

# INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
675	Bivalve	Softshell clam	Harvest Area	-/C	-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec

WIDESPREAD IN MAPPED AREA (> 10 SQUARE KILOMETERS)

# BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Razorbill	General Distribution	T/-	-													-	-	-	-
	Diving	Common Loon	General Distribution	-/T	-													-	-	-	-
		Great cormorant	General Distribution	T/-	-													-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C	-													May-Oct	-	-	-
		Common tern	General Distribution	C/T	-													May-Aug	-	-	-
		Roseate tern	General Distribution	E/E	-													-	-	-	-

# FISH

<div><div></div></div>	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
<div><div></div></div>	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul	
		American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
		American shad	Migration	-/C		-												-	-	May-Feb	May-Jul	
		Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar	
		Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec	
		Blueback herring	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec	
		Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	
		Sea lamprey	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul	
		Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec	
		Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec	
<div><div></div></div> Freshwater		Rainbow smelt	Migration	-/C		-											-	-	Jan-Dec	Oct-Apr		
<div><div></div></div> Marine Benthic		Atlantic tomcod	Migration			-											-	-	Dec-Feb	Jan-Dec		

# INVERTEBRATES





Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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 Bivalve	Sea scallop	Harvest Area	-IC		-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)



# BIRDS

Subelement	Species	Mapping Qualifier	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			J	F	M	A	M	J	J	A	S	O	N	D				
Alcid	Black guillemot														May-Aug	-	-	-
	Dovekie														-	-	-	-
	Thick-billed murre														-	-	-	-
Diving	D. crested cormorant														Jun-Sep	-	-	-
	Horned grebe														-	-	-	-
	Red-necked grebe														-	-	-	-
	Red-throated loon														-	-	-	-
Gull/Tern	G. black-backed gull														-	-	-	-
	Herring gull														-	-	-	-
	Ring-billed gull														-	-	-	-
Pelagic	Northern gannet														-	-	-	-


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog														-	Jan-Dec	Jan-Dec
 Crab	Atlantic rock crab														May-Oct	Jan-Dec	Jan-Dec
	Blue crab														Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab														May-Oct	Jan-Dec	Jan-Dec
 Echinoderm	Green urchin														May-Oct	Jan-Dec	Jan-Dec
 Lobster	American lobster														Mar-Jun	Jan-Dec	Jan-Dec
															Jun-Oct	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Harbor porpoise													-	-	-	-
 Pinniped	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	2.99	0.00
10B	Freshwater Marshes	113.64	0.18
10C	Swamps	323.05	0.50
10D	Scrub and Shrub Wetlands	95.73	0.15
7	Exposed Tidal Flats	84.84	0.13
5	Mixed Sand and Gravel Beaches	143.93	0.22
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	15.48	0.02

## ESI SHORELINE HABITAT TYPES

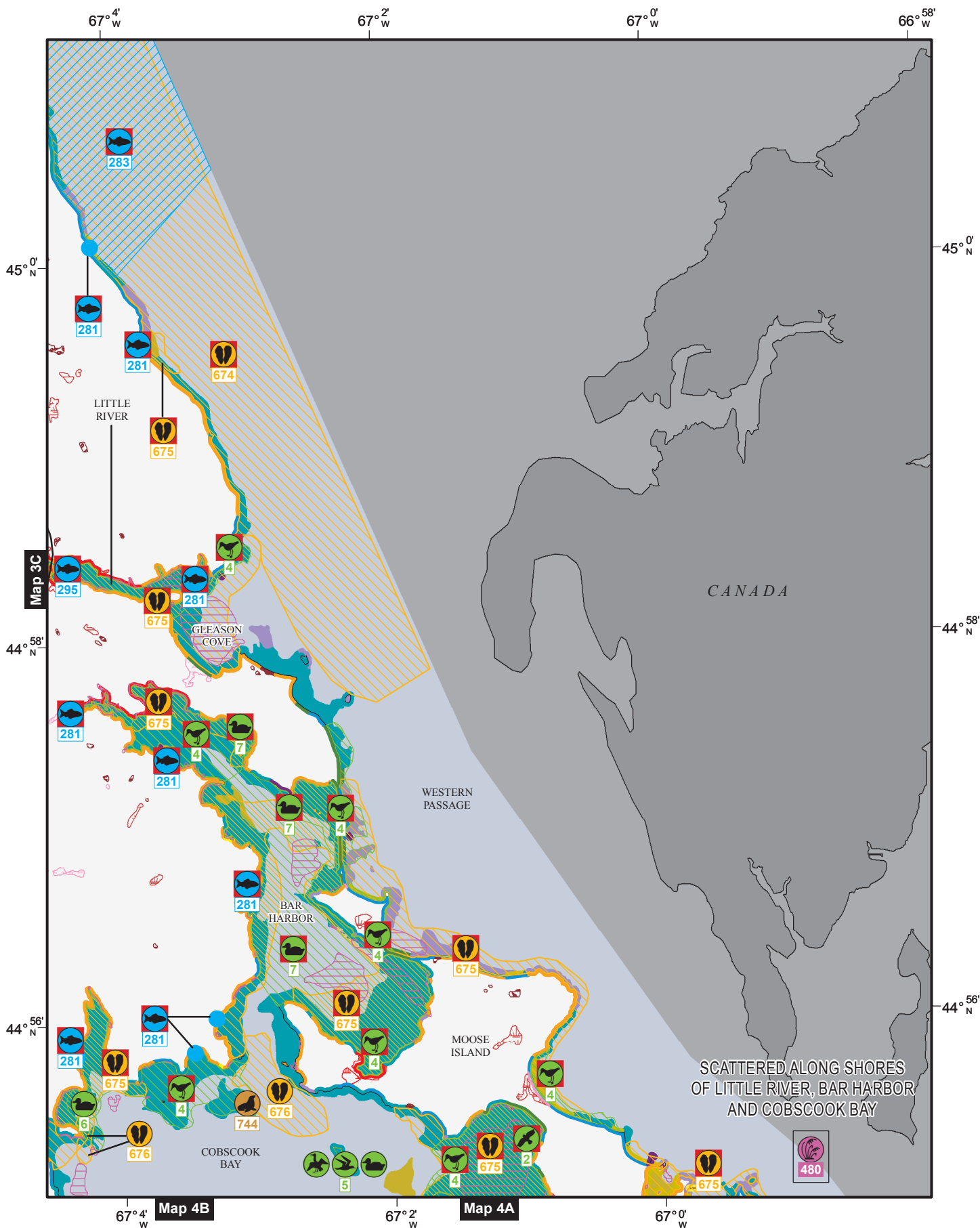
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	119.69	0.07	< 1%
10B	Freshwater Marshes	33.05	0.02	< 1%
10C	Swamps	178.67	0.11	< 1%
9B	Vegetated Low Banks	10,650.68	6.62	27%
7	Exposed Tidal Flats	4,327.64	2.69	11%
6B	Riprap	323.41	0.20	1%
5	Mixed Sand and Gravel Beaches	15,865.92	9.86	40%
4	Coarse Grained Sand Beaches	5,716.42	3.55	14%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	2,287.59	1.42	6%
1A	Exposed, Rocky Shores	362.80	0.23	1%
1B	Exposed, Solid Man-Made Structures	80.84	0.05	< 1%

Total ESI Shoreline: 39,946.69      Total ESI Shoreline: 24.82  
 Total Shoreline: 22,234.22      Total Shoreline: 13.82

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 3B**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**



Map 3B  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/-	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												
5	Diving	D. crested cormorant	Roosting		-												
	Gull/Tern	G. black-backed gull	Roosting		-												
	Gull/Tern	Herring gull	Roosting		-												
	Waterfowl	Common eider	Roosting		-												

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
6	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Canada goose	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
7	Waterfowl	Long-tailed duck	Rafting			-												-	May	Sep	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	White-winged scoter	Rafting			-												-	-	-	-
	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Common goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Common merganser	Rafting			-												-	-	-	-
	Waterfowl	Harlequin duck	Rafting			-												-	-	-	-
	Waterfowl	Long-tailed duck	Rafting	T/-		-												-	May	Sep	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Red-breasted merganser	Rafting			-												-	-	-	-
	Waterfowl	Ruddy duck	Rafting			-												-	Dec-Jan	-	-
	Waterfowl	Scaup	Rafting			-												-	Dec-Jan	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
	Waterfowl	White-winged scoter	Rafting			-												-	-	-	-

FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
281	Diadromous	American eel	Harvest Area	-/C		-												-	-	-	Mar-Oct	Mar-Oct
283	Diadromous	Alewife	Migration	-/C		-												-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C		-												-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C		-												-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	-	Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Blueback herring	Migration	-/C		-												-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	-	Apr-Dec	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-/C		-												-	-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	-	Jan-Dec	Oct-Apr
295	Marine Benthic	Atlantic tomcod	Migration	-/C		-												Dec-Feb	-	-	Jan-Dec	Jan-Dec
	Diadromous	Alewife	Migration	-/C		-												-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C		-												-	-	-	Mar-Oct	Mar-Oct
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	-	Jan-Dec	Oct-Apr

## HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
480	Wetland	Tidal Marsh	High Ecological Value					J	F	M	A	M	J	J	A	S	O	N	D
							-												

## INVERTEBRATES


Map ID		Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Larvae	Juveniles	Adults
					S	F		J	F	M	A	M	J	J	A	S	O	N	D			
674	Bivalve	Sea scallop	Harvest Area	-/C			-													Jul-Oct	-	Jan-Dec
675	Bivalve	Softshell clam	Harvest Area	-/C			-													May-Oct	May-Oct	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area				-													May-Nov	May-Nov	Jan-Dec

## MARINE MAMMALS


Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
744	Pinniped	Harbor seal	Haul Out				-	J	F	M	A	M	J	J	A	S	O	N	D

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )


## BIRDS

	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence													Nest	Mig.(S)	Mig.(F)	Molt																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				S	F		J	F	M	A	M	J	J	A	S	O	N	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Alcid	Razorbill	General Distribution	T/-		-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

## FISH


	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Larvae	Eggs	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
				S	F	-J	T	E	E/E	Concentration	J	F	M	A	M	J	J					A	S	O	N	D	Spawn																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	Diadromous	Atlantic sturgeon	General Distribution																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

## REPTILES & AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH			Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
			S	F	T	J	F	M	A	M	J	J	A	S	O	N	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Green sea turtle	General Distribution	-/-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

## INVERTEBRATES





Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			

	Crab	Horseshoe crab	General Distribution	-	JC	Low												May-Jul	-	Jan-Dec	Jan-Dec
---	------	----------------	----------------------	---	----	-----	--	--	--	--	--	--	--	--	--	--	--	---------	---	---------	---------

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)



## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				





	Alcid	Black guillemot												May-Aug	-	-	-
		Dovekie													-	-	-
		Thick-billed murre													-	-	-
	Diving	D. crested cormorant												Jun-Sep	-	-	-
		Horned grebe													-	-	-
		Red-necked grebe													-	-	-
		Red-throated loon													-	-	-
	Gull/Tern	G. black-backed gull													-	-	-
		Herring gull													-	-	-
		Ring-billed gull													-	-	-
	Pelagic	Northern gannet													-	-	-

## FISH



Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					

Species	Superfennent	J A S O N D J F M A M J J A S O N D												Eggs	Larvae	Juveniles	Adults					
		Atlantic herring	Winter flounder	American plaice	American sand lance	Atlantic cod	Atlantic Wolffish	Cunner	Haddock	Longhorn sculpin	Northern searobin	Ocean pout	Pollock					Red hake	Rock gunnel	Shorthorn sculpin	Silver hake	Skates
	Estuarine Nursery																					
	Marine Benthic																					
	Marine Pelagic																					


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog																Jan-Dec
 Crab	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
 Echinoderm	Green urchin													May-Oct	May-Oct	Jan-Dec	Jan-Dec
 Lobster	American lobster													Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
														Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Harbor porpoise													-	-	-	-
 Pinniped	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-

## TERRESTRIAL MAMMALS

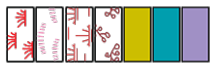
Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	34.04	0.05
10B	Freshwater Marshes	15.00	0.02
10C	Swamps	25.64	0.04
10D	Scrub and Shrub Wetlands	12.47	0.02
7	Exposed Tidal Flats	65.41	0.10
5	Mixed Sand and Gravel Beaches	1,177.98	1.84
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	104.72	0.16



## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	4,152.08	2.58	4%
10B	Freshwater Marshes	470.54	0.29	< 1%
10D	Scrub and Shrub Wetlands	294.34	0.18	< 1%
9B	Vegetated Low Banks	25,329.48	15.74	25%
8A	Sheltered, Impermeable, Rocky Shores	490.04	0.30	< 1%
8B	Sheltered, Solid Man-Made Structures	85.58	0.05	< 1%
7	Exposed Tidal Flats	3,680.61	2.29	4%
6B	Riprap	3,456.31	2.15	3%
5	Mixed Sand and Gravel Beaches	44,839.42	27.86	45%
4	Coarse Grained Sand Beaches	9,143.17	5.68	9%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	6,667.37	4.14	7%
1A	Exposed, Rocky Shores	419.37	0.26	< 1%
1B	Exposed, Solid Man-Made Structures	323.96	0.20	< 1%

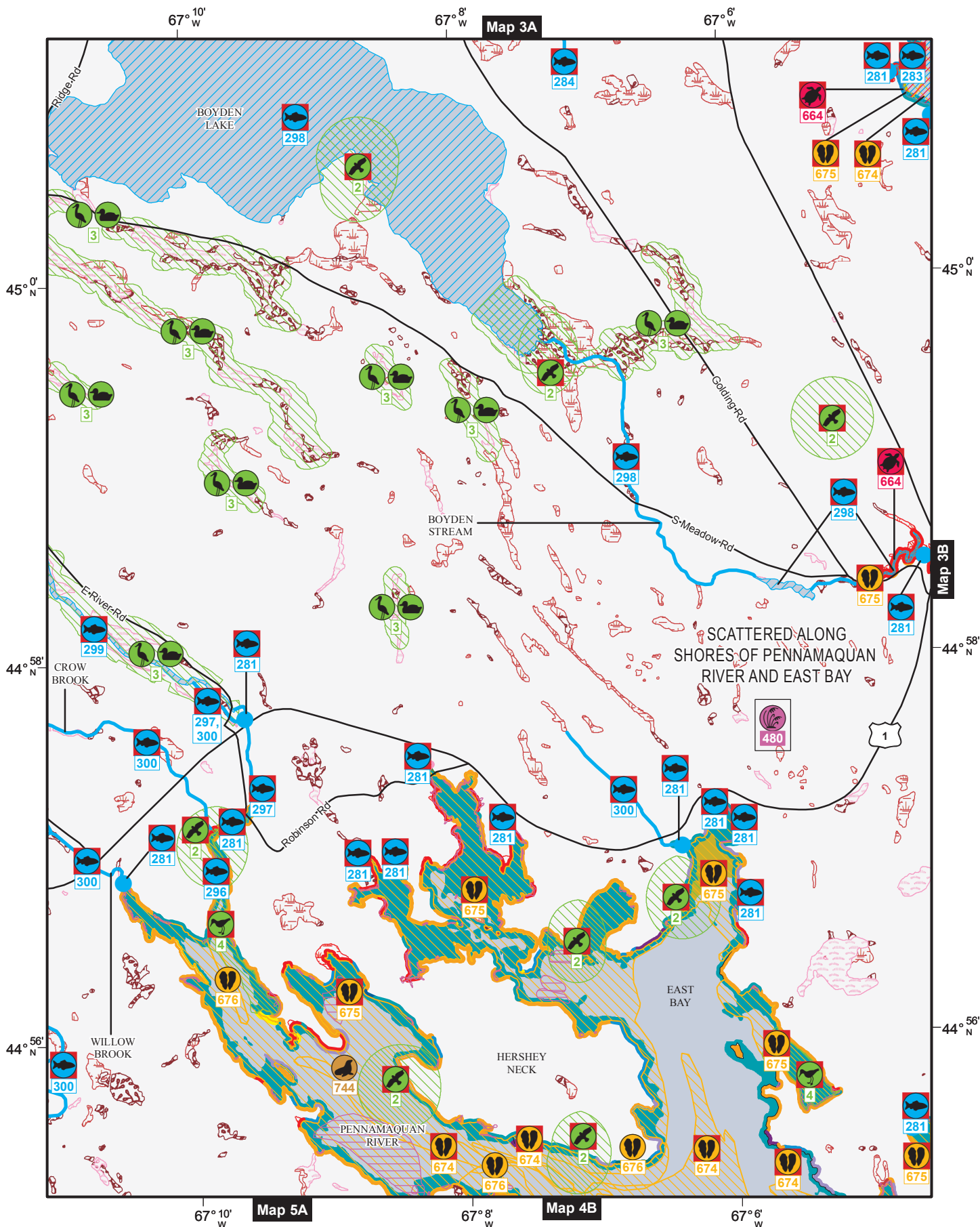
Total ESI Shoreline: 99,352.26      Total ESI Shoreline: 61.73  
 Total Shoreline: 53,689.25      Total Shoreline: 33.36

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 3C**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
3	Wading	Wading birds	Vulnerable Occurrence		-												
4	Shorebird	Waterfowl	Vulnerable Occurrence		-												
	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/-	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												

ME/NH	Monthly Presence
-------	------------------

## HABITATS & RARE PLANTS

Downeast Maine: Map 3C

# REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Interest	Juveniles	Adults	
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N						D
664	Turtle	Green sea turtle	General Distribution	-/-	T	Rare													-	-	-	Jun-Nov	Jun-Nov
	Turtle	K. ridley sea turtle	General Distribution	E/-	E	Rare													-	-	-	Jun-Nov	Jun-Nov
	Turtle	Leatherback sea turtle	General Distribution	E/-	E	Low													-	-	-	Jun-Nov	Jun-Nov
	Turtle	Loggerhead sea turtle	General Distribution	E/-	T	Low													-	-	-	Jun-Nov	Jun-Nov

# INVERTEBRATES


Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
674	Bivalve	Sea scallop	Harvest Area	-	C	-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
675	Bivalve	Softshell clam	Harvest Area	-	C	-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area			-													May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec

# MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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744	Pinniped	Harbor seal	Haul Out			-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )

# BIRDS

	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Razorbill	General Distribution	T/-		-												-	-	-		
	Diving	Common Loon	General Distribution	-/T		-												-	-	-		
		Great cormorant	General Distribution	T/-		-												-	-	-		
	Gull/Tern	Arctic tern	General Distribution	T/C		-												May-Oct	-	-		
		Common tern	General Distribution	C/T		-												May-Aug	-	-		
		Roseate tern	General Distribution	E/E	E	-												-	-	-		





# FISH

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults	
			S	F	J	F	M	A	M	J	J	A	S	O	N	D						
	Diadromous	Atlantic sturgeon	-/T		Rare													-	-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	E/E		Rare													-	-	-	Jan-Dec	Jan-Dec
		Striped bass	Concentration Area			High												-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass			Low													-	-	-	Jan-Dec	Jan-Dec




# INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			S	F		J	F	M	A	M	J	J	A	S	O	N	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
 Crab	Horseshoe crab	General Distribution	-/C		Low																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

## BIRDS





Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Northern gannet													-	-	-	-

## FISH



Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct
														-	-	-	-	-




## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog																Jan-Dec
	Atlantic rock crab																Jan-Dec
 Crab	Blue crab																Jan-Dec
	Jonah crab																Jan-Dec
 Echinoderm	Green urchin																Jan-Dec
	American lobster																Jan-Dec
 Lobster																	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Harbor porpoise																-
	Gray seal																-
 Pinniped	Harbor seal																-
	Harp seal																-
	Hooded seal																-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver																-
	Muskrat																-
	Northern river otter																-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	76.22	0.12
10B	Freshwater Marshes	351.98	0.55
10C	Swamps	595.27	0.93
10D	Scrub and Shrub Wetlands	391.00	0.61
9A	Sheltered Tidal Flats	1.36	0.00
7	Exposed Tidal Flats	36.40	0.06
5	Mixed Sand and Gravel Beaches	887.96	1.39
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	1.49	0.00

## ESI SHORELINE HABITAT TYPES

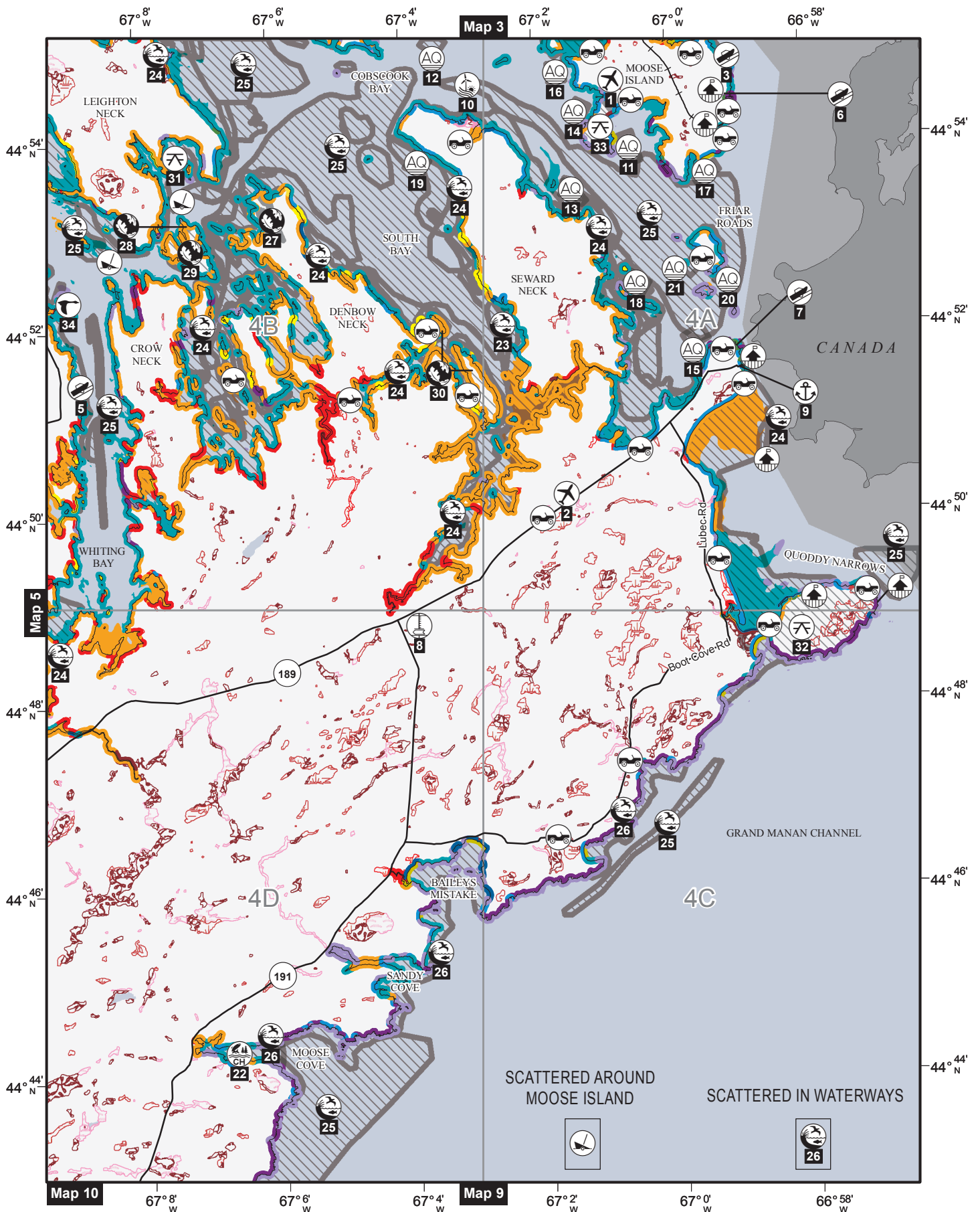
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	10,563.71	6.56	9%
10B	Freshwater Marshes	553.09	0.34	< 1%
10C	Swamps	794.97	0.49	1%
10D	Scrub and Shrub Wetlands	380.24	0.24	< 1%
9A	Sheltered Tidal Flats	476.99	0.30	< 1%
9B	Vegetated Low Banks	35,278.43	21.92	30%
8A	Sheltered, Impermeable, Rocky Shores	1,507.59	0.94	1%
7	Exposed Tidal Flats	459.40	0.29	< 1%
6A	Gravel Beaches	365.02	0.23	< 1%
6B	Riprap	174.81	0.11	< 1%
5	Mixed Sand and Gravel Beaches	58,439.12	36.31	49%
4	Coarse Grained Sand Beaches	3,972.21	2.47	3%
3B	Scarps and Steep Slopes (Sand)	168.63	0.10	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	4,184.25	2.60	4%
1A	Exposed, Rocky Shores	709.59	0.44	1%
1B	Exposed, Solid Man-Made Structures	72.75	0.05	< 1%
Total ESI Shoreline:		118,100.80	73.38	
Total Shoreline:		63,293.17	39.33	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 4**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

**1:100,000**

**Map 4**  
**Downeast Maine**

**HUMAN USE RESOURCES**

DISPLAYED ON MAP (POINTS)			
Map ID	Type	Name	Phone
1	AIRPORT	EASTPORT MUNICIPAL AIRPORT	ROBERT SCOTT 207-853-2332
2	AIRPORT	LUBEC MUNICIPAL AIRPORT	MAUREEN GLIDDEN 207-733-2341
3	BOAT RAMP	CLARK STREET PUBLIC LANDING	EASTPORT
4	BOAT RAMP	COBSCOOK BAY (MEGIS BOATLNCH)	EDMUNDS TWP
5	BOAT RAMP	COBSCOOK BAY BOAT RAMP	US FISH & WILDLIFE SERVICE
6	BOAT RAMP	INNER BASIN BOAT RAMP	EASTPORT
7	BOAT RAMP	JOHNSON BAY BOAT RAMP	DOC
8	LOCK AND DAM	MCCURDY TROUT POND	
9	MARINA	LUBEC MUNICIPAL MARINA	
10	RENEWABLE ENERGY	COBSCOOK BAY OCGEN POWER PROJECT	ORPC MAINE, LLC 207-733-2202

DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Phone
11	AQUACULTURE	COB BC - BROAD COVE, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
12	AQUACULTURE	COB BP - BIRCH POINT, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
13	AQUACULTURE	COB CC - COMSTOCK POINT, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
14	AQUACULTURE	COB DC - DEEP COVE, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
15	AQUACULTURE	COB LU2 - EASTERN JOHNSON BAY, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
16	AQUACULTURE	COB MI2 - SOUTH OF MATTHEWS ISLAND, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
17	AQUACULTURE	COB PC - PRINCE COVE, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
18	AQUACULTURE	COB RN2 - NORTH OF RODGERS ISLAND, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
19	AQUACULTURE	COB SB - SOUTH BAY, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
20	AQUACULTURE	COB TE - SOUTHEAST OF TREAT ISLAND, JOHNSON BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
21	AQUACULTURE	COB TW - SOUTHEAST OF TREAT ISLAND, COBSCOOK BAY	COOKE AQUACULTURE USA, INC. 207-255-6714

22	CRITICAL HABITAT	ATLANTIC SALMON CRITICAL HABITAT	
23	MANAGEMENT AREA	ATLANTIC JACKKNIFE CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
24	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
25	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
26	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
27	NATURE CONSERVANCY	COBSCOOK BAY, DENBOW NECK EASEMENT	THE NATURE CONSERVANCY 207-729-5181
28	NATURE CONSERVANCY	FALLS ISLAND - TNC EASEMENT	THE NATURE CONSERVANCY 207-729-5181
29	NATURE CONSERVANCY	FALLS ISLAND PRESERVE	THE NATURE CONSERVANCY 207-729-5181
30	NATURE CONSERVANCY	LONG ISLAND PRESERVE	THE NATURE CONSERVANCY 207-729-5181
31	PARK	COBSCOOK BAY STATE PARK	MAINE DEPARTMENT OF CONSERVATION 207-726-4412
32	PARK	QUODDY HEAD STATE PARK	MAINE DEPARTMENT OF CONSERVATION 207-941-4014
33	PARK	SHACKFORD HEAD STATE PARK	MAINE DEPARTMENT OF CONSERVATION 207-941-4014
34	WILDLIFE REFUGE	MOOSEHORN WILDERNESS	U.S. FISH & WILDLIFE SERVICE

ALSO PRESENT IN MAPPED AREA (POLYGONS)			
Type	Name	Contact	Phone
STATE PROTECTED AREA	COBSCOOK BAY WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925

## JURISDICTIONS

**COUNTY:** WASHINGTON **FEMA:** REGION I  
**COAST GUARD:** DISTRICT 1, SECTOR NORTHERN NEW ENGLAND **EPA:** REGION 1  
**USACE:** NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT

## SHORELINE RESOURCES

### ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	314.18	0.49
10B	Freshwater Marshes	668.11	1.04
10C	Swamps	1,301.77	2.03
10D	Scrub and Shrub Wetlands	1,331.52	2.08
9A	Sheltered Tidal Flats	970.01	1.52
7	Exposed Tidal Flats	10.39	0.02
5	Mixed Sand and Gravel Beaches	1,997.48	3.12
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	312.84	0.49

### ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	35,516.56	22.07	7%
10B	Freshwater Marshes	1,304.89	0.81	< 1%
10C	Swamps	181.93	0.11	< 1%
10D	Scrub and Shrub Wetlands	3,039.76	1.89	1%
9A	Sheltered Tidal Flats	36,654.24	22.78	7%
9B	Vegetated Low Banks	138,592.44	86.12	26%
8A	Sheltered, Impermeable, Rocky Shores	12,750.72	7.92	2%
8B	Sheltered, Solid Man-Made Structures	304.26	0.19	< 1%
7	Exposed Tidal Flats	4,867.62	3.02	1%
6A	Gravel Beaches	2,986.90	1.86	1%
6B	Riprap	3,538.44	2.20	1%
5	Mixed Sand and Gravel Beaches	172,758.36	107.35	33%
4	Coarse Grained Sand Beaches	26,420.75	16.42	5%
3A	Fine to Medium Grained Sand Beaches	3,357.04	2.09	1%
3B	Scarps and Steep Slopes (Sand)	1,331.12	0.83	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	55,119.76	34.25	10%
2B	Exposed Scarps and Steep Slopes (Clay)	87.63	0.05	< 1%
1A	Exposed, Rocky Shores	28,860.68	17.93	5%
1B	Exposed, Solid Man-Made Structures	3,081.81	1.91	1%
Total ESI Shoreline:		530,754.92	329.80	
Total Shoreline:		328,477.90	204.11	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



## INVERTEBRATES

### Monthly Presence

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
Crab	Blue crab	J	F	M	A	M	J	J	A	S	O	N	D	May-Sep	May-Sep	Jan-Dec	Jan-Dec

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## SHORELINE RESOURCES

### ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	1.57	0.00
10B	Freshwater Marshes	18.99	0.03
10C	Swamps	131.84	0.21
10D	Scrub and Shrub Wetlands	11.24	0.02
9A	Sheltered Tidal Flats	3.55	0.01

### ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	271.08	0.17	1%
10B	Freshwater Marshes	296.00	0.18	1%
10C	Swamps	217.98	0.14	1%
10D	Scrub and Shrub Wetlands	99.20	0.06	< 1%
9A	Sheltered Tidal Flats	600.69	0.37	2%
9B	Vegetated Low Banks	18,775.19	11.67	48%
8A	Sheltered, Impermeable, Rocky Shores	905.97	0.56	2%
8A	Sheltered Scarps (Bedrock/Mud/Clay)	90.29	0.06	< 1%
8A	Sheltered, Impermeable, Rocky Shores	905.97	0.56	2%
8A	Sheltered Scarps (Bedrock/Mud/Clay)	90.29	0.06	< 1%
8B	Sheltered, Solid Man-Made Structures	3,890.87	2.42	10%
8C	Sheltered Riprap	9,280.15	5.77	24%
6A	Gravel Beaches	1,521.09	0.95	4%
6B	Riprap	101.69	0.06	< 1%
5	Mixed Sand and Gravel Beaches	1,464.63	0.91	4%
4	Coarse Grained Sand Beaches	675.34	0.42	2%
3A	Fine to Medium Grained Sand Beaches	331.37	0.21	1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	174.99	0.11	< 1%
1A	Exposed, Rocky Shores	159.35	0.10	< 1%
1B	Exposed, Solid Man-Made Structures	255.19	0.16	1%

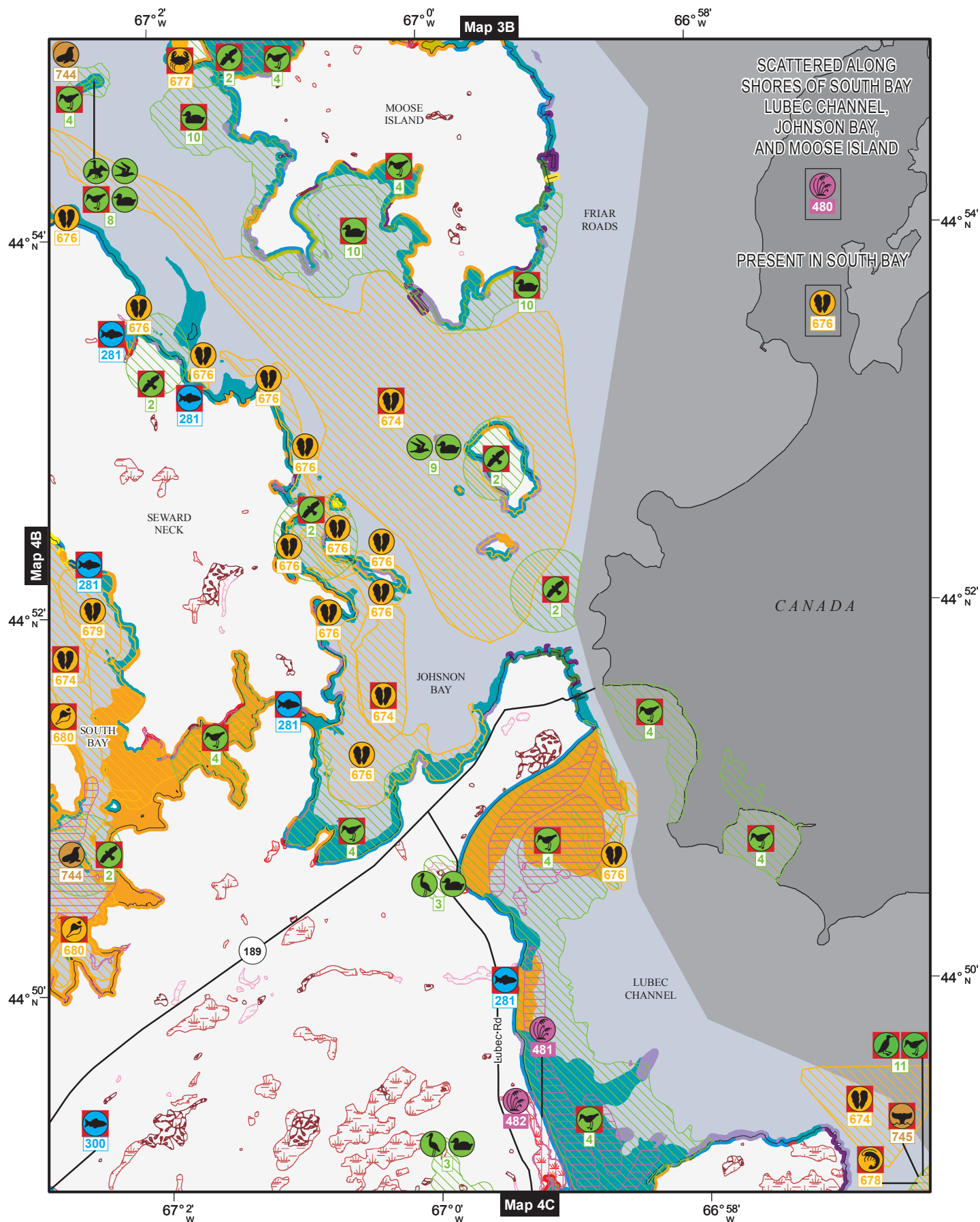
Total ESI Shoreline:	39,111.06	Total ESI Shoreline:	24.30
Total Shoreline:	35,231.92	Total Shoreline:	21.89

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







Map 4A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
			S	F		J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area			High												
SAV	Eelgrass	High Ecological Value			0% To 10% Cover												
SAV	Eelgrass	High Ecological Value			10% To 40% Cover												
SAV	Eelgrass	High Ecological Value			40% To 70% Cover												
SAV	Eelgrass	High Ecological Value			70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T		-											Mar-May	
3	Wading	Wading birds	Vulnerable Occurrence			-											Apr-Nov	
	Waterfowl	Waterfowl	Vulnerable Occurrence			-											Apr-Nov	
4	Shorebird	American golden-plover	Concentration Area			Foraging											-	Aug
	Shorebird	American oystercatcher	Concentration Area	C/-		Foraging											May-Jun	
	Shorebird	Baird's sandpiper	Concentration Area			Foraging											-	
	Shorebird	BB sandpiper	Concentration Area			Foraging											-	Aug
	Shorebird	Black-bellied plover	Concentration Area			Foraging											May	
	Shorebird	Dunlin	Concentration Area			Foraging											-	
	Shorebird	Greater yellowlegs	Concentration Area			Foraging											-	
	Shorebird	Hudsonian godwit	Concentration Area			Foraging											Jul-Oct	
	Shorebird	Least sandpiper	Concentration Area			Foraging											May-Jun	
	Shorebird	Lesser yellowlegs	Concentration Area	C/-		Foraging											May-Jun	
	Shorebird	Pectoral sandpiper	Concentration Area			Foraging											Apr-May	
	Shorebird	Red Knot	Concentration Area	C/-	T	Foraging											May	
	Shorebird	Ruddy turnstone	Concentration Area			Foraging											May-Jun	
	Shorebird	Sanderling	Concentration Area			Foraging											Apr-May	
	Shorebird	Semipalmated plover	Concentration Area			Foraging											May-Jun	
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-		Foraging											May-Jun	
	Shorebird	Short-billed dowitcher	Concentration Area			Foraging											May-Jun	
	Shorebird	Solitary sandpiper	Concentration Area			Foraging											Jun	
	Shorebird	Stilt sandpiper	Concentration Area			Foraging											Jul	
	Shorebird	Western sandpiper	Concentration Area			Foraging											Jul	
	Shorebird	Whimbrel	Concentration Area	C/-		Foraging											-	
	Shorebird	White-rumped sandpiper	Concentration Area			Foraging											May-Jun	
	Shorebird	Willet	Concentration Area	-/C		Foraging											May-Aug	
8	Diving	D. crested cormorant	Roosting			-											Jun-Sep	
	Gull/Tern	G. black-backed gull	Roosting			-											May-Aug	

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Gull/Tern	Herring gull	Roosting			-													-	-	-	-
	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-													-	May-Aug	Jul-Sep	-
9	Waterfowl	Common eider	Roosting			-													-	May-Aug	Jul-Sep	-
	Gull/Tern	G. black-backed gull	Roosting			-													-	May-Aug	-	-
	Gull/Tern	Herring gull	Roosting			-													-	-	-	-
	Waterfowl	Common eider	Roosting			-													-	-	-	-
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-		-													-	-	-	-
	Alcid	Atlantic puffin	General Distribution	T/-		-													-	-	-	-
11	Pelagic	Leach's storm-petrel	General Distribution	C/-		-													-	-	-	-
	Shorebird	Red-necked phalarope	General Distribution	C/-		-													-	Jun	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C		-													-	-	-	Mar-Oct	Mar-Oct
300	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May

## HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
480	Wetland	Tidal Marsh	High Ecological Value			-												
481	Wetland	Rare ecol. community	High Ecological Value			-												
482	Wetland	SM cordgrass/wiregrass	High Ecological Value			-												

## INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
674	Bivalve	Sea scallop	Harvest Area	-/C		-												
676	Bivalve	Blue mussel	Harvest Area			-												
677	Crab	Horseshoe crab	Spawning Area	-/C		Common												
678	Shrimp	Northern shrimp	General Distribution	-/C		Low												
679	Bivalve	Atl. jackknife clam	Harvest Area			-												
680	Gastropod	Rare snail	Vulnerable Occurrence	C/-		-												

## MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
744	Pinniped	Harbor seal	Haul Out			-												
745	Whale	Fin whale	General Distribution	E/-	E	Low												
	Whale	Humpback whale	General Distribution	E/-	E	Low												
	Whale	N.A. right whale	General Distribution	E/-	E	Low												
	Whale	Sei whale	General Distribution	E/-	E	Low												
	Whale	Sperm whale	General Distribution	E/-	E	Rare												

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )


## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
			S	F		J	F	M	A	M	J	J	A	S	O	N	D
	Alcid	Razorbill	T/-		-												
	Diving	Common Loon	-/T		-												
		Great cormorant	T/-		-												
	Gull/Tern	Arctic tern	T/C		-												
		Common tern	C/T		-												
		Roseate tern	E/E	E	-												

## FISH

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
			S	F		J	F	M	A	M	J	J	A	S	O	N	D
	Diadromous	Atlantic sturgeon	-/T	T	Rare												
		Shortnose sturgeon	E/E	E	Rare												
		Striped bass			High												
	Estuarine Nursery	Black Seabass			Low												

# REPTILES & AMPHIBIANS








Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Hatch	Internest	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Turtle																				
	Green sea turtle	General Distribution	-/-	T	Rare															Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	E	Rare															Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	E	Low															Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	T	Low															Jun-Nov	Jun-Nov

# INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
	Bivalve																					
	Softshell clam	Harvest Area	-/C		-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Crab																					
	Horseshoe crab	General Distribution	-/C		Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec



ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid													May-Aug			
	Black guillemot																-
	Common murre																-
	Dovekie																-
	Diving																
	Thick-billed murre																-
	D. crested cormorant													Jun-Sep			-
	Horned grebe																-
	Gull/Tern																
	Red-necked grebe																-
	Red-throated loon																-
	G. black-backed gull																-
	Pelagic																
	Herring gull																-
	Ring-billed gull																-
	Cory's shearwater																-
	Shorebird																
	Great shearwater																-
	Manx shearwater																-
	Northern fulmar																-
	Shorebird																
	Northern gannet																-
	Sooty shearwater																-
	Wilson's storm-petrel																-
	Shorebird																
	Red phalarope																-

## FISH

### Monthly Presence

Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Spawn	Eggs	Larvae	Juveniles	Adults
	Estuarine Nursery													-	-	Oct-May	Jan-Dec	Apr-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	Marine Benthic													-	-	Mar-Jun	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Sep	Mar-Jun	Mar-Jun	-
	Haddock													Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec	Jan-Dec
	Longhorn sculpin													-	-	-	Jul-Oct	Jul-Oct
	Northern searobin													-	-	Nov-Feb	Jan-Dec	Mar-Oct
	Ocean pout													-	-	Nov-Mar	Jan-Dec	Mar-Oct
	Pollock													-	-	Jun-Oct	Mar-Nov	-
	Red hake													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	May-Nov
	Rock gunnel													-	-	-	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	-	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	-	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct




## INVERTEBRATES

### Monthly Presence

Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Spawn	Eggs	Larvae	Juveniles	Adults
	Bivalve													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

### Monthly Presence

Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molt
	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-
														-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

Downeast Maine: Map 4A

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	52.47	0.08
10B	Freshwater Marshes	40.10	0.06
10C	Swamps	318.22	0.50
10D	Scrub and Shrub Wetlands	125.54	0.20
9A	Sheltered Tidal Flats	647.19	1.01
7	Exposed Tidal Flats	5.23	0.01
5	Mixed Sand and Gravel Beaches	841.17	1.31
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	46.21	0.07

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	2,127.92	1.32	2%
10B	Freshwater Marshes	156.13	0.10	< 1%
10C	Swamps	81.00	0.05	< 1%
10D	Scrub and Shrub Wetlands	188.86	0.12	< 1%
9A	Sheltered Tidal Flats	15,822.63	9.83	12%
9B	Vegetated Low Banks	28,755.48	17.87	21%
8A	Sheltered, Impermeable, Rocky Shores	720.04	0.45	1%
8B	Sheltered, Solid Man-Made Structures	90.04	0.06	< 1%
7	Exposed Tidal Flats	2,342.66	1.46	2%
6A	Gravel Beaches	349.68	0.22	< 1%
6B	Riprap	3,284.98	2.04	2%
5	Mixed Sand and Gravel Beaches	49,347.89	30.66	36%
4	Coarse Grained Sand Beaches	15,626.41	9.71	12%
3A	Fine to Medium Grained Sand Beaches	319.12	0.20	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	11,725.91	7.29	9%
1A	Exposed, Rocky Shores	1,761.92	1.09	1%
1B	Exposed, Solid Man-Made Structures	3,024.62	1.88	2%

Total ESI Shoreline: 135,725.29      Total ESI Shoreline: 84.34  
 Total Shoreline: 78,844.71      Total Shoreline: 48.99

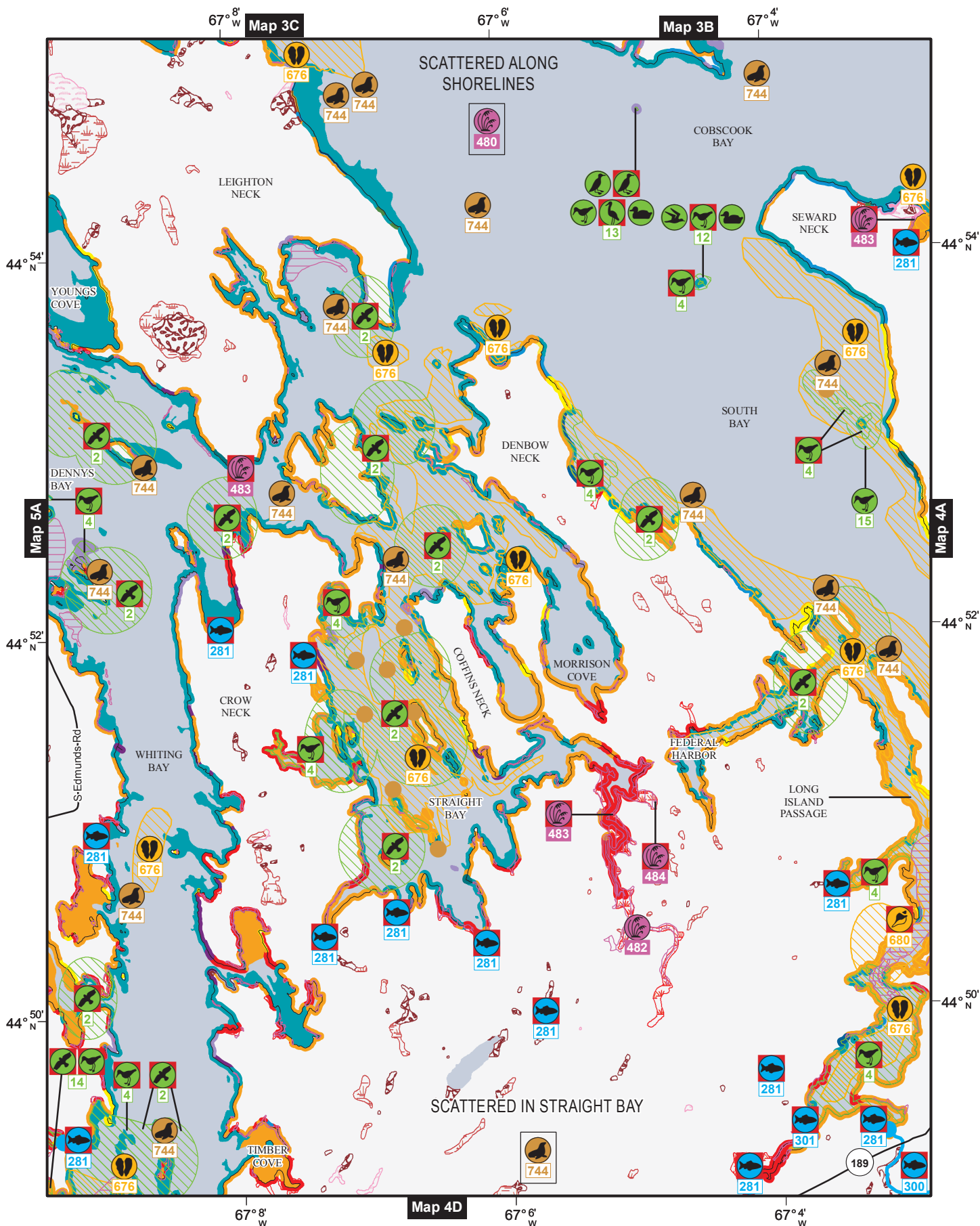
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









**Map 4B**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
							J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area				High												
SAV	Eelgrass	High Ecological Value				0% To 10% Cover												
SAV	Eelgrass	High Ecological Value				10% To 40% Cover												
SAV	Eelgrass	High Ecological Value				40% To 70% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
								J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence			C/T	-												
4	Shorebird	American golden-plover	Concentration Area				Foraging												
	Shorebird	American oystercatcher	Concentration Area			C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area				Foraging												
	Shorebird	BB sandpiper	Concentration Area				Foraging												
	Shorebird	Black-bellied plover	Concentration Area				Foraging												
	Shorebird	Dunlin	Concentration Area				Foraging												
	Shorebird	Greater yellowlegs	Concentration Area				Foraging												
	Shorebird	Hudsonian godwit	Concentration Area				Foraging												
	Shorebird	Least sandpiper	Concentration Area				Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area			C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area				Foraging												
	Shorebird	Red Knot	Concentration Area			C/-	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area				Foraging												
	Shorebird	Sanderling	Concentration Area				Foraging												
	Shorebird	Semipalmated plover	Concentration Area				Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area			C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area				Foraging												
	Shorebird	Solitary sandpiper	Concentration Area				Foraging												
	Shorebird	Stilt sandpiper	Concentration Area				Foraging												
	Shorebird	Western sandpiper	Concentration Area				Foraging												
	Shorebird	Whimbrel	Concentration Area			C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area				Foraging												
	Shorebird	Willet	Concentration Area			-/C	Foraging												
12	Gull/Tern	Herring gull	Roosting				-												
	Shorebird	American golden-plover	Roosting				-												
	Shorebird	American oystercatcher	Roosting			C/-	-												
	Shorebird	Baird's sandpiper	Roosting				-												
	Shorebird	BB sandpiper	Roosting				-												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
13	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
14	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-													-	May-Aug	May-Jun	Jul-Sep
	Waterfowl	Common eider	Roosting			-													-	May-Aug	-	-
13	Alcid	Black guillemot	Roosting			-													-	May-Aug	-	-
	Gull/Tern	G. black-backed gull	Roosting			-													-	May-Aug	-	-
	Gull/Tern	Herring gull	Roosting			-													-	May-Aug	-	-
	Pelagic	Leach's storm-petrel	Roosting	C/-		-													-	-	-	-
	Wading	BC night-heron	Roosting	E/-		-													-	-	-	-
	Waterfowl	Common eider	Roosting			-													-	May-Sep	Apr	Oct
	Raptor	Bald eagle	Vulnerable Occurrence	C/T		-													-	May-Aug	-	-
	Shorebird	American golden-plover	Concentration Area			Foraging													-	Mar-May	-	-
	Shorebird	American oystercatcher	Concentration Area	C/-		Foraging													-	May-Jun	May	Sep
	14	Shorebird	Baird's sandpiper	Concentration Area			Foraging													-	-	-
Shorebird		BB sandpiper	Concentration Area			Foraging													-	Aug	Oct	-
Shorebird		Black-bellied plover	Concentration Area			Foraging													-	May	Jul-Oct	-
Shorebird		Dunlin	Concentration Area			Foraging													-	May	Aug-Oct	-
Shorebird		Greater yellowlegs	Concentration Area			Foraging													-	May	Jul-Oct	-
Shorebird		Hudsonian godwit	Concentration Area			Foraging													-	-	Jul-Oct	-
Shorebird		Least sandpiper	Concentration Area			Foraging													-	May-Jun	Jul-Oct	-
Shorebird		Lesser yellowlegs	Concentration Area	C/-		Foraging													-	May-Jun	Jul-Oct	-
Shorebird		Pectoral sandpiper	Concentration Area			Foraging													-	Apr-May	Sep-Oct	-
Shorebird		Red Knot	Concentration Area	C/-	T	Foraging													-	May	Aug-Oct	-
14	Shorebird	Ruddy turnstone	Concentration Area			Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area			Foraging													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area			Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area			Foraging													-	May-Jun	Jul-Oct	-

# BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
15	Shorebird	Solitary sandpiper	Concentration Area			Foraging										Jun	-	-			
	Shorebird	Stilt sandpiper	Concentration Area			Foraging										Jul	Sep	-			
	Shorebird	Western sandpiper	Concentration Area			Foraging										Jul	Oct	-			
	Shorebird	Whimbrel	Concentration Area	C/-		Foraging										-	Jul-Oct	-			
	Shorebird	White-rumped sandpiper	Concentration Area			Foraging										May-Jun	Jul-Oct	-			
	Shorebird	Willet	Concentration Area	-C		Foraging										May-Aug	Jul-Sep	-			
	Shorebird	Purple sandpiper	Vulnerable Occurrence			-										-	Apr-May	Oct	-		

# FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-C		-													-			Mar-Oct	Mar-Oct
300	Diadromous	Brook trout (sea run)	Migration	C/-		-													-			Jan-May	Jan-May
301	Diadromous	American eel	Migration	-C		-													-			Mar-Oct	Mar-Oct

# HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence																	
				S	F		J	F	M	A	M	J	J	A	S	O	N	D						
480	Wetland	Tidal Marsh	High Ecological Value			-																		
482	Wetland	SM cordgrass/wiregrass	High Ecological Value			-																		
483	Plant	Rare plant	Vulnerable Occurrence	C/C		-																		
484	Plant	Endangered plant	Vulnerable Occurrence	E/E		-																		

# INVERTEBRATES




Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
676	Bivalve	Blue mussel	Harvest Area			-												May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec
680	Gastropod	Rare snail	Vulnerable Occurrence	C/-		-												May-Jul	-	-	Jan-Dec	Jan-Dec

# MARINE MAMMALS


Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )



# BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Alcid	Razorbill	General Distribution	T/-		-												-	-	-	-
	Diving	Common Loon	General Distribution	-T		-												-	-	-	-
		Great cormorant	General Distribution	T/-		-												-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C		-												May-Oct	-	-	-
		Common tern	General Distribution	C/T		-												May-Aug	-	-	-



# BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
	Waterfowl	Roseate tern	General Distribution	E/E	E													-	-	-	-
		American black duck	Rafting															Apr-Aug	-	-	-
		Black Scoter	Rafting															-	-	-	-
		Bufflehead	Rafting															-	-	-	-
		Common eider	Rafting															May-Aug	-	-	-
		Common goldeneye	Rafting															-	-	-	-
		Common merganser	Rafting															-	-	-	-
		Harlequin duck	Rafting															-	-	-	-
		Long-tailed duck	Rafting	T/-														-	-	-	-
		Mallard	Rafting															May	May	Sep	-
		Red-breasted merganser	Rafting															Apr-Aug	-	-	-
		Ruddy duck	Rafting															Dec-Jan	-	-	-
		Scaup	Rafting															Dec-Jan	-	-	-
		Surf scoter	Rafting															-	-	-	-
		White-winged scoter	Rafting															-	-	-	-

# FISH




Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous	Atlantic sturgeon	-/T														-	-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	E/E	E													-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Striped bass															-	-	-	Jan-Dec	Jan-Dec
		Black Seabass															-	-	-	Jan-Dec	Jan-Dec

# INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	J	F	M	A	M	J	J	A	S	O	N	D					
	Bivalve	Sea scallop	-/C														Jul-Oct	-	-	Jan-Dec	Jan-Dec
		Softshell clam	-/C														May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab	-/C														May-Jul	May-Jul	-	Jan-Dec	Jan-Dec

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Black guillemot												May-Aug	-	-	-
		Dovekie												-	-	-	-
	Diving	Thick-billed murre												-	-	-	-
		D. crested cormorant												Jun-Sep	-	-	-
		Horned grebe												-	-	-	-
		Red-necked grebe												-	-	-	-
	Gull/Tern	Red-throated loon												-	-	-	-
		G. black-backed gull												-	-	-	-

## BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
		Herring gull																-	-	-	-
		Ring-billed gull																-	-	-	-
	Pelagic	Northern gannet																-	-	-	-

## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Estuarine Nursery	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
Marine Benthic	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Haddock													Mar-Jun	Mar-Jun	Jan-Jun	Jan-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
Marine Pelagic	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct

## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Bivalve	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
Crab	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec	Jan-Dec
Echinoderm	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
Lobster	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Pinniped	Harbor seal													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	196.27	0.31
10B	Freshwater Marshes	49.01	0.08
10C	Swamps	167.14	0.26
10D	Scrub and Shrub Wetlands	153.92	0.24
9A	Sheltered Tidal Flats	188.88	0.30
5	Mixed Sand and Gravel Beaches	971.22	1.52
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	15.76	0.02

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	26,802.56	16.65	10%
10B	Freshwater Marshes	984.37	0.61	< 1%
10C	Swamps	84.72	0.05	< 1%
10D	Scrub and Shrub Wetlands	910.27	0.57	< 1%
9A	Sheltered Tidal Flats	13,084.53	8.13	5%
9B	Vegetated Low Banks	96,687.90	60.08	35%
8A	Sheltered, Impermeable, Rocky Shores	11,668.79	7.25	4%
8B	Sheltered, Solid Man-Made Structures	214.21	0.13	< 1%
6A	Gravel Beaches	2,534.79	1.58	1%
6B	Riprap	253.46	0.16	< 1%
5	Mixed Sand and Gravel Beaches	107,383.40	66.73	38%
4	Coarse Grained Sand Beaches	5,468.80	3.40	2%
3A	Fine to Medium Grained Sand Beaches	1,003.98	0.62	< 1%
3B	Scarp and Steep Slopes (Sand)	355.66	0.22	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	8,685.55	5.40	3%
2B	Exposed Scarps and Steep Slopes (Clay)	87.63	0.05	< 1%
1A	Exposed, Rocky Shores	3,879.15	2.41	1%
1B	Exposed, Solid Man-Made Structures	57.20	0.04	< 1%

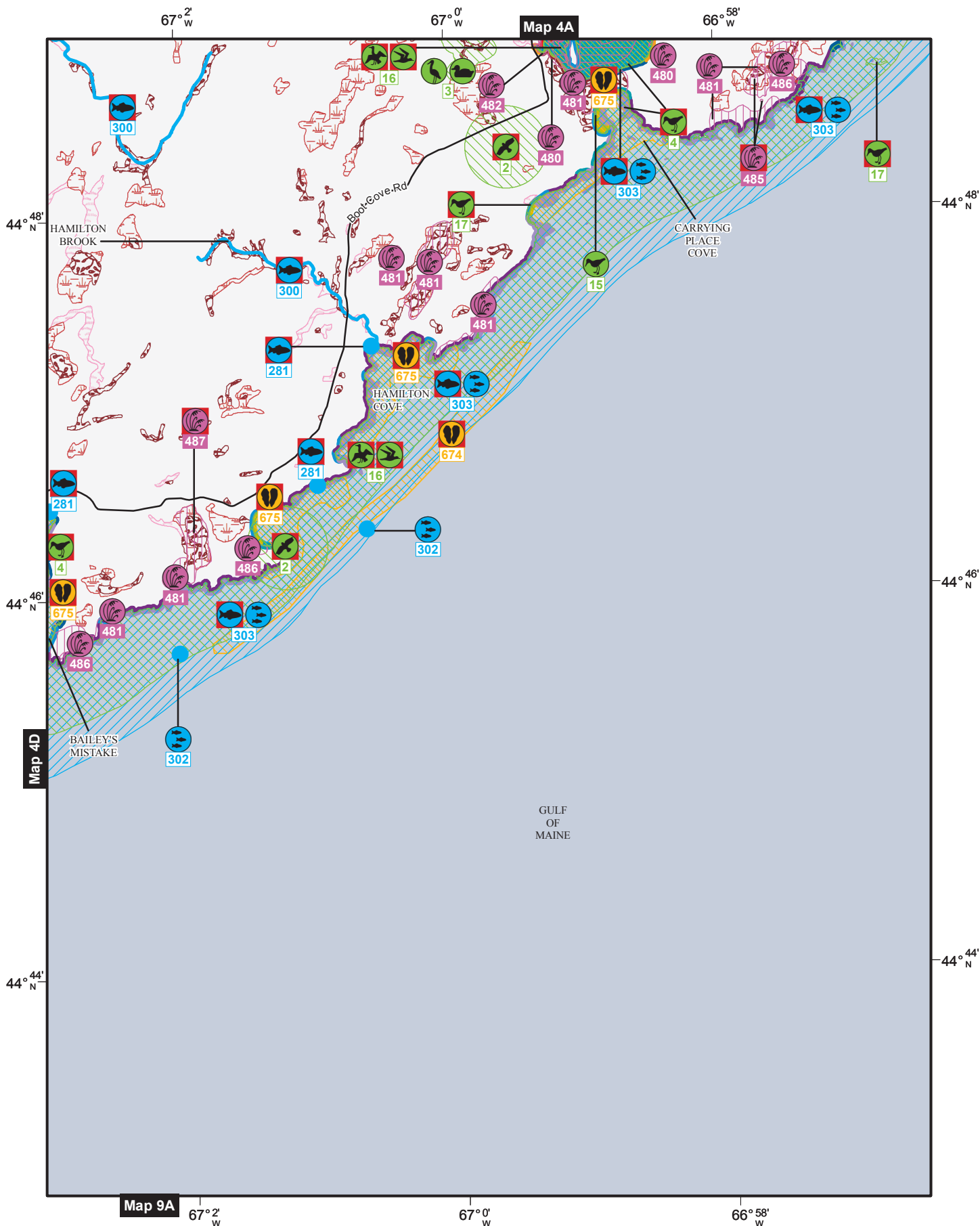
Total ESI Shoreline: 280,146.98      Total ESI Shoreline: 174.08  
 Total Shoreline: 182,297.92      Total Shoreline: 113.27

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



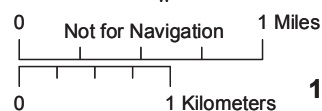




**Map 4C**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016



**1:50,000**

**Map 4C**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
							J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area				High												
SAV	Eelgrass	High Ecological Value				0% To 10% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
2	Raptor	Bald eagle	Vulnerable Occurrence			-												Mar-May	-	-	-	
3	Wading	Wading birds	Vulnerable Occurrence			-												Apr-Nov	Apr-Jun	Jul-Nov	-	
	Waterfowl	Waterfowl	Vulnerable Occurrence			-												Apr-Nov	Apr-Jun	Jul-Nov	-	
4	Shorebird	American golden-plover	Concentration Area			Foraging												-	Aug	Oct	-	
	Shorebird	American oystercatcher	Concentration Area		C/-	Foraging												May-Jun	May	Sep	-	
	Shorebird	Baird's sandpiper	Concentration Area			Foraging												-	-	-	-	
	Shorebird	BB sandpiper	Concentration Area			Foraging												-	Aug	Oct	-	
	Shorebird	Black-bellied plover	Concentration Area			Foraging												-	May	Jul-Oct	-	
	Shorebird	Dunlin	Concentration Area			Foraging												-	May	Aug-Oct	-	
	Shorebird	Greater yellowlegs	Concentration Area			Foraging												-	May	Jul-Oct	-	
	Shorebird	Hudsonian godwit	Concentration Area			Foraging												-	-	Jul-Oct	-	
	Shorebird	Least sandpiper	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-	
	Shorebird	Lesser yellowlegs	Concentration Area		C/-	Foraging												-	May-Jun	Jul-Oct	-	
	Shorebird	Pectoral sandpiper	Concentration Area			Foraging												-	Apr-May	Sep-Oct	-	
	Shorebird	Red Knot	Concentration Area		C/-	Foraging												-	May	Aug-Oct	-	
	Shorebird	Ruddy turnstone	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-	
	Shorebird	Sanderling	Concentration Area			Foraging												-	Apr-May	-	-	
	5	Shorebird	Semipalmated plover	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
Shorebird		Semipalmated sandpiper	Concentration Area		C/-	Foraging												-	May-Jun	Jul-Oct	-	
Shorebird		Short-billed dowitcher	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-	
Shorebird		Solitary sandpiper	Concentration Area			Foraging												-	Jun	-	-	
Shorebird		Stilt sandpiper	Concentration Area			Foraging												-	Jul	Sep	-	
Shorebird		Western sandpiper	Concentration Area			Foraging												-	Jul	Oct	-	
Shorebird		Whimbrel	Concentration Area		C/-	Foraging												-	-	Jul-Oct	-	
Shorebird		White-rumped sandpiper	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-	
Shorebird		Willet	Concentration Area		-/C	Foraging												May-Aug	May-Jun	Jul-Sep	-	
15		Shorebird	Purple sandpiper	Vulnerable Occurrence			-												-	Apr-May	Oct	-
16		Diving	Common Loon	General Distribution		-/T	-												-	-	-	-
Diving		Great cormorant	General Distribution		T/-	-													-	-	-	-
Gull/Tern		Arctic tern	General Distribution		T/C	-													May-Oct	-	-	-
Gull/Tern		Common tern	General Distribution		C/T	-													May-Aug	-	-	-

**BIRDS (continued)**

[illegible]

## FISH

[illegible]

## HABITATS & RARE PLANTS

[illegible]




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## INVERTEBRATES


Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults		
				S	F		J	F	M	A	M	J	J	A	S	O	N	D						
674	Bivalve	Sea scallop	Harvest Area	-C		-														Jul-Oct	-	-	Jan-Dec	Jan-Dec
675	Bivalve	Softshell clam	Harvest Area	-C		-														May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )



## BIRDS

Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
							J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Atlantic puffin	T/-	General Distribution	-														-	-	-	-
		Razorbill	T/-	General Distribution	-														-	-	-	-
	Pelagic	Leach's storm-petrel	C/-	General Distribution	-														-	-	-	-
	Shorebird	Red-necked phalarope	C/-	General Distribution	-														-	Jun	-	-


## REPTILES & AMPHIBIANS

Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Nest	Hatch	Interstest	Juveniles	Adults
							J	F	M	A	M	J	J	A	S	O	N	D					
	Turtle	Green sea turtle	-/-	General Distribution	Rare														-	-	-	Jun-Nov	Jun-Nov
		K. ridley sea turtle	E/-	General Distribution	Rare														-	-	-	Jun-Nov	Jun-Nov
		Leatherback sea turtle	E/-	General Distribution	Low														-	-	-	Jun-Nov	Jun-Nov
		Loggerhead sea turtle	E/-	General Distribution	Low														-	-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES

Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
							J	F	M	A	M	J	J	A	S	O	N	D					
	Crab	Horseshoe crab	-C	General Distribution	Low														May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
	Shrimp	Northern shrimp	-C	General Distribution	Low														-	Dec-Apr	Jan-Dec	Jan-Dec	Dec-Apr

## MARINE MAMMALS

Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
							J	F	M	A	M	J	J	A	S	O	N	D				
	Whale	Fin whale	E/-	General Distribution	Low														-	-	-	-
		Humpback whale	E/-	General Distribution	Low														-	-	-	-
		N.A. right whale	E/-	General Distribution	Low														-	-	-	-
		Sei whale	E/-	General Distribution	Low														-	-	-	-
		Sperm whale	E/-	General Distribution	Rare														-	-	-	-

## BIRDS


Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Alcid	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
Diving	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
Gull/Tern	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
Pelagic	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
	Sooty shearwater													-	-	-	-
Shorebird	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-

## FISH




Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Diadromous Estuarine Nursery	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Jan-Dec	-
Marine Benthic	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	Atlantic cod													-	-	-	Mar-Oct	Mar-Oct
	Atlantic Wolffish													-	-	-	Mar-Oct	Mar-Oct
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Haddock													-	-	-	Mar-Oct	Mar-Oct
	Haddock													-	-	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct






## FISH (continued)

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct

## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES



ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	1.73	0.00
10B	Freshwater Marshes	83.34	0.13
10C	Swamps	352.31	0.55
10D	Scrub and Shrub Wetlands	289.15	0.45
7	Exposed Tidal Flats	5.24	0.01
5	Mixed Sand and Gravel Beaches	69.48	0.11
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	155.49	0.24

## ESI SHORELINE HABITAT TYPES



ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	318.37	0.20	1%
10C	Swamps	16.22	0.01	< 1%
10D	Scrub and Shrub Wetlands	827.36	0.51	2%
9B	Vegetated Low Banks	710.57	0.44	2%
7	Exposed Tidal Flats	1,385.33	0.86	3%
5	Mixed Sand and Gravel Beaches	3,420.75	2.13	8%
4	Coarse Grained Sand Beaches	2,880.93	1.79	7%
3A	Fine to Medium Grained Sand Beaches	805.80	0.50	2%
3B	Scarps and Steep Slopes (Sand)	715.85	0.44	2%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	15,952.39	9.91	39%
1A	Exposed, Rocky Shores	13,451.56	8.36	33%
Total ESI Shoreline:		40,485.13	25.16	
Total Shoreline:		21,654.61	13.46	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 4D**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
3	Wading	Wading birds	Vulnerable Occurrence		-												
4	Shorebird	Waterfowl	Vulnerable Occurrence		-												
	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/-	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-												
16	Diving	Common Loon	General Distribution	-/T	-												
	Diving	Great cormorant	General Distribution	T/-	-												
	Gull/Tern	Arctic tern	General Distribution	T/C	-												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Molt
						J	F	M	A	M	J	J	A	S	O	N	D	
18	Gull/7 em	Common tern	General Distribution	C/T	-												May-Aug	-
	Gull/7 em	Roseate tern	General Distribution	E/E	-												-	-
	Diving	Common Loon	General Distribution	-/T	-												-	-
	Diving	Great cormorant	General Distribution	T/-	-												-	-
	Gull/7 em	Arctic tern	General Distribution	T/C	-												May-Oct	-
	Gull/7 em	Common tern	General Distribution	C/T	-												May-Aug	-
	Gull/7 em	Roseate tern	General Distribution	E/E	-												-	-
	Shorebird	American golden-plover	Concentration Area		Foraging												-	Aug Oct
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												May-Jun	May Sep
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												-	-
	Shorebird	BB sandpiper	Concentration Area		Foraging												-	Aug Oct
	Shorebird	Black-bellied plover	Concentration Area		Foraging												-	Jul-Oct
	Shorebird	Dunlin	Concentration Area		Foraging												-	May Aug-Oct
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												-	Jul-Oct
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												-	Jul-Oct
	Shorebird	Least sandpiper	Concentration Area		Foraging												-	May-Jun Jul-Oct
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												-	May-Jun Jul-Oct
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												-	Apr-May Sep-Oct
19	Shorebird	Red Knot	Concentration Area	C/-	T												-	May Aug-Oct
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												-	May-Jun Jul-Oct
	Shorebird	Sanderling	Concentration Area		Foraging												-	Apr-May
	Shorebird	Semipalmated plover	Concentration Area		Foraging												-	May-Jun Jul-Oct
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												-	May-Jun Jul-Oct
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												-	May-Jun Jul-Oct
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												-	Jun
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												-	Jul Sep
	Shorebird	Western sandpiper	Concentration Area		Foraging												-	Jul Oct
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												-	Jul-Oct
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												-	May-Jun Jul-Oct
	Shorebird	Willet	Concentration Area	-/C	Foraging												-	May-Aug Jul-Sep
	Wading	Yellow rail	Vulnerable Occurrence	C/-	-												-	Jan

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C	-													-	-	-	Mar-Oct	Mar-Oct
283	Diadromous	Alewife	Migration	-/C	-													-	-	-	Apr-Jul	Apr-Jul
	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C	-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E													-	-	-	Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration	-/T	T													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Blueback herring	Migration	-/C	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul

# FISH (continued)

		ME/NH		Monthly Presence											
		E/E	E												
Diadromous	Shortnose sturgeon	Migration												-	Jan-Dec
Diadromous	Striped bass	Migration												-	Jan-Dec
Freshwater	Rainbow smelt	Migration												-	Jan-Dec
Marine Benthic	Atlantic tomcod	Migration												-	Oct-Apr
300	Diadromous Brook trout (sea run)	Migration												Dec-Feb	Jan-Dec
302	Estuarine Nursery Atlantic herring	Spawning Area												-	Jan-May
303	Diadromous Atlantic sturgeon	General Distribution												-	Jan-Dec
	Shortnose sturgeon	General Distribution												-	Jan-Dec
	Striped bass	Concentration Area												-	Jan-Dec
304	Estuarine Nursery Black Seabass	Concentration Area												-	Jan-Dec
	American eel	Migration												-	Mar-Oct
Diadromous	Brook trout (sea run)	Migration												-	Jan-May
Freshwater	Rainbow smelt	Migration												-	Jan-Dec
305	Diadromous American eel	Migration												-	Mar-Oct
Freshwater	Rainbow smelt	Migration												-	Mar-Oct
306	Diadromous Brook trout (sea run)	Migration												-	Oct-Apr
	Brook trout (sea run)	Migration												-	Jan-Dec
Freshwater	Rainbow smelt	Migration												-	Jan-May
														-	Jan-Dec
														-	Oct-Apr

## HABITATS & RARE PLANTS

		ME/NH		Monthly Presence											
Map ID	Subelement	Species	Mapping Qualifier	S	F	Concentration	J	F	M	A	M	J	J	A	S
480	Wetland	Tidal Marsh	High Ecological Value			-									
481	Wetland	Rare ecol. community	High Ecological Value			-									
486	Upland	Rare upland community	High Ecological Value			-									
488	Wetland	Estuarine scrub-shrub	High Ecological Value			-									

## INVERTEBRATES

		ME/NH		Monthly Presence											
Map ID	Subelement	Species	Mapping Qualifier	S	F	Concentration	J	F	M	A	M	J	J	A	S
674	Bivalve	Sea scallop	Harvest Area			-									
675	Bivalve	Softshell clam	Harvest Area			-									
676	Bivalve	Blue mussel	Harvest Area			-									
678	Shrimp	Northern shrimp	General Distribution			Low									
681	Insect	Rare insect	Vulnerable Occurrence			-									




## MARINE MAMMALS

		ME/NH		Monthly Presence											
Map ID	Subelement	Species	Mapping Qualifier	S	F	Concentration	J	F	M	A	M	J	J	A	S
744	Pinniped	Harbor seal	Haul Out			-									




WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )

BIRDS

Subelement	Species	Mapping Qualifier	ME/NH	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D		
 Alcid	Atlantic puffin	General Distribution	T/-	-	-	-														
 Pelagic	Razorbill	General Distribution	T/-	-	-	-														
 Shorebird	Leach's storm-petrel	General Distribution	C/-	-	-	-														
	Red-necked phalarope	General Distribution	C/-	-	-	-														


REPTILES & AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D		
 Turtle	Green sea turtle	General Distribution	-/-	-	-	Rare														
	K. ridley sea turtle	General Distribution	E/-	-	-	Rare														
	Leatherback sea turtle	General Distribution	E/-	-	-	Low														
	Loggerhead sea turtle	General Distribution	E/-	-	-	Low														

INVERTEBRATES




Subelement	Species	Mapping Qualifier	ME/NH	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D		
 Crab	Horseshoe crab	General Distribution	-/C	-	-	Low														

MARINE MAMMALS



Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
 Whale	Fin whale	General Distribution	E/-	E	Low																
	Humpback whale	General Distribution	E/-	E	Low																
	N.A. right whale	General Distribution	E/-	E	Low																
	Sei whale	General Distribution	E/-	E	Low																
	Sperm whale	General Distribution	E/-	E	Rare																

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)




BIRDS

Subelement	Species	Mapping Qualifier	ME/NH	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D		
 Alcid	Black guillemot	General Distribution	-/-	-	-	-														
	Common murre	General Distribution	-/-	-	-	-														
	Dovekie	General Distribution	-/-	-	-	-														
 Diving	Thick-billed murre	General Distribution	-/-	-	-	-														
	D. crested cormorant	General Distribution	-/-	-	-	-														
	Horned grebe	General Distribution	-/-	-	-	-														
	Red-necked grebe	General Distribution	-/-	-	-	-														
	Red-throated loon	General Distribution	-/-	-	-	-														
 Gull/Tern	G. black-backed gull	General Distribution	-/-	-	-	-														
	Herring gull	General Distribution	-/-	-	-	-														

BIRDS (continued)

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Ring-billed gull													-	-	-	-
	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
	Sooty shearwater													-	-	-	-
	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-
														-	-	-	-

FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
 	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	Skates													-	-	-	Mar-Oct	Mar-Oct

## FISH (continued)

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Marine Pelagic	White hake													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct

## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Bivalve	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
Crab	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
Echinoderm	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Dolphin	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
Pinniped	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
Whale	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

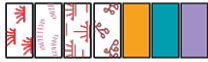
## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	63.78	0.10
10B	Freshwater Marshes	495.67	0.77
10C	Swamps	484.06	0.73
10D	Scrub and Shrub Wetlands	762.95	1.19
9A	Sheltered Tidal Flats	134.12	0.21
5	Mixed Sand and Gravel Beaches	116.59	0.18
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	95.36	0.15



## ESI SHORELINE HABITAT TYPES

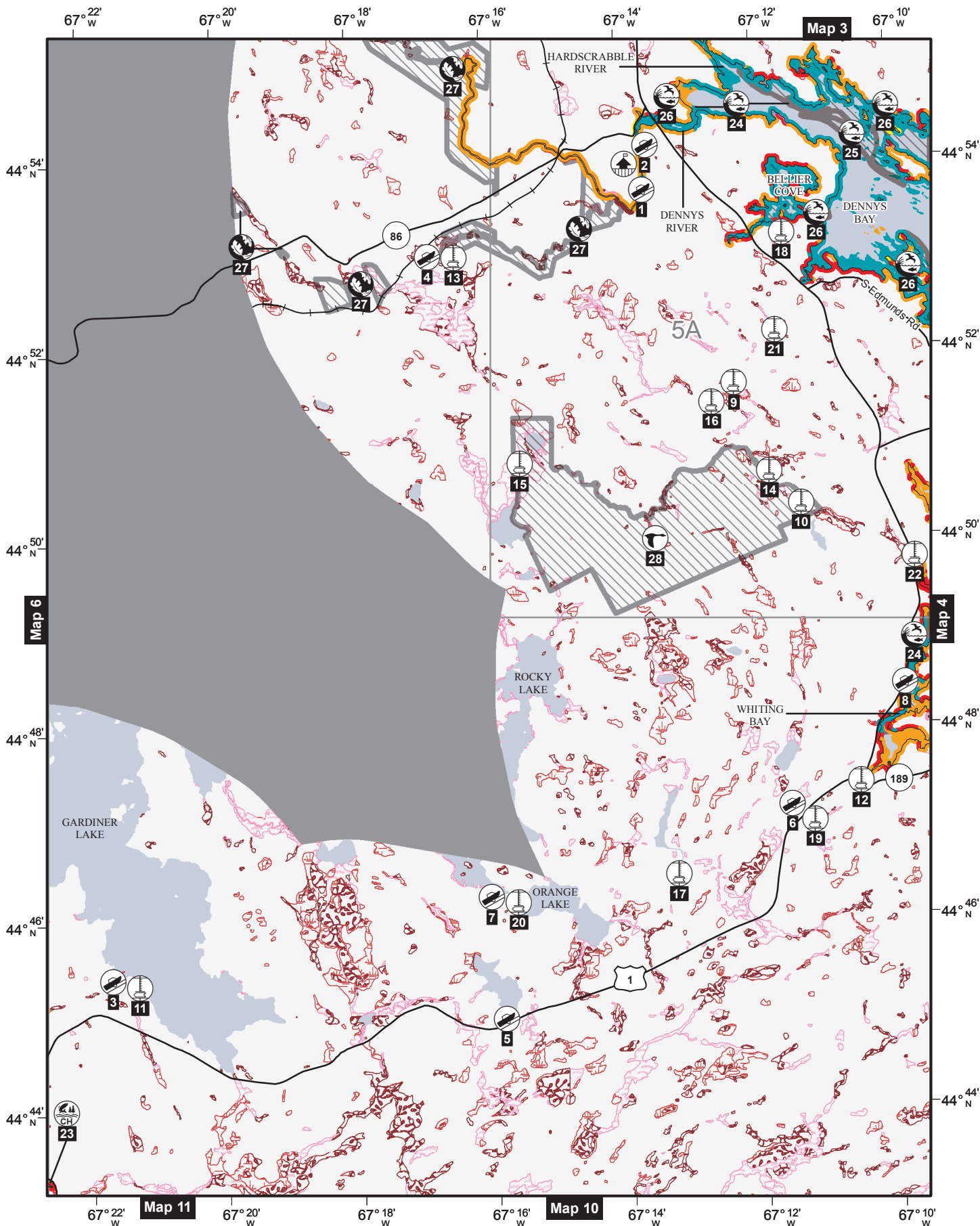
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	6,278.08	3.90	8%
10B	Freshwater Marshes	165.38	0.10	< 1%
10D	Scrub and Shrub Wetlands	1,113.27	0.69	1%
9A	Sheltered Tidal Flats	7,757.50	4.82	10%
9B	Vegetated Low Banks	12,467.63	7.75	17%
8A	Sheltered, Impermeable, Rocky Shores	361.89	0.22	< 1%
7	Exposed Tidal Flats	1,153.70	0.72	2%
6A	Gravel Beaches	102.43	0.06	< 1%
5	Mixed Sand and Gravel Beaches	12,651.88	7.86	17%
4	Coarse Grained Sand Beaches	2,445.13	1.52	3%
3A	Fine to Medium Grained Sand Beaches	1,228.14	0.76	2%
3B	Scarps and Steep Slopes (Sand)	259.61	0.16	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	18,757.30	11.66	25%
1A	Exposed, Rocky Shores	9,765.99	6.07	13%

Total ESI Shoreline: 74,507.95      Total ESI Shoreline: 46.30  
 Total Shoreline: 45,749.58      Total Shoreline: 28.43

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 5**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

**1:100,000**



Map 5  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)			
Map ID	Type	Name	Contact
1	BOAT RAMP	DENNYS RIVER BOAT RAMP 1	DIFW
2	BOAT RAMP	DENNYS RIVER BOAT RAMP 2	DIFW
3	BOAT RAMP	GARDNER LAKE BOAT RAMP	EAST MACHIAS
4	BOAT RAMP	GREAT WORKS POND BOAT RAMP	DIFW
5	BOAT RAMP	INDIAN LAKE BOAT RAMP	DIFW
6	BOAT RAMP	ORANGE RIVER BOAT RAMP	DIFW
7	BOAT RAMP	ROCKY LAKE BOAT RAMP	DIFW
8	BOAT RAMP	WHITING BAY BOAT RAMP	DIFW
9	LOCK AND DAM	ALDER BROOK DIKE	
10	LOCK AND DAM	BIG MEADOWS DAM	
11	LOCK AND DAM	CHASE MILL DAM	TOWN OF EAST MACHIAS
12	LOCK AND DAM	CRANE DAM	ALAN CRANE
13	LOCK AND DAM	GREAT WORKS DAM 2	STATE OF ME DIFG
14	LOCK AND DAM	HALLOWELL FLOWAGE DIKE	
15	LOCK AND DAM	HOBART BOG DAM	NATIONAL WILDLIFE
16	LOCK AND DAM	MIDDLE BROOK DIKE	
17	LOCK AND DAM	MILL DAM 1	JAMES S BURNS SR
18	LOCK AND DAM	NAT SMITH MARSH DIKE	
19	LOCK AND DAM	ORANGE RIVER DAM	INLAND FISH AND WILDLIFE
20	LOCK AND DAM	ROCKY LAKE DAM	M J GARBER
21	LOCK AND DAM	TROUT BROOK DIKE	
22	LOCK AND DAM	WHITING BAY DAM	BELL BROTHERS

DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Contact
23	CRITICAL HABITAT	ATLANTIC SALMON CRITICAL HABITAT	
24	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
25	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
26	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
27	NATURE CONSERVANCY	DENNYS RIVER - MASC	THE NATURE CONSERVANCY
28	WILDLIFE REFUGE	MOOSEHORN WILDERNESS	U.S. FISH & WILDLIFE SERVICE

ALSO PRESENT IN MAPPED AREA (POLYGONS)			
Type	Name	Contact	Phone
STATE PROTECTED AREA	COBSCOOK BAY WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925
STATE PROTECTED AREA	GREAT WORKS WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925

# JURISDICTIONS

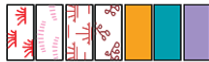
**COUNTY:** WASHINGTON  
**COAST GUARD:** DISTRICT 1, SECTOR NORTHERN NEW ENGLAND  
**USACE:** NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT

**FEMA:** REGION I  
**EPA:** REGION 1

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	170.41	0.27
10B	Freshwater Marshes	2,427.11	3.79
10C	Swamps	2,534.29	3.96
10D	Scrub and Shrub Wetlands	2,502.42	3.91
9A	Sheltered Tidal Flats	157.20	0.25
5	Mixed Sand and Gravel Beaches	821.99	1.28
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	0.64	0.00



## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	25,959.94	16.13	17%
10B	Freshwater Marshes	530.36	0.33	< 1%
10C	Swamps	1,098.17	0.68	1%
10D	Scrub and Shrub Wetlands	1,152.52	0.72	1%
9A	Sheltered Tidal Flats	10,864.62	6.75	7%
9B	Vegetated Low Banks	52,162.15	32.41	33%
8A	Sheltered, Impermeable, Rocky Shores	1,764.38	1.10	1%
6A	Gravel Beaches	100.71	0.06	< 1%
5	Mixed Sand and Gravel Beaches	60,797.28	37.78	39%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	1,796.55	1.12	1%
2B	Exposed Scarps and Steep Slopes (Clay)	82.06	0.05	< 1%
1A	Exposed, Rocky Shores	261.36	0.16	< 1%
Total ESI Shoreline:		156,570.11	97.29	
Total Shoreline:		91,022.79	56.56	

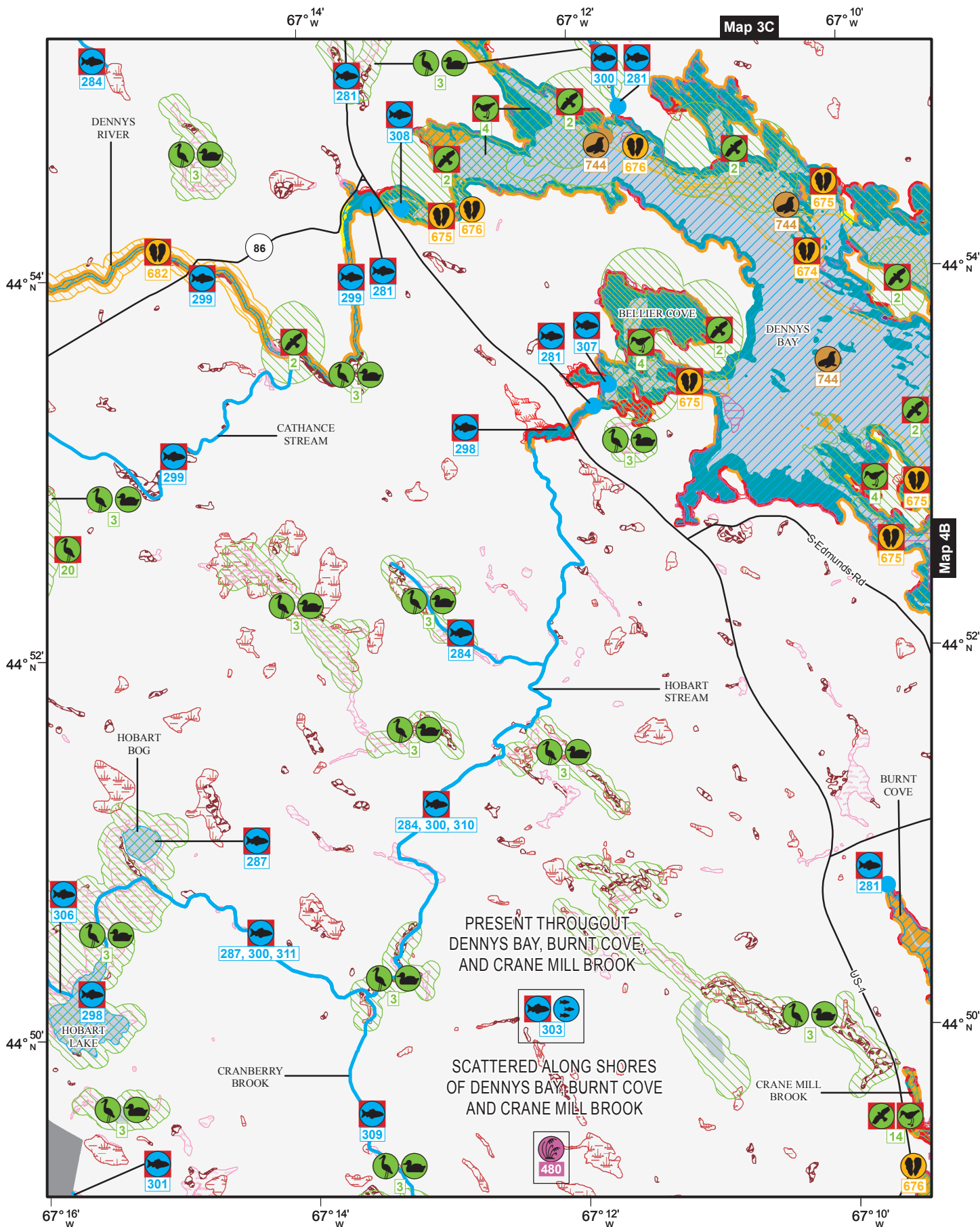
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









**Map 5A**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
							J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area				High												
SAV	Eelgrass	High Ecological Value				0% To 10% Cover												
SAV	Eelgrass	High Ecological Value				10% To 40% Cover												
SAV	Eelgrass	High Ecological Value				40% To 70% Cover												
SAV	Eelgrass	High Ecological Value				70% To 100% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
								J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence				-												
3	Wading	Wading birds	Vulnerable Occurrence				-												
4	Waterfowl	Waterfowl	Vulnerable Occurrence				-												
	Shorebird	American golden-plover	Concentration Area				Foraging												
	Shorebird	American oystercatcher	Concentration Area				Foraging												
	Shorebird	Baird's sandpiper	Concentration Area				Foraging												
	Shorebird	BB sandpiper	Concentration Area				Foraging												
	Shorebird	Black-bellied plover	Concentration Area				Foraging												
	Shorebird	Dunlin	Concentration Area				Foraging												
	Shorebird	Greater yellowlegs	Concentration Area				Foraging												
	Shorebird	Hudsonian godwit	Concentration Area				Foraging												
	Shorebird	Least sandpiper	Concentration Area				Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area				Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area				Foraging												
	Shorebird	Red Knot	Concentration Area				Foraging												
	Shorebird	Ruddy turnstone	Concentration Area				Foraging												
	Shorebird	Sanderling	Concentration Area				Foraging												
	Shorebird	Semipalmated plover	Concentration Area				Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area				Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area				Foraging												
	Shorebird	Solitary sandpiper	Concentration Area				Foraging												
	Shorebird	Stilt sandpiper	Concentration Area				Foraging												
	Shorebird	Western sandpiper	Concentration Area				Foraging												
	Shorebird	Whimbrel	Concentration Area				Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area				Foraging												
	Shorebird	Willet	Concentration Area				Foraging												
14	Raptor	Bald eagle	Vulnerable Occurrence				-												
	Shorebird	American golden-plover	Concentration Area				Foraging												

**BIRDS (continued)**

Map ID	Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	J	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
									J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	American oystercatcher	C/-	Concentration Area			Foraging														May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper		Concentration Area			Foraging														-	-	-	-
	Shorebird	BB sandpiper		Concentration Area			Foraging														-	Aug	Oct	-
	Shorebird	Black-bellied plover		Concentration Area			Foraging														-	May	Jul-Oct	-
	Shorebird	Dunlin		Concentration Area			Foraging														-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs		Concentration Area			Foraging														-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit		Concentration Area			Foraging														-	-	Jul-Oct	-
	Shorebird	Least sandpiper		Concentration Area			Foraging														-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	C/-	Concentration Area			Foraging														-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper		Concentration Area			Foraging														-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	C/-	Concentration Area			Foraging														-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone		Concentration Area			Foraging														-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling		Concentration Area			Foraging														-	Apr-May	-	-
	Shorebird	Semipalmated plover		Concentration Area			Foraging														-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	C/-	Concentration Area			Foraging														-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher		Concentration Area			Foraging														-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper		Concentration Area			Foraging														-	Jun	-	-
	Shorebird	Stilt sandpiper		Concentration Area			Foraging														-	Jul	Sep	-
	Shorebird	Western sandpiper		Concentration Area			Foraging														-	Jul	Oct	-
	Shorebird	Whimbrel	C/-	Concentration Area			Foraging														-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper		Concentration Area			Foraging														-	May-Jun	Jul-Oct	-
	Shorebird	Willet	-/C	Concentration Area			Foraging														-	May-Aug	Jul-Sep	-
20	Wading	Least bittern	E/C	Vulnerable Occurrence			-														-	May-Sep	-	-

**FISH**

Map ID	Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	J	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
									J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	-/C	Harvest Area			-														-	-	-	Mar-Oct	Mar-Oct
284	Diadromous	Sea lamprey	-/C	Migration			-														-	-	-	Apr-Dec	Apr-Jul
287	Diadromous	Alewife	-/C	Migration			-														-	-	-	Apr-Dec	Apr-Jul
298	Diadromous	Alewife	-/C	Migration			-														-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	-/C	Migration			-														-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	-/C	Migration			-														-	-	-	Jan-Dec	May-Mar
	Diadromous	Brook trout (sea run)	C/-	Migration			-														-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	-/C	Migration			-														-	-	-	Apr-Dec	Apr-Jul
	Freshwater	Rainbow smelt	-/C	Migration			-														-	-	-	Jan-Dec	Oct-Apr
299	Diadromous	Alewife	-/C	Migration			-														-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	-/C	Migration			-														-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	-/C	Migration			-														-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	-/C	Migration			-														-	-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	-/C	Migration			-														-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	C/-	Migration			-														-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	-/C	Migration			-														-	-	-	Apr-Dec	Apr-Jul
	Freshwater	Rainbow smelt	-/C	Migration			-														-	-	-	Jan-Dec	Oct-Apr

FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Larvae	Eggs	Spawn	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
300	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
301	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
303	Diadromous	Atlantic sturgeon	General Distribution	-/T	Rare													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Shortnose sturgeon	General Distribution	E/E	Rare													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Concentration Area		High													-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass	Concentration Area		Low													-	-	-	Jan-Dec	Jan-Dec
306	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
307	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	-	Jan-Dec	Oct-Apr
	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	Migration	-/C	E													-	-	-	Jan-Dec	May-Mar
	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	-	Jan-Dec	Oct-Apr
308	Diadromous	Alewife	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C	-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E													-	-	-	Jan-Dec	May-Mar
309	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	-	Jan-Dec	Oct-Apr
	Diadromous	Alewife	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	Migration	-/C	E													-	-	-	Jan-Dec	May-Mar
310	Diadromous	Sea lamprey	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	-	Jan-Dec	Oct-Apr
	Diadromous	Alewife	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
311	Diadromous	Atlantic salmon	Migration	-/C	E													-	-	-	Jan-Dec	May-Mar
	Diadromous	Sea lamprey	Migration	-/C	-													-	-	-	Jan-Dec	Apr-Jul
	Diadromous	Rainbow smelt	Migration	-/C	-													-	-	-	Jan-Dec	Oct-Apr
	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	-	Jan-Dec	Oct-Apr

HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Larvae	Eggs	Spawn	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
480	Wetland	Tidal Marsh	High Ecological Value		-													-	-	-	-	-

INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Larvae	Eggs	Spawn	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
674	Bivalve	Sea scallop	Harvest Area	-/C	-													-	-	Jul-Oct	Jan-Dec	Jan-Dec
675	Bivalve	Softshell clam	Harvest Area	-/C	-													-	-	May-Oct	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area		-													-	-	May-Nov	Jan-Dec	Jan-Dec
682	Bivalve	Brook floater	Vulnerable Occurrence	T/E	-													-	-	Jun-Aug	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D

744	Pinniped	Harbor seal	Haul Out		-												
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WIDESPREAD IN MAPPED AREA ( &gt; 10 SQUARE KILOMETERS )

## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Molt
					J	F	M	A	M	J	J	A	S	O	N	D	

	Alcid	Razorbill	T/-	-													-
	Diving	Common Loon	-T	-													-
		Great cormorant	T/-	-													-
	Gull/Tern	Arctic tern	T/C	-													-
		Common tern	C/T	-													-
		Roseate tern	E/E	-													-

## INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Adults Jan-Dec
					J	F	M	A	M	J	J	A	S	O	N	D	

	Crab	Horseshoe crab	-/C	Low													Jan-Dec
--	------	----------------	-----	-----	--	--	--	--	--	--	--	--	--	--	--	--	---------




ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS




Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Molt
					J	F	M	A	M	J	J	A	S	O	N	D	

	Alcid	Black guillemot															-
		Dovekie															-
		Thick-billed murre															-
	Diving	D. crested cormorant															-
		Horned grebe															-
		Red-necked grebe															-
		Red-throated loon															-
	Gull/Tern	G. black-backed gull															-
		Herring gull															-
		Ring-billed gull															-
	Pelagic	Northern gannet															-

## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
 Estuarine Nursery	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
 Marine Benthic	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
 Marine Pelagic	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
 Bivalve	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
 Crab	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
 Echinoderm	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Pinniped	Harbor seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	141.69	0.22
10B	Freshwater Marshes	544.28	0.85
10C	Swamps	528.60	0.83
10D	Scrub and Shrub Wetlands	305.85	0.48
9A	Sheltered Tidal Flats	66.49	0.10
5	Mixed Sand and Gravel Beaches	791.32	1.24
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	0.64	0.00

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	20,539.22	12.76	16%
10B	Freshwater Marshes	467.80	0.29	< 1%
10C	Swamps	1,000.88	0.62	1%
10D	Scrub and Shrub Wetlands	1,100.97	0.68	1%
9A	Sheltered Tidal Flats	4,601.30	2.86	4%
9B	Vegetated Low Banks	41,175.74	25.59	32%
8A	Sheltered, Impermeable, Rocky Shores	1,764.38	1.10	1%
5	Mixed Sand and Gravel Beaches	55,314.01	34.37	43%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	1,796.30	1.12	1%
2B	Exposed Scarps and Steep Slopes (Clay)	82.06	0.05	< 1%
1A	Exposed, Rocky Shores	261.36	0.16	< 1%

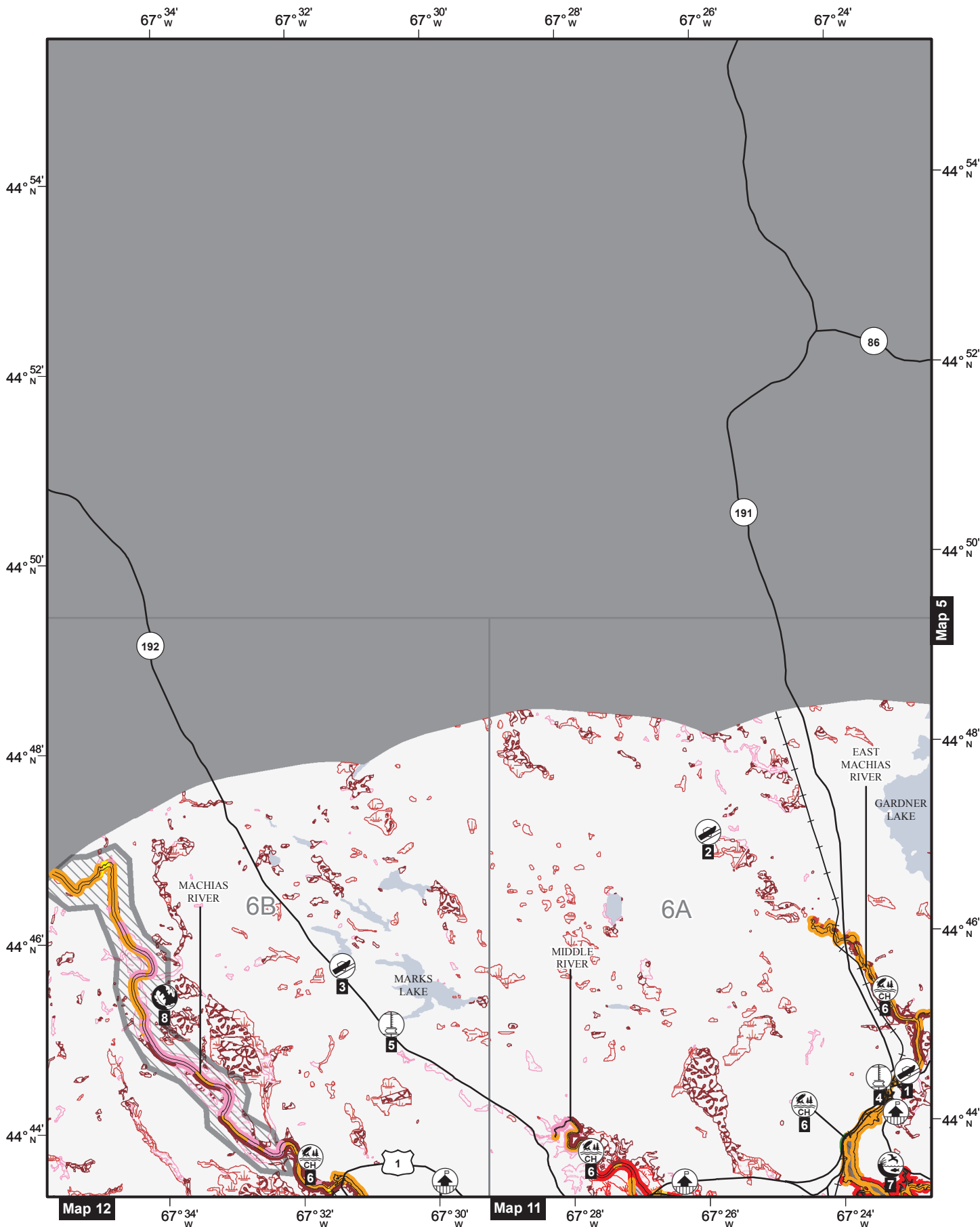
Total ESI Shoreline: 128,104.03      Total ESI Shoreline: 79.60  
 Total Shoreline: 73,548.18      Total Shoreline: 45.70

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 6**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

**1:100,000**



Map 6  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)				
Map ID	Type	Name	Contact	Phone
1	BOAT RAMP	EAST MACHIAS RIVER BOAT RAMP	DOC	
2	BOAT RAMP	HADLEY LAKE BOAT RAMP	EAST MACHIAS	
3	BOAT RAMP	SIX MILE LAKE BOAT RAMP	MARSHFIELD	
4	LOCK AND DAM	BANGOR HYDRO DAM	TOWN OF EAST MACHIAS	
5	LOCK AND DAM	MARKS LAKE DAM	MIDDLE RIVER MILL CO	
DISPLAYED ON MAP (POLYGONS)				
Map ID	Type	Name	Contact	Phone
6	CRITICAL HABITAT	ATLANTIC SALMON CRITICAL HABITAT		
7	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
8	NATURE CONSERVANCY	MACHIAS RIVER WATERSHED - ASC	THE NATURE CONSERVANCY	207-729-5181

JURISDICTIONS

COUNTY:	WASHINGTON	FEMA:	REGION I
COAST GUARD:	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	EPA:	REGION 1
USACE:	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT		

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	164.24	0.26
10B	Freshwater Marshes	914.94	1.43
10C	Swamps	1,319.04	2.06
10D	Scrub and Shrub Wetlands	1,775.83	2.77
9A	Sheltered Tidal Flats	87.30	0.14
7	Exposed Tidal Flats	0.21	0.00

## ESI SHORELINE HABITAT TYPES

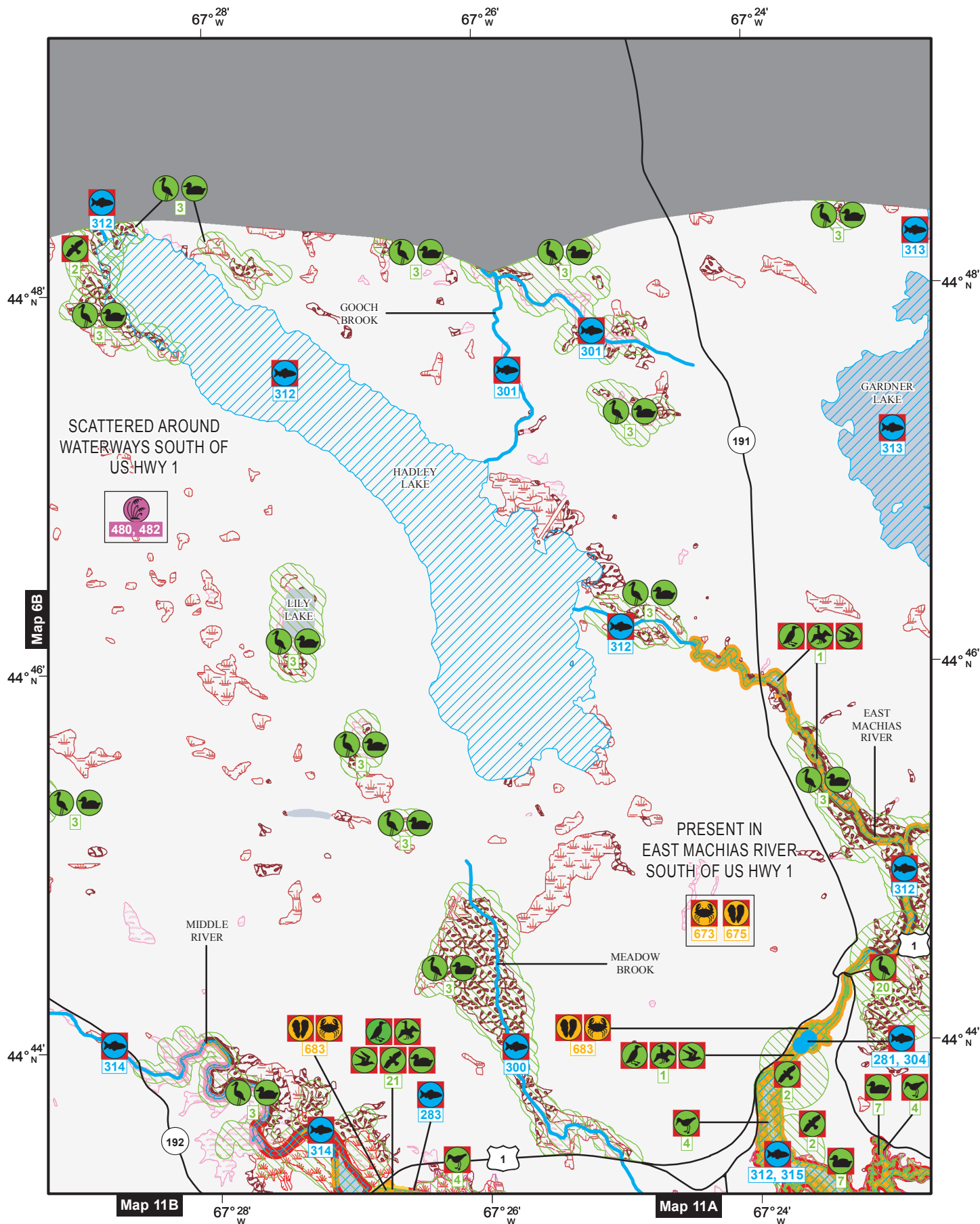
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	10,228.36	6.36	11%
10B	Freshwater Marshes	11,002.30	6.84	12%
10C	Swamps	193.76	0.12	< 1%
10D	Scrub and Shrub Wetlands	16,474.09	10.24	18%
9A	Sheltered Tidal Flats	12,180.90	7.57	14%
9B	Vegetated Low Banks	37,187.14	23.11	42%
8A	Sheltered, Impermeable, Rocky Shores	716.26	0.45	1%
8C	Sheltered Riprap	576.27	0.36	1%
8D	Sheltered, Rocky, Rubble Shores	125.50	0.08	< 1%
7	Exposed Tidal Flats	65.29	0.04	< 1%
6B	Riprap	368.82	0.23	< 1%
5	Mixed Sand and Gravel Beaches	33.01	0.02	< 1%
Total ESI Shoreline:		89,151.69	55.40	
Total Shoreline:		59,972.30	37.27	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 6A**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

1:50,000





**Map 6A  
Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
								J	F	M	A	M	J	J	A	S	O	N	D				
1	Alcid	Razorbill	General Distribution	T/-			-													-	-	-	-
	Diving	Common Loon	General Distribution	-/T			-													-	-	-	-
	Diving	Great cormorant	General Distribution	T/-			-													-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C			-													May-Oct	-	-	-
	Gull/Tern	Common tern	General Distribution	C/T			-													May-Aug	-	-	-
	Gull/Tern	Roseate tern	General Distribution	E/E			-													-	-	-	-
	Raptor	Bald eagle	Vulnerable Occurrence	C/T			-													Mar-May	-	-	-
2	Wading	Wading birds	Vulnerable Occurrence				-													Apr-Nov	Apr-Jun	Jul-Nov	-
	Waterfowl	Waterfowl	Vulnerable Occurrence				-													Apr-Nov	Apr-Jun	Jul-Nov	-
3	Shorebird	American golden-plover	Concentration Area				-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area	C/-			-													May-Jun	May	Sep	-
4	Shorebird	Baird's sandpiper	Concentration Area				-													-	-	-	-
	Shorebird	BB sandpiper	Concentration Area				-													-	-	-	-
5	Shorebird	Black-bellied plover	Concentration Area				-													-	Aug	Oct	-
	Shorebird	Dunlin	Concentration Area				-													-	May	Jul-Oct	-
6	Shorebird	Greater yellowlegs	Concentration Area				-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area				-													-	-	-	-
7	Shorebird	Least sandpiper	Concentration Area				-													-	-	-	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-			-													-	May-Jun	Jul-Oct	-
8	Shorebird	Pectoral sandpiper	Concentration Area				-													-	May-Jun	Jul-Oct	-
	Shorebird	Red Knot	Concentration Area	C/-			-													-	Apr-May	Sep-Oct	-
9	Shorebird	Ruddy turnstone	Concentration Area				-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area				-													-	Apr-May	-	-
10	Shorebird	Semipalmated plover	Concentration Area				-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-			-													-	May-Jun	Jul-Oct	-
11	Shorebird	Short-billed dowitcher	Concentration Area				-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area				-													-	Jun	-	-
12	Shorebird	Stilt sandpiper	Concentration Area				-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area				-													-	Jul	Oct	-
13	Shorebird	Whimbrel	Concentration Area	C/-			-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area				-													-	May-Jun	Jul-Oct	-
14	Shorebird	Willet	Concentration Area	-/C			-													May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	American black duck	Rafting				-													Apr-Aug	-	-	-
15	Waterfowl	Black Scoter	Rafting				-													-	-	-	-
	Waterfowl	Bufflehead	Rafting				-													-	-	-	-
16	Waterfowl	Common eider	Rafting				-													May-Aug	-	-	-
	Waterfowl	Common goldeneye	Rafting				-													-	-	-	-

# BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
	Waterfowl	Common merganser	Rafting															-	-	-	-
	Waterfowl	Harlequin duck	Rafting															-	-	-	-
	Waterfowl	Long-tailed duck	Rafting															-	May	Sep	-
	Waterfowl	Mallard	Rafting															Apr-Aug	-	-	-
	Waterfowl	Red-breasted merganser	Rafting															-	-	-	-
	Waterfowl	Ruddy duck	Rafting															-	Dec-Jan	-	-
	Waterfowl	Scaup	Rafting															-	Dec-Jan	-	-
	Waterfowl	Surf scoter	Rafting															-	-	-	-
	Waterfowl	White-winged scoter	Rafting															-	-	-	-
20	Wading	Least bittern	Vulnerable Occurrence	E/C														May-Sep	-	-	-
21	Acid	Razorbill	General Distribution	T/-														-	-	-	-
	Diving	Common Loon	General Distribution	-/T														-	-	-	-
	Diving	Great cormorant	General Distribution	T/-														-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C														May-Oct	-	-	-
	Gull/Tern	Common tern	General Distribution	C/T														May-Aug	-	-	-
	Gull/Tern	Roseate tern	General Distribution	E/E	E													-	-	-	-
	Raptor	Bald eagle	Vulnerable Occurrence	C/T														Mar-May	-	-	-
	Waterfowl	American black duck	Rafting															Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting															-	-	-	-
	Waterfowl	Bufflehead	Rafting															-	-	-	-
	Waterfowl	Common eider	Rafting															May-Aug	-	-	-
	Waterfowl	Common goldeneye	Rafting															-	-	-	-
	Waterfowl	Common merganser	Rafting															-	-	-	-
	Waterfowl	Harlequin duck	Rafting															-	-	-	-
	Waterfowl	Long-tailed duck	Rafting															-	May	Sep	-
	Waterfowl	Mallard	Rafting															Apr-Aug	-	-	-
	Waterfowl	Red-breasted merganser	Rafting															-	-	-	-
	Waterfowl	Ruddy duck	Rafting															-	Dec-Jan	-	-
	Waterfowl	Scaup	Rafting															-	Dec-Jan	-	-
	Waterfowl	Surf scoter	Rafting															-	-	-	-
	Waterfowl	White-winged scoter	Rafting															-	-	-	-

# FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C														-	-	-	Mar-Oct	Mar-Oct
283	Diadromous	Alewife	Migration	-/C														-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C														-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C														-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E													-	-	-	Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration	-/T	T													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Blueback herring	Migration	-/C														-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-														-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C														-	-	-	Apr-Dec	Apr-Jul

FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Diadromous	Shorthead sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec	
	Diadromous	Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec	
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr	
	Marine Benthic	Atlantic tomcod	Migration			-												Dec-Feb	-	Jan-Dec	Jan-Dec	
300	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	
301	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
308	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
	Diadromous	American shad	Migration	-/C		-												-	-	May-Jul	May-Jul	
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar	
312	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Oct-Apr	Oct-Apr	
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul	
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
	Diadromous	American shad	Migration	-/C		-												-	-	May-Jul	May-Jul	
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar	
	Diadromous	Blueback herring	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
313	Diadromous	Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec	
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr	
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul	
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
314	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	
315	Marine Benthic	Atlantic tomcod	Migration			-												Dec-Feb	-	Jan-Dec	Jan-Dec	
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec	
	Diadromous	Shorthead sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec	
	Marine Benthic	Atlantic tomcod	Migration			-												Dec-Feb	-	Jan-Dec	Jan-Dec	





HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Concentration	High Ecological Value	High Ecological Value
				S	F	J	F	M	A	M	J	J	A	S	O	N	D			
480	Wetland	Tidal Marsh																-	-	-
482	Wetland	SM cordgrass/wiregrass																-	-	-



INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Concentration	Low	Low
				S	F	J	F	M	A	M	J	J	A	S	O	N	D			
673	Crab	Horseshoe crab	General Distribution	-C														-	-	-
675	Bivalve	Softshell clam	Harvest Area	-C														-	-	-
683	Bivalve	Softshell clam	Harvest Area	-C														-	-	-
	Crab	Horseshoe crab	General Distribution	-C														-	-	-
																		-	-	-

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Black guillemot													May-Aug	-	-	-	-
	Dovekie													-	-	-	-	-
	Thick-billed murre													-	-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-	-
	Horned grebe													-	-	-	-	-
	Red-necked grebe													-	-	-	-	-
	Red-throated loon													-	-	-	-	-
	G. black-backed gull													-	-	-	-	-
	Herring gull													-	-	-	-	-
	Ring-billed gull													-	-	-	-	-
	Northern gannet													-	-	-	-	-


## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Harbor seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	163.68	0.26
10B	Freshwater Marshes	318.85	0.50
10C	Swamps	644.24	1.01
10D	Scrub and Shrub Wetlands	818.07	1.28
9A	Sheltered Tidal Flats	86.81	0.14
7	Exposed Tidal Flats	0.21	0.00

## ESI SHORELINE HABITAT TYPES

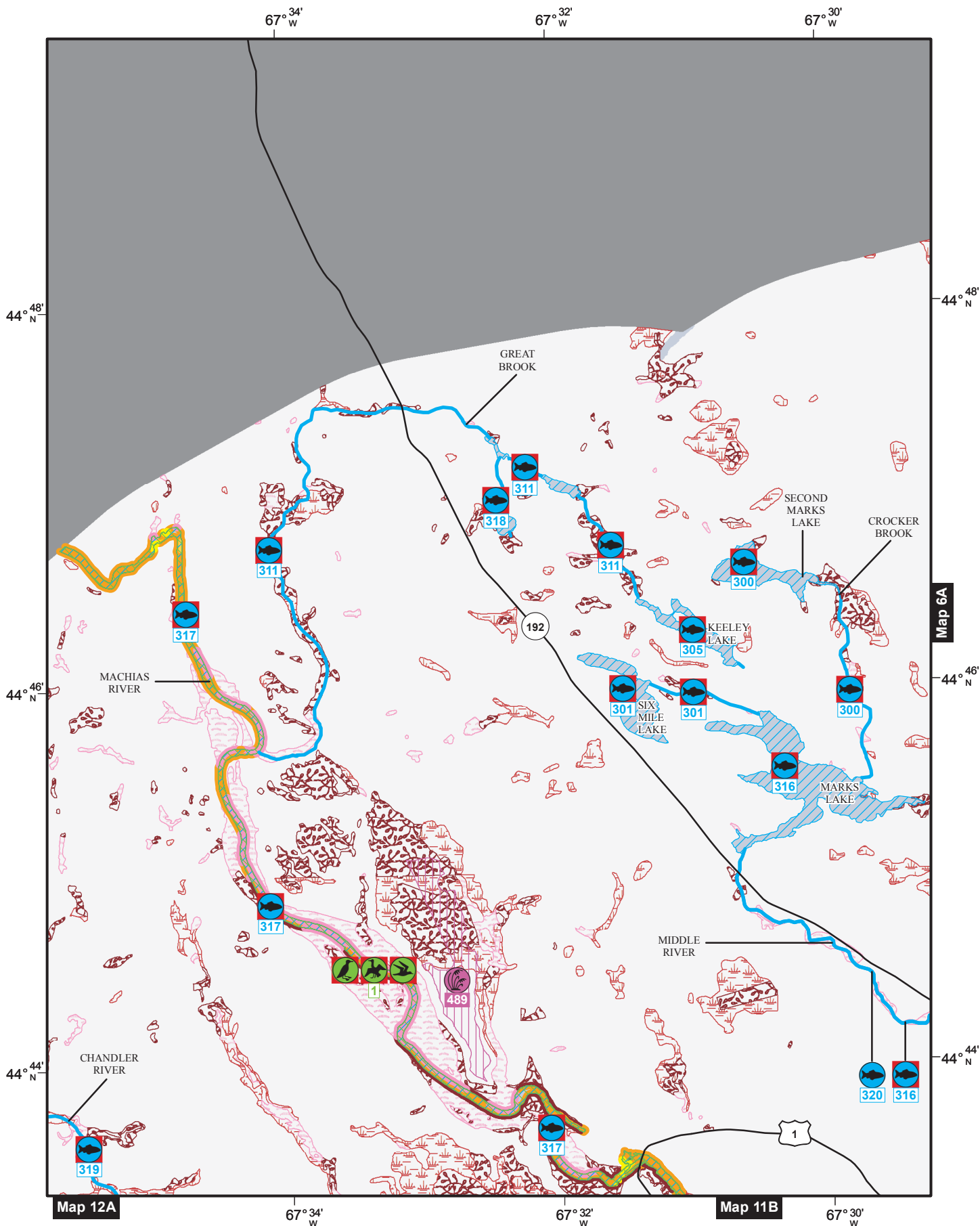
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	10,196.47	6.34	19%
10B	Freshwater Marshes	3,125.95	1.94	6%
10C	Swamps	142.69	0.09	< 1%
10D	Scrub and Shrub Wetlands	8,554.08	5.32	16%
9A	Sheltered Tidal Flats	12,155.00	7.55	22%
9B	Vegetated Low Banks	19,393.59	12.05	36%
8C	Sheltered Riprap	551.75	0.34	1%
7	Exposed Tidal Flats	64.88	0.04	< 1%
6B	Riprap	368.82	0.23	1%
5	Mixed Sand and Gravel Beaches	32.64	0.02	< 1%

Total ESI Shoreline: 54,585.86      Total ESI Shoreline: 33.92  
 Total Shoreline: 33,578.80      Total Shoreline: 20.86

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 6B**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**



Map 6B  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
1	Alcid	Razorbill	General Distribution	T/-	-													-	-	-	-
	Diving	Common Loon	General Distribution	-JT	-													-	-	-	-
	Diving	Great cormorant	General Distribution	T/-	-													-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C	-													May-Oct	-	-	-
	Gull/Tern	Common tern	General Distribution	C/T	-													May-Aug	-	-	-
	Gull/Tern	Roseate tern	General Distribution	E/E	-													-	-	-	-



FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
				S	F		J	F	M	A	M	J	J	A	S	O	N	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
300	Diadromous	Brook trout (sea run)	Migration	C/-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

HABITATS & RARE PLANTS





Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
489	Wetland	Rare wetland community	High Ecological Value	-	-												

## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
 Wading	Wading birds	Vulnerable Occurrence			-												Apr-Nov	Apr-Jun	Jul-Nov	-
 Waterfowl	Waterfowl	Vulnerable Occurrence			-												Apr-Nov	Apr-Jun	Jul-Nov	-

## ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)


## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Alcid	Black guillemot													May-Aug	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
 Diving	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
 Gull/Tern	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
 Pelagic	Northern gannet													-	-	-	-

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
Pinniped	Harbor seal	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



## ESI POLYGON HABITAT TYPES



ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10B	Freshwater Marshes	595.86	0.93
10C	Swamps	674.27	1.05
10D	Scrub and Shrub Wetlands	956.77	1.49

## ESI SHORELINE HABITAT TYPES

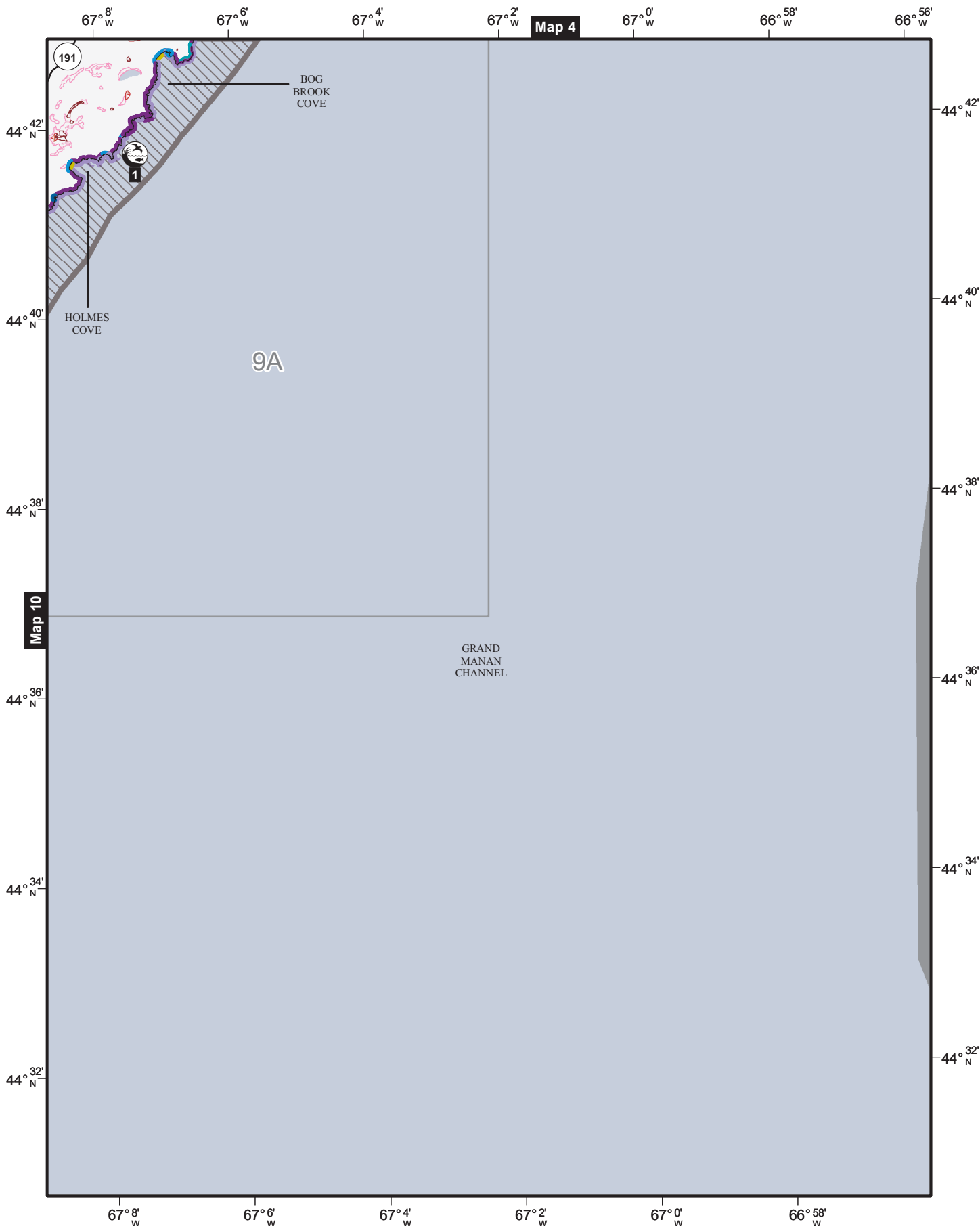
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10B	Freshwater Marshes	7,876.35	4.89	23%
10C	Swamps	46.21	0.03	< 1%
10D	Scrub and Shrub Wetlands	7,920.02	4.92	23%
9B	Vegetated Low Banks	17,777.06	11.05	52%
8A	Sheltered, Impermeable, Rocky Shores	716.26	0.45	2%
8D	Sheltered, Rocky, Rubble Shores	125.50	0.08	< 1%

Total ESI Shoreline: 34,461.39      Total ESI Shoreline: 21.41  
 Total Shoreline: 26,338.27      Total Shoreline: 16.37

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



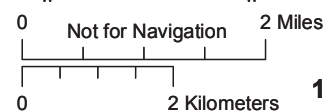


## Map 9

Downeast Maine



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016



1:100,000



Map 9  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Contact
1	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
			Phone 207-624-6550

JURISDICTIONS

COUNTY: WASHINGTON  
COAST GUARD: DISTRICT 1, SECTOR NORTHERN NEW ENGLAND  
USACE: NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT

FEMA: REGION I  
EPA: REGION 1

SHORELINE RESOURCES

ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10B	Freshwater Marshes	71.55	0.11
10C	Swamps	6.62	0.01
10D	Scrub and Shrub Wetlands	14.18	0.02
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	57.80	0.09

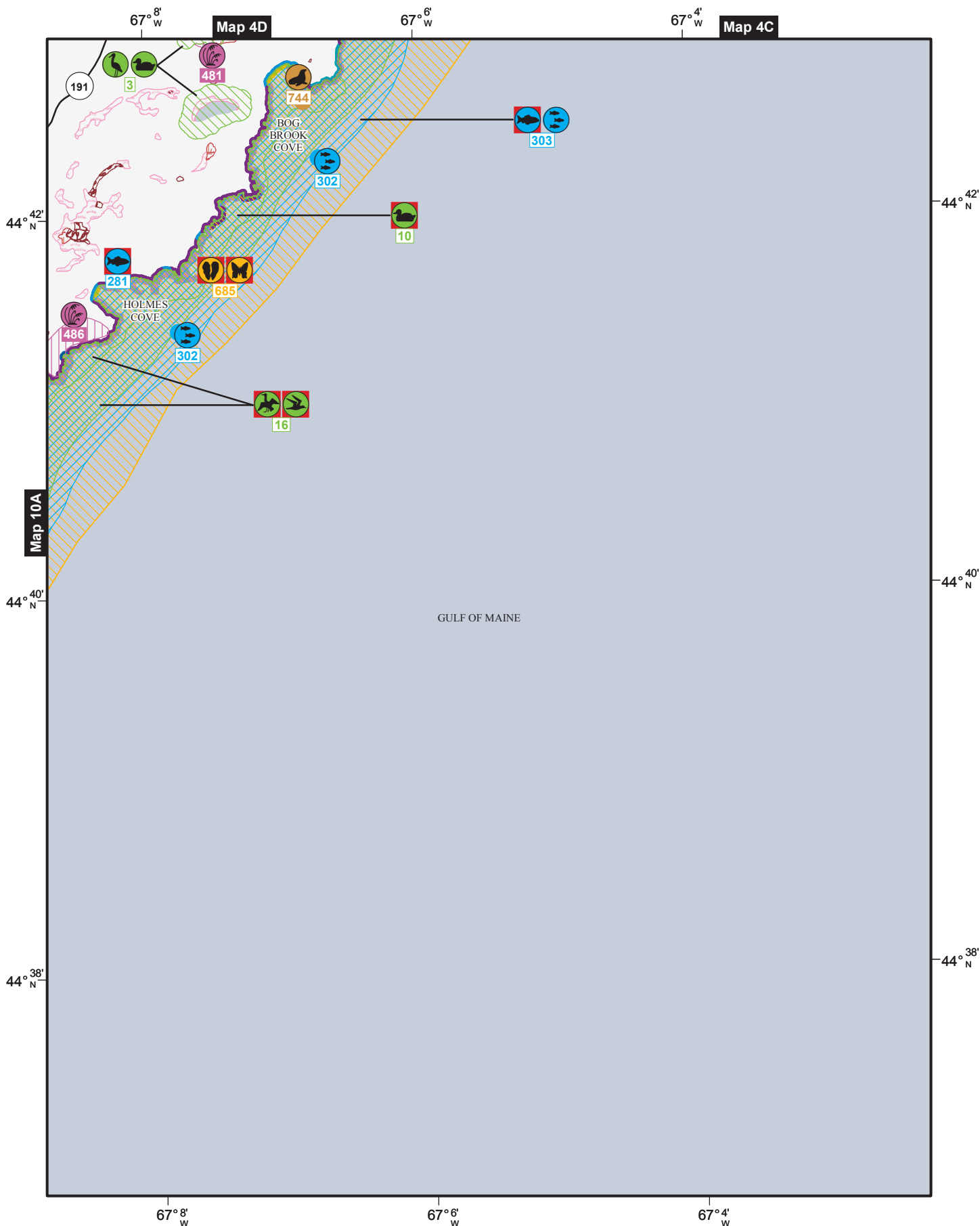
ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
7	Exposed Tidal Flats	514.55	0.32	3%
5	Mixed Sand and Gravel Beaches	692.22	0.43	4%
4	Coarse Grained Sand Beaches	721.10	0.45	4%
3A	Fine to Medium Grained Sand Beaches	67.41	0.04	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	7,647.35	4.75	44%
1A	Exposed, Rocky Shores	7,917.31	4.92	45%
Total ESI Shoreline:		17,559.94	10.91	
Total Shoreline:		8,867.97	5.51	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

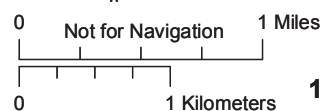




**Map 9A**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016



**1:50,000**



Map 9A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S) Apr-Jun	Mig.(F) Jul-Nov	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
3	Wading	Wading birds	Vulnerable Occurrence		-													Apr-Nov	Apr-Jun	Jul-Nov	-
	Waterfowl	Waterfowl	Vulnerable Occurrence		-													Apr-Nov	Apr-Jun	Jul-Nov	-
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-													-	-	-	-
16	Diving	Common Loon	General Distribution	-/T	-													-	-	-	-
	Diving	Great cormorant	General Distribution	T/-	-													-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C	-													May-Oct	-	-	-
	Gull/Tern	Common tern	General Distribution	C/T	-													May-Aug	-	-	-
	Gull/Tern	Roseate tern	General Distribution	E/E	-													-	-	-	-

FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C	-													-	-	-	Mar-Oct	Mar-Oct
302	Estuarine Nursery	Atlantic herring	Spawning Area		-													-	-	Oct-May	Jan-Dec	Apr-Dec
303	Diadromous	Atlantic sturgeon	General Distribution	-/T	Rare													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Shortnose sturgeon	General Distribution	E/E	Rare													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Concentration Area		High													-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass	Concentration Area		Low													-	-	-	Jan-Dec	Jan-Dec

HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
481	Wetland	Rare ecol. community	High Ecological Value		-												
486	Upland	Rare upland community	High Ecological Value		-												



INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
685	Bivalve	Sea scallop	Harvest Area	-/C	-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
	Insect	Rare insect	Vulnerable Occurrence	C/-	-													May-Jul	-	-	Jan-Dec	Jan-Dec


MARINE MAMMALS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
744	Pinniped	Harbor seal	Haul Out		-													-	-	-	-


## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Atlantic puffin	T/-		-													-	-	-	-
		Razorbill	T/-		-													-	-	-	-
	Pelagic	Leach's storm-petrel	C/-		-													-	-	-	-
	Shorebird	Red-necked phalarope	C/-		-													-	Jun	-	-


## REPTILES &amp; AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
	Turtle	Green sea turtle	-/-	T	Rare													-	-	-	Jun-Nov	Jun-Nov
		K. ridley sea turtle	E/-	E	Rare													-	-	-	Jun-Nov	Jun-Nov
		Leatherback sea turtle	E/-	E	Low													-	-	-	Jun-Nov	Jun-Nov
		Loggerhead sea turtle	E/-	T	Low													-	-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES




Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
	Crab	Horseshoe crab	-/C		Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
	Shrimp	Northern shrimp	-/C		Low													-	Dec-Apr	Jan-Dec	Jan-Dec	Dec-Apr

## MARINE MAMMALS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Whale	Fin whale	E/-	E	Low													-	-	-	-
		Humpback whale	E/-	E	Low													-	-	-	-
		N.A. right whale	E/-	E	Low													-	-	-	-
		Sei whale	E/-	E	Low													-	-	-	-
		Sperm whale	E/-	E	Rare													-	-	-	-



## ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Black guillemot												May-Aug	-	-	-
		Common murre												-	-	-	-
		Dovekie												-	-	-	-
	Diving	Thick-billed murre												-	-	-	-
		D. crested cormorant												Jun-Sep	-	-	-
		Horned grebe												-	-	-	-
	Gull/Tern	Red-necked grebe												-	-	-	-
		Red-throated loon												-	-	-	-
		G. black-backed gull												-	-	-	-



# BIRDS (continued)

## Monthly Presence

Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Nest	Eggs	Larvae	Juveniles	Adults
	Herring gull													-	-	-	-	-
	Ring-billed gull													-	-	-	-	-
	Cory's shearwater													-	-	-	-	-
	Great shearwater													-	-	-	-	-
	Manx shearwater													-	-	-	-	-
	Northern fulmar													-	-	-	-	-
	Northern gannet													-	-	-	-	-
	Sooty shearwater													-	-	-	-	-
	Wilson's storm-petrel													-	-	-	-	-
	Red phalarope													-	-	-	-	-

# FISH




## Monthly Presence

Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Spawn	Eggs	Larvae	Juveniles	Adults
	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Jan-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													-	-	Mar-Oct	Mar-Oct	Mar-Oct
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec



## FISH (continued)

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Skates													-	-	Mar-Oct	Mar-Oct
	White hake													-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	-	Mar-Oct	Mar-Oct
	Atlantic mackerel													Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Butterfish													-	-	May-Nov	May-Nov
														-	-	May-Oct	May-Oct

## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10B	Freshwater Marshes	71.55	0.11
10C	Swamps	6.68	0.01
10D	Scrub and Shrub Wetlands	14.19	0.02
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	57.83	0.09

ESI SHORELINE HABITAT TYPES

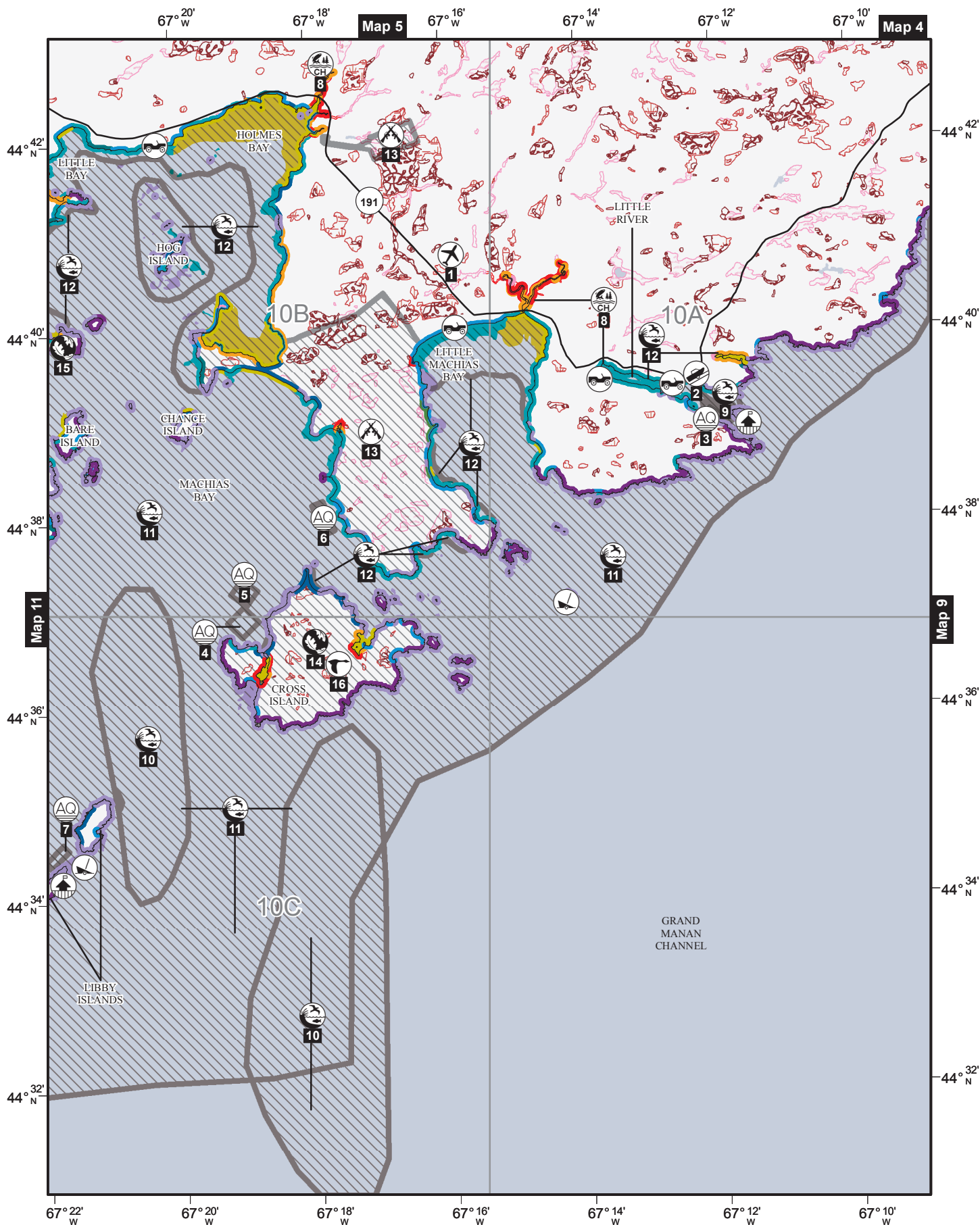
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
7	Exposed Tidal Flats	514.55	0.32	3%
5	Mixed Sand and Gravel Beaches	692.22	0.43	4%
4	Coarse Grained Sand Beaches	721.10	0.45	4%
3A	Fine to Medium Grained Sand Beaches	67.41	0.04	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	7,649.64	4.75	44%
1A	Exposed, Rocky Shores	7,919.59	4.92	45%

Total ESI Shoreline: 17,564.51      Total ESI Shoreline: 10.91  
Total Shoreline: 8,870.25      Total Shoreline: 5.51

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 10**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

**1:100,000**



Map 10  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)			
Map ID	Type	Name	Phone
1	AIRPORT	CUTLER REGIONAL AIRPORT	CHARLES BEAM 207-259-3427
2	BOAT RAMP	CUTLER BOAT RAMP	CUTLER

DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Phone
3	AQUACULTURE	LIT CH - LITTLE RIVER	CATES, ROBERT
4	AQUACULTURE	MACH C12 - NORTHWEST SIDE OF CROSS ISLAND, MACHIAS	COOKE AQUACULTURE USA, INC. 207-255-6714
5	AQUACULTURE	MACH C1N - NORTHWEST SIDE OF CROSS ISLAND, MACHIAS	COOKE AQUACULTURE USA, INC. 207-255-6714
6	AQUACULTURE	MACH CW2 - WEST OF CUTLER PENINSULA, MACHIAS BAY	COOKE AQUACULTURE USA, INC. 207-255-6714
7	AQUACULTURE	MACH LI - OFF THE NORTHERN SIDE OF LIBBY ISLAND, M	COOKE AQUACULTURE USA, INC. 207-255-6714
8	CRITICAL HABITAT	ATLANTIC SALMON CRITICAL HABITAT	
9	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
10	MANAGEMENT AREA	NORTHERN QUAHOG - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
11	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
12	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
13	MILITARY	NAS BRUNSWICK NCTS CUTLER VLF AREA	
14	NATURE CONSERVANCY	CROSS ISLAND ARCHIPELAGO NWR	THE NATURE CONSERVANCY 207-729-5181
15	NATURE CONSERVANCY	SALT ISLAND	THE NATURE CONSERVANCY 207-729-5181
16	WILDLIFE REFUGE	CROSS ISLAND ARCHIPELAGO NATIONAL WILDLIFE REFUGE	U.S. FISH & WILDLIFE SERVICE

ALSO PRESENT IN MAPPED AREA (POLYGONS)		
Type	Name	Contact
STATE PROTECTED AREA	BIG LIBBY ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE
STATE PROTECTED AREA	HOG ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE
STATE PROTECTED AREA	SALT ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE

JURISDICTIONS		
COUNTY:	WASHINGTON	FEMA: REGION I
COAST GUARD:	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	EPA: REGION 1
USACE:	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT	

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	77.52	0.12
10B	Freshwater Marshes	991.77	1.55
10C	Swamps	1,118.42	1.75
10D	Scrub and Shrub Wetlands	1,396.92	2.18
9A	Sheltered Tidal Flats	9.63	0.02
7	Exposed Tidal Flats	853.48	1.33
5	Mixed Sand and Gravel Beaches	534.30	0.83
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	851.01	1.33

## ESI SHORELINE HABITAT TYPES

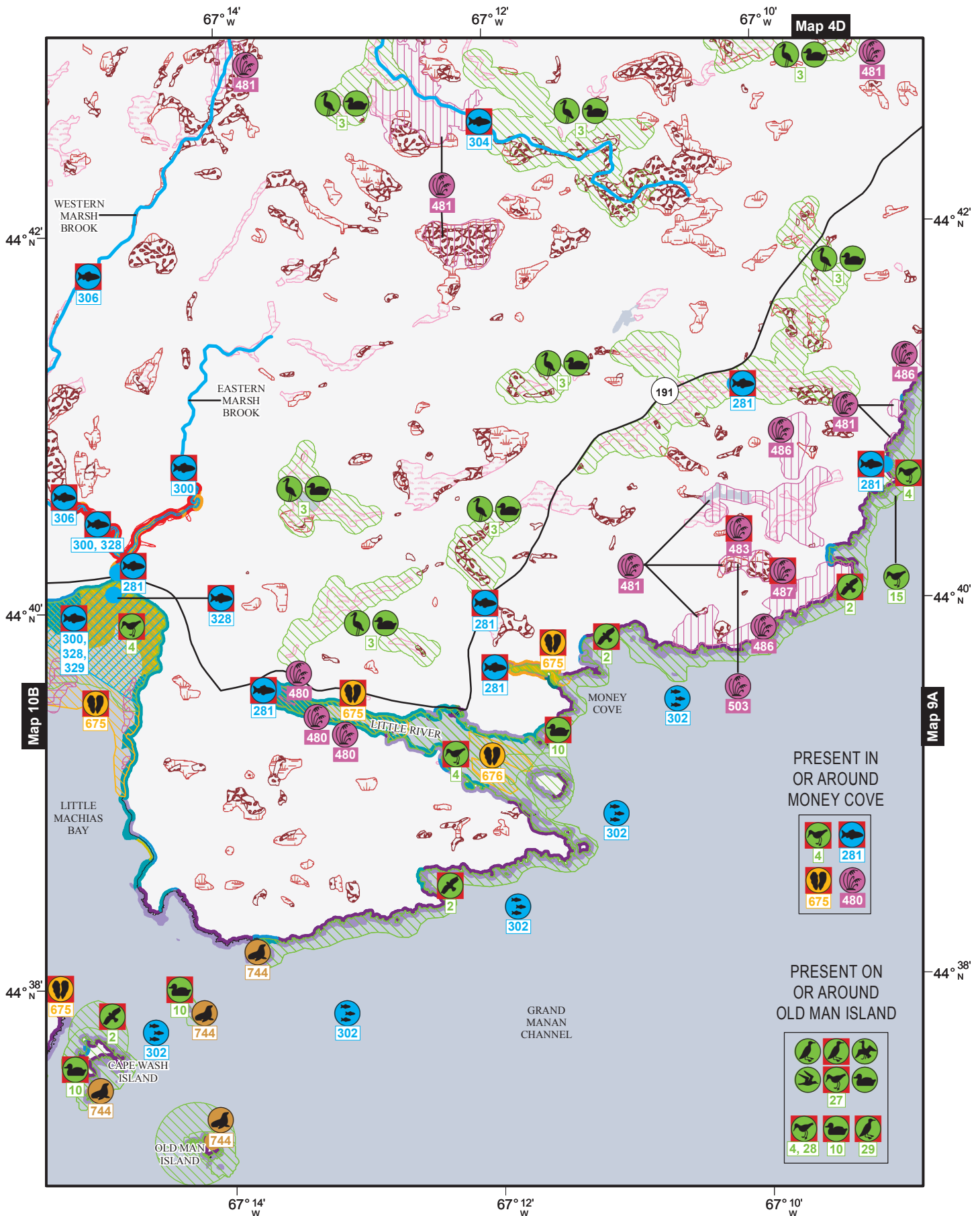
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	9,639.09	5.99	4%
10B	Freshwater Marshes	590.69	0.37	< 1%
10D	Scrub and Shrub Wetlands	421.80	0.26	< 1%
9A	Sheltered Tidal Flats	2,563.91	1.59	1%
9B	Vegetated Low Banks	11,416.51	7.09	4%
7	Exposed Tidal Flats	23,383.17	14.53	9%
6A	Gravel Beaches	2,462.11	1.53	1%
6B	Riprap	1,336.60	0.83	< 1%
5	Mixed Sand and Gravel Beaches	40,670.65	25.27	15%
4	Coarse Grained Sand Beaches	17,994.43	11.18	7%
3A	Fine to Medium Grained Sand Beaches	6,688.63	4.16	2%
3B	Scarps and Steep Slopes (Sand)	1,492.61	0.93	1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	97,165.55	60.38	36%
2B	Exposed Scarps and Steep Slopes (Clay)	73.20	0.05	< 1%
1A	Exposed, Rocky Shores	54,493.65	33.86	20%
1B	Exposed, Solid Man-Made Structures	815.50	0.51	< 1%
Total ESI Shoreline:		271,208.09	168.52	
Total Shoreline:		152,599.83	94.82	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 10A**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**





# Map 10A Downeast Maine

## BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

### BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

### BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
2	Raptor	Bald eagle	Vulnerable Occurrence		-													Mar-May	-	-	-
3	Wading	Wading birds	Vulnerable Occurrence		-													Apr-Nov	Apr-Jun	Jul-Nov	-
	Waterfowl	Waterfowl	Vulnerable Occurrence		-													Apr-Nov	Apr-Jun	Jul-Nov	-
4	Shorebird	American golden-plover	Concentration Area		Foraging													-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area		Foraging													-	-	-	-
	Shorebird	BB sandpiper	Concentration Area		Foraging													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area		Foraging													-	May	Aug-Oct	-
	Shorebird	Dunlin	Concentration Area		Foraging													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area		Foraging													-	-	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging													-	Apr-May	Sep-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area		Foraging													-	May	Aug-Oct	-
	Shorebird	Sanderling	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated plover	Concentration Area		Foraging													-	Apr-May	-	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area		Foraging													-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area		Foraging													-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area		Foraging													-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-/C	Foraging													May-Aug	May-Jun	Jul-Sep	-
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-													-	-	-	-
15	Shorebird	Purple sandpiper	Vulnerable Occurrence		-													-	Apr-May	Oct	-
27	Alcid	Black guillemot	Roosting		-													May-Aug	-	-	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Diving	D. crested cormorant	Roosting			-													Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Roosting			-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting			-													-	-	-	-
	Pelagic	Leach's storm-petrel	Vulnerable Occurrence	C/-		-													-	-	-	-
	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence			-													-	Apr-May	Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-C		-													May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	Common eider	Roosting			-													May-Aug	-	-	-
28	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-



**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-												May-Aug	May-Jun	Jul-Sep	-
29	Acid	Razorbill	Vulnerable Occurrence	T/-		-												-	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C		-												-	-	Mar-Oct	Mar-Oct		
300	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
302	Estuarine Nursery	Atlantic herring	Spawning Area			-												-	-	Jan-Dec	Apr-Dec		
304	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr		
306	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr		
328	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr		
329	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul		
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	American shad	Migration	-/C		-												-	-	May-Feb	May-Jul		
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar		
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Blueback herring	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul		
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec		
	Marine Benthic	Atlantic tomcod	Migration			-												Dec-Feb	-	Jan-Dec	Jan-Dec		

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	
480	Wetland	Tidal Marsh	High Ecological Value			-												-
481	Wetland	Rare ecol. community	High Ecological Value			-												-
483	Plant	Rare plant	Vulnerable Occurrence	C/C		-												-
486	Upland	Rare upland community	High Ecological Value			-												-
487	Upland	Northern comandra	Vulnerable Occurrence	C/-		-												-
503	Wetland	Forested wetland	High Ecological Value			-												-

## INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D				
675	Bivalve	Softshell clam	Harvest Area	-/C	-													May-Oct	May-Oct	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area		-													May-Nov	May-Nov	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
744	Pinniped	Harbor seal	Haul Out		-													-	-	-	-

WIDESPREAD IN MAPPED AREA (> 10 SQUARE KILOMETERS)

## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
					J	F	M	A	M	J	J	A	S	O	N	D				
Alcid	Atlantic puffin	General Distribution	T/-	-													-	-	-	-
	Razorbill	General Distribution	T/-	-													-	-	-	-
Diving	Common Loon	General Distribution	-/T	-													-	-	-	-
	Great cormorant	General Distribution	T/-	-													-	-	-	-
Gull/Tern	Arctic tern	General Distribution	T/C	-													May-Oct	-	-	-
	Common tern	General Distribution	C/T	-													May-Aug	-	-	-
Pelagic	Roseate tern	General Distribution	E/E	E													-	-	-	-
	Leach's storm-petrel	General Distribution	C/-	-													-	-	-	-
Shorebird	Red-necked phalarope	General Distribution	C/-	-													-	Jun	-	-





## FISH

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
Diadromous	Atlantic sturgeon	General Distribution	-/T	T	Rare												-	-	-	Jan-Dec	Jan-Dec
	Shortnose sturgeon	General Distribution	E/E	E	Rare												-	-	-	Jan-Dec	Jan-Dec
Estuarine Nursery	Striped bass	Concentration Area			High												-	-	-	Jan-Dec	Jan-Dec
	Black Seabass	Concentration Area			Low												-	-	-	Jan-Dec	Jan-Dec


## REPTILES & AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Hatch	Interstest	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
Turtle	Green sea turtle	General Distribution	-/-	T	Rare												-	-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	E	Rare												-	-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	E	Low												-	-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	T	Low												-	-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES






Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D				
	Bivalve	Sea scallop	-/C	-													Jul-Oct	-	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab	-/C	Low													May-Jul	-	Jan-Dec	Jan-Dec
	Insect	Rare insect	C/-	-													May-Jul	-	Jan-Dec	Jan-Dec
	Shrimp	Northern shrimp	-/C	Low													-	Dec-Apr	Jan-Dec	Dec-Apr

## MARINE MAMMALS

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Calving	Pupping	Molt
					J	F	M	A	M	J	J	A	S	O	N	D			
	Whale	Fin whale	E/- E	Low													-	-	-
		Humpback whale	E/- E	Low													-	-	-
		N.A. right whale	E/- E	Low													-	-	-
		Sei whale	E/- E	Low													-	-	-
		Sperm whale	E/- E	Rare													-	-	-





## ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS




Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Black guillemot												May-Aug	-	-	-
		Common murre												-	-	-	-
		Dovekie												-	-	-	-
	Diving	Thick-billed murre												Jun-Sep	-	-	-
		D. crested cormorant												-	-	-	-
		Horned grebe												-	-	-	-
		Red-necked grebe												-	-	-	-
		Red-throated loon												-	-	-	-
	Gull/Tern	G. black-backed gull												-	-	-	-
		Herring gull												-	-	-	-
		Ring-billed gull												-	-	-	-
	Pelagic	Cory's shearwater												-	-	-	-
		Great shearwater												-	-	-	-
		Manx shearwater												-	-	-	-
		Northern fulmar												-	-	-	-
		Northern gannet												-	-	-	-
		Sooty shearwater												-	-	-	-
		Wilson's storm-petrel												-	-	-	-
	Shorebird	Red phalarope												-	-	-	-

FISH




Monthly Presence

Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Spawn	Eggs	Larvae	Juveniles	Adults
	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	Atlantic cod													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic Wolffish													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Cunner													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	Skates													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	White hake													-	-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Butterfish													-	-	-	May-Oct	May-Oct

## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
 	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-
														-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	34.43	0.05
10B	Freshwater Marshes	549.83	0.86
10C	Swamps	534.33	0.83
10D	Scrub and Shrub Wetlands	713.55	1.11
9A	Sheltered Tidal Flats	9.63	0.02
7	Exposed Tidal Flats	126.52	0.20
5	Mixed Sand and Gravel Beaches	96.65	0.15
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	202.64	0.32

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	4,658.29	2.89	5%
10B	Freshwater Marshes	212.55	0.13	< 1%
10D	Scrub and Shrub Wetlands	32.30	0.02	< 1%
9A	Sheltered Tidal Flats	2,563.91	1.59	3%
9B	Vegetated Low Banks	2,297.11	1.43	3%
7	Exposed Tidal Flats	3,702.17	2.30	4%
6A	Gravel Beaches	242.39	0.15	< 1%
6B	Riprap	47.60	0.03	< 1%
5	Mixed Sand and Gravel Beaches	12,883.14	8.01	14%
4	Coarse Grained Sand Beaches	1,871.88	1.16	2%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	34,257.73	21.29	38%
1A	Exposed, Rocky Shores	27,795.43	17.27	30%
1B	Exposed, Solid Man-Made Structures	574.76	0.36	1%

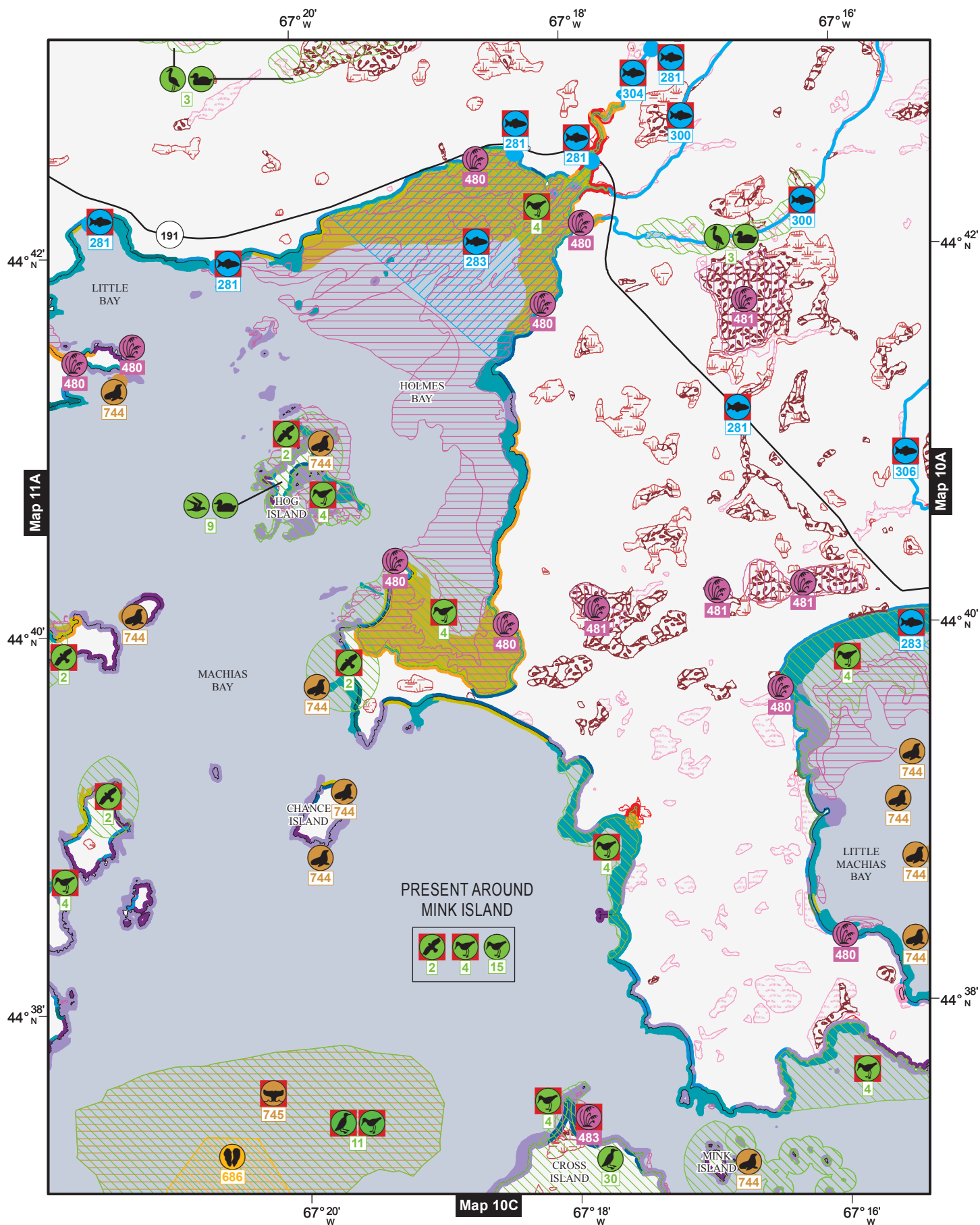
Total ESI Shoreline: 91,139.27      Total ESI Shoreline: 56.63  
 Total Shoreline: 51,108.63      Total Shoreline: 31.76

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





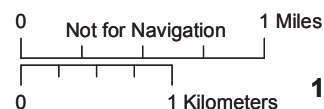


## Map 10B

### Downtown Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016



**1:50,000**





**Map 10B**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
							J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area				High												
SAV	Eelgrass	High Ecological Value				0% To 10% Cover												
SAV	Eelgrass	High Ecological Value				10% To 40% Cover												
SAV	Eelgrass	High Ecological Value				40% To 70% Cover												
SAV	Eelgrass	High Ecological Value				70% To 100% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
								J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T			-												
3	Wading	Wading birds	Vulnerable Occurrence				-												
	Waterfowl	Waterfowl	Vulnerable Occurrence				-												
4	Shorebird	American golden-plover	Concentration Area				Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-			Foraging												
	Shorebird	Baird's sandpiper	Concentration Area				Foraging												
	Shorebird	BB sandpiper	Concentration Area				Foraging												
	Shorebird	Black-bellied plover	Concentration Area				Foraging												
	Shorebird	Dunlin	Concentration Area				Foraging												
	Shorebird	Greater yellowlegs	Concentration Area				Foraging												
	Shorebird	Hudsonian godwit	Concentration Area				Foraging												
	Shorebird	Least sandpiper	Concentration Area				Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-			Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area				Foraging												
	Shorebird	Red Knot	Concentration Area	C/-	T		Foraging												
	Shorebird	Ruddy turnstone	Concentration Area				Foraging												
	Shorebird	Sanderling	Concentration Area				Foraging												
	Shorebird	Semipalmated plover	Concentration Area				Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-			Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area				Foraging												
	Shorebird	Solitary sandpiper	Concentration Area				Foraging												
	Shorebird	Stilt sandpiper	Concentration Area				Foraging												
	Shorebird	Western sandpiper	Concentration Area				Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-			Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area				Foraging												
	Shorebird	Willet	Concentration Area	-C			Foraging												
9	Gull/Tern	G. black-backed gull	Roosting				-												
	Gull/Tern	Herring gull	Roosting				-												

Downeast Maine: Map 10B

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
11	Waterfowl	Common eider	Roosting			-												May-Aug	-	-	-	
	Alcid	Atlantic puffin	General Distribution	T/-		-												-	-	-	-	
	Pelagic	Leach's storm-petrel	General Distribution	C/-		-												-	-	-	-	
	Shorebird	Red-necked phalarope	General Distribution	C/-		-												Jun	-	-	-	
15	Shorebird	Purple sandpiper	Vulnerable Occurrence			-												-	Apr-May	Oct	-	
30	Alcid	Black guillemot	Roosting			-												May-Aug	-	-	-	

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C		-												-	-	-	Mar-Oct	Mar-Oct	
	Diadromous	Alewife	Migration	-/C		-												-	-	-	Apr-Jul	Apr-Jul	
283	Diadromous	American eel	Migration	-/C		-												-	-	-	Mar-Oct	Mar-Oct	
	Diadromous	American shad	Migration	-/C		-												-	-	-	May-Jul	May-Jul	
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	-	Jan-Dec	May-Mar	
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	-	Jan-Dec	Jan-Dec	
	Diadromous	Blueback herring	Migration	-/C		-												-	-	-	Jan-Dec	Jan-Dec	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	-	Jan-May	Jan-May	
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	-	Apr-Jul	Apr-Jul	
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	-	Jan-Dec	Jan-Dec	
	Diadromous	Striped bass	Migration			-												-	-	-	Jan-Dec	Jan-Dec	
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	-	Oct-Apr	Oct-Apr	
300	Marine Benthic	Atlantic tomcod	Migration			-												Dec-Feb	-	-	Jan-Dec	Jan-Dec	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	-	Jan-May	Jan-May	
304	Diadromous	American eel	Migration	-/C		-												-	-	-	Mar-Oct	Mar-Oct	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	-	Jan-May	Jan-May	
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	-	Oct-Apr	Oct-Apr	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	-	Jan-May	Jan-May	
306	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	-	Oct-Apr	Oct-Apr	

**HABITATS & RARE PLANTS**

Map ID		Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence															
					S	F	Concentration			J	F	M	A	M	J	J	A	S	O	N	D	
480		Wetland	Tidal Marsh	High Ecological Value			-															
481		Wetland	Rare ecol. community	High Ecological Value			-															
483		Plant	Rare plant	Vulnerable Occurrence	C/C		-															

**INVERTEBRATES**



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults	
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N						D
686	Bivalve	Northern quahog	Harvest Area			-													Jun-Aug	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
744	Pinniped	Harbor seal	Haul Out		-													-	-	-	-
745	Whale	Fin whale	General Distribution	E/- E	Low													-	-	-	-
	Whale	Humpback whale	General Distribution	E/- E	Low													-	-	-	-
	Whale	N.A. right whale	General Distribution	E/- E	Low													-	-	-	-
	Whale	Sei whale	General Distribution	E/- E	Low													-	-	-	-
	Whale	Sperm whale	General Distribution	E/- E	Rare													-	-	-	-

WIDESPREAD IN MAPPED AREA (&gt; 10 SQUARE KILOMETERS)


## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
					J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Razorbill	General Distribution	T/-	-												-	-	-	-
	Diving	Common Loon	General Distribution	-T	-												-	-	-	-
		Great cormorant	General Distribution	T/-	-												-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C	-												May-Oct	-	-	-
		Common tern	General Distribution	C/T	-												May-Aug	-	-	-
		Roseate tern	General Distribution	E/E	-												-	-	-	-




## FISH

Subelement	Species	Mapping Qualifier	ME/NH S F T	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous	Atlantic sturgeon	General Distribution	-T	Rare												-	-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	General Distribution	E/E	Rare												-	-	-	Jan-Dec	Jan-Dec
		Striped bass	Concentration Area		High												-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass	Concentration Area		Low												-	-	-	Jan-Dec	Jan-Dec

## REPTILES &amp; AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH S F T	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Turtle	Green sea turtle	General Distribution	-I	Rare												-	-	-	Jun-Nov	Jun-Nov
		K. ridley sea turtle	General Distribution	E/- E	Rare												-	-	-	Jun-Nov	Jun-Nov
		Leatherback sea turtle	General Distribution	E/- E	Low												-	-	-	Jun-Nov	Jun-Nov
		Loggerhead sea turtle	General Distribution	E/- T	Low												-	-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Bivalve	Sea scallop	Harvest Area	-I/C	-												Jul-Oct	-	-	Jan-Dec	Jan-Dec
		Softshell clam	Harvest Area	-I/C	-												May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab	General Distribution	-I/C	Low												May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
	Insect	Rare insect	Vulnerable Occurrence	C/-	-												May-Jul	-	-	Jan-Dec	Jan-Dec

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Alcid	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
Diving	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
Gull/Tern	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
Pelagic	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
Shorebird	Sooty shearwater													-	-	-	-
	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-




## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Estuarine Nursery	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Winter flounder													-	-	-	Jan-Dec	-
Marine Benthic	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	Mar-Oct	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-





## FISH (continued)

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Marine Pelagic													-	-	May-Nov	May-Oct
	Atlantic mackerel																
	Butterfish													-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Northern quahog													-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	31.40	0.05
10B	Freshwater Marshes	442.70	0.69
10C	Swamps	501.89	0.78
10D	Scrub and Shrub Wetlands	659.24	1.03
7	Exposed Tidal Flats	697.35	1.09
5	Mixed Sand and Gravel Beaches	437.66	0.68
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	372.33	0.58

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	3,140.11	1.95	2%
10B	Freshwater Marshes	378.14	0.23	< 1%
10D	Scrub and Shrub Wetlands	389.51	0.24	< 1%
9B	Vegetated Low Banks	8,518.12	5.29	7%
7	Exposed Tidal Flats	16,405.87	10.19	13%
6A	Gravel Beaches	2,219.92	1.38	2%
6B	Riprap	1,289.00	0.80	1%
5	Mixed Sand and Gravel Beaches	27,454.60	17.06	21%
4	Coarse Grained Sand Beaches	14,443.10	8.97	11%
3A	Fine to Medium Grained Sand Beaches	5,686.89	3.53	4%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	36,406.20	22.62	28%
2B	Exposed Scarps and Steep Slopes (Clay)	73.20	0.05	< 1%
1A	Exposed, Rocky Shores	12,413.66	7.71	10%
1B	Exposed, Solid Man-Made Structures	240.74	0.15	< 1%

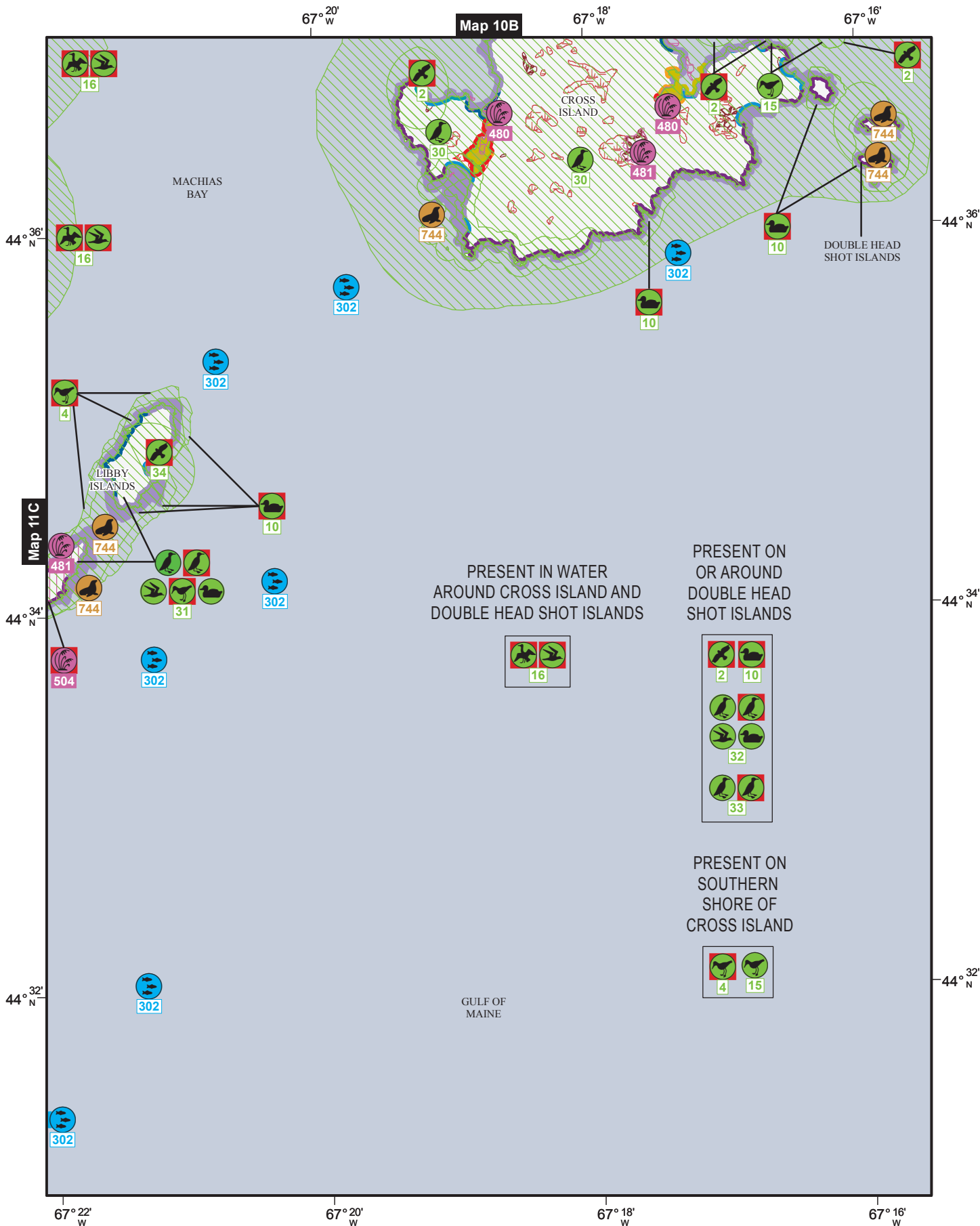
Total ESI Shoreline: 129,059.04      Total ESI Shoreline: 80.19  
 Total Shoreline: 72,477.23      Total Shoreline: 45.04

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



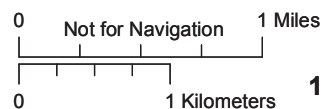




# Map 10C Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016



**1:50,000**





Map 10C  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
							J	F	M	A	M	J	J	A	S	O	N	D				
SAV	Eelgrass	High Ecological Value				0% To 10% Cover													-	-	-	-
SAV	Eelgrass	High Ecological Value				10% To 40% Cover													-	-	-	-
SAV	Eelgrass	High Ecological Value				40% To 70% Cover													-	-	-	-

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
								J	F	M	A	M	J	J	A	S	O	N	D				
2	Raptor	Bald eagle	Vulnerable Occurrence			C/T	-													Mar-May	-	-	-
4	Shorebird	American golden-plover	Concentration Area				Foraging													-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area			C/-	Foraging													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area				Foraging													-	-	-	-
	Shorebird	BB sandpiper	Concentration Area				Foraging													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area				Foraging													-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area				Foraging													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area				Foraging													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area				Foraging													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area				Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area			C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area				Foraging													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Concentration Area			C/-	Foraging													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area				Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area				Foraging													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area				Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area			C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area				Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area				Foraging													-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area				Foraging													-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area				Foraging													-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area			C/-	Foraging													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area			-/C	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area				Foraging													May-Aug	May-Jun	Jul-Sep	-
10	Waterfowl	Harlequin duck	Vulnerable Occurrence			T/-	-													-	-	-	-
15	Shorebird	Purple sandpiper	Vulnerable Occurrence				-													-	Apr-May	Oct	-
16	Diving	Common Loon	General Distribution			-/T	-													-	-	-	-
	Diving	Great cormorant	General Distribution			T/-	-													-	-	-	-
	Gull/Tern	Arctic tern	General Distribution			T/C	-													May-Oct	-	-	-
	Gull/Tern	Common tern	General Distribution			C/T	-													May-Aug	-	-	-

Downeast Maine: Map 10C

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F E/E E	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
30	Gull/Tern	Roseate tern	General Distribution		-													-	-	-	-
	Alcid	Black guillemot	Roosting		-													May-Aug	-	-	-
31	Alcid	Black guillemot	Roosting		-													May-Aug	-	-	-
	Gull/Tern	G. black-backed gull	Roosting		-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting		-													-	-	-	-
	Pelagic	Leach's storm-petrel	Roosting	C/-	-													-	-	-	-
	Shorebird	American golden-plover	Roosting		-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-	-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting		-													-	-	-	-
	Shorebird	BB sandpiper	Roosting		-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting		-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting		-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting		-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting		-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting		-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting		-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting		-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting		-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting		-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-	-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C	-													-	May-Aug	Jul-Sep	-
	Waterfowl	Common eider	Roosting		-													May-Aug	-	-	-
32	Alcid	Black guillemot	Roosting		-													May-Aug	-	-	-
	Gull/Tern	G. black-backed gull	Roosting		-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting		-													-	-	-	-
	Pelagic	Leach's storm-petrel	Roosting	C/-	-													-	-	-	-
	Waterfowl	Common eider	Roosting		-													-	-	-	-
	Alcid	Black guillemot	Roosting		-													May-Aug	-	-	-
33	Pelagic	Leach's storm-petrel	Roosting	C/-	-													May-Aug	-	-	-
	Raptor	Peregrine falcon	Vulnerable Occurrence	E/T	-													-	-	-	-
<b>FISH</b>																					
Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F E/T	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Adults
						J	F	M	A	M	J	J	A	S	O	N	D				
302	Estuarine Nursery	Atlantic herring	Spawning Area		-													-	-	Oct-May	Jan-Dec

## HABITATS & RARE PLANTS




Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												
				S	F		J	F	M	A	M	J	J	A	S	O	N	D	
480	Wetland	Tidal Marsh	High Ecological Value			-													
481	Wetland	Rare ecol. community	High Ecological Value			-													
504	Plant	Birdeye primrose	Vulnerable Occurrence	C/-		-													
MARINE MAMMALS																			
Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												
				S	F		J	F	M	A	M	J	J	A	S	O	N	D	
744	Pinniped	Harbor seal	Haul Out			-													

## MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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744	Pinniped	Harbor seal	Haul Out			-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )


## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Alcid	Atlantic puffin	TI/-		-													-	-	-
		Razorbill	TI/-		-													-	-	-
	Pelagic	Leach's storm-petrel	CI/-		-													-	-	-
	Shorebird	Red-necked phalarope	CI/-		-													Jun	-	-





## FISH

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous	Atlantic sturgeon	-T		Rare												-	-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	E/E		Rare												-	-	-	Jan-Dec	Jan-Dec
		Striped bass	Concentration Area			High											-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass			Low												-	-	-	Jan-Dec	Jan-Dec


## REPTILES & AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH			Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
			S	F	T	J	F	M	A	M	J	J	A	S	O	N	D					
	Green sea turtle	General Distribution	-/-															-	-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	E														-	-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-															-	-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	T														-	-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES






Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
	Bivalve	Northern quahog			-													Jun-Aug	-	-	Jan-Dec	Jan-Dec
		Sea scallop			-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab			Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
	Insect	Rare insect			-													May-Jul	-	-	Jan-Dec	Jan-Dec
	Shrimp	Northern shrimp			Low													-	Dec-Apr	Jan-Dec	-	Dec-Apr

## MARINE MAMMALS



Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
					J	F	M	A	M	J	J	A	S	O	N	D				
	Fin whale	General Distribution	E/- E	Low													-	-	-	-
	Humpback whale	General Distribution	E/- E	Low													-	-	-	-
	N.A. right whale	General Distribution	E/- E	Low													-	-	-	-
	Sei whale	General Distribution	E/- E	Low													-	-	-	-
	Sperm whale	General Distribution	E/- E	Rare													-	-	-	-

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
	Sooty shearwater													-	-	-	-
	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-





## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul




# FISH (continued)

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct

# INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-
														-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## SHORELINE RESOURCES

ESI POLYGON HABITAT TYPES			
ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	11.69	0.02
10C	Swamps	82.33	0.13
10D	Scrub and Shrub Wetlands	24.82	0.04
7	Exposed Tidal Flats	29.61	0.05
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	276.07	0.43

ESI SHORELINE HABITAT TYPES			
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)
10A	Salt and Brackish Water Marshes	1,840.68	1.14
9B	Vegetated Low Banks	601.50	0.37
7	Exposed Tidal Flats	3,275.12	2.04
5	Mixed Sand and Gravel Beaches	335.31	0.21
4	Coarse Grained Sand Beaches	1,679.44	1.04
3A	Fine to Medium Grained Sand Beaches	1,001.74	0.62
3B	Scarps and Steep Slopes (Sand)	1,492.61	0.93
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	26,507.35	16.47
1A	Exposed, Rocky Shores	14,287.75	8.88

Total ESI Shoreline:	51,021.52	Total ESI Shoreline:	31.70
Total Shoreline:	29,021.10	Total Shoreline:	18.03

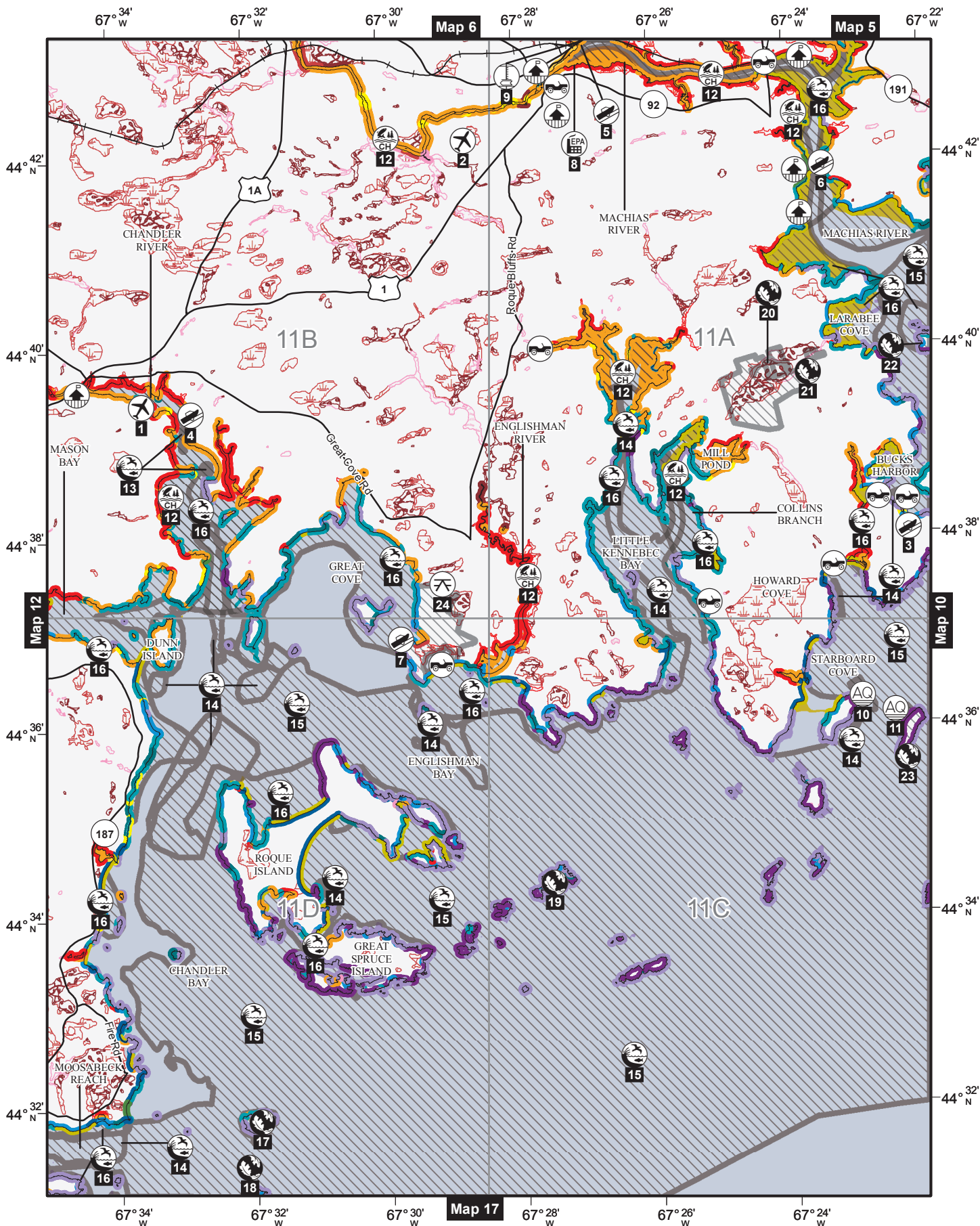
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





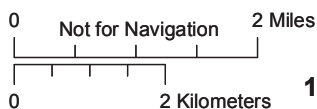




**Map 11**  
**Downeast Maine**



**SEE BACK OF MAP**  
 for details about mapped resources and  
 other resources that occur in mapped area.  
 Data Published: October 2016



**1:100,000**





Map 11  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)				
Map ID	Type	Name	Contact	Phone
1	AIRPORT	DRISKO AIRPORT	RICHARD KELLEY	207-255-6493
2	AIRPORT	MACHIAS VALLEY AIRPORT	CHRISTOPHER K. LOUGHLIN	207-255-8683
3	BOAT RAMP	BUCKS HARBOR BOAT RAMP	MACHIASPORT	
4	BOAT RAMP	JONESBORO BOAT LANDING	JONESBORO	
5	BOAT RAMP	MACHIAS RIVER BOAT RAMP	MACHIAS	
6	BOAT RAMP	MACHIASPORT TOWN LANDING	MACHIASPORT	
7	BOAT RAMP	ROQUE BLUFFS BOAT LANDING	ROQUE BLUFFS	
8	EPA FACILITY	MAINE WILD BLUEBERRY INC		207-255-8364
9	LOCK AND DAM	MIDDLE RIVER DAM	TOWN OF MACHIAS	

DISPLAYED ON MAP (POLYGONS)				
Map ID	Type	Name	Contact	Phone
10	AQUACULTURE	MACH II - NORTHEAST OF STARBOARD ISLAND, MACHIAS B	COOKE AQUACULTURE USA, INC.	207-255-6714
11	AQUACULTURE	MACH ST - OFF THE NORTHWEST CORNER OF STONE ISLAND	COOKE AQUACULTURE USA, INC.	207-255-6714
12	CRITICAL HABITAT	ATLANTIC SALMON CRITICAL HABITAT		
13	MANAGEMENT AREA	ATLANTIC JACKKNIFE CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
14	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
15	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
16	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
17	NATURE CONSERVANCY	GREAT WASS ISLAND MACROSITE, MARK ISLAND PRESERVE	THE NATURE CONSERVANCY	207-729-5181
18	NATURE CONSERVANCY	GWJ ARCHIPELAGO, SEGUIN ISLAND EASEMENT	THE NATURE CONSERVANCY	207-729-5181
19	NATURE CONSERVANCY	HALIFAX ISLAND EASEMENT	THE NATURE CONSERVANCY	207-729-5181
20	NATURE CONSERVANCY	LARRABEE HEATH	THE NATURE CONSERVANCY	207-729-5181
21	NATURE CONSERVANCY	LARRABEE HEATH PRESERVE	THE NATURE CONSERVANCY	207-729-5181
22	NATURE CONSERVANCY	SALT ISLAND	THE NATURE CONSERVANCY	207-729-5181
23	NATURE CONSERVANCY	STONE ISLAND PRESERVE	THE NATURE CONSERVANCY	207-729-5181
24	PARK	ROQUE BLUFFS STATE PARK	MAINE DEPARTMENT OF CONSERVATION	207-255-3475

ALSO PRESENT IN MAPPED AREA (POLYGONS)			
Type	Name	Contact	Phone
STATE PROTECTED AREA	BALLAST ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	
STATE PROTECTED AREA	ENGLISHMAN'S RIVER	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	
STATE PROTECTED AREA	JONESBORO WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925
STATE PROTECTED AREA	SALT ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	
STATE PROTECTED AREA	WESTERN BROTHERS ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	


JURISDICTIONS				
COUNTY:	WASHINGTON	FEMA:	REGION I	
COAST GUARD:	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	EPA:	REGION 1	
USACE:	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT			

## SHORELINE RESOURCES

### ESI POLYGON HABITAT TYPES

	<i>ESI Rank</i>	<i>Habitat Classification</i>	<i>Area (Acres)</i>	<i>Area (Sq. Miles)</i>
	10A	Salt and Brackish Water Marshes	599.08	0.94
	10B	Freshwater Marshes	652.64	1.02
	10C	Swamps	3,046.84	4.76
	10D	Scrub and Shrub Wetlands	1,701.49	2.66
	9A	Sheltered Tidal Flats	631.30	0.99
	7	Exposed Tidal Flats	953.21	1.49
	5	Mixed Sand and Gravel Beaches	433.15	0.68
	2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	721.29	1.13

### ESI SHORELINE HABITAT TYPES

	<i>ESI Rank</i>	<i>Shoreline Habitat Classification</i>	<i>Length (Meters)</i>	<i>Length (Miles)</i>	<i>% of ESI Shoreline</i>
	10A	Salt and Brackish Water Marshes	58,063.63	36.08	11%
	10B	Freshwater Marshes	1,091.39	0.68	< 1%
	10C	Swamps	2,248.89	1.40	< 1%
	10D	Scrub and Shrub Wetlands	2,636.62	1.64	< 1%
	9A	Sheltered Tidal Flats	39,317.70	24.43	7%
	9B	Vegetated Low Banks	66,864.47	41.55	12%
	8A	Sheltered, Impermeable, Rocky Shores	8,509.45	5.29	2%
	8B	Sheltered, Solid Man-Made Structures	370.68	0.23	< 1%
	8C	Sheltered Riprap	1,412.40	0.88	< 1%
	7	Exposed Tidal Flats	49,862.30	30.98	9%
	6A	Gravel Beaches	13,426.01	8.34	3%
	6B	Riprap	1,991.69	1.24	< 1%
	5	Mixed Sand and Gravel Beaches	78,812.64	48.97	15%
	4	Coarse Grained Sand Beaches	24,843.36	15.44	5%
	3A	Fine to Medium Grained Sand Beaches	15,920.76	9.89	3%
	2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	113,376.62	70.45	21%
	1A	Exposed, Rocky Shores	56,581.71	35.16	11%
	1B	Exposed, Solid Man-Made Structures	1,117.98	0.69	< 1%
Total ESI Shoreline:			536,448.30	333.33	
Total Shoreline:			333,789.76	207.41	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 11A**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
2	Raptor	Bald eagle	Vulnerable Occurrence		-													Mar-May	-	-	-
3	Wading birds	Wading birds	Vulnerable Occurrence		-													Apr-Nov	Apr-Jun	Jul-Nov	-
	Waterfowl	Waterfowl	Vulnerable Occurrence		-													Apr-Nov	Apr-Jun	Jul-Nov	-
4	Shorebird	American golden-plover	Concentration Area		Foraging													-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area		Foraging													-	-	-	-
	Shorebird	BB sandpiper	Concentration Area		Foraging													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area		Foraging													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area		Foraging													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	Foraging													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area		Foraging													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area		Foraging													-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area		Foraging													-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area		Foraging													-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-C	Foraging													May-Aug	May-Jun	Jul-Sep	-
7	Waterfowl	American black duck	Rafting		-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting		-													-	-	-	-
	Waterfowl	Bufflehead	Rafting		-													-	-	-	-

Downeast Maine: Map 11A

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
	Waterfowl	Common eider	Rafting		-													May-Aug	-	-	-
	Waterfowl	Common goldeneye	Rafting		-													-	-	-	-
	Waterfowl	Common merganser	Rafting		-													-	-	-	-
	Waterfowl	Harlequin duck	Rafting	T/-	-													-	-	-	-
	Waterfowl	Long-tailed duck	Rafting		-													-	May	Sep	-
	Waterfowl	Mallard	Rafting		-													Apr-Aug	-	-	-
	Waterfowl	Red-breasted merganser	Rafting		-													-	-	-	-
	Waterfowl	Ruddy duck	Rafting		-													-	Dec-Jan	-	-
	Waterfowl	Scaup	Rafting		-													-	Dec-Jan	-	-
	Waterfowl	Surf scoter	Rafting		-													-	-	-	-
	Waterfowl	White-winged scoter	Rafting		-													-	-	-	-
15	Shorebird	Purple sandpiper	Vulnerable Occurrence		-													-	Apr-May	Oct	-
26	Wading	Great blue heron	Vulnerable Occurrence	C/-	-													May-Sep	-	-	-
35	Diving	Common Loon	Rafting	-/T	-													-	-	-	-
	Diving	D. crested cormorant	Rafting		-													Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Rafting		-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting		-													-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-	-													May-Sep	-	-	-
	Waterfowl	American black duck	Rafting		-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting		-													-	-	-	-
	Waterfowl	Bufflehead	Rafting		-													-	-	-	-
	Waterfowl	Common eider	Rafting		-													May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting		-													-	-	-	-
	Waterfowl	Green-winged teal	Rafting		-													May-Aug	-	-	-
	Waterfowl	Long-tailed duck	Rafting		-													-	May	Sep	-
	Waterfowl	Mallard	Rafting		-													Apr-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence		-													-	Dec-Jan	-	-
	Waterfowl	Scoters	Rafting		-													-	-	-	-
	Waterfowl	Surf scoter	Rafting		-													-	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C	-													-	-	-	Mar-Oct	Mar-Oct
283	Diadromous	Alewife	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C	-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E													-	-	-	Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration	-/T	T													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Blueback herring	Migration	-/C	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration		-													-	-	-	Jan-Dec	Jan-Dec

FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
287	Freshwater	Rainbow smelt	Migration	-	-	-													-	-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration	-	-	-													Dec-Feb	-	-	Jan-Dec	Jan-Dec
	Diadromous	Alewife	Migration	-	-	-													-	-	-	Apr-Dec	Apr-Jul
300	Diadromous	Brook trout (sea run)	Migration	C/-	-	-													-	-	-	Jan-May	Jan-May
306	Diadromous	Brook trout (sea run)	Migration	C/-	-	-													-	-	-	Jan-May	Jan-May
308	Freshwater	Rainbow smelt	Migration	-	-	-													-	-	-	Jan-Dec	Oct-Apr
	Diadromous	Alewife	Migration	-	-	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-	-	-													-	-	-	Mar-Oct	Mar-Oct
314	Diadromous	American shad	Migration	-	-	-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-	E	-													-	-	-	Jan-Dec	May-Mar
	Freshwater	Rainbow smelt	Migration	-	-	-													-	-	-	Jan-Dec	Oct-Apr
	Diadromous	American eel	Migration	-	-	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Brook trout (sea run)	Migration	C/-	-	-													-	-	-	Jan-May	Jan-May
328	Marine Benthic	Atlantic tomcod	Migration	-	-	-													Dec-Feb	-	-	Jan-Dec	Jan-Dec
330	Freshwater	Rainbow smelt	Migration	-	-	-													-	-	-	Jan-Dec	Oct-Apr
331	Diadromous	Alewife	Migration	-	-	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-	-	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	American shad	Migration	-	-	-													-	-	-	Jan-May	Jan-May
	Diadromous	Atlantic salmon	Migration	-	E	-													-	-	-	Jan-Dec	May-Jul
	Diadromous	Blueback herring	Migration	-	-	-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Sea lamprey	Migration	-	-	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Atlantic sturgeon	Migration	-	T	-													-	-	-	Apr-Dec	Apr-Jul
332	Diadromous	Brook trout (sea run)	Migration	C/-	-	-													-	-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-	-	-													-	-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-	-	-													-	-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration	-	-	-													Dec-Feb	-	-	Jan-Dec	Jan-Dec
	Diadromous	American eel	Migration	-	-	-													-	-	-	Jan-Dec	Mar-Oct
	Diadromous	Atlantic sturgeon	Migration	-	T	-													-	-	-	Mar-Oct	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-	-	-													-	-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-	-	-													-	-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-	-	-													-	-	-	Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration	-	-	-													Dec-Feb	-	-	Jan-Dec	Oct-Apr

HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Concentration	S	F	Mapping Qualifier	High Ecological Value
				S	F	J	F	M	A	M	J	J	A	S	O	N	D					
480	Wetland	Tidal Marsh	High Ecological Value	-	-													-	-	-	-	-
481	Wetland	Rare ecol. community	High Ecological Value	-	-													-	-	-	-	-
482	Wetland	SM cordgrass/wiregrass	High Ecological Value	-	-													-	-	-	-	-
483	Plant	Rare plant	Vulnerable Occurrence	C/C	-	-												-	-	-	-	-
505	Wetland	Brackish marsh	High Ecological Value	-	-													-	-	-	-	-
506	Wetland	Brackish marsh	High Ecological Value	-	-													-	-	-	-	-



## HABITATS & RARE PLANTS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												
				S	F		J	F	M	A	M	J	J	A	S	O	N	D	
507	Wetland	Salt marsh	High Ecological Value			-													
	Wetland	Salt marsh	High Ecological Value			-													
	Wetland	SM cordgrass/wiregrass	High Ecological Value			-													
508	Wetland	Salt marsh	High Ecological Value			-													

## REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N						D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
664	Turtle	Green sea turtle	General Distribution	-/-	T	Rare																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											</

## INVERTEBRATES




Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Larvae	Eggs	Spawn	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
676	Bivalve	Blue mussel	Harvest Area			-											May-Nov	May-Nov	Jan-Dec	Jan-Dec			
685	Bivalve	Sea scallop	Harvest Area	-/C		-											Jul-Oct	-	Jan-Dec	Jan-Dec			
	Insect	Rare insect	Vulnerable Occurrence	C/-		-											May-Jul	-	Jan-Dec	Jan-Dec			

## MARINE MAMMALS


Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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744	Pinniped	Harbor seal	Haul Out			-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														</

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )

## BIRDS



Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Razorbill	T/-		-																
	Diving	Common Loon	-/T		-																
	Great cormorant	General Distribution	T/-		-																
	Gull/Tern	General Distribution	T/C		-																
	Common tern	General Distribution	C/T		-																
	Roseate tern	General Distribution	E/E	E	-																

## FISH

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Larvae	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Diadromous	Atlantic sturgeon	-/T	T	Rare																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													</







# INVERTEBRATES




Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Softshell clam	Harvest Area	-/C	-													May-Oct	May-Oct	Jan-Dec	Jan-Dec
 Crab	Horseshoe crab	General Distribution	-/C	Low													May-Jul	-	Jan-Dec	Jan-Dec

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS





Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Alcid	Black guillemot													May-Aug	-	-	-
	Dovekie													-	-	-	-
 Diving	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
 Gull/Tern	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
 Pelagic	Ring-billed gull													-	-	-	-
	Northern gannet													-	-	-	-

# FISH


Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
 Estuarine Nursery	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
 Marine Benthic	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
 Marine Pelagic	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct

Downeast Maine: Map 11A


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog														-	Jan-Dec	Jan-Dec
 Crab	Atlantic rock crab														May-Oct	Jan-Dec	Jan-Dec
	Blue crab														Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab														May-Oct	Jan-Dec	Jan-Dec
 Echinoderm	Green urchin														May-Oct	Jan-Dec	Jan-Dec
 Lobster	American lobster														Mar-Jun	Jan-Dec	Jan-Dec
															Jun-Oct	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Harbor porpoise													-	-	-	-
 Pinniped	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	433.12	0.68
10B	Freshwater Marshes	141.61	0.22
10C	Swamps	650.41	1.02
10D	Scrub and Shrub Wetlands	439.72	0.69
9A	Sheltered Tidal Flats	596.92	0.93
7	Exposed Tidal Flats	885.89	1.38
5	Mixed Sand and Gravel Beaches	224.83	0.35
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	144.53	0.23

## ESI SHORELINE HABITAT TYPES

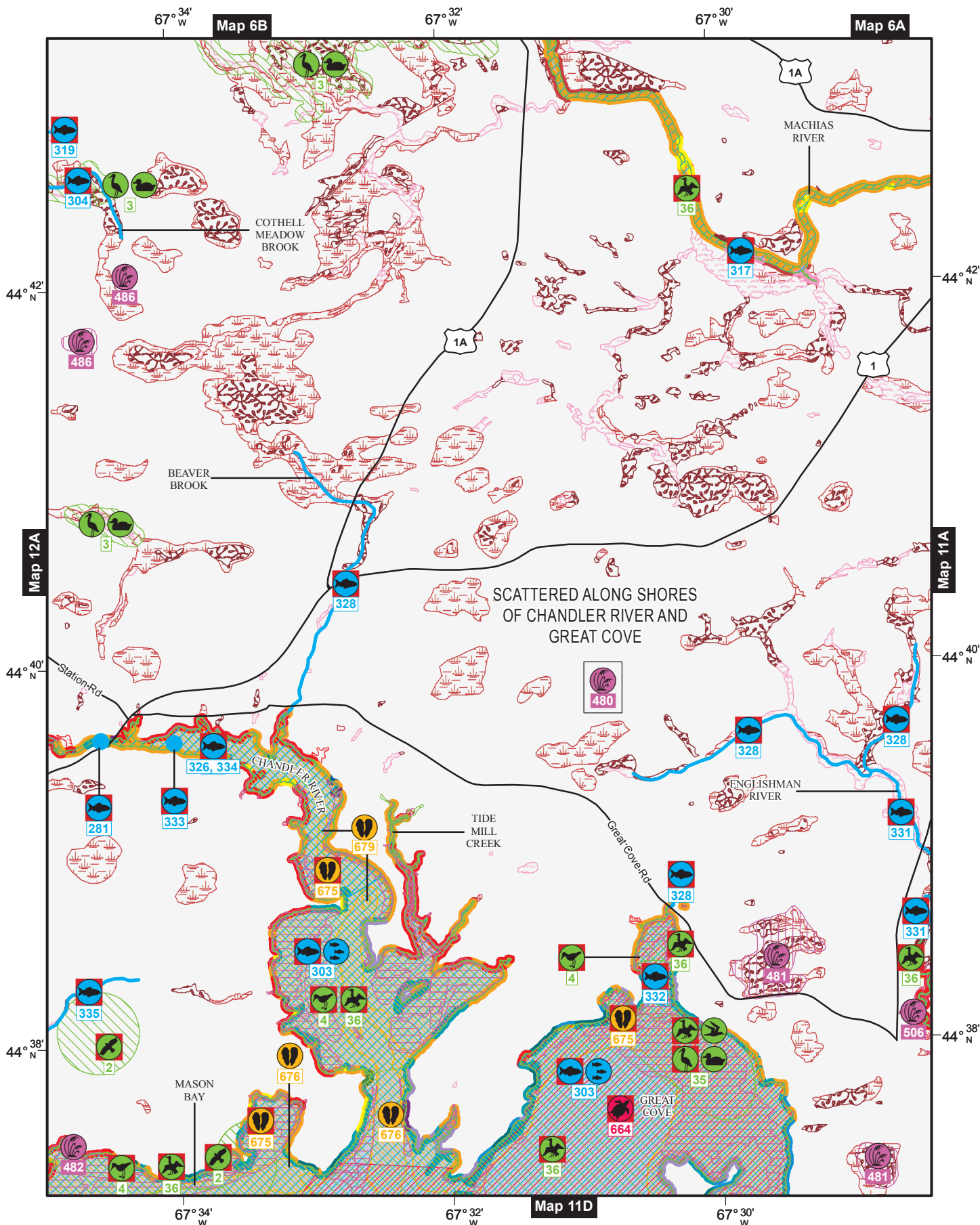
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	36,127.85	22.45	16%
10B	Freshwater Marshes	21.91	0.01	< 1%
10C	Swamps	48.78	0.03	< 1%
10D	Scrub and Shrub Wetlands	749.26	0.47	< 1%
9A	Sheltered Tidal Flats	35,622.79	22.14	16%
9B	Vegetated Low Banks	27,072.33	16.82	12%
8A	Sheltered, Impermeable, Rocky Shores	3,867.87	2.40	2%
8B	Sheltered, Solid Man-Made Structures	154.85	0.10	< 1%
8C	Sheltered Riprap	1,436.93	0.89	1%
7	Exposed Tidal Flats	31,312.98	19.46	14%
6A	Gravel Beaches	5,257.40	3.27	2%
6B	Riprap	798.88	0.50	< 1%
5	Mixed Sand and Gravel Beaches	37,955.18	23.58	17%
4	Coarse Grained Sand Beaches	9,431.62	5.86	4%
3A	Fine to Medium Grained Sand Beaches	2,574.85	1.60	1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	24,508.65	15.23	11%
1A	Exposed, Rocky Shores	5,794.52	3.60	3%
1B	Exposed, Solid Man-Made Structures	470.89	0.29	< 1%

Total ESI Shoreline: 223,207.54      Total ESI Shoreline: 138.69  
Total Shoreline: 122,983.03      Total Shoreline: 76.42

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





Map 11B  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
3	Wading	Wading birds	Vulnerable Occurrence		-												
4	Waterfowl	Waterfowl	Vulnerable Occurrence		-												
	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/-	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												
35	Diving	Common Loon	Rafting	-/T	-												
	Diving	D. crested cormorant	Rafting		-												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Gull/Tern	G. black-backed gull	Rafting			-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting			-													-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-													May-Sep	-	-	-
	Waterfowl	American black duck	Rafting			-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-	-
	Waterfowl	Common eider	Rafting			-													May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-													-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-													May-Aug	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-												May	Sep	-	-	-
	Waterfowl	Mallard	Rafting			-													Apr-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-													Dec-Jan	-	-	-
	Waterfowl	Scoters	Rafting			-													-	-	-	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-	-
36	Diving	Common Loon	General Distribution	-/T		-													-	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C		-													-	-	-	Mar-Oct	Mar-Oct
303	Diadromous	Atlantic sturgeon	General Distribution	-/T	T	Rare													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Shortnose sturgeon	General Distribution	E/E	E	Rare													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Concentration Area			High													-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass	Concentration Area			Low													-	-	-	Jan-Dec	Jan-Dec
304	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
317	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	Migration	-/C	E	-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
319	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
326	Diadromous	Alewife	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American shad	Migration	-/C		-													-	-	-	May-Feb	May-Jul
	Diadromous	Blueback herring	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
328	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
331	Diadromous	Atlantic sturgeon	Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration			-													-	-	-	Jan-Dec	Jan-Dec

FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D				
	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration	-	-												Dec-Feb	-	-	Jan-Dec	Jan-Dec
332	Diadromous	American eel	Migration	-/C	-													-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic sturgeon	Migration	-/T	T													-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-	-													-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration	-	-												Dec-Feb	-	-	Jan-Dec	Jan-Dec
333	Diadromous	American eel	Migration	-/C	-													-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	Migration	-/C	E													-	-	Jan-Dec	May-Mar
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	Jan-May	Jan-May
	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	Jan-Dec	Oct-Apr
	Diadromous	American eel	Migration	-/C	-													-	-	Mar-Oct	Mar-Oct
334	Diadromous	Atlantic salmon	Migration	-/C	E													-	-	Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration	-/T	T													-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C	-													-	-	Apr-Jul	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-	-													-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration	-	-												Dec-Feb	-	-	Jan-Dec	Jan-Dec
335	Diadromous	Atlantic sturgeon	Migration	-/T	T													-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-	-													-	-	Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration	-	-												Dec-Feb	-	-	Jan-Dec	Jan-Dec

HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Hatch	Internest	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D				
480	Wetland	Tidal Marsh	High Ecological Value	-	-													-	-	-	-
481	Wetland	Rare ecol. community	High Ecological Value	-	-													-	-	-	-
482	Wetland	SM cordgrass/wiregrass	High Ecological Value	-	-													-	-	-	-
486	Upland	Rare upland community	High Ecological Value	-	-													-	-	-	-
506	Wetland	Brackish marsh	High Ecological Value	-	-													-	-	-	-
	Wetland	Salt marsh	High Ecological Value	-	-													-	-	-	-

REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
664	Turtle	Green sea turtle	General Distribution	-/I	Rare													-	-	-	Jun-Nov	Jun-Nov
	Turtle	K. ridley sea turtle	General Distribution	E/-	Rare													-	-	-	Jun-Nov	Jun-Nov
	Turtle	Leatherback sea turtle	General Distribution	E/-	Low													-	-	-	Jun-Nov	Jun-Nov
	Turtle	Loggerhead sea turtle	General Distribution	E/-	Low													-	-	-	Jun-Nov	Jun-Nov

Downeast Maine: Map 11B




# INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
675	Bivalve	Softshell clam	Harvest Area	-	-	-													May-Oct	May-Oct	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area	-	-	-													May-Nov	May-Nov	Jan-Dec	Jan-Dec
679	Bivalve	Atl. jackknife clam	Harvest Area	-	-	-													-	-	Jan-Dec	Jan-Dec
WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )																						





# BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Acid Razorbill	General Distribution	T/-	-	-													-	-		
	Diving Great cormorant	General Distribution	T/-	-	-													-	-		
	Arctic tern	General Distribution	T/C	-	-													-	-		
	Common tern	General Distribution	C/T	-	-													-	-		
	Roseate tern	General Distribution	E/E	E	-													-	-		



# INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
			S	F		J	F	M	A	M	J	J	A	S	O	N	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Crab	Horseshoe crab	-	-	Low																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

# BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Acid Black guillemot													May-Aug	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	Diving D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	Gull/Tern G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Pelagic Northern gannet													-	-	-	-

# FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Estuarine Nursery Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	Marine Benthic American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov



# FISH (continued)

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atlantic cod													Nov-Mar	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Jan-Dec	-
	Red hake													Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	Sep-May	Sep-May
	Silver hake													-	-	Apr-Nov	Apr-Nov
	Skates													-	-	Jan-Dec	Jan-Dec
	White hake													Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	-	May-Nov	May-Nov
	Butterfish													-	-	May-Oct	May-Oct

# INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Northern quahog													Jun-Aug	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	Jan-Dec	Jan-Dec

# MARINE MAMMALS

Subelement	Species	Monthly Presence												Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D			
	Harbor porpoise													-	-	-
	Gray seal													-	-	-
	Harbor seal													-	-	-
	Harp seal													-	-	-
	Hooded seal													-	-	-

# TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D			
	Beaver													-	-	-
	Muskrat													-	-	-
	Northern river otter													-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	75.82	0.12
10B	Freshwater Marshes	461.23	0.72
10C	Swamps	1,731.20	2.71
10D	Scrub and Shrub Wetlands	954.61	1.49
7	Exposed Tidal Flats	1.23	0.00
5	Mixed Sand and Gravel Beaches	85.79	0.13
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	18.18	0.03

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	15,752.00	9.79	19%
10B	Freshwater Marshes	934.36	0.58	1%
10C	Swamps	1,810.73	1.13	2%
10D	Scrub and Shrub Wetlands	1,755.17	1.09	2%
9B	Vegetated Low Banks	29,316.65	18.22	36%
8A	Sheltered, Impermeable, Rocky Shores	2,683.22	1.67	3%
8B	Sheltered, Solid Man-Made Structures	127.75	0.08	< 1%
7	Exposed Tidal Flats	287.09	0.18	< 1%
6A	Gravel Beaches	2,194.98	1.36	3%
6B	Riprap	491.18	0.31	1%
5	Mixed Sand and Gravel Beaches	15,831.67	9.84	20%
4	Coarse Grained Sand Beaches	1,900.06	1.18	2%
3A	Fine to Medium Grained Sand Beaches	125.47	0.08	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	7,290.97	4.53	9%
1A	Exposed, Rocky Shores	270.55	0.17	< 1%
1B	Exposed, Solid Man-Made Structures	336.92	0.21	< 1%

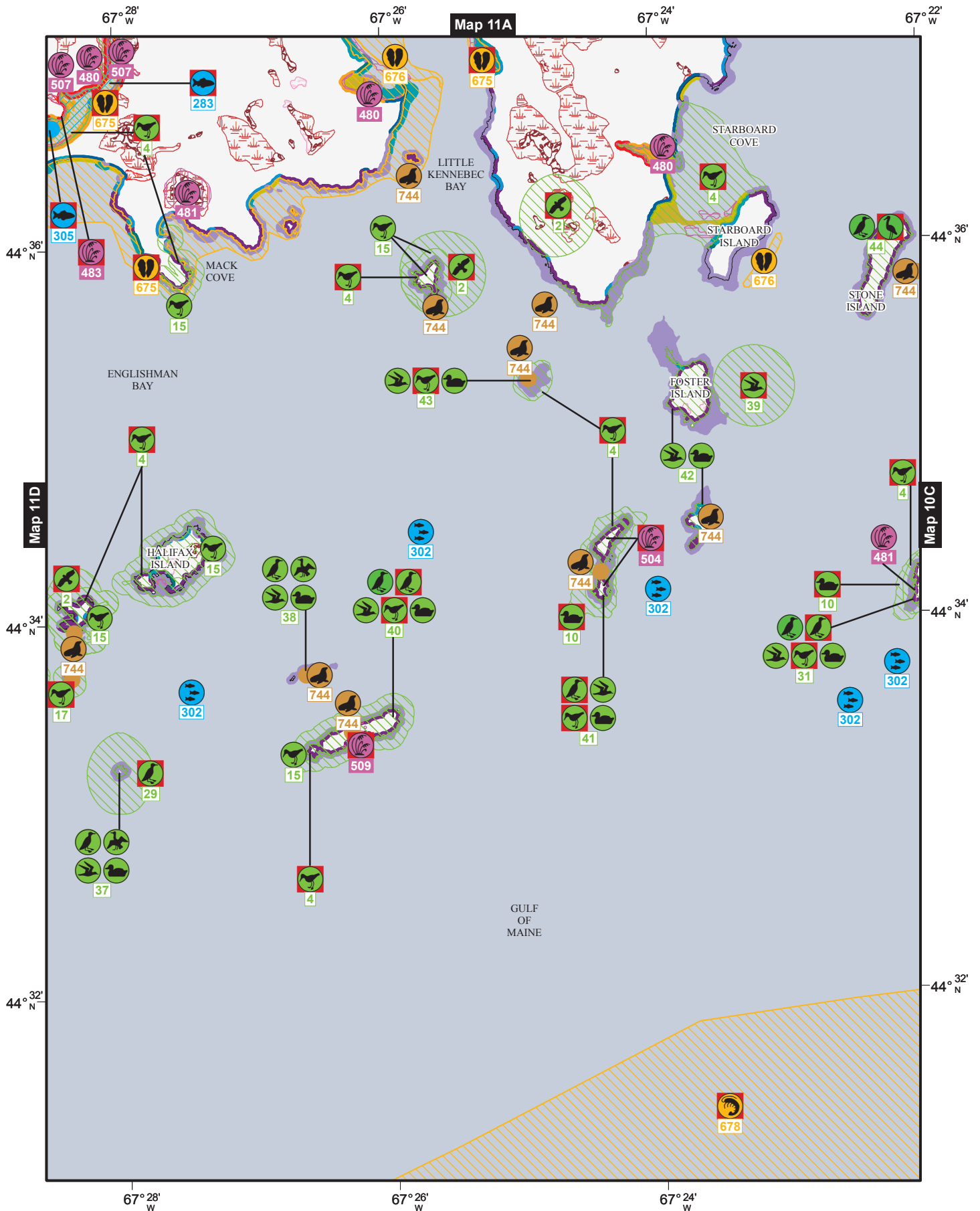
Total ESI Shoreline: 81,108.76      Total ESI Shoreline: 50.40  
 Total Shoreline: 64,251.22      Total Shoreline: 39.92

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 11C**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**



**Map 11C**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence														
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-C	Foraging												
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-												
15	Shorebird	Purple sandpiper	Vulnerable Occurrence		-												
17	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
	Shorebird	Dunlin	Concentration Area			Foraging												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area			Foraging												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area			Foraging												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-		Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area			Foraging												-	Apr-May	Sep-Oct	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence			-												-	Apr-May	Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	T	Foraging												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area			Foraging												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-		Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area			Foraging												-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area			Foraging												-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area			Foraging												-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-		Foraging												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-C		Foraging												-	May-Aug	Jul-Sep	-
29	Alcid	Razorbill	Vulnerable Occurrence	T/-		-												-	-	-	-
31	Alcid	Black guillemot	Roosting			-												-	May-Aug	-	-
	Gull/Tern	G. black-backed gull	Roosting			-												-	May-Aug	-	-
	Gull/Tern	Herring gull	Roosting			-												-	-	-	-
	Pelagic	Leach's storm-petrel	Roosting	C/-		-												-	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-												-	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Whimbrel	Roosting	C/-														-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C														May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	Common eider	Roosting															May-Aug	-	-	-
37	Alcid	Black guillemot	Roosting															May-Aug	-	-	-
	Diving	D. crested cormorant	Roosting															Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Roosting															May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting															-	-	-	-
	Waterfowl	Common eider	Roosting															May-Aug	-	-	-
38	Alcid	Black guillemot	Roosting															May-Aug	-	-	-
	Diving	D. crested cormorant	Roosting															May-Aug	-	-	-
	Gull/Tern	G. black-backed gull	Roosting															Jun-Sep	-	-	-
	Waterfowl	Common eider	Roosting															May-Aug	-	-	-
	Gull/Tern	Arctic tern	Vulnerable Occurrence	T/C														May-Oct	-	-	-
39	Alcid	Black guillemot	Roosting															May-Aug	-	-	-
	Gull/Tern	G. black-backed gull	Roosting															May-Aug	-	-	-
40	Gull/Tern	GW gull/H gull hybrid	Roosting															-	-	-	-
	Gull/Tern	Herring gull	Roosting															-	-	-	-
	Pelagic	Leach's storm-petrel	Roosting	C/-														-	-	-	-
	Shorebird	American golden-plover	Roosting															-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-														May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting															-	-	-	-
	Shorebird	BB sandpiper	Roosting															-	-	-	-
	Shorebird	Black-bellied plover	Roosting															-	Aug	Oct	-
	Shorebird	Dunlin	Roosting															-	May	Jul-Oct	-
	Shorebird	Greater yellowlegs	Roosting															-	May	Aug-Oct	-
	Shorebird	Hudsonian godwit	Roosting															-	May	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting															-	-	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T													-	Apr-May	Sep-Oct	-
	Shorebird	Ruddy turnstone	Roosting															-	May	Aug-Oct	-
	Shorebird	Sanderling	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated plover	Roosting															-	Apr-May	-	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting															-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting															-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting															-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-														-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C														May-Aug	May-Jun	Jul-Sep	-
41	Waterfowl	Common eider	Roosting															May-Aug	-	-	-
	Gull/Tern	G. black-backed gull	Roosting															May-Aug	-	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
	Pelagic	Leach's storm-petrel	Roosting	C/-		-												-	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-												-	May-Aug	Jul-Sep	-
	Waterfowl	Common eider	Roosting			-												-	May-Aug	-	-
42	Gull/Tern	G. black-backed gull	Roosting			-												-	May-Aug	-	-
	Waterfowl	Common eider	Roosting			-												-	May-Aug	-	-
43	Gull/Tern	G. black-backed gull	Roosting			-												-	May-Aug	-	-
	Gull/Tern	Herring gull	Roosting			-												-	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-												-	May-Jun	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-



**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
								J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Semipalmated sandpiper	Roosting				-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting				-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting				-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting				-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting				-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting				-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting				-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting				-													May-Aug	May-Jun	Jul-Sep	-
44	Waterfowl	Common eider	Roosting				-													May-Aug	-	-	-
	Alcid	Black guillemot	Roosting				-													May-Aug	-	-	-
	Wading	Great blue heron	Roosting				-													May-Sep	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D					
283	Diadromous	Alewife	Migration				-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration				-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration				-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration				-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration				-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Blueback herring	Migration				-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration				-													-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration				-													-	-	-	Apr-Jul	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration				-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration				-													-	-	-	Jan-Dec	Jan-Dec
302	Freshwater	Rainbow smelt	Migration				-													-	-	-	Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration				-													Dec-Feb	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Atlantic herring	Spawning Area				-													-	-	Oct-May	Jan-Dec	Apr-Dec
305	Diadromous	American eel	Migration				-													-	-	-	Mar-Oct	Mar-Oct
	Freshwater	Rainbow smelt	Migration				-													-	-	-	Jan-Dec	Oct-Apr

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
								J	F	M	A	M	J	J	A	S	O	N	D
480	Wetland	Tidal Marsh	High Ecological Value				-												
481	Wetland	Rare ecol. community	High Ecological Value				-												
483	Plant	Rare plant	Vulnerable Occurrence				-												
504	Plant	Birdeye primrose	Vulnerable Occurrence				-												
507	Wetland	Salt marsh	High Ecological Value				-												
509	Wetland	SM cordgrass/wiregrass	High Ecological Value				-												
	Plant	A. water minerslettuce	Vulnerable Occurrence				-												

## INVERTEBRATES




Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
675	Bivalve	Softshell clam	Harvest Area	-I	C	-													May-Oct	May-Oct	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area			-													May-Nov	May-Nov	Jan-Dec	Jan-Dec
678	Shrimp	Northern shrimp	General Distribution	-I	C	Low													Dec-Apr	Jan-Dec	Jan-Dec	Dec-Apr

## MARINE MAMMALS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Calving	Pupping	Molt	
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				D
744	Pinniped	Harbor seal	Haul Out			-													-	-	-

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )

## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
 Alcid	Atlantic puffin	General Distribution	T/-		-												-	-	-		
	Razorbill	General Distribution	T/-		-												-	-	-		
	Common Loon	General Distribution	-T		-												-	-	-		
 Diving	Great cormorant	General Distribution	T/-		-												-	-	-		
	Arctic tern	General Distribution	T/C		-												May-Oct	-	-		
	Common tern	General Distribution	C/T		-												May-Aug	-	-		
 Pelagic	Roseate tern	General Distribution	E/E	E	-												-	-	-		
	Leach's storm-petrel	General Distribution	C/-		-												-	-	-		
	Red-necked phalarope	General Distribution	C/-		-												Jun	-	-		




## FISH

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
Diadromous	Atlantic sturgeon	General Distribution	-I	T	Rare													-	-	Jan-Dec	Jan-Dec
	Shortnose sturgeon	General Distribution	E/E	E	Rare													-	-	Jan-Dec	Jan-Dec
Estuarine Nursery	Striped bass	Concentration Area			High													-	-	Jan-Dec	Jan-Dec
	Black Seabass	Concentration Area			Low													-	-	Jan-Dec	Jan-Dec


## REPTILES & AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
Turtle	Green sea turtle	General Distribution	-I	T	Rare													-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	E	Rare													-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	E	Low													-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	T	Low													-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES






Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D	Spawn		
	Sea scallop	Harvest Area	-C		-												Jul-Oct	-	-	Jan-Dec
	Horseshoe crab	General Distribution	-C		Low												May-Jul	-	-	Jan-Dec
	Rare insect	Vulnerable Occurrence	C/-		-												May-Jul	-	-	Jan-Dec

## MARINE MAMMALS



Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Calving	Pupping	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D			
	Fin whale	General Distribution	E/-	E	Low													-	-	-
	Humpback whale	General Distribution	E/-	E	Low													-	-	-
	N.A. right whale	General Distribution	E/-	E	Low													-	-	-
	Sei whale	General Distribution	E/-	E	Low													-	-	-
	Sperm whale	General Distribution	E/-	E	Rare													-	-	-

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)



## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
	Sooty shearwater													-	-	-	-
	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-





## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec




FISH (continued)

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	Skates													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct
	Butterfish													-	-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog																Jan-Dec
 Crab	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
 Echinoderm	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	American lobster													Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
 Lobster														Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
 Pinniped	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
 Whale	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	31.59	0.05
10B	Freshwater Marshes	13.05	0.02
10C	Swamps	310.53	0.49
10D	Scrub and Shrub Wetlands	83.17	0.13
9A	Sheltered Tidal Flats	18.15	0.03
7	Exposed Tidal Flats	31.85	0.05
5	Mixed Sand and Gravel Beaches	39.46	0.06
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	393.32	0.61

## ESI SHORELINE HABITAT TYPES

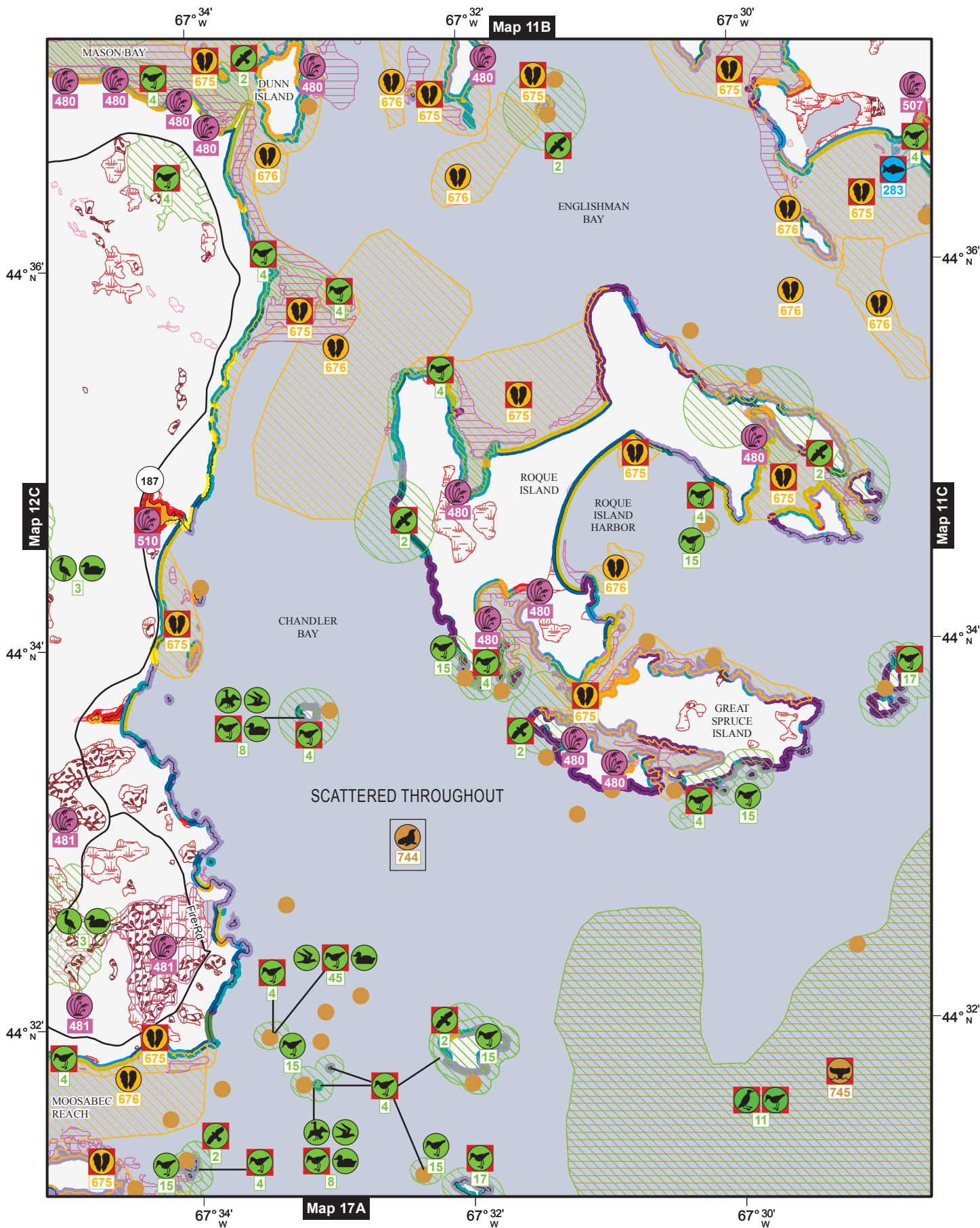
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	2,683.60	1.67	3%
10C	Swamps	25.83	0.02	< 1%
9A	Sheltered Tidal Flats	1,627.79	1.01	2%
9B	Vegetated Low Banks	2,035.21	1.26	2%
7	Exposed Tidal Flats	3,571.80	2.22	4%
6A	Gravel Beaches	1,460.37	0.91	2%
5	Mixed Sand and Gravel Beaches	4,867.82	3.02	5%
4	Coarse Grained Sand Beaches	3,070.41	1.91	3%
3A	Fine to Medium Grained Sand Beaches	3,900.80	2.42	4%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	38,784.86	24.10	42%
1A	Exposed, Rocky Shores	30,357.92	18.86	33%
Total ESI Shoreline:		92,386.41	57.41	
Total Shoreline:		51,946.55	32.28	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 11D**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**





**Map 11D**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
							J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area				High												
SAV	Eelgrass	High Ecological Value				0% To 10% Cover												
SAV	Eelgrass	High Ecological Value				10% To 40% Cover												
SAV	Eelgrass	High Ecological Value				40% To 70% Cover												
SAV	Eelgrass	High Ecological Value				70% To 100% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
								J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence				-												
3	Wading	Wading birds	Vulnerable Occurrence				-												
	Waterfowl	Waterfowl	Vulnerable Occurrence				-												
4	Shorebird	American golden-plover	Concentration Area				Foraging												
	Shorebird	American oystercatcher	Concentration Area				Foraging												
	Shorebird	Baird's sandpiper	Concentration Area				Foraging												
	Shorebird	BB sandpiper	Concentration Area				Foraging												
	Shorebird	Black-bellied plover	Concentration Area				Foraging												
	Shorebird	Dunlin	Concentration Area				Foraging												
	Shorebird	Greater yellowlegs	Concentration Area				Foraging												
	Shorebird	Hudsonian godwit	Concentration Area				Foraging												
	Shorebird	Least sandpiper	Concentration Area				Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area				Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area				Foraging												
	Shorebird	Red Knot	Concentration Area				Foraging												
	Shorebird	Ruddy turnstone	Concentration Area				Foraging												
	Shorebird	Sanderling	Concentration Area				Foraging												
	Shorebird	Semipalmated plover	Concentration Area				Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area				Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area				Foraging												
	Shorebird	Solitary sandpiper	Concentration Area				Foraging												
	Shorebird	Stilt sandpiper	Concentration Area				Foraging												
	Shorebird	Western sandpiper	Concentration Area				Foraging												
	Shorebird	Whimbrel	Concentration Area				Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area				Foraging												
	Shorebird	Willet	Concentration Area				Foraging												
8	Diving	D. crested cormorant	Roosting				-												
	Gull/Tern	G. black-backed gull	Roosting				-												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Gull/Tern	Herring gull	Roosting			-													-	-	-
	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct
	Shorebird	American oystercatcher	Roosting	C/-		-												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-												May-Aug	May-Jun	Jul-Sep	-
11	Waterfowl	Common eider	Roosting			-												May-Aug	-	-	-
	Alcid	Atlantic puffin	General Distribution	T/-		-												-	-	-	-
	Pelagic	Leach's storm-petrel	General Distribution	C/-		-												-	-	-	-
	Shorebird	Red-necked phalarope	General Distribution	C/-		-												-	Jun	-	-
15	Shorebird	Purple sandpiper	Vulnerable Occurrence			-												-	Apr-May	Oct	-
17	Shorebird	American golden-plover	Concentration Area			Foraging												-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area	C/-		Foraging												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area			Foraging												-	-	-	-
	Shorebird	BB sandpiper	Concentration Area			Foraging												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area			Foraging												-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area			Foraging												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area			Foraging												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area			Foraging												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-		Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area			Foraging												-	Apr-May	Sep-Oct	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence			-												-	Apr-May	Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	T	Foraging												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area			Foraging												-	Apr-May	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Semipalmated plover	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area		Foraging													-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area		Foraging													-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area		Foraging													-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-C	Foraging													May-Aug	May-Jun	Jul-Sep	-
45	Gull/Tern	G. black-backed gull	Roosting		-													May-Aug	-	-	-
	Shorebird	American golden-plover	Roosting		-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-	-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting		-													-	-	-	-
	Shorebird	BB sandpiper	Roosting		-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting		-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting		-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting		-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting		-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Red Knot	Roosting	C/- T	-													-	Apr-May	Sep-Oct	-
	Shorebird	Ruddy turnstone	Roosting		-													-	May	Aug-Oct	-
	Shorebird	Sanderling	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated plover	Roosting		-													-	Apr-May	-	-
	Shorebird	Semipalmated sandpiper	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting	C/-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Stilt sandpiper	Roosting		-													-	Jun	-	-
	Shorebird	Western sandpiper	Roosting		-													-	Jul	Sep	-
	Shorebird	Whimbrel	Roosting	C/-	-													-	Jul	Oct	-
	Shorebird	White-rumped sandpiper	Roosting		-													-	-	Jul-Oct	-
	Shorebird	Willet	Roosting	-C	-													-	May-Jun	Jul-Oct	-
	Waterfowl	Common eider	Roosting		-													May-Aug	May-Jun	Jul-Sep	-
					-													May-Aug	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
283	Diadromous	Alewife	Migration	-C	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-C	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-C	-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-C E	-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration	-T	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Blueback herring	Migration	-C	-													-	-	-	Jan-Dec	Jan-Dec

# FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Diadromous	Brook trout (sea run)	Migration	Cl/-		-													-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-													-	-	Apr-Dec	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-													-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration			-													-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration			-													Dec-Feb	-	Jan-Dec	Jan-Dec

# HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence														
				S	F		J	F	M	A	M	J	J	A	S	O	N	D			
480	Wetland	Tidal Marsh	High Ecological Value			-													-	-	-
481	Wetland	Rare ecol. community	High Ecological Value			-													-	-	-
507	Wetland	Salt marsh	High Ecological Value			-													-	-	-
	Wetland	SM cordgrass/wiregrass	High Ecological Value			-													-	-	-
510	Plant	Lesser brown sedge	Vulnerable Occurrence	E/-		-													-	-	-

# INVERTEBRATES




Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
675	Bivalve	Softshell clam	Harvest Area	-IC		-													May-Oct	May-Oct	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area			-													May-Nov	May-Nov	Jan-Dec	Jan-Dec

# MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Calving	Pupping	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D			
744	Pinniped	Harbor seal	Haul Out			-													-	-	-
745	Whale	Fin whale	General Distribution	E/-	E	Low													-	-	-
	Whale	Humpback whale	General Distribution	E/-	E	Low													-	-	-
	Whale	N.A. right whale	General Distribution	E/-	E	Low													-	-	-
	Whale	Sei whale	General Distribution	E/-	E	Low													-	-	-
	Whale	Sperm whale	General Distribution	E/-	E	Rare													-	-	-

WIDESPREAD IN MAPPED AREA (> 10 SQUARE KILOMETERS)


# BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt	Molt
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
 Alcids	Razorbill	General Distribution	T/-		-													-	-	-	-
 Diving	Common Loon	General Distribution	-IT		-													-	-	-	-
	Great cormorant	General Distribution	T/-		-													-	-	-	-
 Gull/Tern	Arctic tern	General Distribution	T/C		-												May-Oct	-	-	-	-
	Common tern	General Distribution	C/T		-												May-Aug	-	-	-	-
	Roseate tern	General Distribution	E/E	E	-													-	-	-	-




# FISH

Subelement	Species	Mapping Qualifier	ME/NH S F -J T E/E E	Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D				
	Diadromous	Atlantic sturgeon	General Distribution	Rare													-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	General Distribution	Rare													-	-	Jan-Dec	Jan-Dec
	Striped bass	Concentration Area	Concentration Area	High													-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass	Concentration Area	Low													-	-	Jan-Dec	Jan-Dec

# REPTILES & AMPHIBIANS






Subelement	Species	Mapping Qualifier	ME/NH S F -J T E/- E E/- E E/- T	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Turtle	Green sea turtle	General Distribution	Rare													-	-	-	Jun-Nov	Jun-Nov
		K. ridley sea turtle	General Distribution	Rare													-	-	-	Jun-Nov	Jun-Nov
		Leatherback sea turtle	General Distribution	Low													-	-	-	Jun-Nov	Jun-Nov
		Loggerhead sea turtle	General Distribution	Low													-	-	-	Jun-Nov	Jun-Nov

# INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH S F -C -C C/-	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
  	Bivalve	Sea scallop	Harvest Area	-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab	General Distribution	Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
	Insect	Rare insect	Vulnerable Occurrence	-													May-Jul	-	-	Jan-Dec	Jan-Dec




# ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS





Subelement	Species	Mapping Qualifier	ME/NH S F -C -C C/-	Concentration	Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
					J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Black guillemot	General Distribution														May-Aug	-	-	-
		Common murre	General Distribution														-	-	-	-
		Dovekie	General Distribution														-	-	-	-
		Thick-billed murre	General Distribution														-	-	-	-
	Diving	D. crested cormorant	General Distribution														Jun-Sep	-	-	-
		Horned grebe	General Distribution														-	-	-	-
		Red-necked grebe	General Distribution														-	-	-	-
		Red-throated loon	General Distribution														-	-	-	-
	Gull/Tern	G. black-backed gull	General Distribution														-	-	-	-
		Herring gull	General Distribution														-	-	-	-
		Ring-billed gull	General Distribution														-	-	-	-
		Cory's shearwater	General Distribution														-	-	-	-
	Pelagic	Great shearwater	General Distribution														-	-	-	-
		Manx shearwater	General Distribution														-	-	-	-
		Northern fulmar	General Distribution														-	-	-	-
		Northern gannet	General Distribution														-	-	-	-
	Shorebird	Sooty shearwater	General Distribution														-	-	-	-
		Wilson's storm-petrel	General Distribution														-	-	-	-
		Red phalarope	General Distribution														-	-	-	-
																	-	-	-	-

FISH





Monthly Presence

	Subelement	Species	J F M A M J J A S O N D												Spawn	Eggs	Larvae	Juveniles	Adults	
			J	F	M	A	M	J	J	A	S	O	N	D						
	Diadromous	Striped bass													-	-	-	Jan-Dec	Jan-Dec	
	Estuarine Nursery	Atlantic herring														-	-	Oct-May	Jan-Dec	Apr-Dec
		Black Seabass														-	-	-	Jan-Dec	Jan-Dec
		Winter flounder														-	-	-	Mar-Oct	Mar-Oct
		Winter flounder														-	-	-	Jan-Dec	-
	Marine Benthic	American plaice														-	-	-	Mar-Oct	Mar-Oct
		American plaice														-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
		American sand lance														-	-	-	Mar-Oct	Mar-Oct
		American sand lance														-	-	Dec-Jun	Jan-Dec	Mar-Nov
		Atlantic cod														Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
Atlantic Wolffish															Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec	
Cunner															-	-	-	Mar-Oct	Mar-Oct	
Cunner															Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec	
Haddock															-	Mar-Jun	Mar-Jun	Mar-Jun	-	
Haddock															-	Mar-Jun	-	Mar-Oct	Mar-Oct	
	Longhorn sculpin														-	-	-	Mar-Oct	Mar-Oct	
	Longhorn sculpin														Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec	
	Northern searobin														-	-	-	Mar-Oct	Mar-Oct	
	Northern searobin														-	-	-	Jul-Oct	Jul-Oct	
	Ocean pout														-	-	-	Mar-Oct	Mar-Oct	
	Pollock														-	Nov-Feb	Nov-Mar	Jan-Dec	-	
	Red hake														-	-	-	Mar-Oct	Mar-Oct	
	Red hake														-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov	
	Rock gunnel														-	-	-	Mar-Oct	Mar-Oct	
	Rock gunnel														Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec	
	Shorthorn sculpin														-	-	-	Sep-May	Sep-May	
	Shorthorn sculpin														-	-	-	Mar-Oct	Mar-Oct	
	Silver hake														-	-	-	Apr-Nov	Apr-Nov	
	Silver hake														-	-	-	Mar-Oct	Mar-Oct	
	Skates														-	-	-	Jan-Dec	Jan-Dec	
	Skates														-	-	-	Mar-Oct	Mar-Oct	
	White hake														-	-	-	Mar-Oct	Mar-Oct	
	White hake														-	Jul-Oct	Jul-Oct	May-Nov	May-Nov	
	Yellowtail flounder														-	-	-	Mar-Oct	Mar-Oct	
	Yellowtail flounder														-	Apr-Sep	Apr-Sep	Apr-Sep	-	
	Marine Pelagic	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct	
	Atlantic mackerel														-	-	-	May-Nov	May-Nov	
	Butterfish														-	-	-	May-Oct	May-Oct	


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog														-	Jan-Dec	Jan-Dec
	Atlantic rock crab														May-Oct	Jan-Dec	Jan-Dec
 Crab	Blue crab														Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab														May-Oct	Jan-Dec	Jan-Dec
 Echinoderm	Green urchin														May-Oct	Jan-Dec	Jan-Dec
	American lobster														Mar-Jun	Jan-Dec	Jan-Dec
 Lobster															Jun-Oct	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
 Pinniped	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
 Seal	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
 Whale	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	59.12	0.09
10B	Freshwater Marshes	37.01	0.06
10C	Swamps	355.28	0.56
10D	Scrub and Shrub Wetlands	225.00	0.35
9A	Sheltered Tidal Flats	16.72	0.03
7	Exposed Tidal Flats	34.26	0.05
5	Mixed Sand and Gravel Beaches	83.07	0.13
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	165.14	0.26

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	3,534.44	2.20	3%
10B	Freshwater Marshes	135.12	0.08	< 1%
10C	Swamps	368.40	0.23	< 1%
10D	Scrub and Shrub Wetlands	132.19	0.08	< 1%
9A	Sheltered Tidal Flats	2,092.99	1.30	1%
9B	Vegetated Low Banks	8,457.18	5.26	6%
8A	Sheltered, Impermeable, Rocky Shores	1,958.37	1.22	1%
8B	Sheltered, Solid Man-Made Structures	88.07	0.05	< 1%
7	Exposed Tidal Flats	14,691.98	9.13	11%
6A	Gravel Beaches	4,513.08	2.80	3%
6B	Riprap	701.62	0.44	1%
5	Mixed Sand and Gravel Beaches	20,153.25	12.52	14%
4	Coarse Grained Sand Beaches	10,438.43	6.49	7%
3A	Fine to Medium Grained Sand Beaches	9,319.65	5.79	7%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	42,779.66	26.58	31%
1A	Exposed, Rocky Shores	20,155.32	12.52	14%
1B	Exposed, Solid Man-Made Structures	310.18	0.19	< 1%

Total ESI Shoreline: 139,829.92      Total ESI Shoreline: 86.89  
 Total Shoreline: 94,653.30      Total Shoreline: 58.81

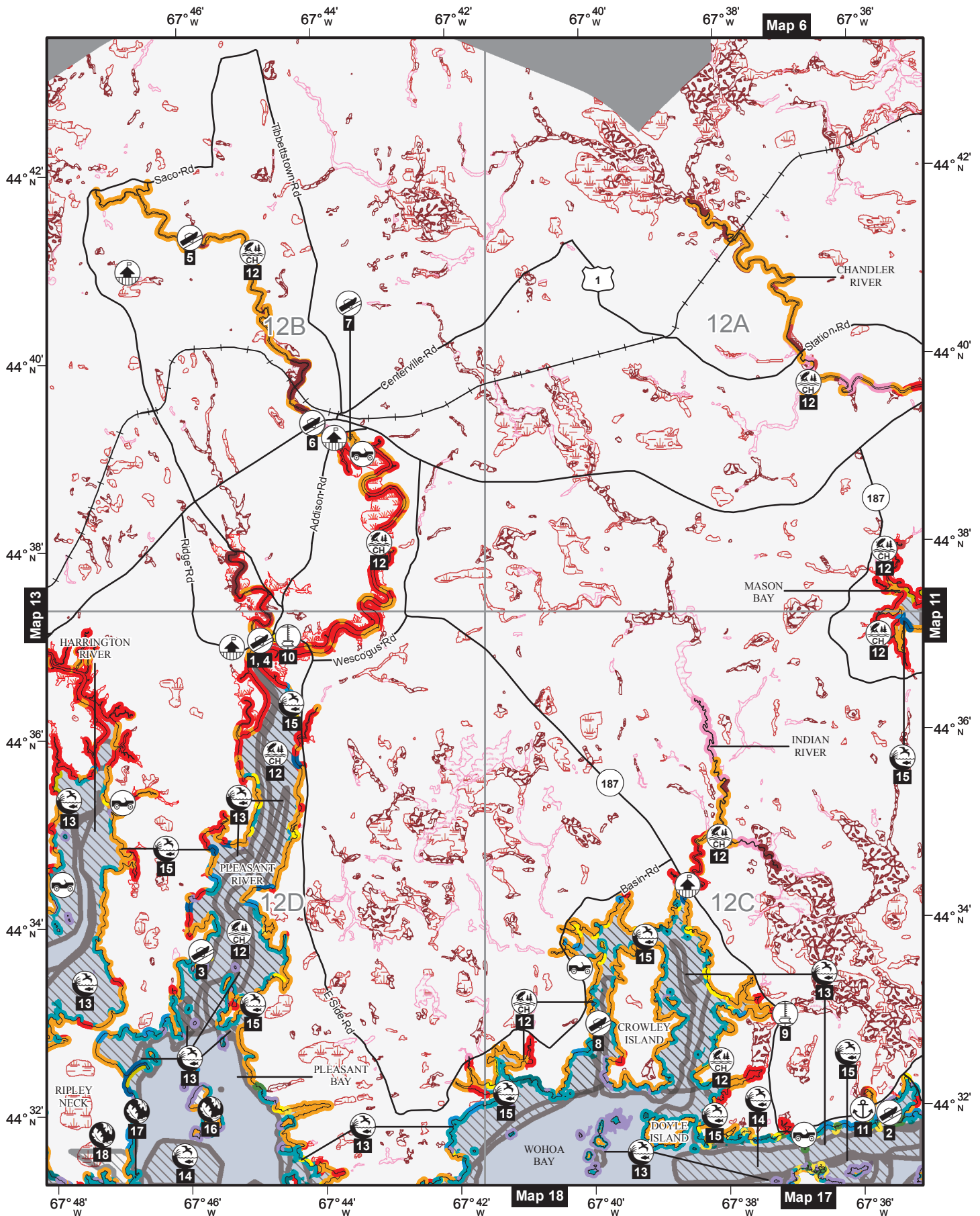
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









Map 12  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)				
Map ID	Type	Name	Contact	Phone
1	BOAT RAMP	ADDISON POINT TOWN LANDING	ADDISON	
2	BOAT RAMP	CHANDLER BAY BOAT RAMP	DOC	
3	BOAT RAMP	HARRINGTON BOAT LANDING	HARRINGTON	
4	BOAT RAMP	PLEASANT RIVER BOAT RAMP 1	ADDISON	
5	BOAT RAMP	PLEASANT RIVER BOAT RAMP 2	PLEASANT RIVER F&G	
6	BOAT RAMP	PLEASANT RIVER BOAT RAMP 3	PLEASANT RIVER F&G	
7	BOAT RAMP	PLEASANT RIVER BOAT RAMP 4	COLUMBIA FALLS	
8	BOAT RAMP	WEST RIVER LANDING	ADDISON	
9	LOCK AND DAM	SNARE CREEK DAM	STATE OF ME	
10	LOCK AND DAM	WEST BRANCH PLEASANT RIVER DAM	STATE OF ME DOT	
11	MARINA	HARBOR HOUSE ON SAWYER COVE		207-497-5417

DISPLAYED ON MAP (POLYGONS)				
Map ID	Type	Name	Contact	Phone
12	CRITICAL HABITAT	ATLANTIC SALMON CRITICAL HABITAT		
13	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
14	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
15	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
16	NATURE CONSERVANCY	UPPER BIRCH ISLAND PRESERVE	THE NATURE CONSERVANCY	207-729-5181
17	NATURE CONSERVANCY	WILLARD POINT	THE NATURE CONSERVANCY	207-729-5181
18	NATURE CONSERVANCY	WILLARD POINT EASEMENT	THE NATURE CONSERVANCY	207-729-5181

ALSO PRESENT IN MAPPED AREA (POLYGONS)			
Type	Name	Contact	Phone
STATE PROTECTED AREA	INNER GOOSE ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	
STATE PROTECTED AREA	PLEASANT BAY WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	

JURISDICTIONS				
COUNTY:	WASHINGTON	FEMA:	REGION I	
COAST GUARD:	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	EPA:	REGION 1	
USACE:	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT			

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	1,199.43	1.87
10B	Freshwater Marshes	1,625.57	2.54
10C	Swamps	4,363.66	6.82
10D	Scrub and Shrub Wetlands	3,997.71	6.25
9A	Sheltered Tidal Flats	23.20	0.04
7	Exposed Tidal Flats	8.42	0.01
5	Mixed Sand and Gravel Beaches	447.43	0.70
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	139.20	0.22

## ESI SHORELINE HABITAT TYPES

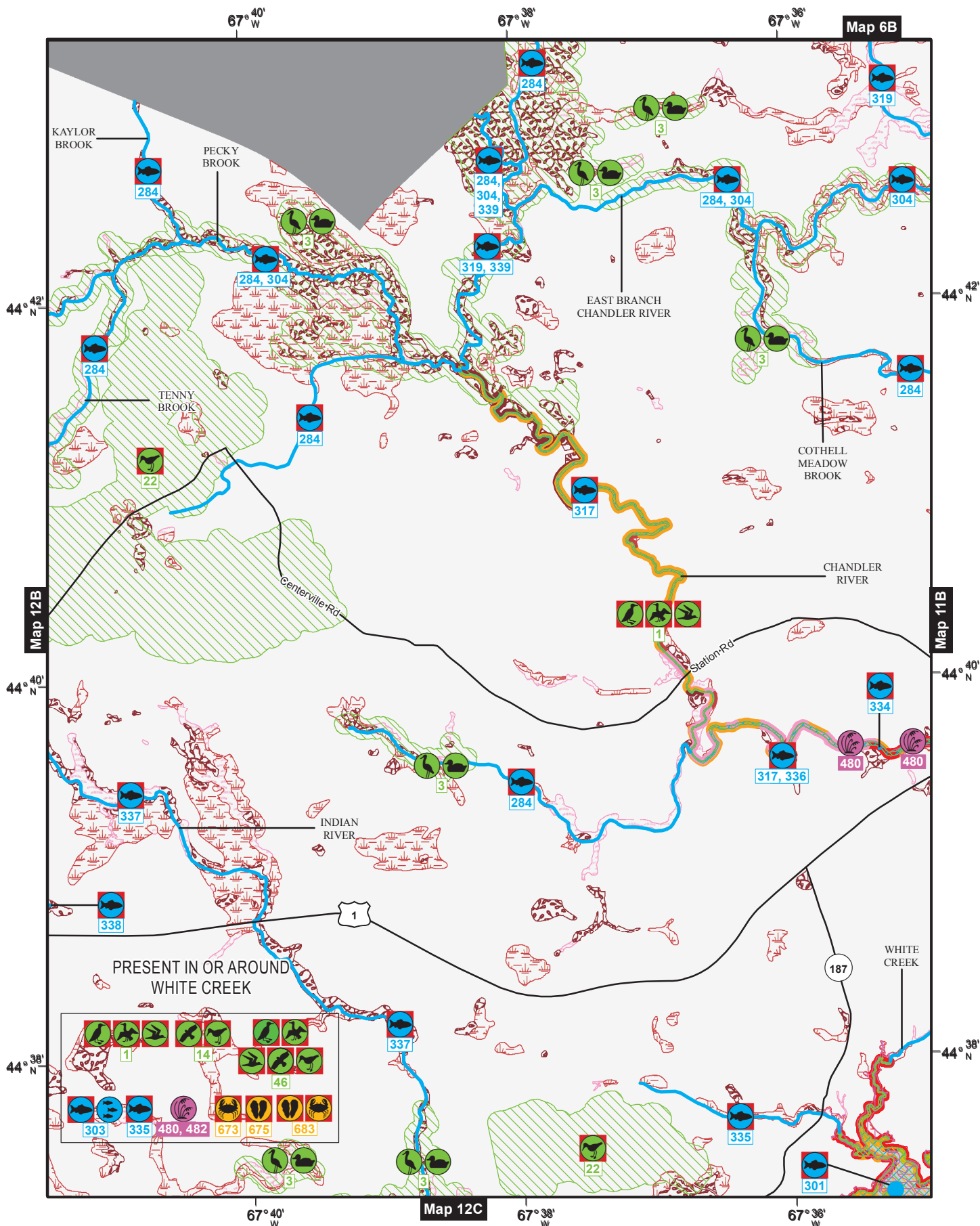
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	74,806.22	46.48	19%
10B	Freshwater Marshes	14,143.87	8.79	4%
10C	Swamps	2,955.58	1.84	1%
10D	Scrub and Shrub Wetlands	11,942.12	7.42	3%
9A	Sheltered Tidal Flats	4,217.76	2.62	1%
9B	Vegetated Low Banks	154,658.71	96.10	40%
8A	Sheltered, Impermeable, Rocky Shores	7,070.93	4.39	2%
8B	Sheltered, Solid Man-Made Structures	4,351.87	2.70	1%
8C	Sheltered Riprap	326.95	0.20	< 1%
7	Exposed Tidal Flats	2,482.06	1.54	1%
6A	Gravel Beaches	4,888.06	3.04	1%
6B	Riprap	3,000.09	1.86	1%
5	Mixed Sand and Gravel Beaches	72,466.37	45.03	19%
4	Coarse Grained Sand Beaches	6,647.08	4.13	2%
3A	Fine to Medium Grained Sand Beaches	3,291.12	2.05	1%
3B	Scarps and Steep Slopes (Sand)	266.85	0.17	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	19,704.11	12.24	5%
Total ESI Shoreline:		387,219.75	240.61	
Total Shoreline:		299,363.82	186.02	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 12A**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**





**Map 12A**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
1	Alcid	Razorbill	General Distribution	T/-	-												
	Diving	Common Loon	General Distribution	-/T	-												
	Diving	Great cormorant	General Distribution	T/-	-												
	Gull/Tern	Arctic tern	General Distribution	T/C	-												
	Gull/Tern	Common tern	General Distribution	C/T	-												
	Gull/Tern	Roseate tern	General Distribution	E/E	-												
3	Wading	Wading birds	Vulnerable Occurrence		-												
	Waterfowl	Waterfowl	Vulnerable Occurrence		-												
14	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/-	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Molt
						J	F	M	A	M	J	J	A	S	O	N	D	
	Shorebird	Willet	Concentration Area	-/C	Foraging												May-Aug	
22	Shorebird	Upland sandpiper	Vulnerable Occurrence	T/E	-												Apr-Oct	-
46	Alcid	Razorbill	General Distribution	T/-	-												-	-
	Diving	Common Loon	General Distribution	-/T	-												-	-
	Diving	Great cormorant	General Distribution	T/-	-												-	-
	Gull/Tern	Arctic tern	General Distribution	T/C	-												May-Oct	-
	Gull/Tern	Common tern	General Distribution	C/T	-												May-Aug	-
	Gull/Tern	Roseate tern	General Distribution	E/E E	-												-	-
	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												Mar-May	-
	Shorebird	American golden-plover	Concentration Area		Foraging												-	-
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												May-Jun	Oct
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												-	-
	Shorebird	BB sandpiper	Concentration Area		Foraging												-	-
	Shorebird	Black-bellied plover	Concentration Area		Foraging												Aug	Oct
	Shorebird	Dunlin	Concentration Area		Foraging												May	Jul-Oct
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												-	-
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												May	Aug-Oct
	Shorebird	Least sandpiper	Concentration Area		Foraging												-	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												May-Jun	Jul-Oct
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												-	-
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												Apr-May	Sep-Oct
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												May	Aug-Oct
	Shorebird	Sanderling	Concentration Area		Foraging												May-Jun	Jul-Oct
	Shorebird	Semipalmated plover	Concentration Area		Foraging												-	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												Apr-May	-
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												May-Jun	Jul-Oct
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												-	-
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												Jun	-
	Shorebird	Western sandpiper	Concentration Area		Foraging												Jul	Sep
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												Jul	Oct
	Shorebird	White-rumped sandpiper	Concentration Area	-/C	Foraging												-	-
	Shorebird	Willet	Concentration Area		Foraging												May-Jun	Jul-Oct
					Foraging												May-Aug	Jul-Sep

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
284	Diadromous	Sea lamprey	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
301	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
303	Diadromous	Atlantic sturgeon	General Distribution	-/T T	Rare													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Shortnose sturgeon	General Distribution	E/E E	Rare													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Concentration Area		High													-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass	Concentration Area		Low													-	-	-	Jan-Dec	Jan-Dec
304	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May



**FISH (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
317	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
319	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr
334	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
335	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration	-/T	T	-												Dec-Feb	-	Jan-Dec	Jan-Dec
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec
336	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration	-/T	T	-												Dec-Feb	-	Jan-Dec	Jan-Dec
	Diadromous	Atlantic sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec
337	Diadromous	Shortnose sturgeon	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Atlantic salmon	Migration	C/-		-												-	-	Jan-May	May-Mar
	Diadromous	Brook trout (sea run)	Migration	-/C		-												-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr
338	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Atlantic salmon	Migration	-/C		-												-	-	Jan-Dec	May-Mar

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Concentration	High Ecological Value	High Ecological Value
				S	F		J	F	M	A	M	J	J	A	S	O	N	D			
480	Wetland	Tidal Marsh	High Ecological Value			-												-	-	-	
482	Wetland	SM cordgrass/wiregrass	High Ecological Value			-												-	-	-	

# INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
673	Crab	Horseshoe crab	General Distribution	-/C		Low												May-Jul	-	Jan-Dec	Jan-Dec
675	Bivalve	Softshell clam	Harvest Area	-/C		-												May-Oct	May-Oct	Jan-Dec	Jan-Dec
683	Bivalve	Softshell clam	Harvest Area	-/C		-												May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab	General Distribution	-/C		Low												May-Jul	-	Jan-Dec	Jan-Dec

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Alcid	Black guillemot													May-Aug	-	-	-
	Dovekie													-	-	-	-
Diving	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
Gull/Tern	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
Pelagic	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Northern gannet													-	-	-	-


# FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Estuarine Nursery	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
Marine Benthic	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-

## FISH (continued)

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Marine Pelagic	Atlantic mackerel													-	-	May-Nov	May-Nov
	Butterfish													-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog													-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
 Crab	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	American lobster													Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
 Echinoderm														Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Pinniped	Harbor seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	42.98	0.07
10B	Freshwater Marshes	551.31	0.86
10C	Swamps	1,580.16	2.47
10D	Scrub and Shrub Wetlands	1,118.79	1.75
9A	Sheltered Tidal Flats	6.85	0.01
7	Exposed Tidal Flats	3.53	0.01

ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	6,761.21	4.20	18%
10B	Freshwater Marshes	4,977.46	3.09	13%
10C	Swamps	1,087.75	0.68	3%
10D	Scrub and Shrub Wetlands	5,672.79	3.52	15%
9A	Sheltered Tidal Flats	1,457.47	0.91	4%
9B	Vegetated Low Banks	17,261.90	10.73	45%
7	Exposed Tidal Flats	658.41	0.41	2%
3A	Fine to Medium Grained Sand Beaches	93.83	0.06	< 1%

Total ESI Shoreline: 37,970.82      Total ESI Shoreline: 23.59  
Total Shoreline: 29,135.56      Total Shoreline: 18.10

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 12B**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
1	Alcid	Razorbill	General Distribution	T/-	-													-	-	-	-
	Diving	Common Loon	General Distribution	-/T	-													-	-	-	-
	Diving	Great cormorant	General Distribution	T/-	-													-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C	-													May-Oct	-	-	-
2	Gull/Tern	Common tern	General Distribution	C/T	-													May-Aug	-	-	-
	Gull/Tern	Roseate tern	General Distribution	E/E	-													-	-	-	-
	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-													Mar-May	-	-	-
	Wading	Wading birds	Vulnerable Occurrence	-	-													Apr-Nov	Apr-Jun	Jul-Nov	-
3	Waterfowl	Waterfowl	Vulnerable Occurrence	-	-													Apr-Nov	Apr-Jun	Jul-Nov	-
	Shorebird	American golden-plover	Concentration Area	-	Foraging													-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area	-	Foraging													-	-	-	-
4	Shorebird	BB sandpiper	Concentration Area	-	Foraging													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area	-	Foraging													-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area	-	Foraging													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area	-	Foraging													-	May	Jul-Oct	-
5	Shorebird	Hudsonian godwit	Concentration Area	-	Foraging													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area	-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area	-	Foraging													-	Apr-May	Sep-Oct	-
6	Shorebird	Red Knot	Concentration Area	C/-	T	Foraging												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area	-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area	-	Foraging													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area	-	Foraging													-	May-Jun	Jul-Oct	-
7	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area	-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area	-	Foraging													-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area	-	Foraging													-	Jul	Sep	-
8	Shorebird	Western sandpiper	Concentration Area	-	Foraging													-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area	-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-/C	Foraging													May-Aug	May-Jun	Jul-Sep	-
22	Shorebird	Upland sandpiper	Vulnerable Occurrence	T/E	-													Apr-Oct	-	-	-

## FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-I		-												-	-	Mar-Oct	Mar-Oct		
284	Diadromous	Sea lamprey	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		
294	Diadromous	American eel	Migration	-I		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	Sea lamprey	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		
304	Diadromous	American eel	Migration	-I		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Freshwater	Rainbow smelt	Migration	-I		-												-	-	Jan-Dec	Oct-Apr		
319	Diadromous	American eel	Migration	-I		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Diadromous	Sea lamprey	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		
	Freshwater	Rainbow smelt	Migration	-I		-												-	-	Jan-Dec	Oct-Apr		
328	Freshwater	Rainbow smelt	Migration	-I		-												-	-	Jan-Dec	Oct-Apr		
330	Diadromous	Alewife	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		
	Diadromous	American eel	Migration	-I		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	American shad	Migration	-I		-												-	-	May-Feb	May-Jul		
	Diadromous	Atlantic salmon	Migration	-I	E	-												-	-	Jan-Dec	May-Mar		
	Diadromous	Blueback herring	Migration	-I		-												-	-	Jan-Dec	May-Mar		
	Diadromous	Sea lamprey	Migration	-I		-												-	-	Jan-Dec	Jan-Dec		
331	Diadromous	Atlantic sturgeon	Migration	-I	T	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec		
	Freshwater	Rainbow smelt	Migration	-I		-												-	-	Jan-Dec	Oct-Apr		
337	Marine Benthic	Atlantic tomcod	Migration			-												Dec-Feb		Jan-Dec	Jan-Dec		
	Diadromous	Atlantic salmon	Migration	-I	E	-												-	-	Jan-Dec	May-Mar		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Diadromous	Sea lamprey	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		
	Freshwater	Rainbow smelt	Migration	-I		-												-	-	Jan-Dec	Oct-Apr		
338	Diadromous	Atlantic sturgeon	Migration	-I	T	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Sea lamprey	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec		
340	Diadromous	Alewife	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		
	Diadromous	American eel	Migration	-I		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	Atlantic sturgeon	Migration	-I	T	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Diadromous	Sea lamprey	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec		
	Freshwater	Rainbow smelt	Migration	-I		-												-	-	Jan-Dec	Oct-Apr		
341	Marine Benthic	Atlantic tomcod	Migration			-												Dec-Feb		Jan-Dec	Jan-Dec		
	Diadromous	Alewife	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		
	Diadromous	Atlantic salmon	Migration	-I	E	-												-	-	Jan-Dec	May-Mar		
342	Diadromous	Alewife	Migration	-I		-												-	-	Apr-Dec	Apr-Jul		



FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Diadromous	American shad	Migration	-/C		-												-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
343	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Diadromous	Shorthead sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr
344	Marine Benthic	Atlantic tomcod	Migration			-												Dec-Feb	-	Jan-Dec	Jan-Dec
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
	Diadromous	Shorthead sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec
345	Marine Benthic	Striped bass	Migration			-												Dec-Feb	-	Jan-Dec	Jan-Dec
	Diadromous	American eel	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Diadromous	American shad	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct
	Diadromous	Blueback herring	Migration	-/C		-												-	-	May-Feb	May-Jul
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul

HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
480	Wetland	Tidal Marsh	High Ecological Value			-												-	-	-	-
481	Wetland	Rare ecol. community	High Ecological Value			-												-	-	-	-
482	Wetland	SM cordgrass/wiregrass	High Ecological Value			-												-	-	-	-
484	Plant	Endangered plant	Vulnerable Occurrence	E/E		-												-	-	-	-





REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Hatch	Internest	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
665	Amphibian	B. spotted salamander	Vulnerable Occurrence	C/C		Very Low												Apr-May	May-Jun	Jan-Dec	Apr-Jun
	Amphibian	Jefferson salamander	Vulnerable Occurrence	C/C		Rare												Apr-May	May-Jun	Jan-Dec	Apr-Jun
	Amphibian	Northern leopard frog	Vulnerable Occurrence	C/C		Low												Apr-Jun	May-Jul	May-Sep	Jan-Dec
	Amphibian	Spotted salamander	Concentration Area			Common												Mar-May	Apr-Jun	May-Sep	Mar-Jun
	Amphibian	Wood Frog	Concentration Area			Common												Mar-Apr	Apr-Jun	Jun-Sep	Mar-Sep
	Turtle	Spotted turtle	Vulnerable Occurrence	T/T		Very Low												May-Jul	Aug-Oct	Jan-Dec	Jan-Dec
	Turtle	Wood turtle	Vulnerable Occurrence	C/C		Very Low												May-Jul	Aug-Oct	Jan-Dec	Jan-Nov




INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
673	Crab	Horseshoe crab	General Distribution	-/C		Low												May-Jul	-	Jan-Dec	Jan-Dec
682	Bivalve	Brook floater	Vulnerable Occurrence	T/E		-												Jun-Aug	Jan-Dec	Jan-Dec	Jan-Dec

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Juveniles	Molt
		J	F	M	A	M	J	J	A	S	O	N	D					
	Black guillemot													May-Aug	-	-	-	-
	Dovekie													-	-	-	-	-
	Thick-billed murre													-	-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-	-
	Horned grebe													-	-	-	-	-
	Red-necked grebe													-	-	-	-	-
	Red-throated loon													-	-	-	-	-
	G. black-backed gull													-	-	-	-	-
	Herring gull													-	-	-	-	-
	Ring-billed gull													-	-	-	-	-
	Northern gannet													-	-	-	-	-


## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Harbor seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	434.99	0.68
10B	Freshwater Marshes	213.55	0.33
10C	Swamps	736.05	1.15
10D	Scrub and Shrub Wetlands	814.02	1.27

ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	15,642.25	9.72	34%
10B	Freshwater Marshes	477.82	0.30	1%
10C	Swamps	907.17	0.56	2%
10D	Scrub and Shrub Wetlands	4,454.33	2.77	10%
9B	Vegetated Low Banks	24,497.61	15.22	53%

Total ESI Shoreline: 45,979.18      Total ESI Shoreline: 28.57  
 Total Shoreline: 45,914.39      Total Shoreline: 28.53

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





Map 12C  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												
7	Waterfowl	American black duck	Rafting		-												
	Waterfowl	Black Scoter	Rafting		-												
	Waterfowl	Bufflehead	Rafting		-												
	Waterfowl	Common eider	Rafting		-												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
	Waterfowl	Common goldeneye	Rafting															-	-	-	-
	Waterfowl	Common merganser	Rafting															-	-	-	-
	Waterfowl	Harlequin duck	Rafting															-	-	-	-
	Waterfowl	Long-tailed duck	Rafting															-	May	Sep	-
	Waterfowl	Mallard	Rafting															Apr-Aug	-	-	-
	Waterfowl	Red-breasted merganser	Rafting															-	-	-	-
	Waterfowl	Ruddy duck	Rafting															-	Dec-Jan	-	-
	Waterfowl	Scaup	Rafting															-	Dec-Jan	-	-
	Waterfowl	Surf scoter	Rafting															-	-	-	-
	Waterfowl	White-winged scoter	Rafting															-	-	-	-
14	Raptor	Bald eagle	Vulnerable Occurrence															Mar-May	-	-	-
	Shorebird	American golden-plover	Concentration Area															-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area															May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area															-	-	-	-
	Shorebird	BB sandpiper	Concentration Area															-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area															-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area															-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area															-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Concentration Area															-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area															-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area															-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area															-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area															-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area															-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area															May-Aug	May-Jun	Jul-Sep	-
15	Shorebird	Purple sandpiper	Vulnerable Occurrence															-	Apr-May	Oct	-
22	Shorebird	Upland sandpiper	Vulnerable Occurrence															Apr-Oct	-	-	-
47	Waterfowl	Common eider	Roosting															May-Aug	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area															-	-	-	Mar-Oct	Mar-Oct
283	Diadromous	Alewife	Migration															-	-	-	Apr-Jul	Apr-Jul
	Diadromous	American eel	Migration															-	-	-	Mar-Oct	Mar-Oct

FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
305	Diadromous	American shad	Migration	-/C		-											-	-	May-Feb	May-Jul		
	Diadromous	Atlantic salmon	Migration	-/C	E	-											-	-	Jan-Dec	May-Mar		
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-											-	-	Jan-Dec	Jan-Dec		
	Diadromous	Blueback herring	Migration	-/C		-											-	-	Jan-Dec	Jan-Dec		
	Diadromous	Brook trout (sea run)	Migration	C/-		-											-	-	Jan-May	Jan-May		
328	Diadromous	Sea lamprey	Migration	-/C		-											-	-	Apr-Dec	Apr-Jul		
	Diadromous	Shorthose sturgeon	Migration	E/E	E	-											-	-	Jan-Dec	Jan-Dec		
	Diadromous	Striped bass	Migration			-											-	-	Jan-Dec	Jan-Dec		
	Freshwater	Rainbow smelt	Migration	-/C		-											-	-	Jan-Dec	Oct-Apr		
	Marine Benthic	Atlantic tomcod	Migration			-											Dec-Feb	-	Mar-Oct	Mar-Oct		
332	Diadromous	American eel	Migration	-/C		-											-	-	Jan-Dec	Mar-Oct		
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-											-	-	Jan-Dec	Jan-Dec		
	Diadromous	Brook trout (sea run)	Migration	C/-		-											-	-	Jan-May	Jan-May		
	Diadromous	Shorthose sturgeon	Migration	E/E	E	-											-	-	Jan-Dec	Jan-Dec		
	Diadromous	Striped bass	Migration			-											-	-	Jan-Dec	Jan-Dec		
336	Freshwater	Rainbow smelt	Migration	-/C		-											-	-	Jan-Dec	Oct-Apr		
	Marine Benthic	Atlantic tomcod	Migration			-											Dec-Feb	-	Jan-Dec	Jan-Dec		
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-											-	-	Jan-Dec	Jan-Dec		
	Diadromous	Shorthose sturgeon	Migration	E/E	E	-											-	-	Jan-Dec	Jan-Dec		
	Diadromous	Striped bass	Migration			-											-	-	Jan-Dec	Jan-Dec		
337	Marine Benthic	Atlantic tomcod	Migration			-											Dec-Feb	-	Jan-Dec	Jan-Dec		
	Diadromous	Atlantic salmon	Migration	-/C	E	-											-	-	Jan-Dec	May-Mar		
	Diadromous	Brook trout (sea run)	Migration	C/-		-											-	-	Jan-May	Jan-May		
	Diadromous	Sea lamprey	Migration	-/C		-											-	-	Apr-Dec	Apr-Jul		
	Freshwater	Rainbow smelt	Migration	-/C		-											-	-	Jan-Dec	Oct-Apr		
346	Diadromous	Alewife	Migration	-/C		-											-	-	Apr-Dec	Apr-Jul		
	Diadromous	American eel	Migration	-/C		-											-	-	Mar-Oct	Mar-Oct		
	Diadromous	American shad	Migration	-/C		-											-	-	May-Feb	May-Jul		
	Diadromous	Blueback herring	Migration	-/C		-											-	-	Jan-Dec	Jan-Dec		

HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
				S	F		J	F	M	A	M	J	J	A	S	O	N	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
480	Wetland	Tidal Marsh	High Ecological Value			-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																



## INVERTEBRATES


Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
674	Bivalve	Sea scallop	Harvest Area	-	-	-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
675	Bivalve	Softshell clam	Harvest Area	-	-	-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area	-	-	-													May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec

## MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
744	Pinniped	Harbor seal	Haul Out	-	-	-													-	-	-	-

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )



## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	General Distribution	T/-	-	-													-	-	-	-
	Diving	General Distribution	-	-	-													-	-	-	-
	Great cormorant	General Distribution	T/-	-	-													-	-	-	-
	Arctic tern	General Distribution	T/C	-	-													May-Oct	-	-	-
	Common tern	General Distribution	C/T	-	-													May-Aug	-	-	-
	Roseate tern	General Distribution	E/E	-	-													-	-	-	-
	Wading birds	Vulnerable Occurrence	-	-	-													Apr-Nov	Apr-Jun	Jul-Nov	-
	Waterfowl	Vulnerable Occurrence	-	-	-													Apr-Nov	Apr-Jun	Jul-Nov	-

## FISH

Subelement	Species	Mapping Qualifier	ME/NH				Concentration	Monthly Presence										Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	T	E		J	F	M	A	M	J	J	A	S	O	N				
	Atlantic sturgeon	General Distribution	-	-	-	-	Rare											-	-	-	Jan-Dec	Jan-Dec
	Shortnose sturgeon	General Distribution	E/E	-	-	-	Rare											-	-	-	Jan-Dec	Jan-Dec
	Striped bass	Concentration Area	-	-	-	-	High											-	-	-	Jan-Dec	Jan-Dec
	Black Seabass	Concentration Area	-	-	-	-	Low											-	-	-	Jan-Dec	Jan-Dec

## REPTILES & AMPHIBIANS





Subelement	Species	Mapping Qualifier	ME/NH				Concentration	Monthly Presence										Nest	Hatch	Internest	Juveniles	Adults
			S	F	T	E		J	F	M	A	M	J	J	A	S	O	N				
	Green sea turtle	General Distribution	-	-	-	-	Rare											-	-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	-	-	-	Rare											-	-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	-	-	-	Low											-	-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	-	-	-	Low											-	-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES





Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
	Horseshoe crab	General Distribution	-	-	Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec







## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Northern gannet													-	-	-	-

## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog													-	-	Jan-Dec	Jan-Dec
 Crab	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
 Echinoderm	Green urchin													May-Oct	May-Oct	Jan-Dec	Jan-Dec
 Lobster	American lobster													Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
														Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Harbor porpoise													-	-	-	-
 Pinniped	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	99.14	0.15
10B	Freshwater Marshes	519.29	0.81
10C	Swamps	920.81	1.44
10D	Scrub and Shrub Wetlands	1,587.15	2.48
9A	Sheltered Tidal Flats	16.35	0.03
5	Mixed Sand and Gravel Beaches	252.33	0.39
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	117.83	0.18

## ESI SHORELINE HABITAT TYPES

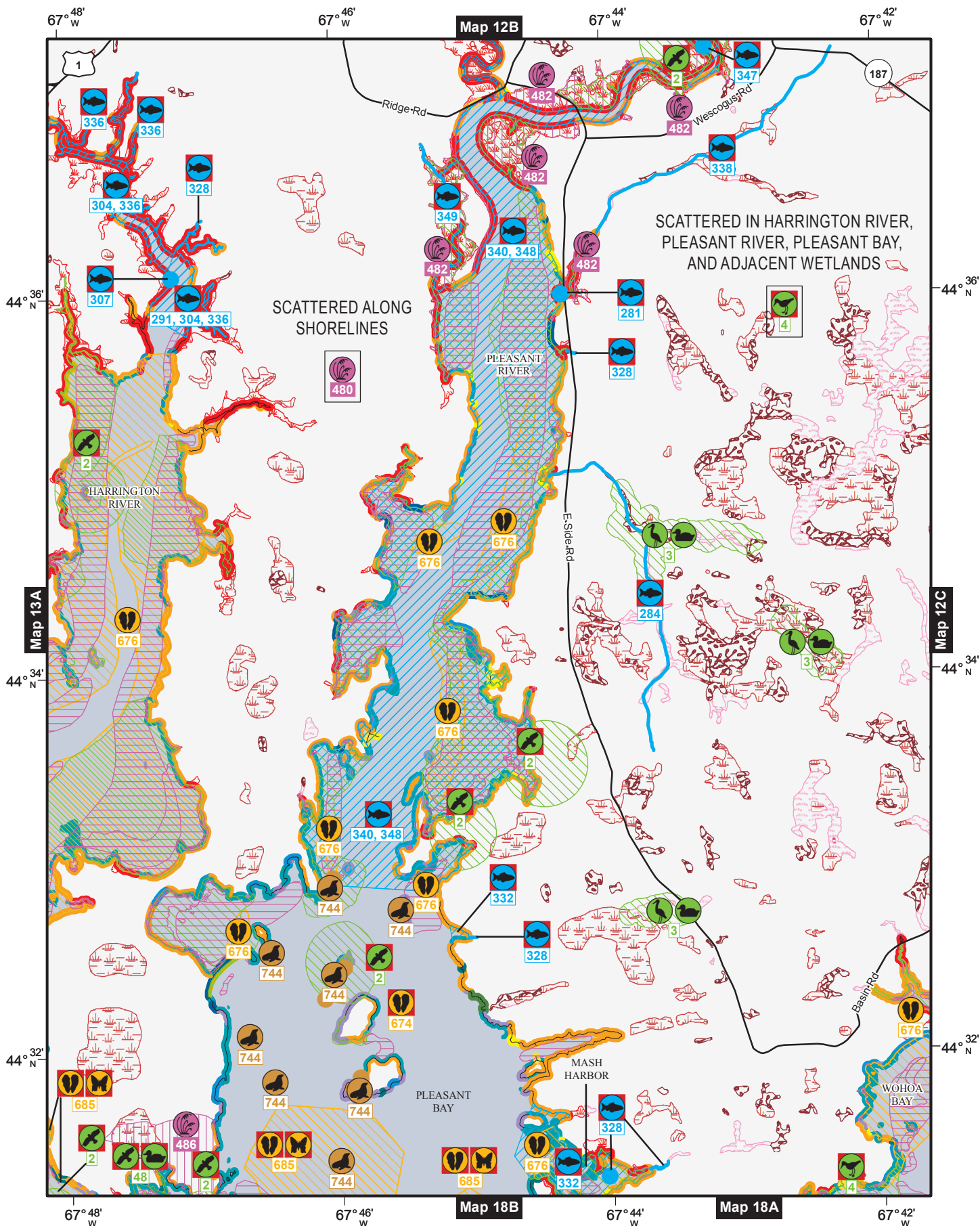
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	11,705.30	7.27	8%
10B	Freshwater Marshes	8,646.43	5.37	6%
10D	Scrub and Shrub Wetlands	1,781.90	1.11	1%
9A	Sheltered Tidal Flats	2,760.28	1.72	2%
9B	Vegetated Low Banks	56,863.16	35.33	38%
8A	Sheltered, Impermeable, Rocky Shores	4,489.73	2.79	3%
8B	Sheltered, Solid Man-Made Structures	3,795.70	2.36	3%
8C	Sheltered Riprap	188.50	0.12	< 1%
6A	Gravel Beaches	3,345.87	2.08	2%
6B	Riprap	2,681.69	1.67	2%
5	Mixed Sand and Gravel Beaches	38,036.80	23.64	25%
4	Coarse Grained Sand Beaches	3,283.18	2.04	2%
3A	Fine to Medium Grained Sand Beaches	924.51	0.57	1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	11,233.65	6.98	8%

Total ESI Shoreline: 149,736.71      Total ESI Shoreline: 93.04  
 Total Shoreline: 105,482.18      Total Shoreline: 65.54

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 12D**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**



Map 12D  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence		-												
3	Wading birds	Waterfowl	Vulnerable Occurrence		-												
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-C	Foraging												
48	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
	Waterfowl	Harequin duck	Vulnerable Occurrence	T/-	-												

## FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C		-													-	-	-	Mar-Oct	Mar-Oct
284	Diadromous	Sea lamprey	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
291	Diadromous	Alewife	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American shad	Migration	-/C		-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E	-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
304	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
307	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	Migration	-/C	E	-													-	-	-	Jan-Dec	May-Mar
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
328	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
332	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration			-													-	-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration			-													-	-	-	Jan-Dec	Jan-Dec
336	Diadromous	Atlantic sturgeon	Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration			-													-	-	-	Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration			-													-	-	-	Jan-Dec	Jan-Dec
338	Diadromous	Atlantic sturgeon	Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration			-													-	-	-	Jan-Dec	Jan-Dec
340	Diadromous	Alewife	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration			-													-	-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration			-													-	-	-	Jan-Dec	Jan-Dec
347	Diadromous	Alewife	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	American eel	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American shad	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C		-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E	-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr

FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D					
348	Diadromous	American shad	Migration	-/C	-	-	-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E	-	-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-/C	-	-	-													-	-	-	Jan-Dec	Jan-Dec
349	Diadromous	Alewife	Migration	-/C	-	-	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American shad	Migration	-/C	-	-	-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-	-													-	-	-	Jan-Dec	Jan-Dec
685	Diadromous	Blueback herring	Migration	-/C	-	-	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C	-	-	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-	-	-	-													-	-	-	Jan-Dec	Jan-Dec

HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D					
480	Wetland	Tidal Marsh	High Ecological Value	-	-	-	-													-	-	-	-	-
482	Wetland	SM cordgrass/wiregrass	High Ecological Value	-	-	-	-													-	-	-	-	-
486	Upland	Rare upland community	High Ecological Value	-	-	-	-													-	-	-	-	-

INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D					
674	Bivalve	Sea scallop	Harvest Area	-/C	-	-	-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area	-	-	-	-													May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec
685	Bivalve	Sea scallop	Harvest Area	-/C	-	-	-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
Insect	Rare insect	Vulnerable Occurrence		C/-	-	-	-													May-Jul	-	-	Jan-Dec	Jan-Dec

MARINE MAMMALS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
								J	F	M	A	M	J	J	A	S	O	N	D				
744	Pinniped	Harbor seal	Haul Out	-	-	-	-													-	-	-	-



WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )

BIRDS


Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
								J	F	M	A	M	J	J	A	S	O	N	D				
744	Alcid	Razorbill	General Distribution	T/-	-	-	-													-	-	-	-
		Common Loon	General Distribution	-/T	-	-	-													-	-	-	-
		Great cormorant	General Distribution	T/-	-	-	-													-	-	-	-
744	Gull/Tern	Arctic tern	General Distribution	T/C	-	-	-													May-Oct	-	-	-
		Common tern	General Distribution	C/T	-	-	-													May-Aug	-	-	-
		Roseate tern	General Distribution	E/E	E	-	-													-	-	-	-



# FISH

Subelement	Species	Mapping Qualifier	ME/NH S F -T T E/E E	Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D				
	Diadromous	Atlantic sturgeon	General Distribution	Rare													-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	General Distribution	Rare													-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Striped bass	Concentration Area	High													-	-	Jan-Dec	Jan-Dec
		Black Seabass	Concentration Area	Low													-	-	Jan-Dec	Jan-Dec

# REPTILES & AMPHIBIANS





Subelement	Species	Mapping Qualifier	ME/NH S F -/- T E/- E E/- E E/- T	Concentration	Monthly Presence												Hatch	Interest	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D				
	Turtle	Green sea turtle	General Distribution	Rare													-	-	Jun-Nov	Jun-Nov
		K. ridley sea turtle	General Distribution	Rare													-	-	Jun-Nov	Jun-Nov
		Leatherback sea turtle	General Distribution	Low													-	-	Jun-Nov	Jun-Nov
		Loggerhead sea turtle	General Distribution	Low													-	-	Jun-Nov	Jun-Nov

# INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH S F -/- T E/- E E/- E E/- T	Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D				
	Bivalve	Softshell clam	Harvest Area	-													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab	General Distribution	Low													May-Jul	-	Jan-Dec	Jan-Dec




ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS




Subelement	Species	Mapping Qualifier	ME/NH S F -/- T E/- E E/- E E/- T	Concentration	Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
					J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Black guillemot	General Distribution														May-Aug	-	-	-
		Dovekie	General Distribution														-	-	-	-
	Diving	Thick-billed murre	General Distribution														-	-	-	-
		D. crested cormorant	General Distribution														Jun-Sep	-	-	-
		Horned grebe	General Distribution														-	-	-	-
		Red-necked grebe	General Distribution														-	-	-	-
	Gull/Tern	Red-throated loon	General Distribution														-	-	-	-
		G. black-backed gull	General Distribution														-	-	-	-
		Herring gull	General Distribution														-	-	-	-
	Pelagic	Ring-billed gull	General Distribution														-	-	-	-
		Northern gannet	General Distribution														-	-	-	-





# FISH

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Estuarine Nursery													-	Oct-May	Jan-Dec	Apr-Dec
														-	-	Jan-Dec	-
	Marine Benthic													-	Mar-Jul	Mar-Nov	Mar-Nov
														-	Dec-Jun	Jan-Dec	Mar-Nov
	American sand lance													-	Nov-Jun	Jan-Dec	Oct-Jul
														-	Apr-Sep	Jan-Dec	Jan-Dec
	Atlantic Wolffish													-	Mar-Aug	Jan-Dec	Jan-Dec
														-	Mar-Jun	Mar-Jun	-
	Cunner													-	Dec-Apr	Jan-Dec	Jan-Dec
														-	Nov-Feb	Jan-Dec	Mar-Oct
	Haddock													-	Jun-Oct	Mar-Nov	May-Nov
														-	Dec-Mar	Jan-Dec	Jan-Dec
	Longhorn sculpin													-	Nov-Mar	Jan-Dec	May-Nov
														-	Jun-Oct	Jan-Dec	Jan-Dec
	Northern searobin													-	Jan-May	Jan-Dec	Jan-Dec
														-	Apr-Nov	Jan-Dec	Jan-Dec
	Ocean pout													-	Jul-Oct	Jan-Dec	May-Nov
														-	Apr-Sep	Jan-Dec	Jan-Dec
	Pollock													-	Nov-Mar	Jan-Dec	Jan-Dec
														-	Jun-Oct	Jan-Dec	Jan-Dec
	Red hake													-	Jan-May	Jan-Dec	Jan-Dec
														-	Apr-Nov	Jan-Dec	Jan-Dec
	Rock gunnel													-	Jul-Oct	Jan-Dec	Jan-Dec
														-	Apr-Sep	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	Nov-Mar	Jan-Dec	Jan-Dec
														-	Jun-Oct	Jan-Dec	Jan-Dec
	Silver hake													-	Jan-May	Jan-Dec	Jan-Dec
														-	Apr-Nov	Jan-Dec	Jan-Dec
	Skates													-	Jul-Oct	Jan-Dec	Jan-Dec
														-	Apr-Sep	Jan-Dec	Jan-Dec
	White hake													-	Nov-Mar	Jan-Dec	Jan-Dec
														-	Jun-Oct	Jan-Dec	Jan-Dec
	Yellowtail flounder													-	Jan-May	Jan-Dec	Jan-Dec
														-	Apr-Nov	Jan-Dec	Jan-Dec
	Marine Pelagic													-	Jul-Oct	Jan-Dec	Jan-Dec
														-	Apr-Sep	Jan-Dec	Jan-Dec
	Atlantic mackerel													-	Nov-Mar	Jan-Dec	Jan-Dec
														-	Jun-Oct	Jan-Dec	Jan-Dec
	Butterfish													-	Jan-May	Jan-Dec	Jan-Dec
														-	Apr-Nov	Jan-Dec	Jan-Dec


# INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Bivalve													-	Oct-May	Jan-Dec	Jan-Dec
														-	-	Jan-Dec	Jan-Dec
	Crab													-	Mar-Jul	Mar-Nov	Mar-Nov
														-	Dec-Jun	Jan-Dec	Jan-Dec
	Blue crab													-	Nov-Jun	Jan-Dec	Oct-Jul
														-	Apr-Sep	Jan-Dec	Jan-Dec
	Jonah crab													-	Mar-Aug	Jan-Dec	Jan-Dec
														-	Mar-Jun	Mar-Jun	-
	Green urchin													-	Dec-Apr	Jan-Dec	Jan-Dec
														-	Nov-Feb	Jan-Dec	Mar-Oct
	American lobster													-	Jun-Oct	Mar-Nov	May-Nov
														-	Dec-Mar	Jan-Dec	Jan-Dec

# MARINE MAMMALS

Subelement	Species	Monthly Presence												Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D			
	Dolphin													-	-	-
														-	-	-
	Pinniped													-	-	-
														-	-	-
	Harbor porpoise													-	-	-
														-	-	-
	Gray seal													-	-	-
														-	-	-
	Harbor seal													-	-	-
														-	-	-
	Harp seal													-	-	-
														-	-	-
	Hooded seal													-	-	-
														-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence											
		J	F	M	A	M	J	J	A	S	O	N	D
	Beaver												
	Muskrat												
	Northern river otter												

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## SHORELINE RESOURCES

### ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	622.26	0.97
10B	Freshwater Marshes	341.42	0.53
10C	Swamps	1,126.88	1.76
10D	Scrub and Shrub Wetlands	477.88	0.75
7	Exposed Tidal Flats	4.88	0.01
5	Mixed Sand and Gravel Beaches	194.68	0.30
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	21.37	0.03



### ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	40,690.93	25.28	27%
10B	Freshwater Marshes	42.16	0.03	< 1%
10C	Swamps	960.66	0.60	1%
10D	Scrub and Shrub Wetlands	33.10	0.02	< 1%
9B	Vegetated Low Banks	56,011.10	34.80	36%
8A	Sheltered, Impermeable, Rocky Shores	2,576.79	1.60	2%
8B	Sheltered, Solid Man-Made Structures	556.17	0.35	< 1%
8C	Sheltered Riprap	138.45	0.09	< 1%
7	Exposed Tidal Flats	1,822.51	1.13	1%
6A	Gravel Beaches	1,540.85	0.96	1%
6B	Riprap	318.40	0.20	< 1%
5	Mixed Sand and Gravel Beaches	34,400.34	21.38	22%
4	Coarse Grained Sand Beaches	3,359.29	2.09	2%
3A	Fine to Medium Grained Sand Beaches	2,272.78	1.41	1%
3B	Scarps and Steep Slopes (Sand)	266.85	0.17	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	8,466.03	5.26	6%

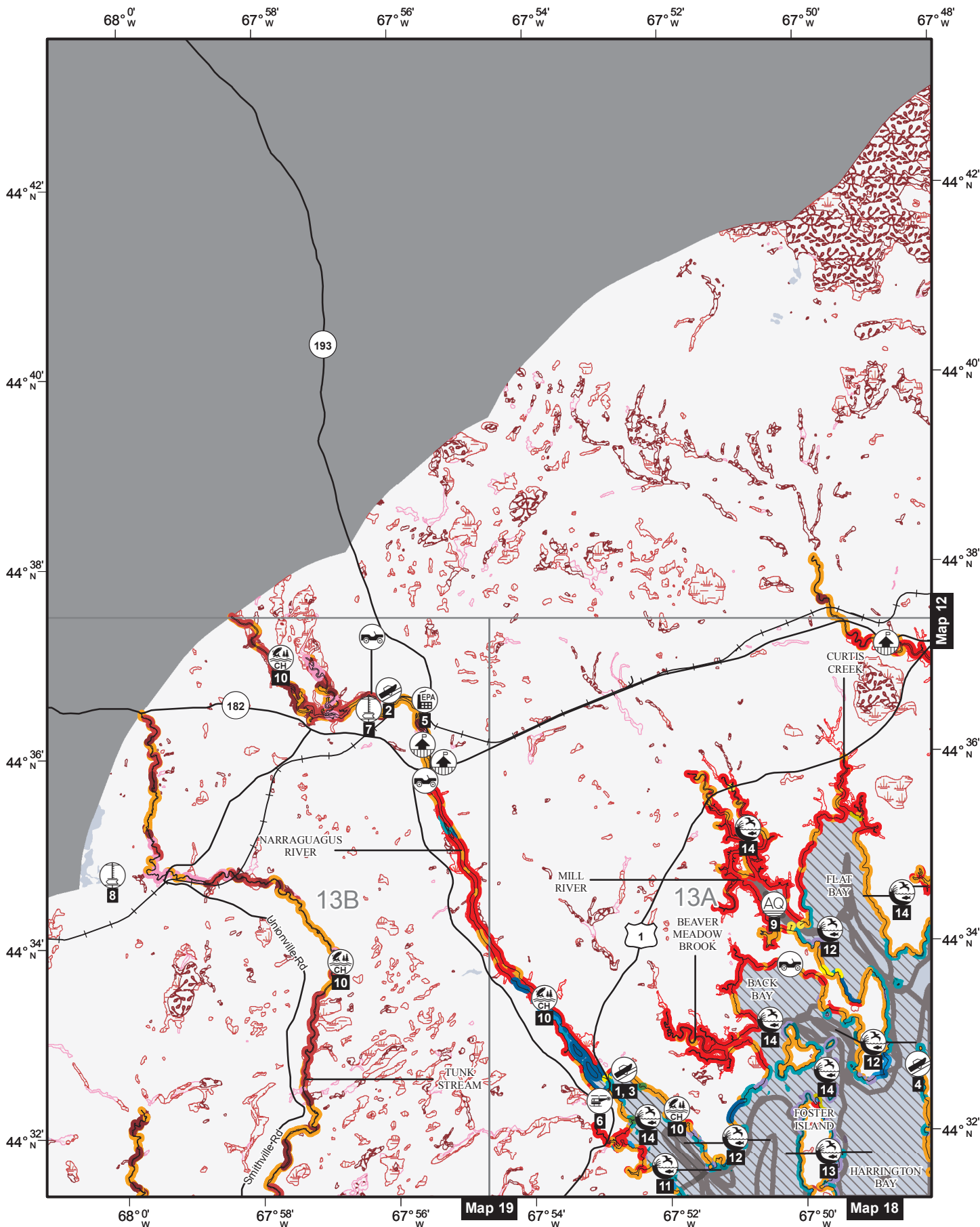
Total ESI Shoreline: 153,456.39      Total ESI Shoreline: 95.35  
Total Shoreline: 118,792.00      Total Shoreline: 73.81

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 13**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

1:100,000



HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)				
Map ID	Type	Name	Contact	Phone
1	BOAT RAMP	MILBRIDGE TOWN MARINA	MILBRIDGE	
2	BOAT RAMP	NARRAGUAGUS RIVER BOAT RAMP 1	CHERRYFIELD	
3	BOAT RAMP	NARRAGUAGUS RIVER BOAT RAMP 2	MILBRIDGE	
4	BOAT RAMP	RIPLEY COVE BOAT RAMP	HARRINGTON	
5	EPA FACILITY	JASPER WYMAN & SON		207-546-3381
6	HELIPORT	MILBRIDGE	HAROLD LEIGHTON	
7	LOCK AND DAM	CHERRYFIELD DAM	TOWN OF CHERRYFIELD	207-546-7721
8	LOCK AND DAM	HEATH DAM		

DISPLAYED ON MAP (POLYGONS)				
Map ID	Type	Name	Contact	Phone
9	AQUACULTURE	MILL OP - MILL RIVER	ANDERSON, JAMES	
10	CRITICAL HABITAT	ATLANTIC SALMON CRITICAL HABITAT		
11	MANAGEMENT AREA	ATLANTIC JACKKNIFE CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
12	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
13	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
14	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550

ALSO PRESENT IN MAPPED AREA (POLYGONS)			
Type	Name	Contact	Phone
STATE PROTECTED AREA	MILL RIVER WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	
STATE PROTECTED AREA	NARRAGUAGUS WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925

JURISDICTIONS				
COUNTY:	HANCOCK, WASHINGTON	FEMA:	REGION I	
COAST GUARD:	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	EPA:	REGION 1	
USACE:	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT			

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	806.12	1.26
10B	Freshwater Marshes	548.67	0.86
10C	Swamps	2,868.27	4.48
10D	Scrub and Shrub Wetlands	2,843.35	4.44
9A	Sheltered Tidal Flats	42.69	0.07
7	Exposed Tidal Flats	2.04	0.00
5	Mixed Sand and Gravel Beaches	128.10	0.20
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	65.42	0.10

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	65,522.11	40.71	28%
10B	Freshwater Marshes	10,039.85	6.24	4%
10C	Swamps	15,650.83	9.72	7%
10D	Scrub and Shrub Wetlands	12,255.73	7.62	5%
9A	Sheltered Tidal Flats	6,914.34	4.30	3%
9B	Vegetated Low Banks	74,690.68	46.41	32%
8A	Sheltered, Impermeable, Rocky Shores	527.17	0.33	< 1%
8B	Sheltered, Solid Man-Made Structures	505.91	0.31	< 1%
8C	Sheltered Riprap	74.72	0.05	< 1%
7	Exposed Tidal Flats	1,234.63	0.77	1%
6A	Gravel Beaches	3,331.82	2.07	1%
6B	Riprap	692.43	0.43	< 1%
5	Mixed Sand and Gravel Beaches	21,952.63	13.64	9%
4	Coarse Grained Sand Beaches	3,288.13	2.04	1%
3A	Fine to Medium Grained Sand Beaches	7,337.14	4.56	3%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	10,224.29	6.35	4%
Total ESI Shoreline:		234,242.43	145.55	
Total Shoreline:		191,771.21	119.16	

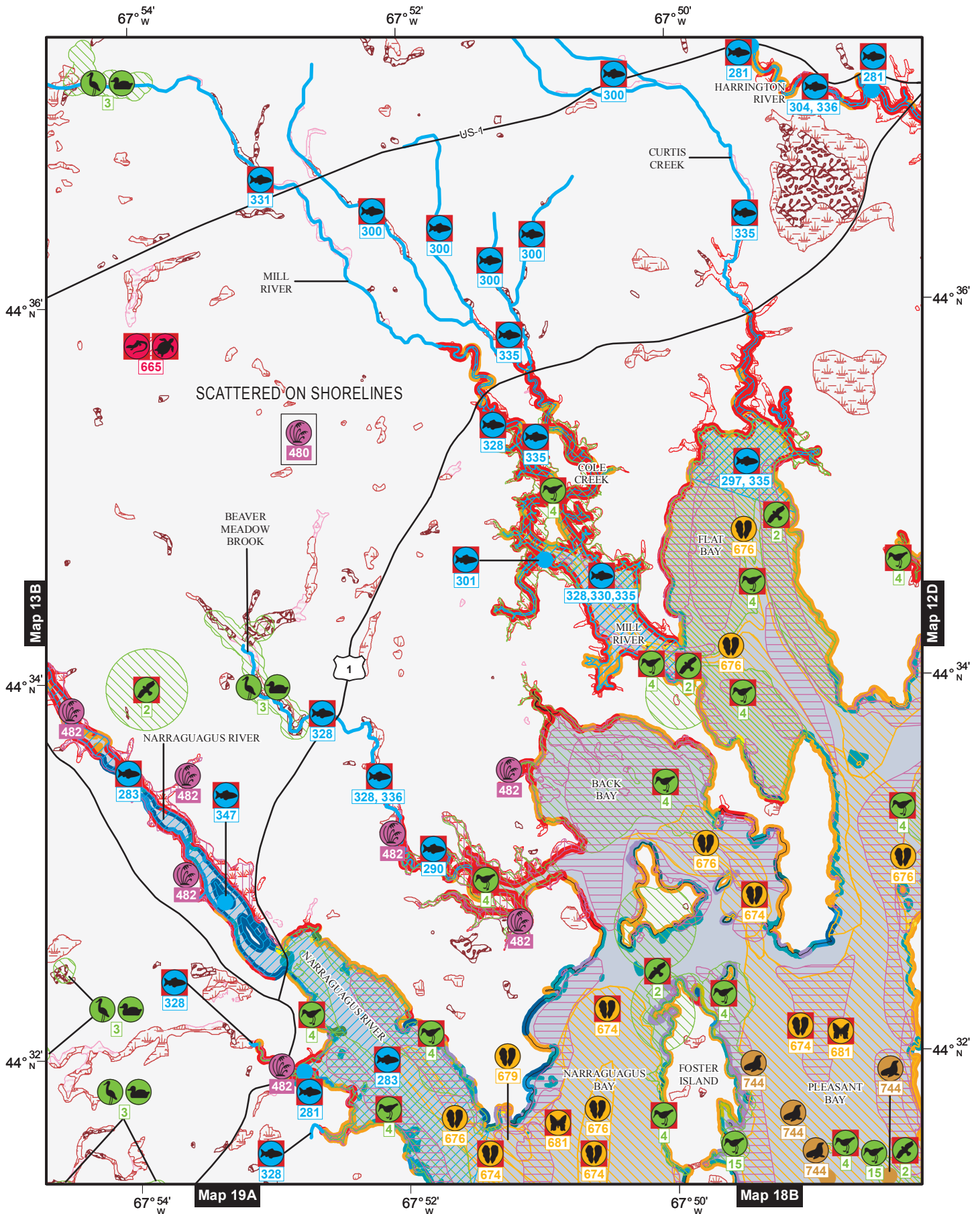
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









**Map 13A**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

1:50,000





Map 13A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
2	Raptor	Bald eagle	Vulnerable Occurrence		-													Mar-May	-	-	-
3	Wading	Wading birds	Vulnerable Occurrence		-													Apr-Nov	Apr-Jun	Jul-Nov	-
	Waterfowl	Waterfowl	Vulnerable Occurrence		-													Apr-Nov	Apr-Jun	Jul-Nov	-
4	Shorebird	American golden-plover	Concentration Area		Foraging													-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area		Foraging													-	-	-	-
	Shorebird	BB sandpiper	Concentration Area		Foraging													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area		Foraging													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area		Foraging													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area		Foraging													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area		Foraging													-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area		Foraging													-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area		Foraging													-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-C	Foraging													May-Aug	May-Jun	Jul-Sep	-
15	Shorebird	Purple sandpiper	Vulnerable Occurrence		-													-	Apr-May	Oct	-

## FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C		-													-	-	-	Mar-Oct	Mar-Oct
283	Diadromous	Alewife	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C		-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E	-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Blueback herring	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	Shorthose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
Freshwater	Rainbow smelt	Migration	-/C			-													-	-	-	Oct-Apr	Oct-Apr
290	Marine Benthic	Atlantic tomcod	Migration	-/T	T	-													Dec-Feb	-	-	Jan-Dec	Jan-Dec
	Diadromous	Atlantic sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Shorthose sturgeon	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
Freshwater	Rainbow smelt	Migration	-/C			-													-	-	-	Oct-Apr	Oct-Apr
Marine Benthic	Atlantic tomcod	Migration	-/C			-													Dec-Feb	-	-	Jan-Dec	Jan-Dec
297	Diadromous	Alewife	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C		-													-	-	-	May-Jul	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E	-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
Freshwater	Rainbow smelt	Migration	-/C			-													-	-	-	Jan-Dec	Oct-Apr
300	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
301	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
304	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
Freshwater	Rainbow smelt	Migration	-/C			-													-	-	-	Jan-Dec	Oct-Apr
328	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
330	Diadromous	Alewife	Migration	-/C		-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-/C		-													-	-	-	May-Jul	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E	-													-	-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
Diadromous	Sea lamprey	Migration	-/C			-													-	-	-	Apr-Dec	Apr-Jul
331	Diadromous	Atlantic sturgeon	Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Diadromous	Shorthose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
Freshwater	Rainbow smelt	Migration	-/C			-													-	-	-	Oct-Apr	Oct-Apr
Marine Benthic	Atlantic tomcod	Migration	-/T	T	-	-													Dec-Feb	-	-	Jan-Dec	Jan-Dec
335	Diadromous	Atlantic sturgeon	Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
																			-	-	-	Jan-Dec	Jan-Dec

# FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration			-											Dec-Feb	-	-	Jan-Dec	Jan-Dec
336	Diadromous	Atlantic sturgeon	Migration	-JT	T	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration			-												-	-	Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration			-											Dec-Feb	-	-	Jan-Dec	Jan-Dec
347	Diadromous	Alewife	Migration	-C		-												-	-	Apr-Jul	Apr-Jul
	Diadromous	American eel	Migration	-C		-												-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-C		-												-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-C	E	-												-	-	Jan-Dec	May-Mar
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May
	Freshwater	Rainbow smelt	Migration	-C		-												-	-	Jan-Dec	Oct-Apr

# HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence											
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N
480	Wetland	Tidal Marsh	High Ecological Value			-											
482	Wetland	SM cordgrass/wiregrass	High Ecological Value			-											

# REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Hatch	Internest	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
665	Amphibian	B. spotted salamander	Vulnerable Occurrence	C/C		Very Low												Apr-May	May-Jun	Jan-Dec	Apr-Jun
	Amphibian	Jefferson salamander	Vulnerable Occurrence	C/C		Rare												Apr-May	May-Jun	Jan-Dec	Apr-Jun
	Amphibian	Northern leopard frog	Vulnerable Occurrence	C/C		Low												Apr-Jun	May-Jul	May-Sep	Jan-Dec
	Amphibian	Spotted salamander	Concentration Area			Common												Mar-May	Apr-Jun	May-Sep	Mar-Jun
	Amphibian	Wood Frog	Concentration Area			Common												Mar-Apr	Apr-Jun	Jun-Sep	Mar-Sep
	Turtle	Spotted turtle	Vulnerable Occurrence	T/T		Very Low												May-Jul	Aug-Oct	Jan-Dec	Jan-Dec
	Turtle	Wood turtle	Vulnerable Occurrence	C/C		Very Low												May-Jul	Aug-Oct	Jan-Dec	Jan-Nov




# INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
674	Bivalve	Sea scallop	Harvest Area	-C		-												Jul-Oct	-	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area			-												May-Nov	May-Nov	Jan-Dec	Jan-Dec
679	Bivalve	Atl. jackknife clam	Harvest Area			-												-	-	Jan-Dec	Jan-Dec
681	Insect	Rare insect	Vulnerable Occurrence	C/-		-												May-Jul	-	Jan-Dec	Jan-Dec



# MARINE MAMMALS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Calving	Pupping	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N			
744	Pinniped	Harbor seal	Haul Out			-												-	-	-


## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
 Aloid	Razorbill	General Distribution	T/-		-													-		-	-	-
 Diving	Common Loon	General Distribution	-T		-													-		-	-	-
 Gull/Tern	Great cormorant	General Distribution	T/-		-													-		-	-	-
	Arctic tern	General Distribution	T/C		-													May-Oct		-	-	-
	Common tern	General Distribution	C/T		-													May-Aug		-	-	-
	Roseate tern	General Distribution	E/E	E	-													-		-	-	-



## FISH

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
 Diadromous	Atlantic sturgeon	General Distribution	-T	T	Rare													-	-	-	Jan-Dec	Jan-Dec
	Shortnose sturgeon	General Distribution	E/E	E	Rare													-	-	-	Jan-Dec	Jan-Dec
 Estuarine Nursery	Striped bass	Concentration Area			High													-	-	-	Jan-Dec	Jan-Dec
	Black Seabass	Concentration Area			Low													-	-	-	Jan-Dec	Jan-Dec

## REPTILES &amp; AMPHIBIANS




Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Hatch	Interest	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
 Turtle	Green sea turtle	General Distribution	-/-	T	Rare													-	-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	E	Rare													-	-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	E	Low													-	-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	T	Low													-	-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
 Bivalve	Softshell clam	Harvest Area	-/C		-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
 Crab	Horseshoe crab	General Distribution	-/C		Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec

## ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS

Subelement	Species	Monthly Presence																Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D								
	Black guillemot																May-Aug	-	-	-	
	Dovekie																-	-	-	-	
	Thick-billed murre																-	-	-	-	
	D. crested cormorant																Jun-Sep	-	-	-	
	Horned grebe																-	-	-	-	
	Red-necked grebe																-	-	-	-	
	Red-throated loon																-	-	-	-	
	G. black-backed gull																-	-	-	-	

## BIRDS

### Monthly Presence





Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Nest	Eggs	Larvae	Juveniles	Adults
	Herring gull													-	-	-	-	-
	Ring-billed gull													-	-	-	-	-
Pelagic	Northern gannet													-	-	-	-	-

## FISH



### Monthly Presence

Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Spawn	Eggs	Larvae	Juveniles	Adults
Estuarine Nursery	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
Marine Benthic	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
Marine Pelagic	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog																Jan-Dec
 Crab	Atlantic rock crab																Jan-Dec
	Blue crab																Jan-Dec
	Jonah crab																Jan-Dec
 Echinoderm	Green urchin																Jan-Dec
 Lobster	American lobster																Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Harbor porpoise																-
 Pinniped	Gray seal																-
	Harbor seal																-
	Harp seal																-
	Hooded seal																-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver																-
	Muskrat																-
	Northern river otter																-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	732.62	1.14
10B	Freshwater Marshes	112.88	0.18
10C	Swamps	528.31	0.83
10D	Scrub and Shrub Wetlands	295.81	0.46
9A	Sheltered Tidal Flats	17.10	0.03
7	Exposed Tidal Flats	2.04	0.00
5	Mixed Sand and Gravel Beaches	128.06	0.20
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	65.42	0.10

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	60,411.22	37.54	40%
10C	Swamps	115.06	0.07	< 1%
9A	Sheltered Tidal Flats	1,850.58	1.15	1%
9B	Vegetated Low Banks	42,187.34	26.21	28%
8A	Sheltered, Impermeable, Rocky Shores	527.17	0.33	< 1%
8B	Sheltered, Solid Man-Made Structures	482.09	0.30	< 1%
8C	Sheltered Riprap	74.72	0.05	< 1%
7	Exposed Tidal Flats	1,234.63	0.77	1%
6A	Gravel Beaches	3,331.43	2.07	2%
6B	Riprap	692.43	0.43	< 1%
5	Mixed Sand and Gravel Beaches	21,433.07	13.32	14%
4	Coarse Grained Sand Beaches	3,288.13	2.04	2%
3A	Fine to Medium Grained Sand Beaches	6,965.79	4.33	5%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	10,160.77	6.31	7%

Total ESI Shoreline: 152,754.44      Total ESI Shoreline: 94.92  
 Total Shoreline: 115,933.18      Total Shoreline: 72.04

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 13B**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
1	Alcid	Razorbill	General Distribution	T/-	-													-	-	-	-
	Diving	Common Loon	General Distribution	-JT	-													-	-	-	-
	Diving	Great cormorant	General Distribution	T/-	-													-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C	-													May-Oct	-	-	-
	Gull/Tern	Common tern	General Distribution	C/T	-													May-Aug	-	-	-
	Gull/Tern	Roseate tern	General Distribution	E/E	E													-	-	-	-
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-													Mar-May	-	-	-
3	Wading	Wading birds	Vulnerable Occurrence	-	-													Apr-Nov	Apr-Jun	Jul-Nov	-
	Waterfowl	Waterfowl	Vulnerable Occurrence	-	-													Apr-Nov	Apr-Jun	Jul-Nov	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-JC	-													-	-	-	Mar-Oct	Mar-Oct
282	Diadromous	Alewife	Migration	-JC	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	Sea lamprey	Migration	-JC	-													-	-	-	Apr-Dec	Apr-Jul
284	Diadromous	Sea lamprey	Migration	-JC	-													-	-	-	Apr-Dec	Apr-Jul
299	Diadromous	Alewife	Migration	-JC	-													-	-	-	Apr-Dec	Apr-Jul
	Diadromous	American eel	Migration	-JC	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	American shad	Migration	-JC	-													-	-	-	May-Feb	May-Jul
	Diadromous	Atlantic salmon	Migration	-JC	E													-	-	-	Jan-Dec	May-Mar
	Diadromous	Blueback herring	Migration	-JC	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
	Diadromous	Sea lamprey	Migration	-JC	-													-	-	-	Apr-Dec	Apr-Jul
	Freshwater	Rainbow smelt	Migration	-JC	-													-	-	-	Jan-Dec	Oct-Apr
300	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
318	Diadromous	Atlantic salmon	Migration	-JC	E													-	-	-	Jan-Dec	May-Mar
	Diadromous	Sea lamprey	Migration	-JC	-													-	-	-	Apr-Dec	Apr-Jul
331	Diadromous	Atlantic sturgeon	Migration	-JT	T													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-JC	-													-	-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-JC	-													-	-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration	-	-													Dec-Feb	-	-	Jan-Dec	Jan-Dec
336	Diadromous	Atlantic sturgeon	Migration	-JT	T													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration	-	-													-	-	-	Jan-Dec	Jan-Dec

FISH (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
350	Marine Benthic	Atlantic tomcod	Migration			-												Dec-Feb	-	-	Jan-Dec	Jan-Dec
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	

HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
480	Wetland	Tidal Marsh	High Ecological Value			-												-	-	-	-
481	Wetland	Rare ecol. community	High Ecological Value			-												-	-	-	-
482	Wetland	SM cordgrass/wiregrass	High Ecological Value			-												-	-	-	-
495	Plant	Estuary beggarticks	Vulnerable Occurrence	C/-		-												-	-	-	-

REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Hatch	Internest	Juveniles	Adults	
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N					D
665	Amphibian	B. spotted salamander	Vulnerable Occurrence	C/C		Very Low												Apr-May	May-Jun	-	Jan-Dec	Apr-Jun
	Amphibian	Jefferson salamander	Vulnerable Occurrence	C/C		Rare												Apr-May	May-Jun	-	Jan-Dec	Apr-Jun
	Amphibian	Northern leopard frog	Vulnerable Occurrence	C/C		Low												Apr-Jun	May-Jul	-	May-Sep	Jan-Dec
	Amphibian	Spotted salamander	Concentration Area			Common												Mar-May	Apr-Jun	-	May-Sep	Mar-Jun
	Amphibian	Wood Frog	Concentration Area			Common												Mar-Apr	Apr-Jun	-	Jun-Sep	Mar-Sep
	Turtle	Spotted turtle	Vulnerable Occurrence	T/T		Very Low												May-Jul	Aug-Oct	-	Jan-Dec	Jan-Dec
	Turtle	Wood turtle	Vulnerable Occurrence	C/C		Very Low												May-Jul	Aug-Oct	-	Jan-Dec	Jan-Nov

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)


BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Alcid	Black guillemot													May-Aug	-	-	-
	Dovekie													-	-	-	-
Diving	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
Gull/Tern	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
Pelagic	Ring-billed gull													-	-	-	-
	Northern gannet													-	-	-	-

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Pinniped	Harbor seal																

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver																
	Muskrat																
	Northern river otter																

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## SHORELINE RESOURCES

### ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
 10A	Salt and Brackish Water Marshes	73.47	0.11
10B	Freshwater Marshes	244.28	0.38
10C	Swamps	1,220.48	1.91
10D	Scrub and Shrub Wetlands	455.36	0.71
9A	Sheltered Tidal Flats	25.60	0.04

### ESI SHORELINE HABITAT TYPES

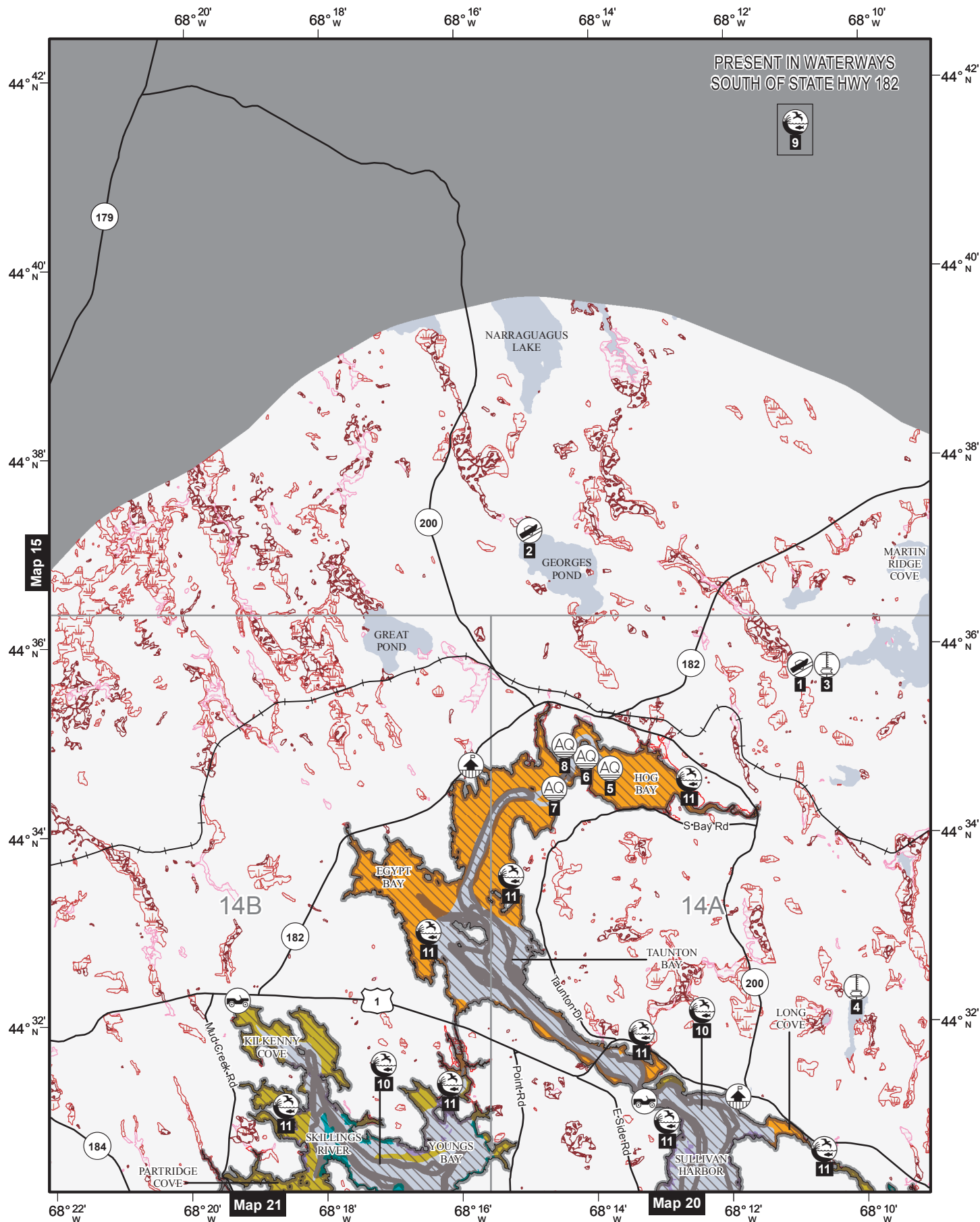
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
 10A	Salt and Brackish Water Marshes	5,109.75	3.18	7%
10B	Freshwater Marshes	10,039.85	6.24	13%
10C	Swamps	15,464.65	9.61	20%
10D	Scrub and Shrub Wetlands	12,023.55	7.47	15%
9A	Sheltered Tidal Flats	5,063.75	3.15	7%
9B	Vegetated Low Banks	28,964.77	18.00	37%
8B	Sheltered, Solid Man-Made Structures	23.82	0.01	< 1%
5	Mixed Sand and Gravel Beaches	516.23	0.32	1%
3A	Fine to Medium Grained Sand Beaches	371.36	0.23	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	61.02	0.04	< 1%

Total ESI Shoreline: 77,638.75      Total ESI Shoreline: 48.24  
Total Shoreline: 72,054.56      Total Shoreline: 44.77

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 14**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

1:100,000



HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)			
Map ID	Type	Name	Contact
1	BOAT RAMP	DONNELL POND BOAT RAMP	DOC
2	BOAT RAMP	GEORGES POND BOAT RAMP	FRANKLIN
3	LOCK AND DAM	DONNELL POND DAM	HAYWOOD + LILLIAN NOYES
4	LOCK AND DAM	LONG POND DAM 2	SULLIVAN HARBOR WATER CO

DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Contact
5	AQUACULTURE	TAUN HB3 - BUCKSKIN ISLAND, HOG BAY	TAUNTON BAY OYSTER COMPANY INC.
6	AQUACULTURE	TAUN HB3 - SOUTH OF BUCKSKIN ISLAND, HOG BAY	TAUNTON BAY OYSTER COMPANY, INC.
7	AQUACULTURE	TAUN HB3 - SOUTHWEST OF BUCKSKIN ISLAND, TAUNTON B	TAUNTON BAY OYSTER COMPANY, INC.
8	AQUACULTURE	TAUN HB3 - WEST OF BUCKSKIN ISLAND, HOG BAY	TAUNTON BAY OYSTER COMPANY, INC.
9	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
10	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
11	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)

ALSO PRESENT IN MAPPED AREA (POLYGONS)			
Type	Name	Contact	Phone
STATE PROTECTED AREA	EGYPT BAY	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925
STATE PROTECTED AREA	LYLE FROST (SCAMMON MARSH) WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925
STATE PROTECTED AREA	SPRING BROOK WMA	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	207-434-5925

JURISDICTIONS

COUNTY: HANCOCK  
COAST GUARD: DISTRICT 1, SECTOR NORTHERN NEW ENGLAND  
USACE: NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT

FEMA: REGION I  
EPA: REGION 1

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	205.63	0.32
10B	Freshwater Marshes	1,028.30	1.61
10C	Swamps	3,728.15	5.83
10D	Scrub and Shrub Wetlands	2,061.52	3.22
9A	Sheltered Tidal Flats	2,183.00	3.41
7	Exposed Tidal Flats	799.00	1.25
5	Mixed Sand and Gravel Beaches	107.70	0.17
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	156.37	0.24

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	22,238.73	13.82	8%
10B	Freshwater Marshes	492.46	0.31	< 1%
10C	Swamps	636.52	0.40	< 1%
10D	Scrub and Shrub Wetlands	184.23	0.11	< 1%
9A	Sheltered Tidal Flats	70,619.88	43.88	26%
9B	Vegetated Low Banks	78,374.75	48.70	29%
8A	Sheltered, Impermeable, Rocky Shores	25,247.62	15.69	9%
8B	Sheltered, Solid Man-Made Structures	794.46	0.49	< 1%
8C	Sheltered Riprap	1,318.56	0.82	< 1%
8D	Sheltered, Rocky, Rubble Shores	82.78	0.05	< 1%
7	Exposed Tidal Flats	37,232.45	23.14	14%
6A	Gravel Beaches	291.05	0.18	< 1%
6B	Riprap	882.29	0.55	< 1%
5	Mixed Sand and Gravel Beaches	7,042.09	4.38	3%
4	Coarse Grained Sand Beaches	1,552.03	0.96	1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	26,330.93	16.36	10%
1B	Exposed, Solid Man-Made Structures	1,104.19	0.69	< 1%
Total ESI Shoreline:		274,425.03	170.52	
Total Shoreline:		147,976.11	91.95	

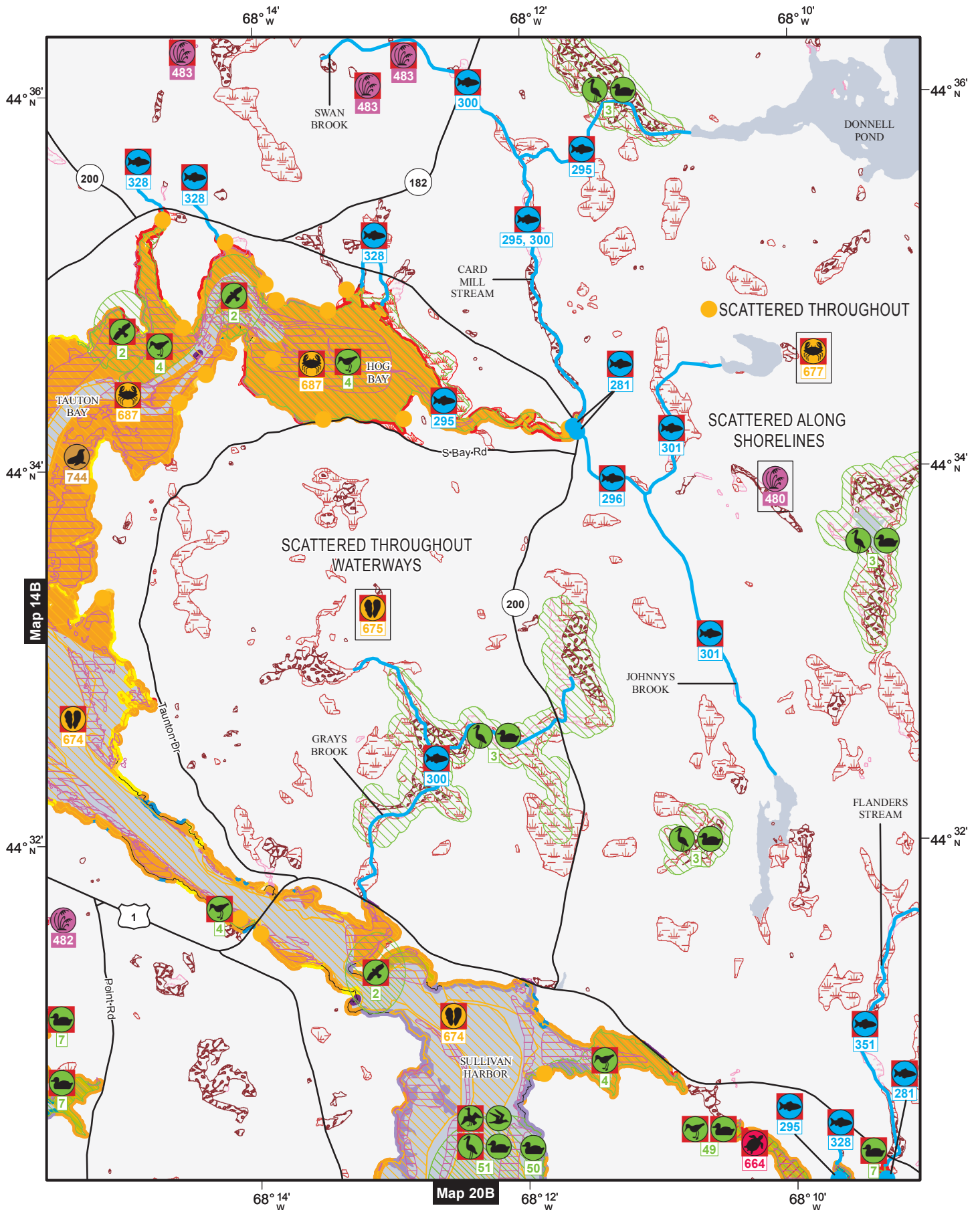
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









**Map 14A**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**





**Map 14A**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T C/-	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence		-												
3	Wading	Wading birds	Vulnerable Occurrence		-												
	Waterfowl	Waterfowl	Vulnerable Occurrence		-												
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-C	Foraging												
7	Waterfowl	American black duck	Rafting		-												
	Waterfowl	Black Scoter	Rafting		-												

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
	Waterfowl	Bufflehead	Rafting															-	-	-	-
	Waterfowl	Common eider	Rafting															May-Aug	-	-	-
	Waterfowl	Common goldeneye	Rafting															-	-	-	-
	Waterfowl	Common merganser	Rafting															-	-	-	-
	Waterfowl	Harlequin duck	Rafting															-	-	-	-
	Waterfowl	Long-tailed duck	Rafting															-	May	Sep	-
	Waterfowl	Mallard	Rafting															Apr-Aug	-	-	-
	Waterfowl	Red-breasted merganser	Rafting															-	-	-	-
	Waterfowl	Ruddy duck	Rafting															-	Dec-Jan	-	-
	Waterfowl	Scaup	Rafting															-	Dec-Jan	-	-
	Waterfowl	Surf scoter	Rafting															-	-	-	-
	Waterfowl	White-winged scoter	Rafting															-	-	-	-
49	Shorebird	American golden-plover	Concentration Area															-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area	C/-														May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area															-	-	-	-
	Shorebird	BB sandpiper	Concentration Area															-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area															-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area															-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area															-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	T													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area															-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area															-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area															-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area															-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-														-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-/C														May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	American black duck	Rafting															Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting															-	-	-	-
	Waterfowl	Bufflehead	Rafting															-	-	-	-
	Waterfowl	Common eider	Rafting															May-Aug	-	-	-
	Waterfowl	Common goldeneye	Rafting															-	-	-	-
	Waterfowl	Common merganser	Rafting															-	-	-	-
	Waterfowl	Harlequin duck	Rafting															-	-	-	-
	Waterfowl	Long-tailed duck	Rafting															-	May	Sep	-
	Waterfowl	Mallard	Rafting															Apr-Aug	-	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Waterfowl	Red-breasted merganser	Rafting			-													-	-	-
	Waterfowl	Ruddy duck	Rafting			-													-	Dec-Jan	-
	Waterfowl	Scaup	Rafting			-													-	Dec-Jan	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-
	Waterfowl	White-winged scoter	Rafting			-													-	-	-
50	Waterfowl	American black duck	Rafting			-													-	-	-
	Waterfowl	Black Scoter	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-												-	May	Sep	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
51	Diving	Common Loon	Rafting		-/T	-												-	-	-	-
	Diving	D. crested cormorant	Rafting			-												Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Rafting			-												May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting			-												-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-												May-Sep	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-												-	Dec-Jan	-	-
	Waterfowl	Scoters	Rafting			-												-	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C		-												-	-	Mar-Oct	Mar-Oct		
295	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul		
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct		
296	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Oct-Apr	Oct-Apr		
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul		
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
301	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct		
328	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr		
351	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul		
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr		

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
480	Wetland	Tidal Marsh	High Ecological Value			-												-
482	Wetland	SM cordgrass/wiregrass	High Ecological Value			-												-
483	Plant	Rare plant	Vulnerable Occurrence	C/C		-												-

REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D					
664	Turtle	Green sea turtle	General Distribution	-/-	T		Rare													-	-	-	Jun-Nov	Jun-Nov
	Turtle	K. ridley sea turtle	General Distribution	E/-	E		Rare													-	-	-	Jun-Nov	Jun-Nov
	Turtle	Leatherback sea turtle	General Distribution	E/-	E		Low													-	-	-	Jun-Nov	Jun-Nov
	Turtle	Loggerhead sea turtle	General Distribution	E/-	T		Low													-	-	-	Jun-Nov	Jun-Nov

INVERTEBRATES



Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D					
674	Bivalve	Sea scallop	Harvest Area	-/C			-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
675	Bivalve	Softshell clam	Harvest Area	-/C			-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
677	Crab	Horseshoe crab	Spawning Area	-/C			Common													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
687	Crab	Horseshoe crab	Spawning Area	-/C			-													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec

MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
								J	F	M	A	M	J	J	A	S	O	N	D				
744	Pinniped	Harbor seal	Haul Out				-													-	-	-	-

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )

BIRDS

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
							J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Razorbill	General Distribution	T/-		-													-	-	-	-
	Diving	Common Loon	General Distribution	-/T		-													-	-	-	-
	Gull/Tern	Great cormorant	General Distribution	T/-		-													-	-	-	-
		Arctic tern	General Distribution	T/C		-													May-Oct	-	-	-
	Common tern	General Distribution	General Distribution	C/T		-													May-Aug	-	-	-
	Roseate tern	General Distribution	General Distribution	E/E		-													-	-	-	-

FISH

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
							J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous	Alewife	Migration	-/C		-													-	-	-	Apr-Jul	Apr-Jul
		American eel	Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
		American shad	Migration	-/C		-													-	-	-	May-Feb	May-Jul
		Atlantic salmon	Migration	-/C	E	-													-	-	-	Jan-Dec	May-Mar
		Atlantic sturgeon	Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
		Blueback herring	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
		Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
		Sea lamprey	Migration	-/C		-													-	-	-	Apr-Jul	Apr-Jul
		Shortnose sturgeon	Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec
		Striped bass	Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C		-													-	-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration			-													Dec-Feb	-	-	Jan-Dec	Jan-Dec

## INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
Bivalve	Blue mussel	Harvest Area			-												May-Nov	May-Nov	Jan-Dec	Jan-Dec
Crab	Horseshoe crab	General Distribution	-C		Low												May-Jul	-	Jan-Dec	Jan-Dec

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Alcid	Black guillemot													May-Aug	-	-	-
	Dovekie													-	-	-	-
Diving	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
Gull/Tern	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
Pelagic	Northern gannet													-	-	-	-

## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Crab	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
Echinoderm Lobster	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Dolphin	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
Pinniped	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	135.62	0.21
10B	Freshwater Marshes	237.18	0.37
10C	Swamps	1,182.16	1.85
10D	Scrub and Shrub Wetlands	565.19	0.88
9A	Sheltered Tidal Flats	1,237.32	1.93
7	Exposed Tidal Flats	65.56	0.10
5	Mixed Sand and Gravel Beaches	4.42	0.01
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	64.73	0.10

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	11,675.39	7.25	10%
10B	Freshwater Marshes	55.24	0.03	< 1%
10C	Swamps	411.97	0.26	< 1%
10D	Scrub and Shrub Wetlands	180.68	0.11	< 1%
9A	Sheltered Tidal Flats	39,354.62	24.45	35%
9B	Vegetated Low Banks	32,644.39	20.28	29%
8A	Sheltered, Impermeable, Rocky Shores	9,266.18	5.76	8%
8B	Sheltered, Solid Man-Made Structures	390.73	0.24	< 1%
8C	Sheltered Riprap	914.83	0.57	1%
8D	Sheltered, Rocky, Rubble Shores	82.78	0.05	< 1%
7	Exposed Tidal Flats	5,694.07	3.54	5%
6A	Gravel Beaches	291.05	0.18	< 1%
6B	Riprap	550.67	0.34	< 1%
5	Mixed Sand and Gravel Beaches	777.80	0.48	1%
4	Coarse Grained Sand Beaches	1,360.11	0.85	1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	7,626.09	4.74	7%
1B	Exposed, Solid Man-Made Structures	679.74	0.42	1%

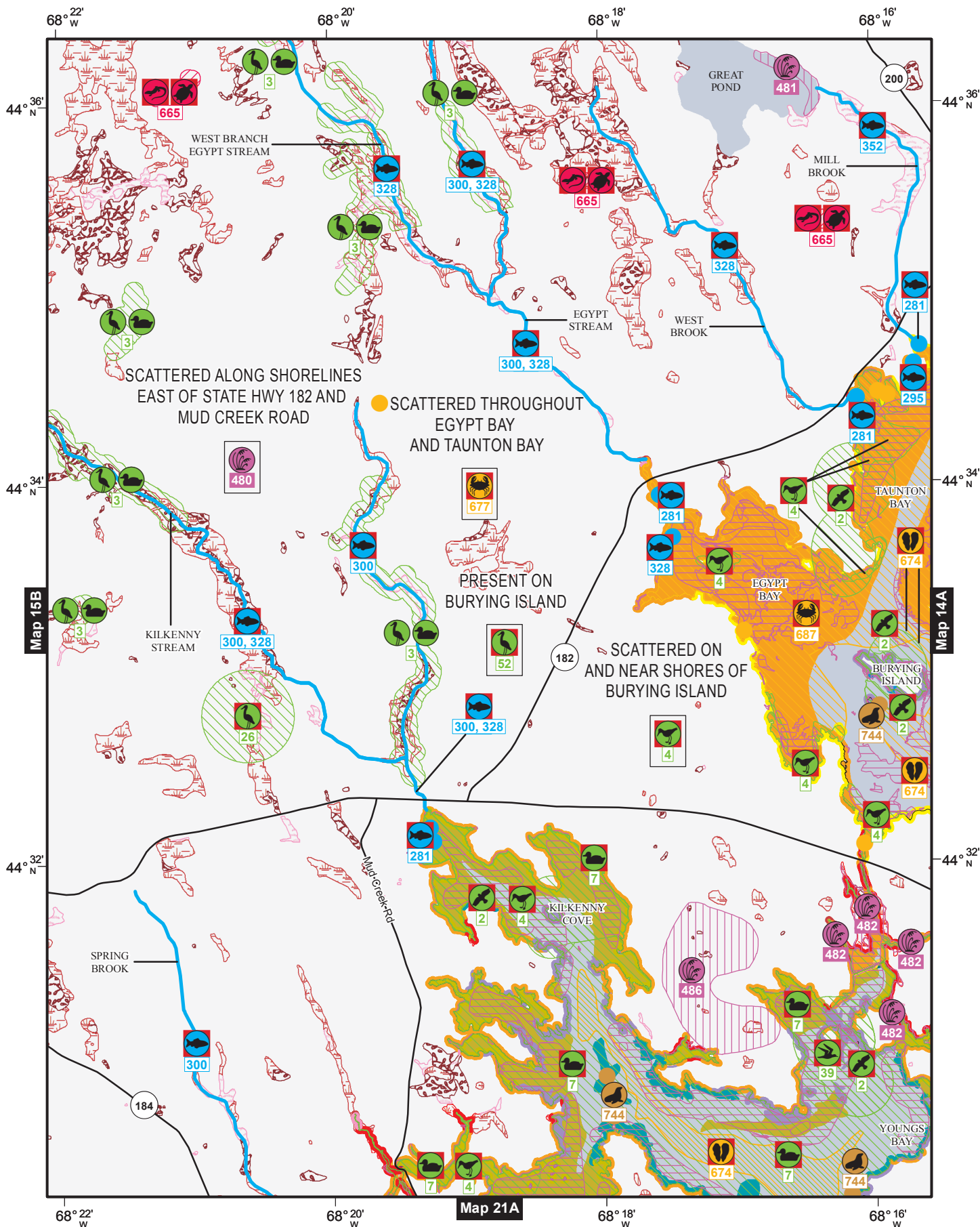
Total ESI Shoreline: 111,956.36      Total ESI Shoreline: 69.57  
 Total Shoreline: 60,020.97      Total Shoreline: 37.30

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 14B**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**





Map 14B  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence		-												
3	Wading	Wading birds	Vulnerable Occurrence		-												
4	Waterfowl	Waterfowl	Vulnerable Occurrence		-												
	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												
7	Waterfowl	American black duck	Rafting		-												
	Waterfowl	Black Scoter	Rafting		-												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Waterfowl	Bufflehead	Rafting			-													-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Common goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Common merganser	Rafting			-												-	-	-	-
	Waterfowl	Harlequin duck	Rafting		T/-	-												-	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-												-	May	Sep	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Red-breasted merganser	Rafting			-												-	-	-	-
	Waterfowl	Ruddy duck	Rafting			-												-	Dec-Jan	-	-
	Waterfowl	Scaup	Rafting			-												-	Dec-Jan	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
	Waterfowl	White-winged scoter	Rafting			-												-	-	-	-
26	Wading	Great blue heron	Vulnerable Occurrence	C/-		-												May-Sep	-	-	-
39	Gull/Tern	Arctic tern	Vulnerable Occurrence	T/C		-												May-Oct	-	-	-
52	Wading	Great blue heron	Roosting	C/-		-												May-Sep	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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281	Diadromous	American eel	Harvest Area	-	C	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Concentration	S	F	Nest
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
480	Wetland	Tidal Marsh	High Ecological Value			-												-	-	-	-
481	Wetland	Rare ecol. community	High Ecological Value			-												-	-	-	-
482	Wetland	SM cordgrass/wiregrass	High Ecological Value			-												-	-	-	-
486	Upland	Rare upland community	High Ecological Value			-												-	-	-	-

REPTILES & AMPHIBIANS

Map ID	Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Hatch	Interst	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D				
665	Amphibian	B. spotted salamander		Vulnerable Occurrence	C/C		Very Low													Apr-May		Jan-Dec	Apr-Jun
	Amphibian	Jefferson salamander		Vulnerable Occurrence	C/C		Rare													Apr-May		Jan-Dec	Apr-Jun
	Amphibian	Northern leopard frog		Vulnerable Occurrence	C/C		Low													Apr-May		May-Sep	Jan-Dec
	Amphibian	Spotted salamander		Concentration Area			Common													Mar-May		May-Sep	Mar-Jun
	Amphibian	Wood Frog		Concentration Area			Common													Mar-Apr		Jun-Sep	Mar-Sep
	Turtle	Spotted turtle		Vulnerable Occurrence	T/T		Very Low													May-Jul		Jan-Dec	Jan-Dec
	Turtle	Wood turtle		Vulnerable Occurrence	C/C		Very Low													May-Jul		Jan-Dec	Jan-Nov

INVERTEBRATES




Map ID	Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D				
674	Bivalve	Sea scallop		Harvest Area	-/C		-													Jul-Oct		Jan-Dec	Jan-Dec
677	Crab	Horseshoe crab		Spawning Area	-/C		Common													May-Jul		Jan-Dec	Jan-Dec
687	Crab	Horseshoe crab		Spawning Area	-/C		-													May-Jul		Jan-Dec	Jan-Dec

MARINE MAMMALS


Map ID	Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Calving	Pupping	Molt
								J	F	M	A	M	J	J	A	S	O	N	D			
744	Pinniped	Harbor seal		Haul Out			-													-	-	-

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )

BIRDS


Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
							J	F	M	A	M	J	J	A	S	O	N	D				
 	Aldid		General Distribution	T/-		-													-	-	-	-
	Diving	Common Loon		General Distribution	-/T		-												-	-	-	-
	Great cormorant		General Distribution	T/-		-													-	-	-	-
	Arctic tern		General Distribution	T/C		-													May-Oct	-	-	-
	Common tern		General Distribution	C/T		-													May-Aug	-	-	-
	Roseate tern		General Distribution	E/E		E													-	-	-	-

FISH



Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
							J	F	M	A	M	J	J	A	S	O	N	D					
	Alewife		Migration	-/C		-													-	-	-	Apr-Jul	Apr-Jul
	American eel		Migration	-/C		-													-	-	-	Mar-Oct	Mar-Oct
	American shad		Migration	-/C		-													-	-	-	May-Feb	May-Jul
	Atlantic salmon		Migration	-/C	E	-													-	-	-	Jan-Dec	May-Mar
	Atlantic sturgeon		Migration	-/T	T	-													-	-	-	Jan-Dec	Jan-Dec
	Blueback herring		Migration	-/C		-													-	-	-	Jan-Dec	Jan-Dec
	Brook trout (sea run)		Migration	C/-		-													-	-	-	Jan-May	Jan-May
	Sea lamprey		Migration	-/C		-													-	-	-	Apr-Jul	Apr-Jul
	Shortnose sturgeon		Migration	E/E	E	-													-	-	-	Jan-Dec	Jan-Dec

Downeast Maine: Map 14B

# FISH (continued)





Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Freshwater	Striped bass			-												-	-	Jan-Dec	Jan-Dec	
	Marine Benthic	Rainbow smelt	-/C		-													-	-	Oct-Apr	
		Atlantic tomcod			-												Dec-Feb	-	-	Jan-Dec	Jan-Dec

# INVERTEBRATES



Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Bivalve	Blue mussel			-													May-Nov	May-Nov	Jan-Dec	Jan-Dec
		Softshell clam	-/C		-													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab	-/C		Low													May-Jul	May-Jul	Jan-Dec	Jan-Dec

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Black guillemot												May-Aug	-	-	-
		Dovekie												-	-	-	-
	Diving	Thick-billed murre												-	-	-	-
		D. crested cormorant												Jun-Sep	-	-	-
		Horned grebe												-	-	-	-
		Red-necked grebe												-	-	-	-
	Gull/Tern	Red-throated loon												-	-	-	-
		G. black-backed gull												-	-	-	-
		Herring gull												-	-	-	-
		Ring-billed gull												-	-	-	-
	Pelagic	Northern gannet												-	-	-	-


# INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Crab	Atlantic rock crab												May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
		Blue crab												Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Echinoderm	Jonah crab												May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
		Green urchin												Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	Lobster	American lobster												Jun-Oct	-	-	Jan-Dec	Jan-Dec

# MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Pinniped	Harbor seal												-	-	-	-

TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence											
		J	F	M	A	M	J	J	A	S	O	N	D
	Beaver												
	Muskrat												
Northern river otter													

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

SHORELINE RESOURCES

ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	70.01	0.11
10B	Freshwater Marshes	333.72	0.52
10C	Swamps	1,124.95	1.76
10D	Scrub and Shrub Wetlands	581.87	0.91
9A	Sheltered Tidal Flats	945.68	1.48
7	Exposed Tidal Flats	733.44	1.15
5	Mixed Sand and Gravel Beaches	103.28	0.16
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	91.64	0.14



ESI SHORELINE HABITAT TYPES

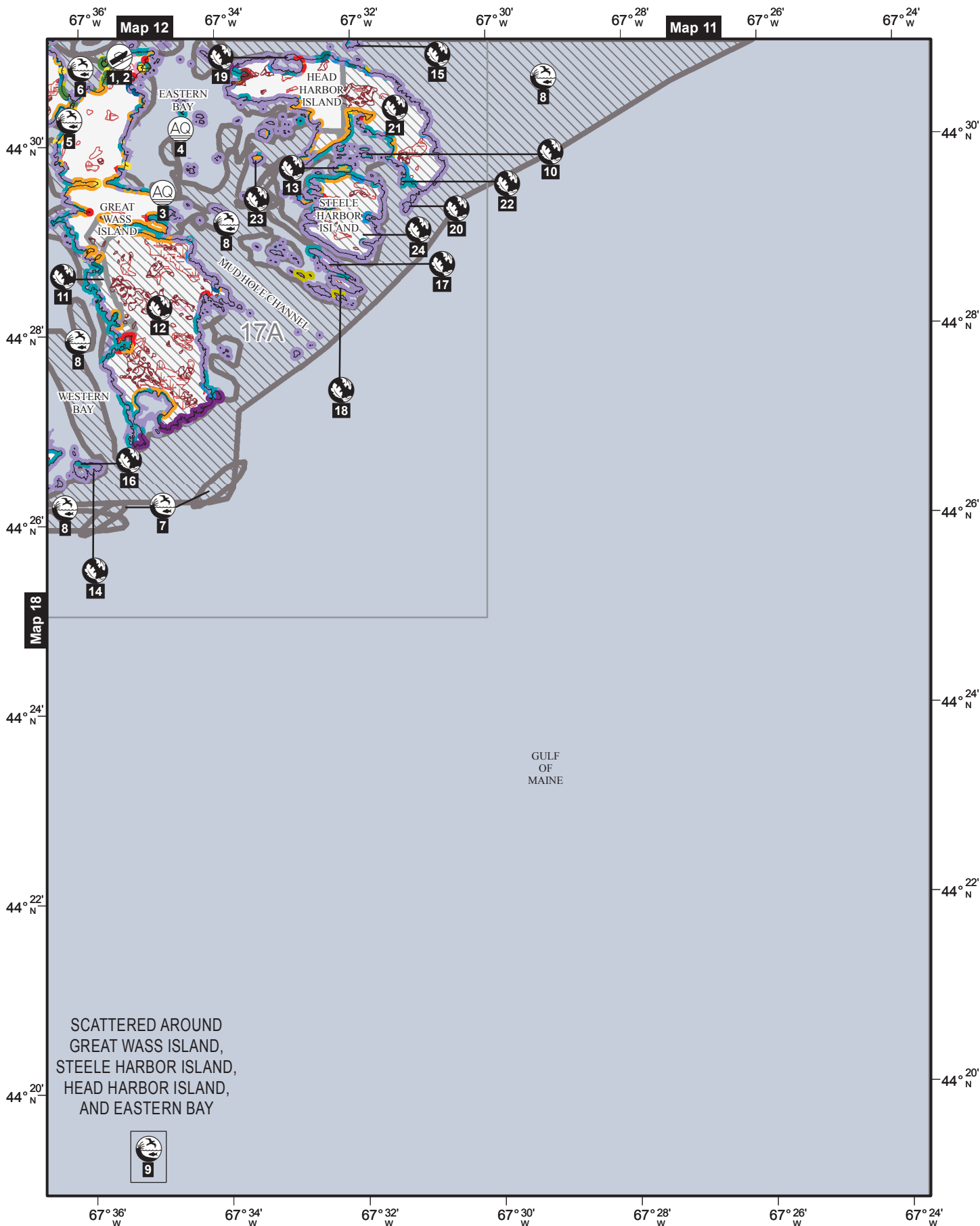
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	10,563.33	6.56	7%
10B	Freshwater Marshes	437.22	0.27	< 1%
10C	Swamps	224.56	0.14	< 1%
10D	Scrub and Shrub Wetlands	3.55	0.00	< 1%
9A	Sheltered Tidal Flats	31,265.26	19.43	19%
9B	Vegetated Low Banks	45,730.35	28.42	28%
8A	Sheltered, Impermeable, Rocky Shores	15,981.44	9.93	10%
8B	Sheltered, Solid Man-Made Structures	403.72	0.25	< 1%
8C	Sheltered Riprap	403.72	0.25	< 1%
7	Exposed Tidal Flats	31,538.37	19.60	19%
6B	Riprap	331.62	0.21	< 1%
5	Mixed Sand and Gravel Beaches	6,264.30	3.89	4%
4	Coarse Grained Sand Beaches	191.92	0.12	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	18,704.88	11.62	12%
1B	Exposed, Solid Man-Made Structures	424.45	0.26	< 1%

Total ESI Shoreline: 162,468.68      Total ESI Shoreline: 100.95  
Total Shoreline: 87,955.15      Total Shoreline: 54.65

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 17**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

**1:100,000**



HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)			
Map ID	Type	Name	Contact
1	BOAT RAMP	ALLEY BAY BOAT RAMP	BEALS
2	BOAT RAMP	BEALS TOWN LANDING	BEALS

DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Contact
3	AQUACULTURE	EASTW SCN - SAND COVE NORTH, GREAT WASS ISLAND, EA	COOKE AQUACULTURE USA, INC.
4	AQUACULTURE	EASTW SI - WEST OF SPECTACLE ISLAND, EASTERN BAY	COOKE AQUACULTURE USA, INC.
5	MANAGEMENT AREA	ATLANTIC JACKKNIFE CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
6	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
7	MANAGEMENT AREA	NORTHERN QUAHOG - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
8	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
9	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)
10	NATURE CONSERVANCY	GREAT WASS ISLAND ARCHIPELAGO, COWS YARD EASEMENT	THE NATURE CONSERVANCY
11	NATURE CONSERVANCY	GREAT WASS ISLAND EASEMENTS (PRES.)	THE NATURE CONSERVANCY
12	NATURE CONSERVANCY	GREAT WASS ISLAND PRESERVE	THE NATURE CONSERVANCY
13	NATURE CONSERVANCY	GWJ ARCHIPELAGO, BLACK ISLAND PRESERVE	THE NATURE CONSERVANCY
14	NATURE CONSERVANCY	GWJ ARCHIPELAGO, CRUMPLE ISLAND PRESERVE	THE NATURE CONSERVANCY
15	NATURE CONSERVANCY	GWJ ARCHIPELAGO, SEGUIN ISLAND EASEMENT	THE NATURE CONSERVANCY
16	NATURE CONSERVANCY	GWJ MACROSITE, CRUMPLE ISLAND PRESERVE	THE NATURE CONSERVANCY
17	NATURE CONSERVANCY	GWJ MACROSITE, KNIGHT ISLAND PRESERVE	THE NATURE CONSERVANCY
18	NATURE CONSERVANCY	GWJ MACROSITE, MISTAKE ISLAND PRESERVE	THE NATURE CONSERVANCY
19	NATURE CONSERVANCY	GWJ, HEAD HARBOR ISLAND	THE NATURE CONSERVANCY
20	NATURE CONSERVANCY	GWJ, INNER AND OUTER MAN ISLANDS PRESERVE	THE NATURE CONSERVANCY
21	NATURE CONSERVANCY	HEAD HARBOR ISLAND 1 & 2 EASEMENTS	THE NATURE CONSERVANCY
22	NATURE CONSERVANCY	HEAD HARBOR ISLAND PRESERVE	THE NATURE CONSERVANCY
23	NATURE CONSERVANCY	LITTLE HARDWOOD ISLAND PRESERVE	THE NATURE CONSERVANCY
24	NATURE CONSERVANCY	STEELE HARBOR ISLAND EASEMENT	THE NATURE CONSERVANCY

JURISDICTIONS

COUNTY:	WASHINGTON	FEMA:	REGION I
COAST GUARD:	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	EPA:	REGION 1
USACE:	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT		

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	21.15	0.03
10B	Freshwater Marshes	10.73	0.02
10C	Swamps	389.14	0.61
10D	Scrub and Shrub Wetlands	342.39	0.53
7	Exposed Tidal Flats	4.58	0.01
5	Mixed Sand and Gravel Beaches	6.64	0.01
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	558.47	0.87

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	2,085.57	1.30	1%
10B	Freshwater Marshes	359.95	0.22	< 1%
10D	Scrub and Shrub Wetlands	797.47	0.50	< 1%
9B	Vegetated Low Banks	20,279.26	12.60	11%
8A	Sheltered, Impermeable, Rocky Shores	328.64	0.20	< 1%
8B	Sheltered, Solid Man-Made Structures	1,407.39	0.87	1%
8C	Sheltered Riprap	141.00	0.09	< 1%
7	Exposed Tidal Flats	1,509.26	0.94	1%
6A	Gravel Beaches	2,920.53	1.81	2%
6B	Riprap	1,781.83	1.11	1%
5	Mixed Sand and Gravel Beaches	39,718.10	24.68	22%
4	Coarse Grained Sand Beaches	3,691.67	2.29	2%
3A	Fine to Medium Grained Sand Beaches	733.04	0.46	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	97,356.37	60.49	55%
2B	Exposed Scarps and Steep Slopes (Clay)	324.68	0.20	< 1%
1A	Exposed, Rocky Shores	4,294.97	2.67	2%
Total ESI Shoreline:		177,729.71	110.44	
Total Shoreline:		123,546.83	76.77	

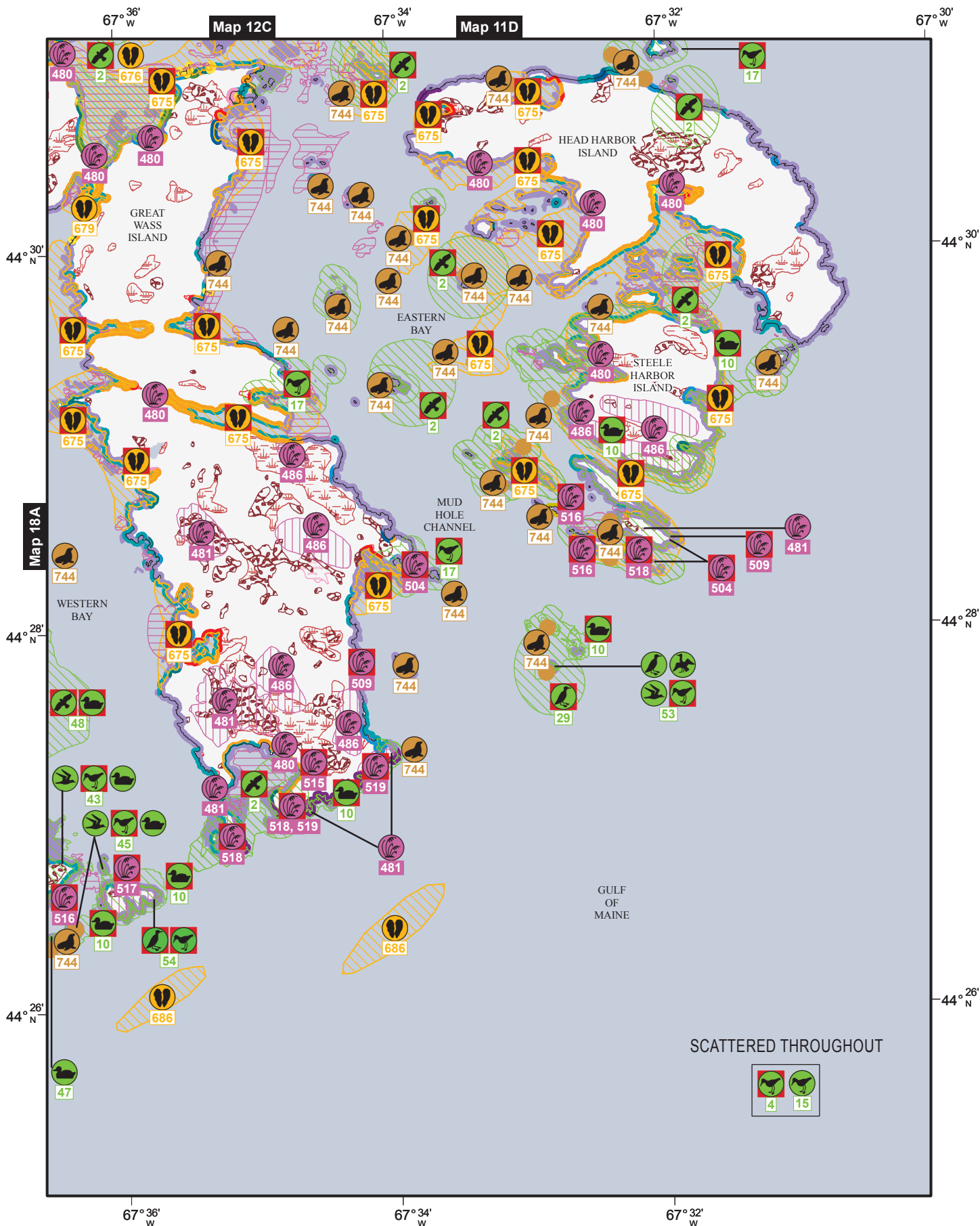
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









Map 17A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/-	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-												
15	Shorebird	Purple sandpiper	Vulnerable Occurrence		-												
17	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Baird's sandpiper	Concentration Area															-	-	-	-
	Shorebird	BB sandpiper	Concentration Area															-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area															-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area															-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area															-	Apr-May	Sep-Oct	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence															-	Apr-May	Oct	-
	Shorebird	Red Knot	Concentration Area															-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area															-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area															-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area															-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area															-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area															-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area															-	May-Aug	Jul-Sep	-
29	Acid	Razorbill	Vulnerable Occurrence															-	-	-	-
43	Gull/Tern	G. black-backed gull	Roosting															-	May-Aug	-	-
	Gull/Tern	Herring gull	Roosting															-	-	-	-
	Shorebird	American golden-plover	Roosting															-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting															-	May-Jun	Sep	-
	Shorebird	Baird's sandpiper	Roosting															-	-	-	-
	Shorebird	BB sandpiper	Roosting															-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting															-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting															-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting															-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting															-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting															-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting															-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting															-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Stilt sandpiper	Roosting															-	Jun	-	-
																		-	Jul	Sep	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-												May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	Common eider	Roosting			-												May-Aug	-	-	-
45	Gull/Tern	G. black-backed gull	Roosting			-												May-Aug	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-												-	May-Aug	Jul-Sep	-
47	Waterfowl	Common eider	Roosting			-												May-Aug	May-Jun	-	-
	Waterfowl	Common eider	Roosting			-												May-Aug	-	-	-
48	Raptor	Bald eagle	Vulnerable Occurrence	C/T		-												May-Aug	-	-	-
	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-		-												Mar-May	-	-	-
53	Alcid	Black guillemot	Roosting			-												-	-	-	-
	Diving	D. crested cormorant	Roosting			-												May-Aug	-	-	-
	Gull/Tern	G. black-backed gull	Roosting			-												Jun-Sep	-	-	-
	Gull/Tern	Herring gull	Roosting			-												May-Aug	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	-	-	-
	Shorebird	American oystercatcher	Roosting	C/-		-												May-Jun	Aug	Oct	-
	Shorebird	Baird's sandpiper	Roosting			-												-	May	Sep	-
	Shorebird	BB sandpiper	Roosting			-												-	-	-	-
	Shorebird	Black-bellied plover	Roosting			-												-	Aug	Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Aug-Oct	-
						-												-	May	Jul-Oct	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-													May-Aug	May-Jun	Jul-Sep	-
54	Pelagic	Leach's storm-petrel	Roosting	C/-		-													-	-	-	-
	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting	-/C		-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting			-													May-Aug	May-Jun	Jul-Sep	-

## HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
480	Wetland	Tidal Marsh	High Ecological Value			-												
481	Wetland	Rare ecol. community	High Ecological Value			-												
486	Upland	Rare upland community	High Ecological Value			-												
504	Plant	Birdeye primrose	Vulnerable Occurrence	C/-		-												
509	Plant	A. water minerslettuce	Vulnerable Occurrence	C/-		-												
515	Plant	Mid. false foxglove	Vulnerable Occurrence	T/-		-												
516	Plant	Birdeye primrose	Vulnerable Occurrence	C/-		-												
	Plant	Marsh felwort	Vulnerable Occurrence	T/-		-												
517	Plant	A. water minerslettuce	Vulnerable Occurrence	C/-		-												
	Plant	Birdeye primrose	Vulnerable Occurrence	C/-		-												
	Plant	Marsh felwort	Vulnerable Occurrence	T/-		-												
518	Plant	Marsh felwort	Vulnerable Occurrence	T/-		-												
519	Plant	A. water minerslettuce	Vulnerable Occurrence	C/-		-												
	Plant	Birdeye primrose	Vulnerable Occurrence	C/-		-												

## INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
675	Bivalve	Softshell clam	Harvest Area	-/C		-												
676	Bivalve	Blue mussel	Harvest Area			-												
679	Bivalve	Atl. jackknife clam	Harvest Area			-												
686	Bivalve	Northern quahog	Harvest Area			-												

## MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
744	Pinniped	Harbor seal	Haul Out			-												

WIDESPREAD IN MAPPED AREA (> 10 SQUARE KILOMETERS)


## BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
745	Alcid	Atlantic puffin	General Distribution	T/-		-												
746	Diving	Razorbill	General Distribution	T/-		-												
		Common Loon	General Distribution	-/T		-												
		Great cormorant	General Distribution	T/-		-												
	Gull/Tern	Arctic tern	General Distribution	T/C		-												
		Common tern	General Distribution	C/T		-												
		Roseate tern	General Distribution	E/E	E	-												
	Pelagic	Leach's storm-petrel	General Distribution	C/-		-												
	Shorebird	Red-necked phalarope	General Distribution	C/-		-												



## FISH

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Atlantic sturgeon	General Distribution	-/T	T	Rare													-	-	Jan-Dec	Jan-Dec
	Shortnose sturgeon	General Distribution	E/E	E	Rare													-	-	Jan-Dec	Jan-Dec
	Striped bass	Concentration Area			High													-	-	Jan-Dec	Jan-Dec
	Black Seabass	Concentration Area			Low													-	-	Jan-Dec	Jan-Dec


## REPTILES &amp; AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Hatch	Internest	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Green sea turtle	General Distribution	-/T	T	Rare													-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	E	Rare													-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	E	Low													-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	T	Low													-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES




Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Sea scallop	Harvest Area	-/C		-													Jul-Oct	-	Jan-Dec	Jan-Dec
	Horseshoe crab	General Distribution	-/C		Low													May-Jul	-	Jan-Dec	Jan-Dec
	Rare insect	Vulnerable Occurrence	C/-		-													May-Jul	-	Jan-Dec	Jan-Dec
	Northern shrimp	General Distribution	-/C		Low													Dec-Apr	Jan-Dec	Jan-Dec	Dec-Apr

## MARINE MAMMALS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Fin whale	General Distribution	E/-	E	Low													-	-	-	-
	Humpback whale	General Distribution	E/-	E	Low													-	-	-	-
	N.A. right whale	General Distribution	E/-	E	Low													-	-	-	-
	Sei whale	General Distribution	E/-	E	Low													-	-	-	-
	Sperm whale	General Distribution	E/-	E	Rare													-	-	-	-


## ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS




Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-



BIRDS (continued)

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
	Sooty shearwater													-	-	-	-
	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-
Shorebird																	

FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Jan-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Sep	Mar-Sep	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Mar-Oct	Mar-Oct

## FISH (continued)

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
Marine Pelagic	Skates													-	-	Jan-Dec	Jan-Dec
	White hake													-	-	Mar-Oct	Mar-Oct
	White hake													-	-	May-Nov	May-Nov
	Yellowtail flounder													Jul-Oct	Jul-Oct	Apr-Sep	-
	Yellowtail flounder													Apr-Sep	Apr-Sep	Mar-Oct	Mar-Oct
Atlantic mackerel	Atlantic mackerel													Jun-Jul	Jun-Jul	May-Nov	May-Nov
	Atlantic mackerel													-	-	May-Oct	May-Oct
	Butterfish													-	-	May-Oct	May-Oct

## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
Crab	Northern quahog													Jun-Aug	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
Echinoderm	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Jan-Dec	Jan-Dec
Lobster	American lobster													Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Dolphin	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
Pinniped	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
Whale	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	21.15	0.03
10B	Freshwater Marshes	10.73	0.02
10C	Swamps	389.14	0.61
10D	Scrub and Shrub Wetlands	342.39	0.53
7	Exposed Tidal Flats	4.58	0.01
5	Mixed Sand and Gravel Beaches	6.64	0.01
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	558.61	0.87

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	2,085.57	1.30	1%
10B	Freshwater Marshes	359.95	0.22	< 1%
10D	Scrub and Shrub Wetlands	797.47	0.50	< 1%
9B	Vegetated Low Banks	20,279.27	12.60	11%
8A	Sheltered, Impermeable, Rocky Shores	328.64	0.20	< 1%
8B	Sheltered, Solid Man-Made Structures	1,407.39	0.87	1%
8C	Sheltered Riprap	141.00	0.09	< 1%
7	Exposed Tidal Flats	1,509.26	0.94	1%
6A	Gravel Beaches	2,921.14	1.82	2%
6B	Riprap	1,781.83	1.11	1%
5	Mixed Sand and Gravel Beaches	39,721.29	24.68	22%
4	Coarse Grained Sand Beaches	3,695.62	2.30	2%
3A	Fine to Medium Grained Sand Beaches	733.04	0.46	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	97,365.23	60.50	55%
2B	Exposed Scarps and Steep Slopes (Clay)	324.68	0.20	< 1%
1A	Exposed, Rocky Shores	4,294.97	2.67	2%

Total ESI Shoreline: 177,746.33      Total ESI Shoreline: 110.45  
 Total Shoreline: 123,555.70      Total Shoreline: 76.77

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





Map 18  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)			
Map ID	Type	Name	Phone
1	BOAT RAMP	EASTERN HARBOR BOAT RAMP	ADDISON
2	BOAT RAMP	SOUTH ADDISON TOWN LANDING	ADDISON
DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Phone
3	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
4	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
5	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
6	NATURE CONSERVANCY	EAST PLUMMER ISLAND PRESERVE	THE NATURE CONSERVANCY 207-729-5181
7	NATURE CONSERVANCY	FLINT ISLAND PRESERVE	THE NATURE CONSERVANCY 207-729-5181
8	NATURE CONSERVANCY	HOG ISLAND HARRINGTON EASEMENT	THE NATURE CONSERVANCY 207-729-5181
9	NATURE CONSERVANCY	NARROWS ISLAND EASEMENT	THE NATURE CONSERVANCY 207-729-5181
10	NATURE CONSERVANCY	RASPBERRY ISLAND EASEMENT	THE NATURE CONSERVANCY 207-729-5181
11	NATURE CONSERVANCY	SHIPSTERN ISLAND PRESERVE	THE NATURE CONSERVANCY 207-729-5181
12	NATURE CONSERVANCY	WILLARD POINT EASEMENT	THE NATURE CONSERVANCY 207-729-5181
ALSO PRESENT IN MAPPED AREA (POLYGONS)			
Type	Name	Contact	Phone
STATE PROTECTED AREA	INNER (LITTLE) RAM ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	
STATE PROTECTED AREA	LITTLE DRISKO ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE	
JURISDICTIONS			
COUNTY:	WASHINGTON	FEMA:	REGION I
COAST GUARD:	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	EPA:	REGION 1
USACE:	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT		

## SHORELINE RESOURCES

### ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	42.31	0.07
10B	Freshwater Marshes	41.32	0.06
10C	Swamps	209.05	0.33
10D	Scrub and Shrub Wetlands	51.35	0.08
5	Mixed Sand and Gravel Beaches	132.59	0.21
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	599.17	0.94

### ESI SHORELINE HABITAT TYPES

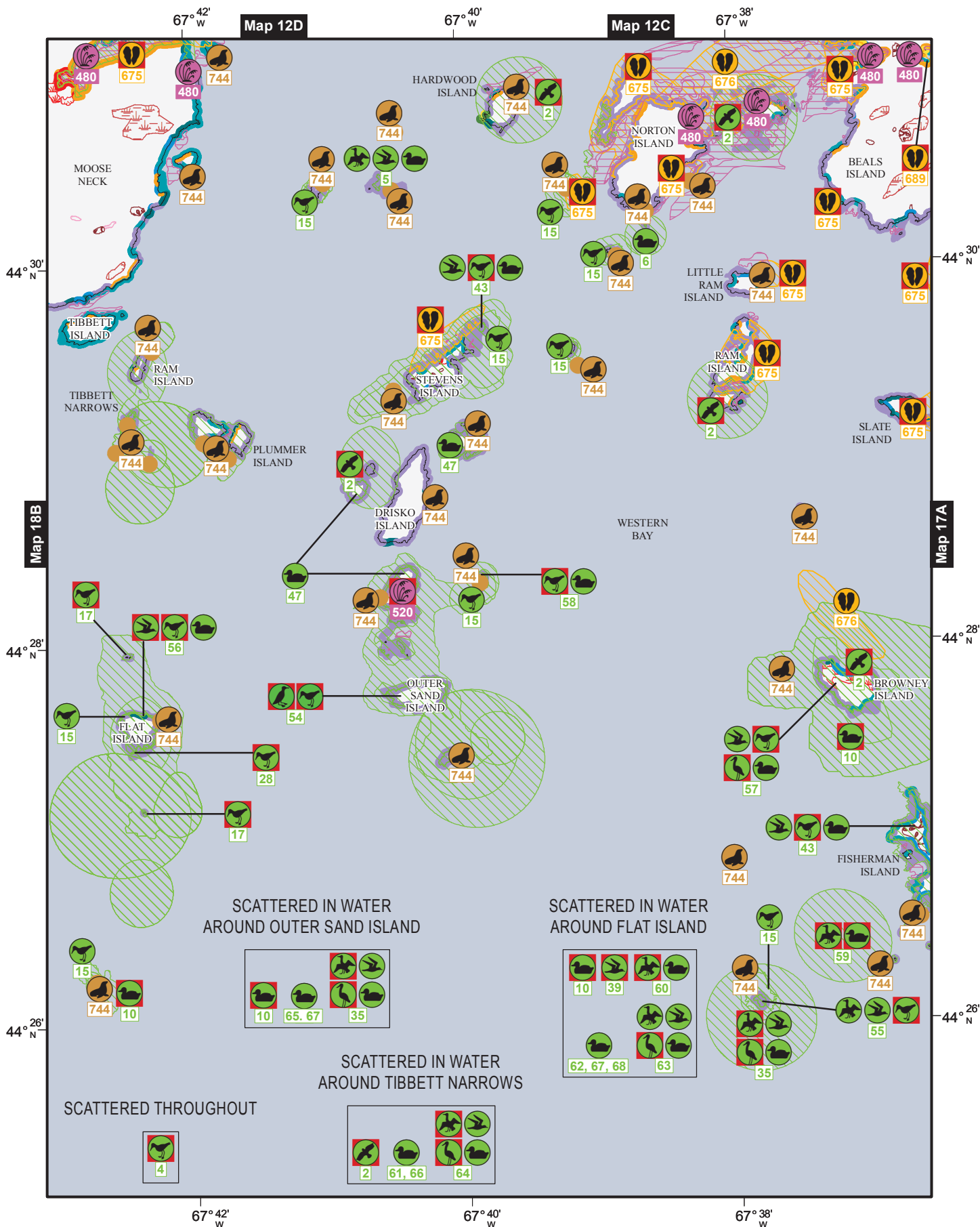
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	2,704.61	1.68	2%
9B	Vegetated Low Banks	23,205.15	14.42	13%
8A	Sheltered, Impermeable, Rocky Shores	1,821.69	1.13	1%
8B	Sheltered, Solid Man-Made Structures	1,198.62	0.74	1%
8C	Sheltered Riprap	594.21	0.37	< 1%
7	Exposed Tidal Flats	1,276.26	0.79	1%
6A	Gravel Beaches	5,894.20	3.66	3%
6B	Riprap	638.96	0.40	< 1%
5	Mixed Sand and Gravel Beaches	37,807.95	23.49	22%
4	Coarse Grained Sand Beaches	10,080.37	6.26	6%
3A	Fine to Medium Grained Sand Beaches	528.28	0.33	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	86,225.28	53.58	49%
1A	Exposed, Rocky Shores	3,734.74	2.32	2%
Total ESI Shoreline:		175,710.33	109.18	
Total Shoreline:		126,106.46	78.36	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



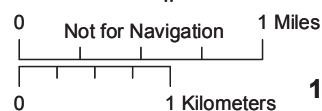




**Map 18A**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016



**1:50,000**



Map 18A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												
5	Diving	D. crested cormorant	Roosting		-												
	Gull/Tern	G. black-backed gull	Roosting		-												
	Gull/Tern	Herring gull	Roosting		-												
	Waterfowl	Common eider	Roosting		-												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
6	Waterfowl	American black duck	Rafting															Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting															-	-	-	-
	Waterfowl	Bufflehead	Rafting															-	-	-	-
	Waterfowl	Canada goose	Rafting															Apr-Aug	-	-	-
	Waterfowl	Common eider	Rafting															May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting															-	-	-	-
	Waterfowl	Long-tailed duck	Rafting															-	May	Sep	-
	Waterfowl	Mallard	Rafting															Apr-Aug	-	-	-
	Waterfowl	White-winged scoter	Rafting															-	-	-	-
	Waterfowl	Harlequin duck	Vulnerable Occurrence															-	-	-	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence															-	Apr-May	Oct	-
	Shorebird	American golden-plover	Concentration Area															-	Aug	Oct	-
17	Shorebird	American oystercatcher	Concentration Area	C/-														May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area															-	-	-	-
	Shorebird	BB sandpiper	Concentration Area															-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area															-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area															-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area															-	Apr-May	Sep-Oct	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence															-	Apr-May	Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	T													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area															-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area															-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area															-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area															-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-														-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-C														May-Aug	May-Jun	Jul-Sep	-
	Shorebird	American golden-plover	Roosting															-	Aug	Oct	-
28	Shorebird	American oystercatcher	Roosting	C/-														May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting															-	-	-	-
	Shorebird	BB sandpiper	Roosting															-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting															-	Aug	Oct	-
	Shorebird	Dunlin	Roosting															-	May	Jul-Oct	-
	Shorebird	Greater yellowlegs	Roosting															-	May	Aug-Oct	-
	Shorebird	Hudsonian godwit	Roosting															-	May	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting															-	May-Jun	Jul-Oct	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-C		-													May-Jun	Jul-Sep	-
35	Diving	Common Loon	Rafting	-JT		-													-	-	-
	Diving	D. crested cormorant	Rafting			-													Jun-Sep	-	-
	Gull/Tern	G. black-backed gull	Rafting			-													May-Aug	-	-
	Gull/Tern	Herring gull	Rafting			-													-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-													May-Sep	-	-
	Waterfowl	American black duck	Rafting			-													Apr-Aug	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-
	Waterfowl	Common eider	Rafting			-													May-Aug	-	-
	Waterfowl	Goldeneye	Rafting			-													-	-	-
	Waterfowl	Green-winged teal	Rafting			-													May-Aug	-	-
	Waterfowl	Long-tailed duck	Rafting			-													May	Sep	-
	Waterfowl	Mallard	Rafting			-													Apr-Aug	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-													-	Dec-Jan	-
	Waterfowl	Scoters	Rafting			-													-	-	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-
39	Gull/Tern	Arctic tern	Vulnerable Occurrence	T/C		-													May-Oct	-	-
43	Gull/Tern	G. black-backed gull	Roosting			-													May-Aug	-	-
	Gull/Tern	Herring gull	Roosting			-													-	-	-
	Shorebird	American golden-plover	Roosting			-													Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	May	Sep
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-
	Shorebird	BB sandpiper	Roosting			-													Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													Apr-May	Sep-Oct	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-C		-													-	May-Jun	Jul-Sep	-
	Waterfowl	Common eider	Roosting			-													-	May-Aug	-	-
47	Waterfowl	Common eider	Roosting			-													-	May-Aug	-	-
54	Pelagic	Leach's storm-petrel	Roosting	C/-		-													-	-	-	-
	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-													-	May-Jun	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	Apr-May	Sep-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Sanderling	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated plover	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-C		-													-	May-Jun	Jul-Sep	-
55	Diving	D. crested cormorant	Roosting			-													-	Jun-Sep	-	-
	Gull/Tern	G. black-backed gull	Roosting			-													-	May-Aug	-	-
	Gull/Tern	Herring gull	Roosting			-													-	-	-	-
	Shorebird	American golden-plover	Roosting			-													-	-	-	-
	Shorebird	American oystercatcher	Roosting	C/-		-													-	Aug	Oct	-
	Shorebird	Baird's sandpiper	Roosting			-													-	May-Jun	Sep	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt		
				S	F		J	F	M	A	M	J	J	A	S	O	N	D						
56	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-	-	
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-	-	
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-	-	
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-	-	
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-	-	
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-	-	
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-	-	
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Sanderling	Roosting			-													-	Apr-May	Jul-Oct	-	-	
	Shorebird	Semipalmated plover	Roosting			-													-	Apr-May	-	-	-	
	Shorebird	Semipalmated sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-	-	
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-	-	
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-	-	
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-	-	
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Willet	Roosting	-C		-													-	May-Aug	May-Jun	Jul-Sep	-	-
		Gull/Tern	Common tern	Roosting	C/T		-													-	May-Aug	-	-	-
		Gull/Tern	G. black-backed gull	Roosting			-													-	May-Aug	-	-	-
		Gull/Tern	Herring gull	Roosting			-													-	-	-	-	-
		Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-	-
		Shorebird	American oystercatcher	Roosting	C/-		-													-	May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-	-	
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-	-	
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-	-	
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-	-	
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-	-	
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-	-	
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Pectoral sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-	-	
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-	-	
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-	-	
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-	-	
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-	-	
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-	-	
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-	-	

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
57	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting			-												May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	Common eider	Roosting		-/C	-												May-Aug	-	-	-
	Gull/Tern	G. black-backed gull	Roosting			-												May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting			-												-	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	-	-	-
	Shorebird	American oystercatcher	Roosting			-												-	Aug	Oct	-
	Shorebird	Baird's sandpiper	Roosting		C/-	-												May-Jun	May	Sep	-
	Shorebird	BB sandpiper	Roosting			-												-	-	-	-
	Shorebird	Black-bellied plover	Roosting			-												-	Aug	Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting		C/-	-												-	May-Jun	Jul-Oct	-
	Shorebird	Red Knot	Roosting		C/-	T												-	Apr-May	Sep-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
58	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting			-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting		-/C	-												May-Aug	May-Jun	Jul-Sep	-
	Wading	Great blue heron	Roosting		C/-	-												May-Sep	-	-	-
	Waterfowl	Common eider	Roosting			-												May-Aug	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting			-												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting		C/-	-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting		C/-	-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
59	Shorebird	Semipalmated plover	Roosting			-													May-Jun	Jul-Oct	-	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													May-Jun	Jul-Oct	-	-
	Shorebird	Short-billed dowitcher	Roosting			-													May-Jun	Jul-Oct	-	-
	Shorebird	Solitary sandpiper	Roosting			-													Jun	-	-	-
	Shorebird	Stilt sandpiper	Roosting			-													Jul	Sep	-	-
	Shorebird	Western sandpiper	Roosting			-													Jul	Oct	-	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	Jul-Oct	-	-
	Shorebird	White-rumped sandpiper	Roosting			-													May-Jun	Jul-Oct	-	-
	Shorebird	Willet	Roosting	-/C		-													May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	Common eider	Roosting			-													May-Aug	-	-	-
60	Diving	Common Loon	Rafting	-/T		-													-	-	-	-
	Waterfowl	American black duck	Rafting			-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-	-
	Waterfowl	Brant	Rafting			-													-	Feb	Dec	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-	-
	Waterfowl	Common eider	Rafting			-													May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-													-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-													May-Aug	-	-	-
	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-		-													-	-	-	-
	Waterfowl	Mallard	Rafting			-													Apr-Aug	-	-	-
61	Waterfowl	Scoters	Rafting			-													-	-	-	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-	-
	Diving	Common Loon	Rafting	-/T		-													-	-	-	-
	Waterfowl	American black duck	Rafting			-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-	-
	Waterfowl	Goldeneye	Rafting			-													-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-													May-Aug	-	-	-
	Waterfowl	Mallard	Rafting			-													Apr-Aug	-	-	-
	Waterfowl	Scoters	Rafting			-													-	-	-	-
62	Waterfowl	Surf scoter	Rafting			-													-	-	-	-
	Waterfowl	American black duck	Rafting			-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-	-
	Waterfowl	Common eider	Rafting			-													May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-													-	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-													May	Sep	-	-
	Waterfowl	Mallard	Rafting			-													Apr-Aug	-	-	-
	Waterfowl	Common eider	Rafting			-													May-Aug	-	-	-
	Waterfowl	D. crested cormorant	Rafting			-													Jun-Sep	-	-	-
63	Diving	G. black-backed gull	Rafting			-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting			-													-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-													May-Sep	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-													May	Sep	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
64	Waterfowl	Scaup	Vulnerable Occurrence		-													-	Dec-Jan	-	-
	Diving	Common Loon	Rafting	-JT	-													-	-	-	-
	Diving	D. crested cormorant	Rafting		-													Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Rafting		-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting		-													-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-	-													May-Sep	-	-	-
	Waterfowl	Green-winged teal	Rafting		-													May-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence		-													-	Dec-Jan	-	-
65	Waterfowl	Scoters	Rafting		-													-	-	-	-
	Waterfowl	Surf scoter	Rafting		-													-	-	-	-
	Waterfowl	White-winged scoter	Rafting		-													-	-	-	-
	Waterfowl	Canada goose	Rafting		-													Apr-Aug	-	-	-
	Waterfowl	White-winged scoter	Rafting		-													-	-	-	-
67	Waterfowl	Canada goose	Rafting		-													Apr-Aug	-	-	-
68	Waterfowl	Brant	Rafting		-													-	Feb	Dec	-

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
480	Wetland	Tidal Marsh	High Ecological Value		-													-	-	-	-
520	Wetland	Moonwort	Vulnerable Occurrence	E/-	-													-	-	-	-

**INVERTEBRATES**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
675	Bivalve	Softshell clam	Harvest Area	-IC	-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area		-													May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec
689	Bivalve	Blue mussel	Harvest Area		-													May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec
	Bivalve	Softshell clam	Harvest Area	-IC	-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec

**MARINE MAMMALS**



Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
744	Pinniped	Harbor seal	Haul Out		-													-	-	-	-




## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
					J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	General Distribution	T/-	-													-	-	-	-
	Razorbill	General Distribution	T/-	-													-	-	-	-
	Diving	General Distribution	-T	-													-	-	-	-
	Great cormorant	General Distribution	T/-	-													-	-	-	-
	Gull/Tern	General Distribution	T/C	-													May-Oct	-	-	-
	Common tern	General Distribution	C/T	-													May-Aug	-	-	-
	Pelagic	General Distribution	E/E	E													-	-	-	-
	Leach's storm-petrel	General Distribution	C/-	-													-	-	-	-
	Shorebird	General Distribution	C/-	-													-	Jun	-	-



## FISH

Subelement	Species	Mapping Qualifier	ME/NH S F T	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous	General Distribution	-T	Rare													-	-	-	Jan-Dec	Jan-Dec
	Shortnose sturgeon	General Distribution	E/E	Rare													-	-	-	Jan-Dec	Jan-Dec
	Striped bass	Concentration Area	E	High													-	-	-	Jan-Dec	Jan-Dec
	Black Seabass	Concentration Area	E	Low													-	-	-	Jan-Dec	Jan-Dec


## REPTILES &amp; AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH S F T	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Turtle	General Distribution	-/-	Rare													-	-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	Rare													-	-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	Low													-	-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	Low													-	-	-	Jun-Nov	Jun-Nov






## INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Bivalve	Harvest Area	-C	-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
	Crab	General Distribution	-C	Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
	Insect	Vulnerable Occurrence	C/-	-													May-Jul	-	-	Jan-Dec	Jan-Dec
	Shrimp	General Distribution	-C	Low													-	Dec-Apr	Jan-Dec	Jan-Dec	Dec-Apr




## MARINE MAMMALS

Subelement	Species	Mapping Qualifier	ME/NH S F E	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
					J	F	M	A	M	J	J	A	S	O	N	D				
	Whale	General Distribution	E/-	Low													-	-	-	-
	Humpback whale	General Distribution	E/-	Low													-	-	-	-
	N.A. right whale	General Distribution	E/-	Low													-	-	-	-
	Sei whale	General Distribution	E/-	Low													-	-	-	-
	Sperm whale	General Distribution	E/-	Rare													-	-	-	-


## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
	Sooty shearwater													-	-	-	-
	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-





## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
 	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	Atlantic cod													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic Wolffish													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Cunner													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct




## FISH (continued)

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Ocean pout													-	-	Mar-Oct	Mar-Oct
	Pollock													Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	-	Mar-Oct	Mar-Oct
	Red hake													Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Jan-May	Jan-Dec	Jan-Dec
	Rock gunnel													-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	Sep-May	Sep-May
	Silver hake													-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	Mar-Oct	Mar-Oct
	Skates													-	-	Mar-Oct	Mar-Oct
	Skates													-	-	Jan-Dec	Jan-Dec
	White hake													-	-	Mar-Oct	Mar-Oct
	White hake													Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													Apr-Sep	Apr-Sep	Apr-Sep	-
	Yellowtail flounder													-	-	Mar-Oct	Mar-Oct
	Atlantic mackerel													Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	May-Nov	May-Nov
	Butterfish													-	-	May-Oct	May-Oct

## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Northern quahog													-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	27.14	0.04
10B	Freshwater Marshes	1.56	0.00
10C	Swamps	54.96	0.09
10D	Scrub and Shrub Wetlands	27.52	0.04
5	Mixed Sand and Gravel Beaches	42.86	0.07
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	365.12	0.57

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	500.77	0.31	1%
9B	Vegetated Low Banks	8,495.31	5.28	10%
8A	Sheltered, Impermeable, Rocky Shores	28.88	0.02	< 1%
8B	Sheltered, Solid Man-Made Structures	618.48	0.38	1%
6A	Gravel Beaches	3,095.13	1.92	4%
6B	Riprap	440.10	0.27	1%
5	Mixed Sand and Gravel Beaches	15,966.74	9.92	18%
4	Coarse Grained Sand Beaches	3,890.36	2.42	4%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	54,566.97	33.91	62%

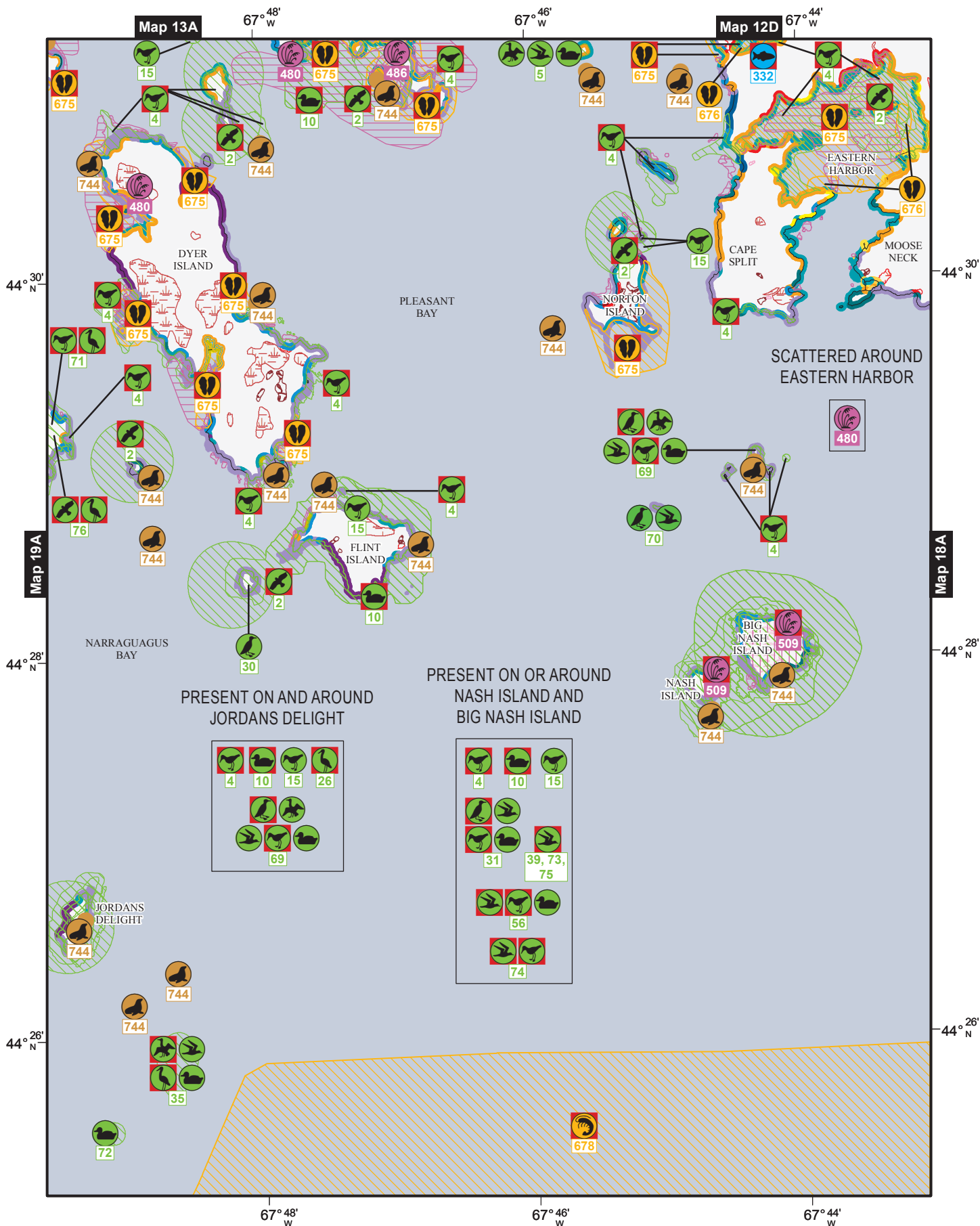
Total ESI Shoreline: 87,602.73      Total ESI Shoreline: 54.43  
 Total Shoreline: 66,997.09      Total Shoreline: 41.63

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



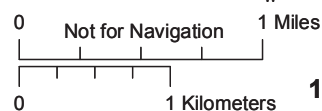




**Map 18B**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016



**1:50,000**



Map 18B  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												
5	Diving	D. crested cormorant	Roosting		-												
	Gull/Tern	G. black-backed gull	Roosting		-												
	Gull/Tern	Herring gull	Roosting		-												
	Waterfowl	Common eider	Roosting		-												

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Molt
						J	F	M	A	M	J	J	A	S	O	N	D	
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-													-
15	Shorebird	Purple sandpiper	Vulnerable Occurrence	C/-	-													-
26	Wading	Great blue heron	Vulnerable Occurrence	C/-	-													-
30	Acid	Black guillemot	Roosting		-													-
31	Acid	Black guillemot	Roosting		-													-
	Gull/Tern	G. black-backed gull	Roosting		-													-
	Gull/Tern	Herring gull	Roosting		-													-
	Pelagic	Leach's storm-petrel	Roosting	C/-	-													-
	Shorebird	American golden-plover	Roosting		-													-
	Shorebird	American oystercatcher	Roosting	C/-	-													-
	Shorebird	Baird's sandpiper	Roosting		-													-
	Shorebird	BB sandpiper	Roosting		-													-
	Shorebird	Black-bellied plover	Roosting		-													-
	Shorebird	Dunlin	Roosting		-													-
	Shorebird	Greater yellowlegs	Roosting		-													-
	Shorebird	Hudsonian godwit	Roosting		-													-
	Shorebird	Least sandpiper	Roosting		-													-
	Shorebird	Lesser yellowlegs	Roosting	C/-	-													-
	Shorebird	Pectoral sandpiper	Roosting		-													-
	Shorebird	Red Knot	Roosting	C/- T	-													-
	Shorebird	Ruddy turnstone	Roosting		-													-
	Shorebird	Sanderling	Roosting		-													-
	Shorebird	Semipalmated plover	Roosting		-													-
	Shorebird	Semipalmated sandpiper	Roosting	C/-	-													-
	Shorebird	Short-billed dowitcher	Roosting		-													-
	Shorebird	Solitary sandpiper	Roosting		-													-
	Shorebird	Stilt sandpiper	Roosting		-													-
	Shorebird	Western sandpiper	Roosting		-													-
	Shorebird	Whimbrel	Roosting	C/-	-													-
	Shorebird	White-rumped sandpiper	Roosting		-													-
	Shorebird	Willet	Roosting	-/C	-													-
	Waterfowl	Common eider	Roosting		-													-
35	Diving	Common Loon	Rafting	-/T	-													-
	Diving	D. crested cormorant	Rafting		-													-
	Gull/Tern	G. black-backed gull	Rafting		-													-
	Gull/Tern	Herring gull	Rafting		-													-
	Wading	Great blue heron	Vulnerable Occurrence	C/-	-													-
	Waterfowl	American black duck	Rafting		-													-
	Waterfowl	Black Scoter	Rafting		-													-
	Waterfowl	Bufflehead	Rafting		-													-
	Waterfowl	Common eider	Rafting		-													-
	Waterfowl	Goldeneye	Rafting		-													-
	Waterfowl	Green-winged teal	Rafting		-													-
	Waterfowl	Long-tailed duck	Rafting		-													-



BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-												-	Dec-Jan	-	-
	Waterfowl	Sooters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
39	Gull/Tern	Arctic tern	Vulnerable Occurrence	T/C		-												May-Oct	-	-	-
56	Gull/Tern	Common tern	Roosting	C/T		-												May-Aug	-	-	-
	Gull/Tern	G. black-backed gull	Roosting			-												May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting			-												-	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-												May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	Common eider	Roosting			-												May-Aug	-	-	-
69	Aldid	Black guillemot	Roosting			-												May-Aug	-	-	-
	Diving	D. crested cormorant	Roosting			-												Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Roosting			-												May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting			-												-	-	-	-
	Pelagic	Leach's storm-petrel	Roosting	C/-		-												-	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Shorebird	Hudsonian godwit	Roosting			-													-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	May-Jun	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	Apr-May	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May	-
	Shorebird	Sanderling	Roosting			-													-	May-Jun	-
	Shorebird	Semipalmated plover	Roosting			-													-	Apr-May	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	Jul-Oct	-
	Shorebird	Willet	Roosting	-IC		-													-	May-Jun	-
70	Waterfowl	Common eider	Roosting			-													-	May-Aug	-
	Alcid	Black guillemot	Roosting			-													-	May-Aug	-
	Gull/Tern	G. black-backed gull	Roosting			-													-	May-Aug	-
71	Shorebird	American golden-plover	Roosting			-													-	Aug	-
	Shorebird	American oystercatcher	Roosting	C/-		-													-	May	-
	Shorebird	Baird's sandpiper	Roosting			-													-	May	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	-
	Shorebird	Dunlin	Roosting			-													-	May	-
	Shorebird	Greater yellowlegs	Roosting			-													-	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	May-Jun	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	-
72	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	Jul-Oct	-
	Shorebird	Willet	Roosting	-IC		-													-	May-Jun	-
	Wading	Great blue heron	Roosting	C/-		-													-	May-Sep	-
	Waterfowl	Canada goose	Raffing			-													-	Apr-Aug	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
73	Waterfowl	Common eider	Rafting															May-Aug	-	-	-
	Gull/Tern	Roseate tern	Vulnerable Occurrence	E/E	E													May-Aug	May	Aug	-
74	Gull/Tern	Roseate tern	Nesting	E/E	E													May-Aug	May	Aug	-
	Shorebird	American golden-plover	Concentration Area															-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area	C/-														May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area															-	-	-	-
	Shorebird	BB sandpiper	Concentration Area															-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area															-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area															-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area															-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	T													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area															-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area															-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area															-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area															-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-														-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-C														May-Aug	May-Jun	Jul-Sep	-
75	Gull/Tern	Roseate tern	Nesting	E/E	E													May-Aug	May	Aug	-
76	Raptor	Bald eagle	Vulnerable Occurrence	C/T														Mar-May	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-														May-Sep	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	J	F	M	A	M	J	J	A	S	O	N	D					
332	Diadromous	American eel	Migration	-C														-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic sturgeon	Migration	-T	T													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-														-	-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration															-	-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-C														-	-	-	Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration															Dec-Feb	-	-	Jan-Dec	Oct-Apr

## HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
480	Wetland	Tidal Marsh	High Ecological Value			-												
486	Upland	Rare upland community	High Ecological Value			-												
509	Plant	A. water minerslettuce	Vulnerable Occurrence	C/-		-												

## INVERTEBRATES






Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
675	Bivalve	Softshell clam	Harvest Area	-IC		-												
676	Bivalve	Blue mussel	Harvest Area			-												
678	Shrimp	Northern shrimp	General Distribution	-IC		Low												

## MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence											
				S	F		J	F	M	A	M	J	J	A	S	O	N	D
744	Pinniped	Harbor seal	Haul Out			-												

WIDESPREAD IN MAPPED AREA (> 10 SQUARE KILOMETERS)


## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence										Nest	Mig.(S)	Mig.(F)	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N			
	Alcid	Atlantic puffin	T/-		-												-	-	-
		Razorbill	T/-		-												-	-	-
	Diving	Common Loon	-T		-												-	-	-
		Great cormorant	T/-		-												-	-	-
	Gull/Tern	Arctic tern	T/C		-											May-Oct	-	-	-
		Common tern	C/T		-											May-Aug	-	-	-
		Roseate tern	E/E	E	-												-	-	-
	Pelagic	Leach's storm-petrel	C/-		-												-	-	-
	Shorebird	Red-necked phalarope	C/-		-											Jun	-	-	-


## FISH

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence										Spawn	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N				
	Diadromous	Atlantic sturgeon	-T	T	Rare												-	-	-	Jan-Dec
		Shortnose sturgeon	E/E	E	Rare												-	-	-	Jan-Dec
		Striped bass			High												-	-	-	Jan-Dec
	Estuarine Nursery	Black Seabass			Low												-	-	-	Jan-Dec


# REPTILES & AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
	Turtle																				
	Green sea turtle	General Distribution	-/-	T	Rare																
	K. ridley sea turtle	General Distribution	E/-	E	Rare																
	Leatherback sea turtle	General Distribution	E/-	E	Low																
	Loggerhead sea turtle	General Distribution	E/-	T	Low																

# INVERTEBRATES






Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
	Bivalve	Sea scallop	-/C		-																
	Crab	Horseshoe crab	-/C		Low																
	Insect	Rare insect	C/-		-																

# MARINE MAMMALS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Fin whale	General Distribution	E/-	E	Low																
	Humpback whale	General Distribution	E/-	E	Low																
	N.A. right whale	General Distribution	E/-	E	Low																
	Sei whale	General Distribution	E/-	E	Low																
	Sperm whale	General Distribution	E/-	E	Rare																





ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS





Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid													May-Aug	-	-	-
	Black guillemot																
	Common murre																
	Dovekie																
	Diving													Jun-Sep	-	-	-
	Thick-billed murre																
	D. crested cormorant																
	Gull/Tern																
	Horned grebe																
	Red-necked grebe																
	Red-throated loon																
	G. black-backed gull																
	Pelagic																
	Herring gull																
	Ring-billed gull																
	Cory's shearwater																
	Great shearwater																
	Shorebird																
	Manx shearwater																
	Northern fulmar																
	Northern gannet																
	Sooty shearwater																
	Wilson's storm-petrel																
	Red phalarope																

FISH




Monthly Presence

Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Spawn	Eggs	Larvae	Juveniles	Adults
 Diadromous	Striped bass													-	-	-	Jan-Dec	Jan-Dec
 Estuarine Nursery	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
 Marine Benthic	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	Skates													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
 Marine Pelagic	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog														-	-	Jan-Dec
 Crab	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
 Echinoderm	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													May-Oct	May-Oct	Jan-Dec	Jan-Dec
 Lobster	American lobster													Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
														Jun-Oct	-	-	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
 Pinniped	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
 Whale	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-
														-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

<i>ESI Rank</i>	<i>Habitat Classification</i>	<i>Area (Acres)</i>	<i>Area (Sq. Miles)</i>
10A	Salt and Brackish Water Marshes	15.25	0.02
10B	Freshwater Marshes	39.77	0.06
10C	Swamps	154.09	0.24
10D	Scrub and Shrub Wetlands	23.83	0.04
5	Mixed Sand and Gravel Beaches	90.15	0.14
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	234.00	0.37

## ESI SHORELINE HABITAT TYPES

<i>ESI Rank</i>	<i>Shoreline Habitat Classification</i>	<i>Length (Meters)</i>	<i>Length (Miles)</i>	<i>% of ESI Shoreline</i>
10A	Salt and Brackish Water Marshes	2,209.14	1.37	3%
9B	Vegetated Low Banks	14,734.93	9.16	17%
8A	Sheltered, Impermeable, Rocky Shores	1,797.22	1.12	2%
8B	Sheltered, Solid Man-Made Structures	580.14	0.36	1%
8C	Sheltered Riprap	594.21	0.37	1%
7	Exposed Tidal Flats	1,276.26	0.79	1%
6A	Gravel Beaches	2,799.81	1.74	3%
6B	Riprap	198.86	0.12	< 1%
5	Mixed Sand and Gravel Beaches	21,870.77	13.59	25%
4	Coarse Grained Sand Beaches	6,193.51	3.85	7%
3A	Fine to Medium Grained Sand Beaches	528.28	0.33	1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	31,660.90	19.67	36%
1A	Exposed, Rocky Shores	3,734.74	2.32	4%

Total ESI Shoreline:  
Total Shoreline:

88,178.76  
59,146.92

Total ESI Shoreline: 54.79  
Total Shoreline: 36.75

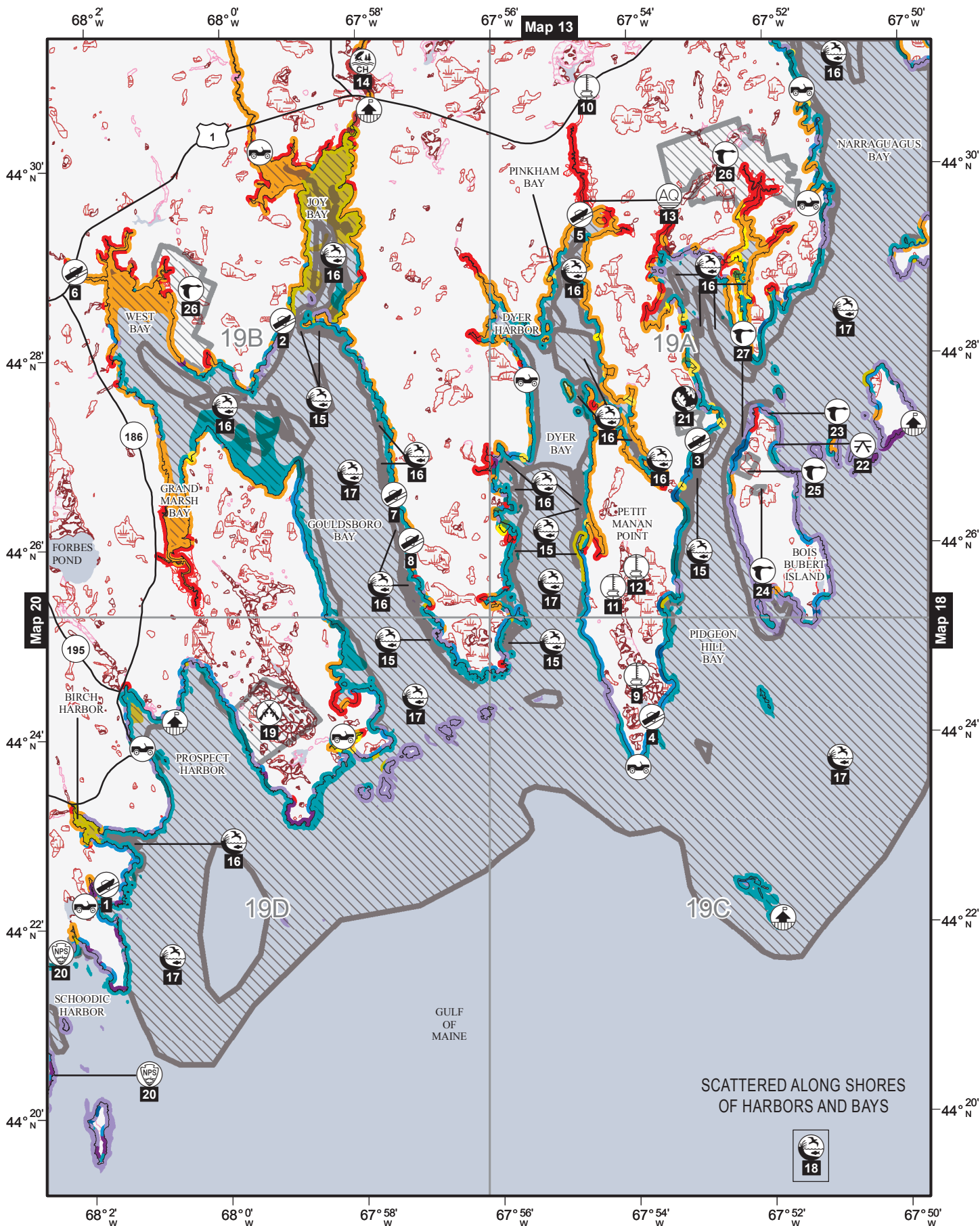
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









**Map 19**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

**1:100,000**



Map 19  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)			
Map ID	Type	Name	Phone
1	BOAT RAMP	BUNKERS HARBOR	GOULDSBORO
2	BOAT RAMP	GOULDSBORO POINT	GOULDSBORO
3	BOAT RAMP	PIGEON HILL BAY BOAT RAMP	STEUBEN
4	BOAT RAMP	PIGEON HILL TOWN LANDING	STEUBEN
5	BOAT RAMP	PINKHAM BAY BRIDGE LANDING	STEUBEN
6	BOAT RAMP	THE GUZZLE	GOULDSBORO
7	BOAT RAMP	VILLAGE ROAD TOWN LANDING	STEUBEN
8	BOAT RAMP	WHARF ROAD LANDING	STEUBEN
9	LOCK AND DAM	CRANBERRY MARSH DIKE	UNKNOWN
10	LOCK AND DAM	EAST STEUBEN DAM	
11	LOCK AND DAM	MAGUE FLOWAGE DIKE	
12	LOCK AND DAM	MEADOW BROOK HEATH DIKE	

DISPLAYED ON MAP (POLYGONS)			
Map ID	Type	Name	Phone
13	AQUACULTURE	PINK PS2 - PINKHAM STREAM, PINKHAM BAY	207-546-4477
14	CRITICAL HABITAT	ATLANTIC SALMON CRITICAL HABITAT	
15	MANAGEMENT AREA	ATLANTIC JACKKNIFE CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
16	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
17	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
18	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR) 207-624-6550
19	MILITARY	SECURITY GROUP ACTIVITY WINTER HARBOR	
20	NATIONAL PARK	ACADIA NATIONAL PARK	
21	NATURE CONSERVANCY	PETIT MANAN	THE NATURE CONSERVANCY 207-729-5181
22	PARK	LAKE SAINT GEORGE STATE PARK	U.S. FISH & WILDLIFE SERVICE
23	WILDLIFE REFUGE	CROW ISLAND	U.S. FISH AND WILDLIFE SERVICE
24	WILDLIFE REFUGE	KENNEBUNK PLAINS PRESERVE	U.S. FISH AND WILDLIFE SERVICE
25	WILDLIFE REFUGE	MOUNT AGAMENTICUS - TATNIC HILLS PRESERVE	U.S. FISH AND WILDLIFE SERVICE
26	WILDLIFE REFUGE	PETIT MANAN NATIONAL WILDLIFE REFUGE	U.S. FISH & WILDLIFE SERVICE
27	WILDLIFE REFUGE	WATERBORO BARRENS PRESERVE	U.S. FISH AND WILDLIFE SERVICE


ALSO PRESENT IN MAPPED AREA (POLYGONS)		
Type	Name	Phone
STATE PROTECTED AREA	GREEN ISLAND	MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE

JURISDICTIONS		
COUNTY:	HANCOCK, WASHINGTON	FEMA: REGION I
COAST GUARD:	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	EPA: REGION 1
USACE:	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT	

## ESI POLYGON HABITAT TYPES

	<b>ESI Rank</b>	<b>Habitat Classification</b>	<b>Area (Acres)</b>	<b>Area (Sq. Miles)</b>
	10A	Salt and Brackish Water Marshes	510.99	0.80
	10B	Freshwater Marshes	433.15	0.68
	10C	Swamps	2,969.75	4.64
	10D	Scrub and Shrub Wetlands	1,275.89	1.99
	9A	Sheltered Tidal Flats	559.79	0.87
	7	Exposed Tidal Flats	530.68	0.83
	5	Mixed Sand and Gravel Beaches	1,644.60	2.57
	2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	388.61	0.61

## ESI SHORELINE HABITAT TYPES

	<b>ESI Rank</b>	<b>Shoreline Habitat Classification</b>	<b>Length (Meters)</b>	<b>Length (Miles)</b>	<b>% of ESI Shoreline</b>
	10A	Salt and Brackish Water Marshes	47,452.75	29.49	10%
	10B	Freshwater Marshes	794.25	0.49	< 1%
	10C	Swamps	3,106.47	1.93	1%
	10D	Scrub and Shrub Wetlands	3,223.87	2.00	1%
	9A	Sheltered Tidal Flats	30,283.40	18.82	7%
	9B	Vegetated Low Banks	93,031.60	57.81	20%
	8A	Sheltered, Impermeable, Rocky Shores	3,934.73	2.44	1%
	8B	Sheltered, Solid Man-Made Structures	2,425.47	1.51	1%
	7	Exposed Tidal Flats	20,271.09	12.60	4%
	6A	Gravel Beaches	13,854.68	8.61	3%
	6B	Riprap	2,539.34	1.58	1%
	5	Mixed Sand and Gravel Beaches	125,927.43	78.25	27%
	4	Coarse Grained Sand Beaches	25,431.01	15.80	6%
	3A	Fine to Medium Grained Sand Beaches	2,791.68	1.73	1%
	2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	73,600.85	45.73	16%
	1A	Exposed, Rocky Shores	8,688.41	5.40	2%
	1B	Exposed, Solid Man-Made Structures	852.65	0.53	< 1%
Total ESI Shoreline:			458,209.69	284.72	
Total Shoreline:			287,981.73	178.94	

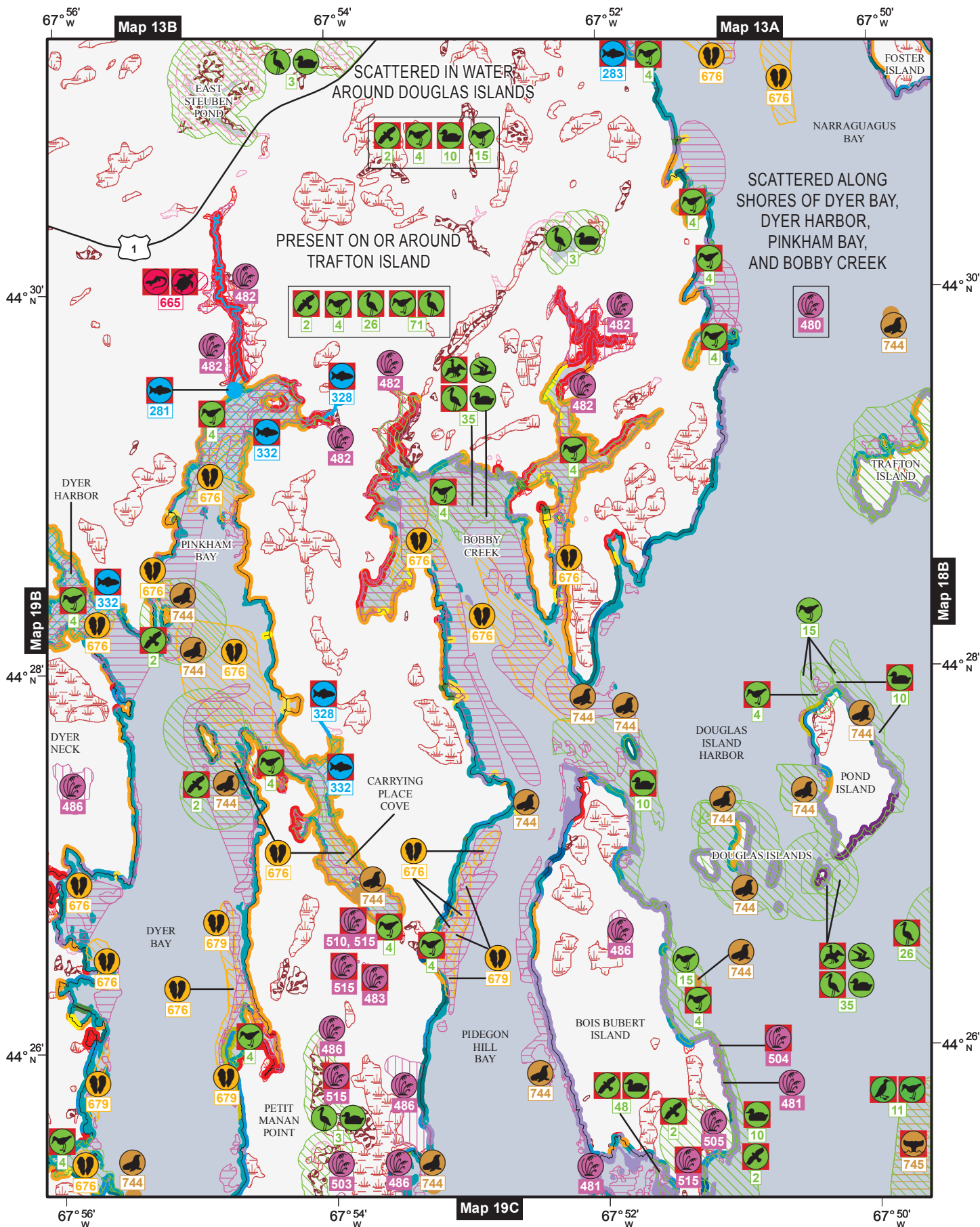
Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









Map 19A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-												
3	Wading	Wading birds	Vulnerable Occurrence		-												
4	Waterfowl	Waterfowl	Vulnerable Occurrence		-												
	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/-	T												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-C	Foraging												
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-												
11	Alcid	Atlantic puffin	General Distribution	T/-	-												

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Pelagic	Leach's storm-petrel	General Distribution	C/-		-													-	-	-
	Shorebird	Red-necked phalarope	General Distribution	C/-		-													-	-	-
15	Shorebird	Purple sandpiper	Vulnerable Occurrence			-													-	Apr-May	Oct
26	Wading	Great blue heron	Vulnerable Occurrence	C/-		-													May-Sep	-	-
35	Diving	Common Loon	Rafting	-/T		-													-	-	-
	Diving	D. crested cormorant	Rafting			-													Jun-Sep	-	-
	Gull/Tern	G. black-backed gull	Rafting			-													May-Aug	-	-
	Gull/Tern	Herring gull	Rafting			-													-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-													May-Sep	-	-
	Waterfowl	American black duck	Rafting			-													Apr-Aug	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-
	Waterfowl	Common eider	Rafting			-													May-Aug	-	-
	Waterfowl	Goldeneye	Rafting			-													-	-	-
	Waterfowl	Green-winged teal	Rafting			-													May-Aug	-	-
	Waterfowl	Long-tailed duck	Rafting			-													-	May	Sep
	Waterfowl	Mallard	Rafting			-													Apr-Aug	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-													-	Dec-Jan	-
	Waterfowl	Scoters	Rafting			-													-	-	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-
48	Raptor	Bald eagle	Vulnerable Occurrence	C/T		-													Mar-May	-	-
	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-		-													-	-	-
71	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	May	Sep
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct



**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)		Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N		May-Aug	May-Jun	
	Shorebird	Willet	Roosting	-/C		-												May-Aug	May-Jun	Jul-Sep	-
	Wading	Great blue heron	Roosting	C/-		-												May-Sep	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Jul	Apr-Jul		
283	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	American shad	Migration	-/C		-												-	-	May-Feb	May-Jul		
	Diadromous	Atlantic salmon	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar		
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Blueback herring	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Diadromous	Sea lamprey	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul		
	Diadromous	Shorthose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Striped bass	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec		
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Oct-Apr	Oct-Apr		
328	Marine Benthic	Atlantic tomcod	Migration	-/C		-												Dec-Feb	-	Jan-Dec	Jan-Dec		
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Oct-Apr	Oct-Apr		
332	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct		
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May		
	Diadromous	Shorthose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec		
	Diadromous	Striped bass	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec		
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Oct-Apr	Oct-Apr		
	Marine Benthic	Atlantic tomcod	Migration	-		-												Dec-Feb	-	Jan-Dec	Jan-Dec		

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							</
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# REPTILES & AMPHIBIANS

Map ID	Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D					
665	Amphibian	B. spotted salamander		Vulnerable Occurrence	C/C		Very Low													Apr-May	May-Jun	-	Jan-Dec	Apr-Jun
	Amphibian	Jefferson salamander		Vulnerable Occurrence	C/C		Rare													Apr-May	May-Jun	-	Jan-Dec	Apr-Jun
	Amphibian	Northern leopard frog		Vulnerable Occurrence	C/C		Low													Apr-May	May-Jul	-	May-Sep	Jan-Dec
	Amphibian	Spotted salamander		Concentration Area			Common													Mar-May	Apr-Jun	-	May-Sep	Mar-Jun
	Amphibian	Wood Frog		Concentration Area			Common													Mar-Apr	Apr-Jun	-	Jun-Sep	Mar-Sep
	Turtle	Spotted turtle		Vulnerable Occurrence	T/T		Very Low													May-Jul	Aug-Oct	-	Jan-Dec	Jan-Dec
	Turtle	Wood turtle		Vulnerable Occurrence	C/C		Very Low													May-Jul	Aug-Oct	-	Jan-Dec	Jan-Nov

# INVERTEBRATES




Map ID	Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
								J	F	M	A	M	J	J	A	S	O	N	D					
676	Bivalve	Blue mussel		Harvest Area			-													May-Nov	May-Nov	-	Jan-Dec	Jan-Dec
679	Bivalve	Atl. jackknife clam		Harvest Area			-													-	-	-	Jan-Dec	Jan-Dec

# MARINE MAMMALS



Map ID	Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
								J	F	M	A	M	J	J	A	S	O	N	D				
744	Pinniped	Harbor seal		Haul Out			-													-	-	-	-
745	Whale	Fin whale		General Distribution	E/-	E	Low													-	-	-	-
	Whale	Humpback whale		General Distribution	E/-	E	Low													-	-	-	-
	Whale	N.A. right whale		General Distribution	E/-	E	Low													-	-	-	-
	Whale	Sei whale		General Distribution	E/-	E	Low													-	-	-	-
	Whale	Sperm whale		General Distribution	E/-	E	Rare													-	-	-	-

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )


# BIRDS

Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
							J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid		General Distribution	T/-		-													-	-	-	-
	Diving	Razorbill	General Distribution	-/T		-													-	-	-	-
		Common Loon	General Distribution	T/-		-													-	-	-	-
	Gull/Tern	Great cormorant	General Distribution	T/C		-													May-Oct	-	-	-
		Arctic tern	General Distribution	C/T		-													May-Aug	-	-	-
		Common tern	General Distribution	E/E	E	-													-	-	-	-
		Roseate tern	General Distribution	E/E	E	-													-	-	-	-



# FISH

Subelement	Species	ME/NH	Mapping Qualifier	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
							J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous		General Distribution	-/T	T	Rare													-	-	-	Jan-Dec	Jan-Dec
		Atlantic sturgeon	General Distribution	E/E	E	Rare													-	-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	General Distribution	E/E	E	High													-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery		Concentration Area			Low													-	-	-	Jan-Dec	Jan-Dec
		Striped bass	Concentration Area			Low													-	-	-	Jan-Dec	Jan-Dec
		Black Seabass	Concentration Area			Low													-	-	-	Jan-Dec	Jan-Dec

# REPTILES & AMPHIBIANS






Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
	Green sea turtle	General Distribution	-/-	T	Rare												-	-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	E	Rare												-	-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	E	Low												-	-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	T	Low												-	-	-	Jun-Nov	Jun-Nov

# INVERTEBRATES




Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
	Sea scallop	Harvest Area	-/C		-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
	Softshell clam	Harvest Area	-/C		-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Horseshoe crab	General Distribution	-/C		Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
	Rare insect	Vulnerable Occurrence	C/-		-													May-Jul	-	-	Jan-Dec	Jan-Dec

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)




# BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
	Sooty shearwater													-	-	-	-
	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-




## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Sep	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct

## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence											
		J	F	M	A	M	J	J	A	S	O	N	D
Small Mammal	Beaver												
	Muskrat												
Northern river otter													

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## SHORELINE RESOURCES

### ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	234.76	0.37
10B	Freshwater Marshes	122.78	0.19
10C	Swamps	1,190.71	1.86
10D	Scrub and Shrub Wetlands	254.62	0.40
5	Mixed Sand and Gravel Beaches	320.79	0.50
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	126.28	0.20

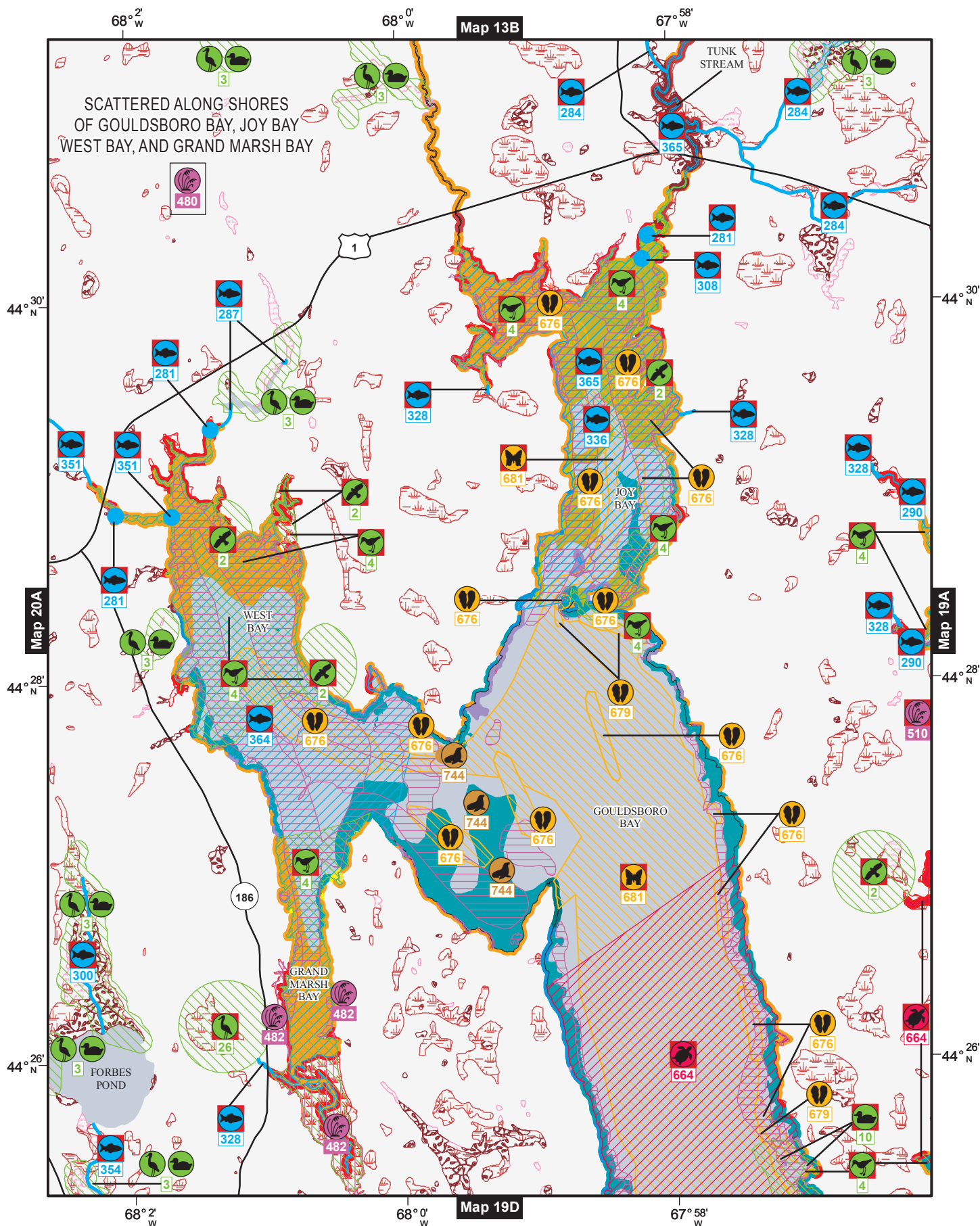
### ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	19,192.34	11.93	10%
10C	Swamps	38.14	0.02	< 1%
10D	Scrub and Shrub Wetlands	471.62	0.29	< 1%
9B	Vegetated Low Banks	49,922.78	31.02	27%
8A	Sheltered, Impermeable, Rocky Shores	2,755.89	1.71	2%
8B	Sheltered, Solid Man-Made Structures	1,939.74	1.21	1%
7	Exposed Tidal Flats	2,756.99	1.71	2%
6A	Gravel Beaches	8,897.85	5.53	5%
6B	Riprap	2,255.51	1.40	1%
5	Mixed Sand and Gravel Beaches	52,365.55	32.54	29%
4	Coarse Grained Sand Beaches	8,422.99	5.23	5%
3A	Fine to Medium Grained Sand Beaches	1,749.25	1.09	1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	30,457.39	18.93	17%
1A	Exposed, Rocky Shores	1,813.49	1.13	1%
Total ESI Shoreline:		183,039.53	Total ESI Shoreline:	113.74
Total Shoreline:		125,861.08	Total Shoreline:	78.21

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 19B**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence	C/T	-											Mar-May	
3	Wading	Wading birds	Vulnerable Occurrence		-											Apr-Nov	
4	Waterfowl	Waterfowl	Vulnerable Occurrence		-											Apr-Nov	
	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging											May-Jun	
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging											Aug	
	Shorebird	Dunlin	Concentration Area		Foraging											May	
	Shorebird	Greater yellowlegs	Concentration Area		Foraging											May	
	Shorebird	Hudsonian godwit	Concentration Area		Foraging											May	
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging											May-Jun	
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging											May-Jun	
	Shorebird	Red Knot	Concentration Area	C/-	Foraging											Apr-May	
	Shorebird	Ruddy turnstone	Concentration Area		Foraging											May	
	Shorebird	Sanderling	Concentration Area		Foraging											May-Jun	
	Shorebird	Semipalmated plover	Concentration Area		Foraging											Apr-May	
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging											May-Jun	
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging											May-Jun	
	Shorebird	Solitary sandpiper	Concentration Area		Foraging											Jun	
	Shorebird	Stilt sandpiper	Concentration Area		Foraging											Jul	
	Shorebird	Western sandpiper	Concentration Area		Foraging											Jul	
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging											May-Jun	
	Shorebird	Willlet	Concentration Area	-C	Foraging											May-Aug	
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-												
26	Wading	Great blue heron	Vulnerable Occurrence	C/-	-											May-Sep	

## FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Concentration	J	F	M	A	M	J	J	A	S	O	N	D	Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	J	F	M	A	M	J	J	A	S	O	N	D																		
281	Diadromous	American eel	Harvest Area	-/C														-																Mar-Oct	Mar-Oct
284	Diadromous	Sea lamprey	Migration	-/C														-																Apr-Dec	Apr-Jul
287	Diadromous	Alewife	Migration	-/C														-																Apr-Dec	Apr-Jul
290	Diadromous	Atlantic sturgeon	Migration	-/T	T													-																Jan-Dec	Jan-Dec
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-																Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration															-																Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C														-																Jan-Dec	Jan-Dec
300	Marine Benthic	Atlantic tomcod	Migration															-																Oct-Apr	Oct-Apr
	Diadromous	Brook trout (sea run)	Migration	C/-														-																Jan-Dec	Jan-Dec
308	Diadromous	Alewife	Migration	-/C														-																Jan-May	Jan-May
	Diadromous	American eel	Migration	-/C														-																Apr-Dec	Apr-Jul
	Diadromous	American shad	Migration	-/C														-																Mar-Oct	Mar-Oct
	Diadromous	Atlantic salmon	Migration	-/C	E													-																May-Feb	May-Jul
	Diadromous	Rainbow smelt	Migration	-/C														-																Jan-Dec	May-Mar
	Freshwater	Rainbow smelt	Migration	-/C														-																Jan-Dec	Oct-Apr
328	Freshwater	Rainbow smelt	Migration	-/C														-																Jan-Dec	Oct-Apr
336	Diadromous	Atlantic sturgeon	Migration	-/T	T													-																Jan-Dec	Jan-Dec
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-																Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration															-																Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration															-																Dec-Feb	Jan-Dec
351	Diadromous	Alewife	Migration	-/C														-																Apr-Jul	Apr-Jul
	Diadromous	American eel	Migration	-/C														-																Mar-Oct	Mar-Oct
	Diadromous	Brook trout (sea run)	Migration	C/-														-																Jan-May	Jan-May
	Freshwater	Rainbow smelt	Migration	-/C														-																Jan-Dec	Oct-Apr
354	Diadromous	Alewife	Migration	-/C														-																Apr-Jul	Apr-Jul
	Diadromous	American eel	Migration	-/C														-																Mar-Oct	Mar-Oct
	Diadromous	Brook trout (sea run)	Migration	C/-														-																Jan-May	Jan-May
	Diadromous	American shad	Migration	-/C														-																May-Jul	May-Jul
	Diadromous	Atlantic salmon	Migration	-/C	E													-																Jan-Dec	May-Mar
	Diadromous	Atlantic sturgeon	Migration	-/T	T													-																Jan-Dec	Jan-Dec
	Diadromous	Blueback herring	Migration	-/C														-																Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C														-																Apr-Dec	Apr-Jul
	Diadromous	Shortnose sturgeon	Migration	E/E	E													-																Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration															-																Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C														-																Jan-Dec	Jan-Dec
	Marine Benthic	Atlantic tomcod	Migration															-																Oct-Apr	Oct-Apr
365	Diadromous	American shad	Migration	-/C														-																Jan-Dec	Jan-Dec
	Diadromous	Atlantic salmon	Migration	-/C	E													-																May-Jul	May-Jul
	Diadromous	Blueback herring	Migration	-/C														-																Jan-Dec	Jan-Dec
	Diadromous	Sea lamprey	Migration	-/C														-																Apr-Dec	Apr-Jul
	Freshwater	Rainbow smelt	Migration	-/C														-																Jan-Dec	Oct-Apr



## HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Interest	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
480	Wetland	Tidal Marsh	High Ecological Value			-												-	-	-	-	-
482	Wetland	SM cordgrass/wiregrass	High Ecological Value			-												-	-	-	-	-
510	Plant	Lesser brown sedge	Vulnerable Occurrence	E/-		-												-	-	-	-	-

## REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Interest	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
664	Turtle	Green sea turtle	General Distribution	-/-	T	Rare												-	-	-	-	-
	Turtle	K. ridley sea turtle	General Distribution	E/-	E	Rare												-	-	-	-	-
	Turtle	Leatherback sea turtle	General Distribution	E/-	E	Low												-	-	-	-	-
	Turtle	Loggerhead sea turtle	General Distribution	E/-	T	Low												-	-	-	-	-

## INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
676	Bivalve	Blue mussel	Harvest Area			-												May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec
679	Bivalve	Atl. jackknife clam	Harvest Area			-												-	-	-	Jan-Dec	Jan-Dec
681	Insect	Rare insect	Vulnerable Occurrence	C/-		-												May-Jul	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Mating	Calving	Pupping	Molt	
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
744	Pinniped	Harbor seal	Haul Out			-												-	-	-	-	-

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )



## BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt	
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Razorbill	General Distribution	T/-		-												-	-	-	-	-
	Diving	Common Loon	General Distribution	-JT		-												-	-	-	-	-
		Great cormorant	General Distribution	T/-		-												-	-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C		-												May-Oct	-	-	-	-
		Common tern	General Distribution	C/T		-												May-Aug	-	-	-	-
		Roseate tern	General Distribution	E/E	E	-												-	-	-	-	-

## FISH





	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul
		American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct
		Atlantic sturgeon	General Distribution	-/T	T	Rare												-	-	Jan-Dec	Jan-Dec
		Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May
		Shortnose sturgeon	General Distribution	E/E	E	Rare												-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Striped bass	Concentration Area			High												-	-	Jan-Dec	Jan-Dec
		Black Seabass	Concentration Area			Low												-	-	Jan-Dec	Jan-Dec

## INVERTEBRATES



Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Bivalve	Sea scallop	-/C		-													Jul-Oct	-	Jan-Dec	Jan-Dec
		Softshell clam	-/C		-													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab	-/C		Low													May-Jul	May-Jul	Jan-Dec	Jan-Dec

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Black guillemot												May-Aug	-	-	-
		Dovekie												-	-	-	-
	Diving	Thick-billed murre												-	-	-	-
		D. crested cormorant												Jun-Sep	-	-	-
		Horned grebe												-	-	-	-
		Red-necked grebe												-	-	-	-
	Gull/Tern	Red-throated loon												-	-	-	-
		G. black-backed gull												-	-	-	-
		Herring gull												-	-	-	-
		Ring-billed gull												-	-	-	-
	Pelagic	Northern gannet												-	-	-	-

## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Estuarine Nursery	Atlantic herring												-	-	Oct-May	Jan-Dec	Apr-Dec
		Winter flounder												-	-	-	Jan-Dec	-
	Marine Benthic	American plaice												-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
		American sand lance												-	-	Dec-Jun	Jan-Dec	Mar-Nov
		Atlantic cod												Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
		Atlantic Wolffish												Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
		Cunner												Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
		Haddock												-	Mar-Jun	Mar-Jun	Mar-Jun	-
		Longhorn sculpin												Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec

# FISH (continued)

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Northern searobin													-	-	-	Jul-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Skates													-	-	-	Jan-Dec	Jan-Dec
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct

# INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

# MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-

# TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	246.87	0.39
10B	Freshwater Marshes	206.94	0.32
10C	Swamps	1,278.05	2.00
10D	Scrub and Shrub Wetlands	375.82	0.59
9A	Sheltered Tidal Flats	559.79	0.87
7	Exposed Tidal Flats	442.64	0.69
5	Mixed Sand and Gravel Beaches	618.39	0.97
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	27.94	0.04

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	25,999.22	16.16	18%
10B	Freshwater Marshes	496.25	0.31	< 1%
10C	Swamps	3,083.42	1.92	2%
10D	Scrub and Shrub Wetlands	2,760.07	1.72	2%
9A	Sheltered Tidal Flats	30,283.40	18.82	21%
9B	Vegetated Low Banks	38,512.29	23.93	26%
8A	Sheltered, Impermeable, Rocky Shores	668.81	0.42	< 1%
8B	Sheltered, Solid Man-Made Structures	276.73	0.17	< 1%
7	Exposed Tidal Flats	10,962.05	6.81	7%
6A	Gravel Beaches	641.18	0.40	< 1%
5	Mixed Sand and Gravel Beaches	24,021.20	14.93	16%
4	Coarse Grained Sand Beaches	4,300.68	2.67	3%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	5,249.82	3.26	4%
1A	Exposed, Rocky Shores	95.71	0.06	< 1%

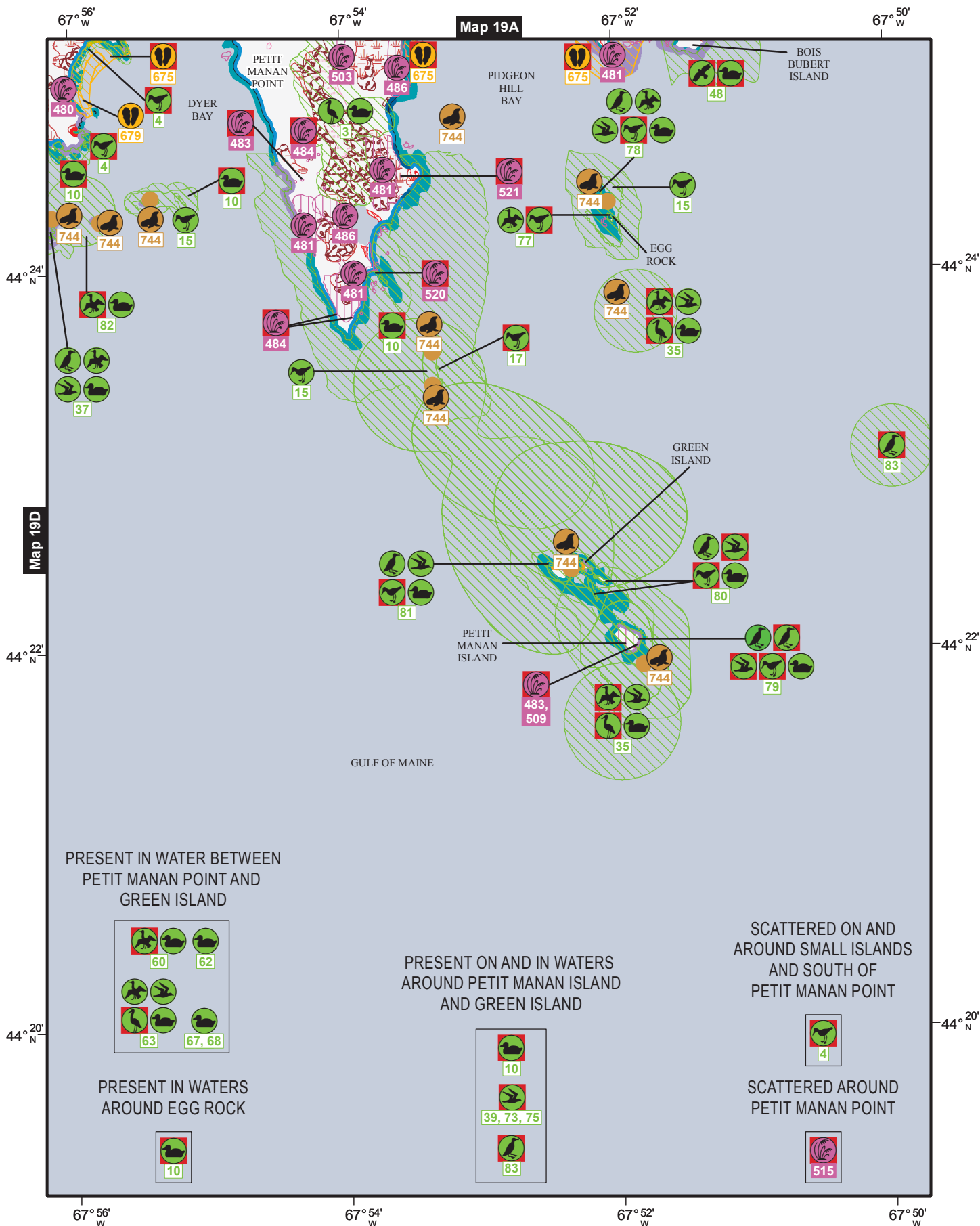
Total ESI Shoreline: 147,350.85      Total ESI Shoreline: 91.56  
 Total Shoreline: 86,293.03      Total Shoreline: 53.62

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 19C**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
3	Wading	Wading birds	Vulnerable Occurrence			-											Apr-Nov	Apr-Jun	Jul-Nov	-		
	Waterfowl	Waterfowl	Vulnerable Occurrence			-											Apr-Nov	Apr-Jun	Jul-Nov	-		
4	Shorebird	American golden-plover	Concentration Area			Foraging											-	Aug	Oct	-		
	Shorebird	American oystercatcher	Concentration Area	C/-		Foraging											May-Jun	May	Sep	-		
	Shorebird	Baird's sandpiper	Concentration Area			Foraging											-	-	-	-		
	Shorebird	BB sandpiper	Concentration Area			Foraging											-	Aug	Oct	-		
	Shorebird	Black-bellied plover	Concentration Area			Foraging											-	May	Jul-Oct	-		
	Shorebird	Dunlin	Concentration Area			Foraging											-	May	Aug-Oct	-		
	Shorebird	Greater yellowlegs	Concentration Area			Foraging											-	May	Jul-Oct	-		
	Shorebird	Hudsonian godwit	Concentration Area			Foraging											-	-	Jul-Oct	-		
	Shorebird	Least sandpiper	Concentration Area			Foraging											-	May-Jun	Jul-Oct	-		
	Shorebird	Lesser yellowlegs	Concentration Area	C/-		Foraging											-	May-Jun	Jul-Oct	-		
	Shorebird	Pectoral sandpiper	Concentration Area			Foraging											-	Apr-May	Sep-Oct	-		
	Shorebird	Red Knot	Concentration Area	C/-	T	Foraging											-	May	Aug-Oct	-		
	Shorebird	Ruddy turnstone	Concentration Area			Foraging											-	May-Jun	Jul-Oct	-		
	Shorebird	Sanderling	Concentration Area			Foraging											-	Apr-May	-	-		
	Shorebird	Semipalmated plover	Concentration Area			Foraging											-	May-Jun	Jul-Oct	-		
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-		Foraging											-	May-Jun	Jul-Oct	-		
	Shorebird	Short-billed dowitcher	Concentration Area			Foraging											-	May-Jun	Jul-Oct	-		
	Shorebird	Solitary sandpiper	Concentration Area			Foraging											-	Jun	-	-		
	Shorebird	Stilt sandpiper	Concentration Area			Foraging											-	Jul	Sep	-		
	Shorebird	Western sandpiper	Concentration Area			Foraging											-	Jul	Oct	-		
	Shorebird	Whimbrel	Concentration Area	C/-		Foraging											-	-	Jul-Oct	-		
	Shorebird	White-rumped sandpiper	Concentration Area			Foraging											-	May-Jun	Jul-Oct	-		
	Shorebird	Willet	Concentration Area	-/C		Foraging											May-Aug	May-Jun	Jul-Sep	-		
	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-		-											-	-	-	-		
15	Shorebird	Purple sandpiper	Vulnerable Occurrence			-											-	Apr-May	Oct	-		
17	Shorebird	American golden-plover	Concentration Area			Foraging											-	Aug	Oct	-		
	Shorebird	American oystercatcher	Concentration Area	C/-		Foraging											May-Jun	May	Sep	-		
	Shorebird	Baird's sandpiper	Concentration Area			Foraging											-	-	-	-		

Downeast Maine: Map 19C

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	BB sandpiper	Concentration Area															-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area															-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area															-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area															-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area															-	Apr-May	Sep-Oct	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence															-	Apr-May	Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	T													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area															-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area															-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area															-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area															-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-														-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area															-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-/C														May-Aug	May-Jun	Jul-Sep	-
35	Diving	Common Loon	Rafting	-/T														-	-	-	-
	Diving	D. crested cormorant	Rafting															Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Rafting															May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting															-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-														May-Sep	-	-	-
	Waterfowl	American black duck	Rafting															Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting															-	-	-	-
	Waterfowl	Bufflehead	Rafting															-	-	-	-
	Waterfowl	Common eider	Rafting															May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting															-	-	-	-
	Waterfowl	Green-winged teal	Rafting															May-Aug	-	-	-
	Waterfowl	Long-tailed duck	Rafting															-	May	Sep	-
	Waterfowl	Mallard	Rafting															Apr-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence															-	Dec-Jan	-	-
	Waterfowl	Scoters	Rafting															-	-	-	-
37	Waterfowl	Surf scoter	Rafting															-	-	-	-
	Alcid	Black guillemot	Roosting															May-Aug	-	-	-
	Diving	D. crested cormorant	Roosting															Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Roosting															May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting															-	-	-	-
	Waterfowl	Common eider	Roosting															May-Aug	-	-	-
39	Gull/Tern	Arctic tern	Vulnerable Occurrence	T/C														May-Oct	-	-	-
48	Raptor	Bald eagle	Vulnerable Occurrence	C/T														Mar-May	-	-	-



BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
60	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-		-												-	-	-	-
	Diving	Common Loon	Rafting	-JT		-												-	-	-	-
	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
62	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
63	Waterfowl	Scoters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Diving	D. crested cormorant	Rafting			-												Jun-Sep	-	-	-
73	Gull/Tern	G. black-backed gull	Rafting			-												May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting			-												-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-												May-Sep	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-												-	May	Sep	-
67	Waterfowl	Scaup	Vulnerable Occurrence			-												-	Dec-Jan	-	-
	Waterfowl	Canada goose	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Brant	Rafting			-												-	Feb	Dec	-
	Gull/Tern	Roseate tern	Vulnerable Occurrence	E/E	E	-												May-Aug	May	Aug	-
75	Gull/Tern	Roseate tern	Nesting	E/E	E	-												May-Aug	May	Aug	-
	Diving	D. crested cormorant	Roosting			-												Jun-Sep	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting			-												May-Jun	May	Sep	-
77	Shorebird	Baird's sandpiper	Roosting	C/-		-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting	C/-		-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
78	Shorebird	Willet	Roosting	-/C		-													May-Aug	May-Jun	Jul-Sep	-
	Alcid	Black guillemot	Roosting			-													May-Aug	-	-	-
	Diving	D. crested cormorant	Roosting			-													Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Roosting			-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting			-													-	-	-	-
	Shorebird	American golden-plover	Roosting			-													-	-	-	-
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	May	Oct	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
79	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-													May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	Common eider	Roosting			-													May-Aug	-	-	-
	Alcid	Black guillemot	Roosting			-													May-Aug	-	-	-
	Gull/Tern	Common tern	Vulnerable Occurrence	C/T		-													May-Aug	-	-	-
	Gull/Tern	Laughing gull	Vulnerable Occurrence	C/-		-													-	-	-	-
	Gull/Tern	Roseate tern	Vulnerable Occurrence	E/E	E	-													May-Aug	May	Aug	-
	Pelagic	Leach's storm-petrel	Vulnerable Occurrence	C/-		-													-	-	-	-
	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting			-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting	C/-		-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													May	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													May	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting		C/-	T													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting		C/-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting		C/-	-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting		-/C	-													-	May-Aug	Jul-Sep	-
	Waterfowl	Common eider	Roosting			-													-	May-Aug	-	-
80	Alcid	Black guillemot	Roosting			-													-	May-Aug	-	-
	Gull/Tern	G. black-backed gull	Roosting			-													-	May-Aug	-	-
	Gull/Tern	Herring gull	Roosting			-													-	May-Aug	-	-
	Gull/Tern	Roseate tern	Nesting		E/E	E													-	May	Aug	-
	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting		C/-	-													-	May-Jun	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting		C/-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting		C/-	T													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting		C/-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting		C/-	-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting		-/C	-													-	May-Aug	Jul-Sep	-
81	Waterfowl	Common eider	Roosting			-													-	May-Aug	-	-
	Alcid	Black guillemot	Roosting			-													-	May-Aug	-	-
	Gull/Tern	G. black-backed gull	Roosting			-													-	May-Aug	-	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Gull/Tern	Herring gull	Roosting			-													-	-	-	-
	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-C		-													May-Aug	May-Jun	Jul-Sep	-
82	Waterfowl	Common eider	Roosting			-													May-Aug	-	-	-
	Diving	Common Loon	Rafting	-T		-													-	-	-	-
	Waterfowl	American black duck	Rafting			-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-	-
	Waterfowl	Brant	Rafting			-													-	Feb	Dec	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-	-
	Waterfowl	Common eider	Rafting			-													May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-													-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-													May-Aug	-	-	-
	Waterfowl	Mallard	Rafting			-													Apr-Aug	-	-	-
83	Waterfowl	Scoters	Rafting			-													-	-	-	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-	-
	Alcid	Atlantic puffin	Vulnerable Occurrence	T/-		-													-	-	-	-
	Alcid	Razorbill	Vulnerable Occurrence	T/-		-													-	-	-	-
						-													-	-	-	-
						-													-	-	-	-

## HABITATS & RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
480	Wetland	Tidal Marsh	High Ecological Value			-												-	-	-	-
481	Wetland	Rare ecol. community	High Ecological Value			-												-	-	-	-
483	Plant	Rare plant	Vulnerable Occurrence	C/C		-												-	-	-	-
484	Plant	Endangered plant	Vulnerable Occurrence	E/E		-												-	-	-	-
486	Upland	Rare upland community	High Ecological Value			-												-	-	-	-
503	Wetland	Forested wetland	High Ecological Value			-												-	-	-	-
509	Plant	A. water minerslettuce	Vulnerable Occurrence	C/-		-												-	-	-	-
515	Plant	Mid. false foxglove	Vulnerable Occurrence	T/-		-												-	-	-	-
520	Wetland	Moonwort	Vulnerable Occurrence	E/-		-												-	-	-	-
521	Plant	Pickering's reedgrass	Vulnerable Occurrence	T/-		-												-	-	-	-

## INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N					
675	Bivalve	Softshell clam	Harvest Area	-/C		-												May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
679	Bivalve	Atl. jackknife clam	Harvest Area			-												-	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Mating	Calving	Pupping	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
744	Pinniped	Harbor seal	Haul Out			-												-	-	-	-

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )

## BIRDS


Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
Alcid	Atlantic puffin	General Distribution	T/-		-												-	-	-	-
	Razorbill	General Distribution	T/-		-												-	-	-	-
Diving	Common Loon	General Distribution	-/T		-												-	-	-	-
	Great cormorant	General Distribution	T/-		-												-	-	-	-
Gull/Tern	Arctic tern	General Distribution	T/C		-												May-Oct	-	-	-
	Common tern	General Distribution	C/T		-												May-Aug	-	-	-
Pelagic	Roseate tern	General Distribution	E/E	E	-												-	-	-	-
	Leach's storm-petrel	General Distribution	C/-		-												-	-	-	-
Shorebird	Red-necked phalarope	General Distribution	C/-		-												Jun	-	-	-

## FISH





Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N					
Diadromous	Atlantic sturgeon	General Distribution	-/T	T	Rare												-	-	-	Jan-Dec	Jan-Dec
	Shortnose sturgeon	General Distribution	E/E	E	Rare												-	-	-	Jan-Dec	Jan-Dec
Estuarine Nursery	Striped bass	Concentration Area			High												-	-	-	Jan-Dec	Jan-Dec
	Black Seabass	Concentration Area			Low												-	-	-	Jan-Dec	Jan-Dec

Downeast Maine: Map 19C


# REPTILES & AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
	Green sea turtle	General Distribution	-/-	T	Rare												-	-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	E	Rare												-	-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	E	Low												-	-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	T	Low												-	-	-	Jun-Nov	Jun-Nov

# INVERTEBRATES





Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
   	Sea scallop	Harvest Area	-/C		-												Jul-Oct	-	-	Jan-Dec	Jan-Dec
	Horseshoe crab	General Distribution	-/C		Low												May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
	Rare insect	Vulnerable Occurrence	C/-		-												May-Jul	-	-	Jan-Dec	Jan-Dec
	Northern shrimp	General Distribution	-/C		Low												-	Dec-Apr	Jan-Dec	Jan-Dec	Dec-Apr

# MARINE MAMMALS

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Mating	Calving	Pupping	Molt
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Fin whale	General Distribution	E/-	E	Low												-	-	-	-
	Humpback whale	General Distribution	E/-	E	Low												-	-	-	-
	N.A. right whale	General Distribution	E/-	E	Low												-	-	-	-
	Sei whale	General Distribution	E/-	E	Low												-	-	-	-
	Sperm whale	General Distribution	E/-	E	Rare												-	-	-	-

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS




Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
	Sooty shearwater													-	-	-	-

Downeast Maine: Map 19C





BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt	
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
	Shorebird	Wilson's storm-petrel																	-	-	-	-	-
		Red phalarope																	-	-	-	-	-




FISH

Subelement		Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Atlantic herring														-	-	Oct-May	Jan-Dec
		Black Seabass														-	-	-	Jan-Dec
		Winter flounder														-	-	-	Jan-Dec
		Winter flounder														-	-	-	Mar-Oct
	Marine Benthic	American plaice														-	Mar-Jun	Mar-Jul	Mar-Nov
		American plaice														-	-	-	Mar-Oct
		American sand lance														-	-	-	Mar-Oct
		American sand lance														-	-	Dec-Jun	Jan-Dec
		Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
		Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
		Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
		Cunner													-	-	-	Mar-Oct	Mar-Oct
		Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
		Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
		Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
		Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
		Northern searobin													-	-	-	Jul-Oct	Jul-Oct
		Northern searobin													-	-	-	Mar-Oct	Mar-Oct
		Ocean pout													-	-	-	Mar-Oct	Mar-Oct
		Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
		Red hake													-	-	-	Mar-Oct	Mar-Oct
		Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
		Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
		Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
		Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
		Shorthorn sculpin													-	-	-	Sep-May	Sep-May
		Silver hake													-	-	-	Apr-Nov	Apr-Nov
		Silver hake													-	-	-	Mar-Oct	Mar-Oct
		Skates													-	-	-	Mar-Oct	Mar-Oct
		Skates													-	-	-	Jan-Dec	Jan-Dec
		White hake													-	-	-	Mar-Oct	Mar-Oct
		White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
		Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
		Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Marine Pelagic	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
		Atlantic mackerel													-	-	-	May-Nov	May-Nov
		Butterfish													-	-	-	May-Oct	May-Oct

## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog																Jan-Dec
 Crab	Atlantic rock crab																Jan-Dec
	Blue crab																Jan-Dec
	Jonah crab																Jan-Dec
 Echinoderm	Green urchin																Jan-Dec
 Lobster	American lobster																Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Atl. wh.-side dolphin																-
	Dolphins																-
	Harbor porpoise																-
 Pinniped	Gray seal																-
	Harbor seal																-
	Harp seal																-
	Hooded seal																-
 Whale	Lf pilot whale																-
	Minke whale																-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	6.50	0.01
10B	Freshwater Marshes	34.62	0.05
10C	Swamps	100.70	0.16
10D	Scrub and Shrub Wetlands	177.54	0.28
5	Mixed Sand and Gravel Beaches	205.30	0.32
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	50.24	0.08

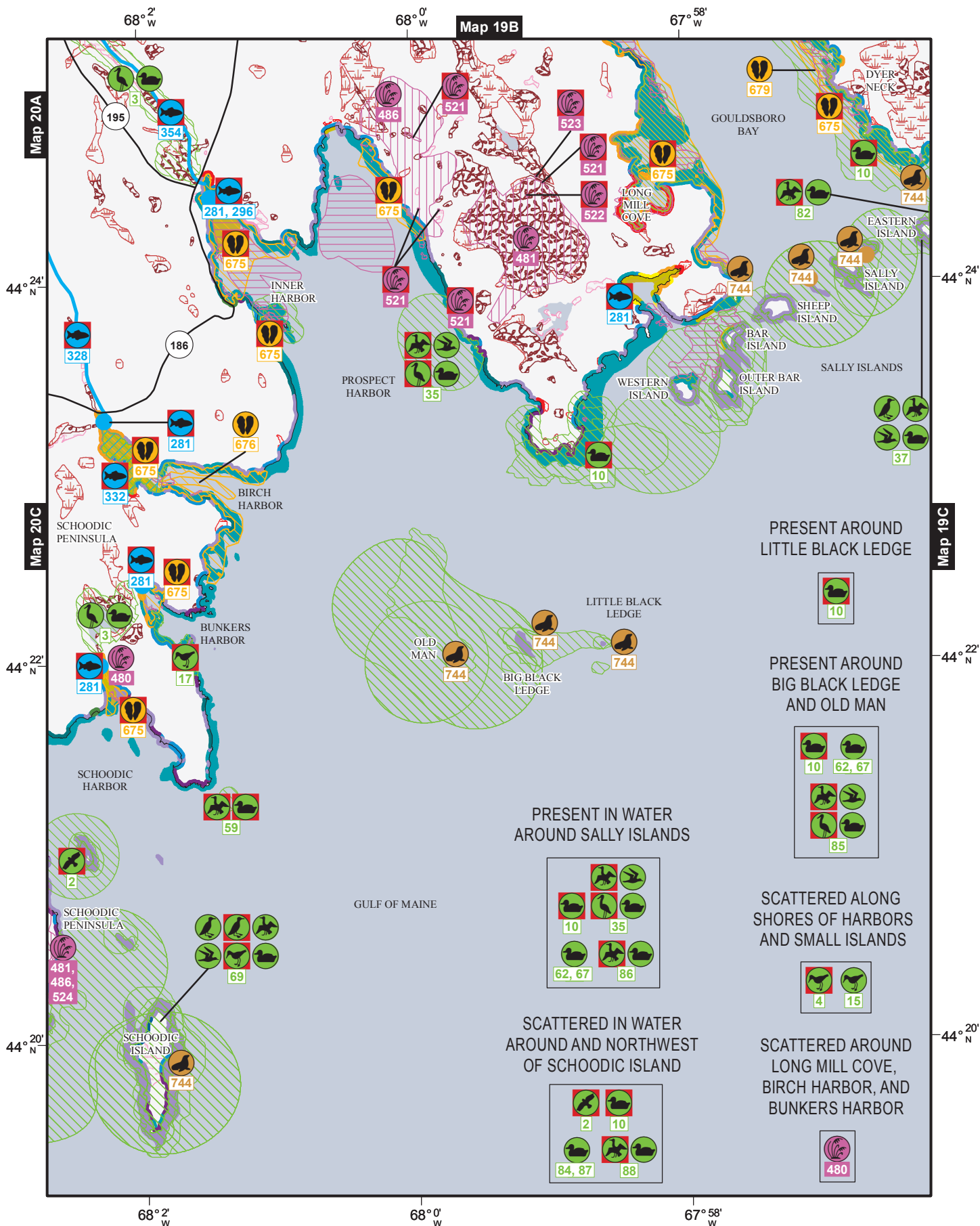
## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	177.44	0.11	1%
9B	Vegetated Low Banks	467.62	0.29	2%
7	Exposed Tidal Flats	156.65	0.10	1%
6A	Gravel Beaches	853.06	0.53	3%
5	Mixed Sand and Gravel Beaches	13,959.19	8.67	51%
4	Coarse Grained Sand Beaches	5,348.48	3.32	19%
3A	Fine to Medium Grained Sand Beaches	551.14	0.34	2%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	5,915.41	3.68	22%
Total ESI Shoreline:		27,428.99	17.04	
Total Shoreline:		17,233.30	10.71	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 19D**  
Downeast Maine



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**



Map 19D  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence		-												
3	Wading birds	Wading birds	Vulnerable Occurrence		-												
	Waterfowl	Waterfowl	Vulnerable Occurrence		-												
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-C	Foraging												
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-												
15	Shorebird	Purple sandpiper	Vulnerable Occurrence		-												
17	Shorebird	American golden-plover	Concentration Area		Foraging												

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area		Foraging													-	-	-	-
	Shorebird	BB sandpiper	Concentration Area		Foraging													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area		Foraging													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area		Foraging													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging													-	Apr-May	Sep-Oct	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence		-													-	Apr-May	Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	Foraging													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area		Foraging													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area		Foraging													-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area		Foraging													-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area		Foraging													-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-JC	Foraging													May-Aug	May-Jun	Jul-Sep	-
35	Diving	Common Loon	Rafting	-JT	-													-	-	-	-
	Diving	D. crested cormorant	Rafting		-													Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Rafting		-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting		-													-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-	-													May-Sep	-	-	-
	Waterfowl	American black duck	Rafting		-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting		-													-	-	-	-
	Waterfowl	Bufflehead	Rafting		-													-	-	-	-
	Waterfowl	Common eider	Rafting		-													May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting		-													-	-	-	-
	Waterfowl	Green-winged teal	Rafting		-													May-Aug	-	-	-
	Waterfowl	Long-tailed duck	Rafting		-													-	May	Sep	-
	Waterfowl	Mallard	Rafting		-													Apr-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence		-													-	Dec-Jan	-	-
	Waterfowl	Scoters	Rafting		-													-	-	-	-
	Waterfowl	Surf scoter	Rafting		-													-	-	-	-
37	Alcid	Black guillemot	Roosting		-													May-Aug	-	-	-
	Diving	D. crested cormorant	Roosting		-													Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Roosting		-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting		-													-	-	-	-
	Waterfowl	Common eider	Roosting		-													May-Aug	-	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
59	Diving	Common Loon	Rafting	-/T		-												-	-	-	-
	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Brant	Rafting			-												-	Feb	Dec	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-		-												-	-	-	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Scoters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
62	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
67	Waterfowl	Canada goose	Rafting			-												Apr-Aug	-	-	-
69	Alcid	Black guillemot	Roosting			-												May-Aug	-	-	-
	Diving	D. crested cormorant	Roosting			-												Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Roosting			-												May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting			-												-	-	-	-
	Pelagic	Leach's storm-petrel	Roosting	C/-		-												-	-	-	-
	Shorebird	American golden-plover	Roosting			-												Aug	Oct	-	-
	Shorebird	American oystercatcher	Roosting	C/-		-												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-												May-Aug	May-Jun	Jul-Sep	-
82	Waterfowl	Common eider	Roosting			-												May-Aug	-	-	-
	Diving	Common Loon	Rafting	-/T		-												-	-	-	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Brant	Rafting			-												-	Feb	Dec	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Scoters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
84	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Scoters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Scoters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Scoters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Scoters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
	Waterfowl	Canada goose	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-												-	May	Sep	-
	Waterfowl	White-winged scoter	Rafting			-												-	-	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N				
88	Diving	Common Loon	Rafting	-JT		-												-	-	-	-
	Waterfowl	Brant	Rafting			-												-	Feb	Dec	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Scoters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N						
281	Diadromous	American eel	Harvest Area	-IC		-											-	-	Mar-Oct	Mar-Oct			
296	Diadromous	Alewife	Migration	-IC		-											-	-	Apr-Dec	Apr-Jul			
	Diadromous	American eel	Migration	-IC		-											-	-	Mar-Oct	Mar-Oct			
328	Freshwater	Rainbow smelt	Migration	-IC		-											-	-	Jan-Dec	Oct-Apr			
332	Diadromous	American eel	Migration	-IC		-											-	-	Mar-Oct	Mar-Oct			
	Diadromous	Atlantic sturgeon	Migration	-JT	T	-											-	-	Jan-Dec	Jan-Dec			
	Diadromous	Brook trout (sea run)	Migration	C/-		-											-	-	Jan-May	Jan-May			
	Diadromous	Shortnose sturgeon	Migration	E/E	E	-											-	-	Jan-Dec	Jan-Dec			
	Diadromous	Striped bass	Migration			-											-	-	Jan-Dec	Jan-Dec			
	Freshwater	Rainbow smelt	Migration	-IC		-											-	-	Jan-Dec	Oct-Apr			
354	Marine Benthic	Atlantic tomcod	Migration			-											Dec-Feb	-	-	Jan-Dec	Jan-Dec		
	Diadromous	Alewife	Migration	-IC		-											-	-	Apr-Dec	Apr-Jul			
	Diadromous	American eel	Migration	-IC		-											-	-	Mar-Oct	Mar-Oct			
	Diadromous	Brook trout (sea run)	Migration	C/-		-											-	-	Jan-May	Jan-May			

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				S	F		J	F	M	A	M	J	J	A	S	O	N	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
480	Wetland	Tidal Marsh	High Ecological Value			-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

**INVERTEBRATES**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N						
675	Bivalve	Softshell clam	Harvest Area	-IC		-												May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec	
676	Bivalve	Blue mussel	Harvest Area			-												May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec	
679	Bivalve	Atl. jackknife clam	Harvest Area			-												-	-	-	Jan-Dec	Jan-Dec	

## MARINE MAMMALS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Mating	Calving	Pupping	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			

744	Pinniped	Harbor seal	Haul Out			-													-	-	-	-
-----	----------	-------------	----------	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	---	---	---

## WIDESPREAD IN MAPPED AREA (&gt; 10 SQUARE KILOMETERS)

## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
							J	F	M	A	M	J	J	A	S	O	N	D				

	Alcid	Atlantic puffin		T/-		-													-	-	-	-
		Razorbill		T/-		-													-	-	-	-
	Diving	Common Loon		-T		-													-	-	-	-
		Great cormorant		T/-		-													-	-	-	-
	Gull/Tern	Arctic tern		T/C		-													May-Oct	-	-	-
		Common tern		C/T		-													May-Aug	-	-	-
		Roseate tern		E/E	E	-													-	-	-	-
	Pelagic	Leach's storm-petrel		C/-		-													-	-	-	-
	Shorebird	Red-necked phalarope		C/-		-													Jun	-	-	-

## FISH

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
							J	F	M	A	M	J	J	A	S	O	N	D					

	Diadromous	Atlantic sturgeon		-T	T	Rare													-	-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon		E/E	E	Rare													-	-	-	Jan-Dec	Jan-Dec
		Striped bass				High													-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass				Low													-	-	-	Jan-Dec	Jan-Dec

## REPTILES &amp; AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
							J	F	M	A	M	J	J	A	S	O	N	D					

	Turtle	Green sea turtle		-I	T	Rare													-	-	-	Jun-Nov	Jun-Nov
		K. ridley sea turtle		E/-	E	Rare													-	-	-	Jun-Nov	Jun-Nov
		Leatherback sea turtle		E/-	E	Low													-	-	-	Jun-Nov	Jun-Nov
		Loggerhead sea turtle		E/-	T	Low													-	-	-	Jun-Nov	Jun-Nov


## INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
							J	F	M	A	M	J	J	A	S	O	N	D					

	Bivalve	Sea scallop		-C		-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab		-C		Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec
	Insect	Rare insect		C/-		-													May-Jul	-	-	Jan-Dec	Jan-Dec
	Shrimp	Northern shrimp		-C		Low													-	Dec-Apr	Jan-Dec	Jan-Dec	Dec-Apr








## MARINE MAMMALS



Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
					J	F	M	A	M	J	J	A	S	O	N	D				
	Fin whale	General Distribution	E/- E	Low													-	-	-	-
	Humpback whale	General Distribution	E/- E	Low													-	-	-	-
	N.A. right whale	General Distribution	E/- E	Low													-	-	-	-
	Sei whale	General Distribution	E/- E	Low													-	-	-	-
	Sperm whale	General Distribution	E/- E	Rare													-	-	-	-

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
	Sooty shearwater													-	-	-	-
	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-





## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Jan-Dec	-
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul




# FISH (continued)

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Mar-Jun	-
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	Skates													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Butterfish													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct


# INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Bivalve													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Echinoderm													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	Lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

	Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
			J	F	M	A	M	J	J	A	S	O	N	D				
	Dolphin	Atl. wh.-side dolphin													-	-	-	-
		Dolphins													-	-	-	-
		Harbor porpoise													-	-	-	-
	Pinniped	Gray seal													-	-	-	-
		Harbor seal													-	-	-	-
		Harp seal													-	-	-	-
		Hooded seal													-	-	-	-
	Whale	Lf pilot whale													-	-	-	-
		Minke whale													-	-	-	-

## TERRESTRIAL MAMMALS

	Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
			J	F	M	A	M	J	J	A	S	O	N	D				
	Small Mammal	Beaver													-	-	-	-
		Muskrat													-	-	-	-
		Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	22.85	0.04
10B	Freshwater Marshes	69.11	0.11
10C	Swamps	400.84	0.63
10D	Scrub and Shrub Wetlands	468.36	0.73
7	Exposed Tidal Flats	88.04	0.14
5	Mixed Sand and Gravel Beaches	500.16	0.78
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	184.14	0.29

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	2,083.74	1.29	2%
10B	Freshwater Marshes	298.01	0.19	< 1%
9B	Vegetated Low Banks	4,132.98	2.57	4%
8A	Sheltered, Impermeable, Rocky Shores	510.04	0.32	1%
8B	Sheltered, Solid Man-Made Structures	209.00	0.13	< 1%
7	Exposed Tidal Flats	6,395.40	3.97	6%
6A	Gravel Beaches	3,463.13	2.15	3%
6B	Riprap	283.83	0.18	< 1%
5	Mixed Sand and Gravel Beaches	35,584.12	22.11	35%
4	Coarse Grained Sand Beaches	7,358.84	4.57	7%
3A	Fine to Medium Grained Sand Beaches	491.30	0.31	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	31,980.73	19.87	32%
1A	Exposed, Rocky Shores	6,779.58	4.21	7%
1B	Exposed, Solid Man-Made Structures	852.65	0.53	1%

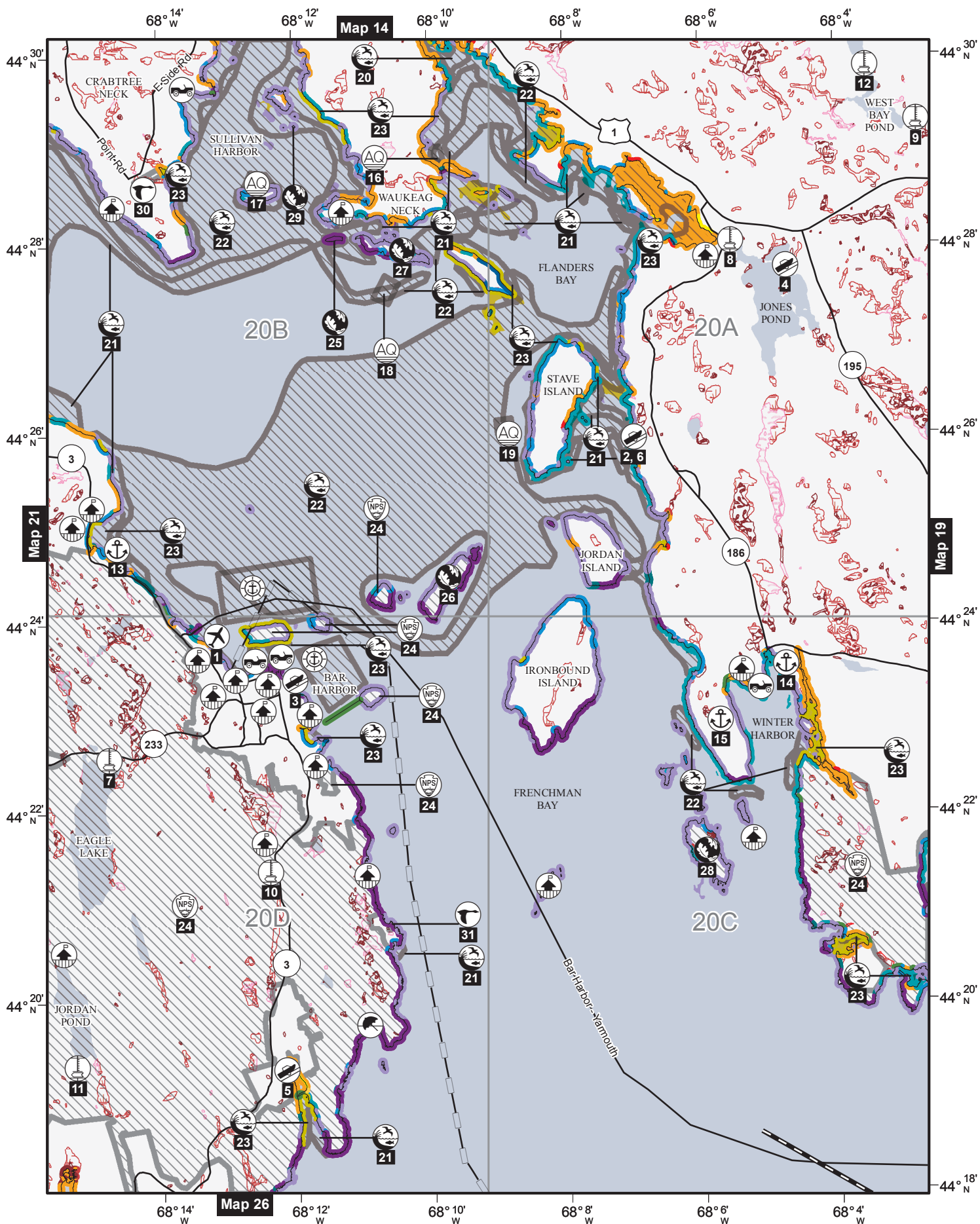
Total ESI Shoreline: 100,423.34      Total ESI Shoreline: 62.40  
 Total Shoreline: 58,624.05      Total Shoreline: 36.43

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







**Map 20**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped resources and  
other resources that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 2 Miles  
0 2 Kilometers

**1:100,000**



Map 20  
Downeast Maine

HUMAN USE RESOURCES

DISPLAYED ON MAP (POINTS)				
Map ID	Type	Name	Contact	Phone
1	AIRPORT	ACADIAN SPB	KEITH DESCHAMBEAULT	207-252-6630
2	BOAT RAMP	BUNKER COVE BOAT RAMP	GOULDSBORO	
3	BOAT RAMP	FRENCHMAN BAY BOAT RAMP 1	BAR HARBOR	
4	BOAT RAMP	JONES POND BOAT RAMP	GOULDSBORO	
5	BOAT RAMP	OTTER CREEK LANDING	MOUNT DESERT	
6	BOAT RAMP	SOUTH GOULDSBORO PUBLIC LANDING	GOULDSBORO	
7	LOCK AND DAM	EAGLE LAKE DAM	BAR HARBOR WATER CO	
8	LOCK AND DAM	JONES POND DAM	BARCLEY AND GREEN	
9	LOCK AND DAM	LOWER WEST BAY POND DAM	TOWN OF GOULDSBORO	
10	LOCK AND DAM	THE TARN DAM	DOI NPS	
11	LOCK AND DAM	WATER COMPANY DAM	SEAL HARBOR WATER CO	
12	LOCK AND DAM	WEST BAY POND DAM	GOULDSBORO COMMUN PROJ	
13	MARINA	BAR HARBOR BOATING		207-276-5838
14	MARINA	WINTER HARBOR MARINA		207-963-7007
15	MARINA	WINTER HARBOR YACHT CLUB		207-963-2275

DISPLAYED ON MAP (POLYGONS)				
Map ID	Type	Name	Contact	Phone
16	AQUACULTURE	FLAN WN - WAUKEAG NECK, FLANDERS BAY	ACADIA AQUA FARMS, LLC.	207-288-8924
17	AQUACULTURE	FREN BI - NORTH OF BEAN ISLAND, FRENCHMAN BAY	ACADIA AQUA FARMS, LLC.	207-288-8924
18	AQUACULTURE	FREN PI4 - PREBLE ISLAND, FRENCHMAN BAY	GREAT BAY AQUACULTURE OF MAINE/JAMES WEST	207-422-6500
19	AQUACULTURE	FREN STA - STAVE ISLAND, FRENCHMAN BAY	GREAT BAY AQUACULTURE OF MAINE	207-422-6500
20	MANAGEMENT AREA	ATLANTIC JACKKNIFE CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
21	MANAGEMENT AREA	BLUE MUSSEL - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
22	MANAGEMENT AREA	SEA SCALLOP - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
23	MANAGEMENT AREA	SOFTSHELL CLAM - SHELLFISH MA	MAINE DEPT. OF MARINE RESOURCES (MEDMR)	207-624-6550
24	NATIONAL PARK	ACADIA NATIONAL PARK		
25	NATURE CONSERVANCY	DRAM ISLAND PRESERVE	THE NATURE CONSERVANCY	207-729-5181
26	NATURE CONSERVANCY	LONG PORCUPINE ISLAND PRESERVE	THE NATURE CONSERVANCY	207-729-5181
27	NATURE CONSERVANCY	PREBLE ISLAND PRESERVE	THE NATURE CONSERVANCY	207-729-5181
28	NATURE CONSERVANCY	TURTLE ISLAND PRESERVE	THE NATURE CONSERVANCY	207-729-5181
29	NATURE CONSERVANCY	WELCH'S ISLAND EASEMENT	THE NATURE CONSERVANCY	207-729-5181
30	WILDLIFE REFUGE	CRABTREE NECK WILDLIFE REFUGE	FRENCHMAN BAY CONSERVANCY	
31	WILDLIFE REFUGE	MOUNT AGAMENTICUS WILDLIFE MANAGEMENT AREA	NATIONAL PARK SERVICE	

JURISDICTIONS			
COUNTY:	HANCOCK	FEMA:	REGION I
COAST GUARD:	DISTRICT 1, SECTOR NORTHERN NEW ENGLAND	EPA:	REGION 1
USACE:	NORTH ATLANTIC DIVISION, NEW ENGLAND DISTRICT		



## ESI POLYGON HABITAT TYPES



ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	26.26	0.04
10B	Freshwater Marshes	544.57	0.85
10C	Swamps	2,068.94	3.23
10D	Scrub and Shrub Wetlands	968.80	1.51
9A	Sheltered Tidal Flats	350.35	0.55
7	Exposed Tidal Flats	398.97	0.62
5	Mixed Sand and Gravel Beaches	390.75	0.61
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	686.55	1.07

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	1,551.93	0.96	< 1%
10B	Freshwater Marshes	171.64	0.11	< 1%
10C	Swamps	764.04	0.47	< 1%
10D	Scrub and Shrub Wetlands	2,731.82	1.70	1%
9A	Sheltered Tidal Flats	12,182.74	7.57	4%
9B	Vegetated Low Banks	41,315.88	25.67	13%
8A	Sheltered, Impermeable, Rocky Shores	1,097.50	0.68	< 1%
8C	Sheltered Riprap	165.94	0.10	< 1%
7	Exposed Tidal Flats	24,463.48	15.20	8%
6A	Gravel Beaches	3,404.86	2.12	1%
6B	Riprap	3,721.71	2.31	1%
5	Mixed Sand and Gravel Beaches	43,791.92	27.21	14%
4	Coarse Grained Sand Beaches	23,144.90	14.38	7%
3A	Fine to Medium Grained Sand Beaches	1,472.30	0.91	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	115,502.26	71.77	36%
2B	Exposed Scarps and Steep Slopes (Clay)	165.88	0.10	< 1%
1A	Exposed, Rocky Shores	37,655.42	23.40	12%
1B	Exposed, Solid Man-Made Structures	4,501.11	2.80	1%
Total ESI Shoreline:		317,805.31	197.48	
Total Shoreline:		208,540.36	129.58	

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









Map 20A  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area		High												
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence		-												
3	Wading	Wading birds	Vulnerable Occurrence		-												
	Waterfowl	Waterfowl	Vulnerable Occurrence		-												
4	Shorebird	American golden-plover	Concentration Area		Foraging												
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging												
	Shorebird	Baird's sandpiper	Concentration Area		Foraging												
	Shorebird	BB sandpiper	Concentration Area		Foraging												
	Shorebird	Black-bellied plover	Concentration Area		Foraging												
	Shorebird	Dunlin	Concentration Area		Foraging												
	Shorebird	Greater yellowlegs	Concentration Area		Foraging												
	Shorebird	Hudsonian godwit	Concentration Area		Foraging												
	Shorebird	Least sandpiper	Concentration Area		Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging												
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area		Foraging												
	Shorebird	Sanderling	Concentration Area		Foraging												
	Shorebird	Semipalmated plover	Concentration Area		Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging												
	Shorebird	Solitary sandpiper	Concentration Area		Foraging												
	Shorebird	Stilt sandpiper	Concentration Area		Foraging												
	Shorebird	Western sandpiper	Concentration Area		Foraging												
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging												
	Shorebird	Willet	Concentration Area	-/C	Foraging												
15	Shorebird	Purple sandpiper	Vulnerable Occurrence		-												
17	Shorebird	American golden-plover	Concentration Area		Foraging												

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	American oystercatcher	Concentration Area	C/-	Foraging													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area		Foraging													-	-	-	-
	Shorebird	BB sandpiper	Concentration Area		Foraging													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area		Foraging													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area		Foraging													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging													-	Apr-May	Sep-Oct	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence		-													-	Apr-May	Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	Foraging													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area		Foraging													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area		Foraging													-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area		Foraging													-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area		Foraging													-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-/C	Foraging													May-Aug	May-Jun	Jul-Sep	-
30	Acid	Black guillemot	Roosting		-													May-Aug	-	-	-
51	Diving	Common Loon	Rafting	-/T	-													-	-	-	-
	Diving	D. crested cormorant	Rafting		-													Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Rafting		-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting		-													-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-	-													May-Sep	-	-	-
	Waterfowl	Goldeneye	Rafting		-													-	-	-	-
	Waterfowl	Green-winged teal	Rafting		-													May-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence		-													-	Dec-Jan	-	-
	Waterfowl	Scoters	Rafting		-													-	-	-	-
89	Waterfowl	Scaup	Rafting		-													-	Dec-Jan	-	-
90	Diving	Common Loon	Rafting	-/T	-													-	-	-	-
	Waterfowl	Brant	Rafting		-													-	Feb	Dec	-
	Waterfowl	Goldeneye	Rafting		-													May-Aug	-	-	-
	Waterfowl	Green-winged teal	Rafting		-													-	-	-	-
	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-													-	-	-	-
	Waterfowl	Scoters	Rafting		-													-	-	-	-

## FISH

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
281	Diadromous	American eel	Harvest Area	-/C		-												-	-	Mar-Oct	Mar-Oct	
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
283	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
	Diadromous	American shad	Migration	-/C		-												-	-	May-Feb	May-Jul	
Diadromous	Atlantic salmon	Migration	Migration	-/C	E	-												-	-	Jan-Dec	May-Mar	
	Diadromous	Atlantic sturgeon	Migration	-/T	T	-												-	-	Jan-Dec	Jan-Dec	
Diadromous	Blueback herring	Migration	Migration	-/C		-												-	-	Jan-Dec	Jan-Dec	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	
Diadromous	Sea lamprey	Migration	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
	Diadromous	Shorthose sturgeon	Migration	E/E	E	-												-	-	Jan-Dec	Jan-Dec	
Diadromous	Striped bass	Migration	Migration	-		-												-	-	Jan-Dec	Jan-Dec	
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr	
Marine Benthic	Atlantic tomcod	Migration	Migration	-		-												Dec-Feb	-	Jan-Dec	Jan-Dec	
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
287	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
Freshwater	Rainbow smelt	Migration	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr	
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
296	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	
300	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	
	Diadromous	Brook trout (sea run)	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr	
306	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr	
	Freshwater	Rainbow smelt	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr	
328	Freshwater	Alewife	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr	
	Diadromous	American eel	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
351	Diadromous	Brook trout (sea run)	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	
Freshwater	Rainbow smelt	Migration	Migration	-/C		-												-	-	Jan-Dec	Oct-Apr	
	Diadromous	Alewife	Migration	-/C		-												-	-	Apr-Dec	Apr-Jul	
354	Diadromous	American eel	Migration	-/C		-												-	-	Mar-Oct	Mar-Oct	
	Diadromous	Brook trout (sea run)	Migration	C/-		-												-	-	Jan-May	Jan-May	

## HABITATS &amp; RARE PLANTS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Concentration	High Ecological Value		
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
480	Wetland	Tidal Marsh				-													-	-	-

## INVERTEBRATES





Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
				S	F		J	F	M	A	M	J	J	A	S	O	N	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
674	Bivalve	Sea scallop	Harvest Area	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

## MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH	Concentration	Monthly Presence												Molt
744	Pinniped	Harbor seal	Haul Out	S F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D	Molt
					-													-

## WIDESPREAD IN MAPPED AREA (&gt; 10 SQUARE KILOMETERS)


## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH	S F	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Razorbill	General Distribution	T/-	-													-	-	-	-
	Diving	Common Loon	General Distribution	-JT	-													-	-	-	-
		Great cormorant	General Distribution	T/-	-													-	-	-	-
	Gull/Tern	Arctic tern	General Distribution	T/C	-													May-Oct	-	-	-
		Common tern	General Distribution	C/T	-													May-Aug	-	-	-
		Roseate tern	General Distribution	E/E	E													-	-	-	-
	Waterfowl	American black duck	Rafting		-													Apr-Aug	-	-	-
		Black Scoter	Rafting		-													-	-	-	-
		Bufflehead	Rafting		-													-	-	-	-
		Common eider	Rafting		-													May-Aug	-	-	-
		Common goldeneye	Rafting		-													-	-	-	-
		Common merganser	Rafting		-													-	-	-	-
		Harlequin duck	Rafting		-													-	-	-	-
		Long-tailed duck	Rafting	T/-	-													-	May	May	May
		Mallard	Rafting		-													Apr-Aug	-	-	-
		Red-breasted merganser	Rafting		-													-	-	-	-
		Ruddy duck	Rafting		-													-	Dec-Jan	-	-
		Surf scoter	Rafting		-													-	-	-	-
		White-winged scoter	Rafting		-													-	-	-	-


## FISH

Subelement	Species	Mapping Qualifier	ME/NH	S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous	Atlantic sturgeon	General Distribution	-JT	T													-	-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	General Distribution	E/E	E													-	-	-	Jan-Dec	Jan-Dec
		Striped bass	Concentration Area		High													-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass	Concentration Area		Low													-	-	-	Jan-Dec	Jan-Dec

## REPTILES &amp; AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH	S F	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
	Turtle	Green sea turtle	General Distribution	-I	T													-	-	-	Jun-Nov	Jun-Nov
		K. ridley sea turtle	General Distribution	E/-	E													-	-	-	Jun-Nov	Jun-Nov
		Leatherback sea turtle	General Distribution	E/-	E													-	-	-	Jun-Nov	Jun-Nov
		Loggerhead sea turtle	General Distribution	E/-	T													-	-	-	Jun-Nov	Jun-Nov





# INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
 Crab	Horseshoe crab	General Distribution	-/C		Low													May-Jul	-	Jan-Dec	Jan-Dec




ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

# BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Alcid	Black guillemot													May-Aug	-	-	-
	Dovekie														-	-	-
	Thick-billed murre														-	-	-
 Diving	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe														-	-	-
	Red-necked grebe														-	-	-
	Red-throated loon														-	-	-
 Gull/Tern	G. black-backed gull														-	-	-
	Herring gull														-	-	-
	Ring-billed gull														-	-	-
 Pelagic	Northern gannet														-	-	-

# FISH





Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
 Diadromous	Striped bass														-	-	Jan-Dec	Jan-Dec
 Estuarine Nursery	Atlantic herring														-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass														-	-	Jan-Dec	Jan-Dec
	Winter flounder														-	-	Mar-Oct	Mar-Oct
	Winter flounder														-	-	Jan-Dec	-
 Marine Benthic	American plaice														-	-	Mar-Oct	Mar-Oct
	American plaice														Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance														-	Dec-Jun	Jan-Dec	Mar-Nov
	American sand lance														-	-	Mar-Oct	Mar-Oct
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Cunner														-	-	Mar-Oct	Mar-Oct
	Haddock														Mar-Jun	Mar-Jun	Mar-Jun	Mar-Jun
	Haddock														Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin														-	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin														-	-	Jul-Oct	Jul-Oct
	Northern searobin														-	-	Mar-Oct	Mar-Oct
	Ocean pout														-	-	Mar-Oct	Mar-Oct
	Pollock														Nov-Feb	Nov-Mar	Jan-Dec	Mar-Oct
	Red hake														Jun-Oct	Jun-Oct	Mar-Nov	May-Nov

Downeast Maine: Map 20A



## FISH (continued)

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Red hake													-	-	Mar-Oct	Mar-Oct
	Rock gunnel													-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	Sep-May	Sep-May
	Silver hake													-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	Mar-Oct	Mar-Oct
	Skates													-	-	Mar-Oct	Mar-Oct
	Skates													-	-	Jan-Dec	Jan-Dec
	White hake													Jul-Oct	Jul-Oct	May-Nov	May-Nov
	White hake													-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													Apr-Sep	Apr-Sep	Apr-Sep	-
	Yellowtail flounder													-	-	Mar-Oct	Mar-Oct
	Atlantic mackerel													Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	May-Nov	May-Nov
	Butterfish													-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
	Northern quahog													-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)



## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	5.61	0.01
10B	Freshwater Marshes	294.81	0.46
10C	Swamps	1,184.28	1.85
10D	Scrub and Shrub Wetlands	509.18	0.80
9A	Sheltered Tidal Flats	308.86	0.48
7	Exposed Tidal Flats	150.35	0.23
5	Mixed Sand and Gravel Beaches	238.15	0.37
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	37.68	0.06

## ESI SHORELINE HABITAT TYPES

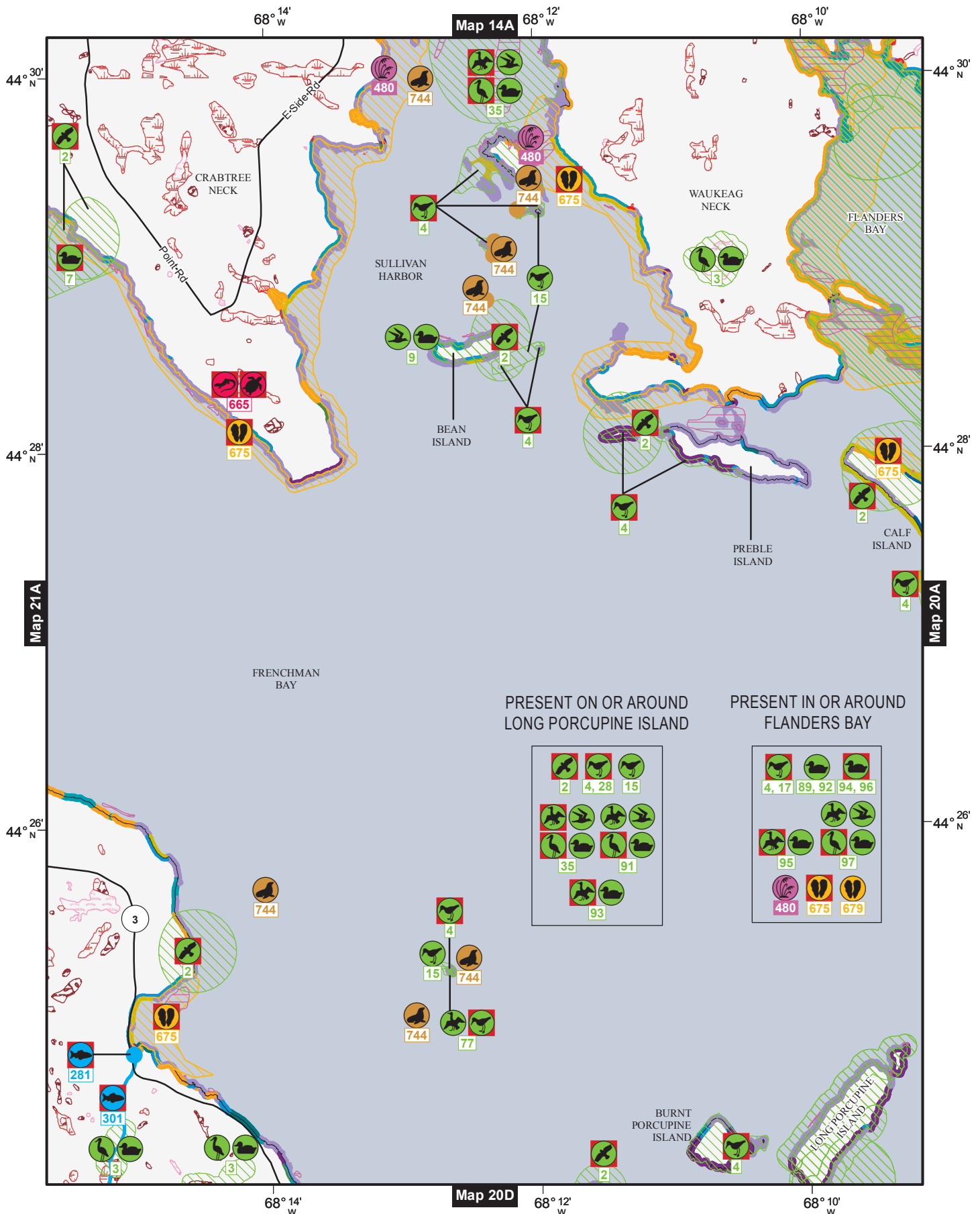
ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	866.81	0.54	1%
10B	Freshwater Marshes	110.12	0.07	< 1%
10C	Swamps	107.64	0.07	< 1%
9A	Sheltered Tidal Flats	8,150.95	5.06	11%
9B	Vegetated Low Banks	11,943.22	7.42	16%
8A	Sheltered, Impermeable, Rocky Shores	619.09	0.38	1%
7	Exposed Tidal Flats	4,632.79	2.88	6%
6A	Gravel Beaches	1,021.52	0.63	1%
5	Mixed Sand and Gravel Beaches	16,823.07	10.45	23%
4	Coarse Grained Sand Beaches	8,511.41	5.29	12%
3A	Fine to Medium Grained Sand Beaches	1,110.57	0.69	2%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	18,012.97	11.19	25%
1A	Exposed, Rocky Shores	1,274.00	0.79	2%
1B	Exposed, Solid Man-Made Structures	292.67	0.18	< 1%

Total ESI Shoreline: 73,476.81      Total ESI Shoreline: 45.66  
 Total Shoreline: 45,949.38      Total Shoreline: 28.55

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





**Map 20B**  
**Downeast Maine**



**SEE BACK OF MAP**  
for details about mapped species and  
other species that occur in mapped area.  
Data Published: October 2016

0 Not for Navigation 1 Miles  
0 1 Kilometers

**1:50,000**



**Map 20B**  
**Downeast Maine**

**BIOLOGICAL RESOURCES**

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

**BENTHIC**

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
							J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area				High												
SAV	Eelgrass	High Ecological Value				0% To 10% Cover												
SAV	Eelgrass	High Ecological Value				10% To 40% Cover												
SAV	Eelgrass	High Ecological Value				40% To 70% Cover												
SAV	Eelgrass	High Ecological Value				70% To 100% Cover												

**BIRDS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
								J	F	M	A	M	J	J	A	S	O	N	D
2	Raptor	Bald eagle	Vulnerable Occurrence		C/T	-	-												
3	Wading	Wading birds	Vulnerable Occurrence			-	-												
	Waterfowl	Waterfowl	Vulnerable Occurrence			-	-												
4	Shorebird	American golden-plover	Concentration Area				Foraging												
	Shorebird	American oystercatcher	Concentration Area		C/-		Foraging												
	Shorebird	Baird's sandpiper	Concentration Area				Foraging												
	Shorebird	BB sandpiper	Concentration Area				Foraging												
	Shorebird	Black-bellied plover	Concentration Area				Foraging												
	Shorebird	Dunlin	Concentration Area				Foraging												
	Shorebird	Greater yellowlegs	Concentration Area				Foraging												
	Shorebird	Hudsonian godwit	Concentration Area				Foraging												
	Shorebird	Least sandpiper	Concentration Area				Foraging												
	Shorebird	Lesser yellowlegs	Concentration Area		C/-		Foraging												
	Shorebird	Pectoral sandpiper	Concentration Area				Foraging												
	Shorebird	Red Knot	Concentration Area		C/-	T	Foraging												
	Shorebird	Ruddy turnstone	Concentration Area				Foraging												
	Shorebird	Sanderling	Concentration Area				Foraging												
	Shorebird	Semipalmated plover	Concentration Area				Foraging												
	Shorebird	Semipalmated sandpiper	Concentration Area		C/-		Foraging												
	Shorebird	Short-billed dowitcher	Concentration Area				Foraging												
	Shorebird	Solitary sandpiper	Concentration Area				Foraging												
	Shorebird	Stilt sandpiper	Concentration Area				Foraging												
	Shorebird	Western sandpiper	Concentration Area				Foraging												
	Shorebird	Whimbrel	Concentration Area		C/-		Foraging												
	Shorebird	White-rumped sandpiper	Concentration Area				Foraging												
	Shorebird	Willet	Concentration Area		-/C		Foraging												
7	Waterfowl	American black duck	Rafting			-	-												
	Waterfowl	Black Scoter	Rafting			-	-												

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Waterfowl	Bufflehead	Rafting			-													-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Common goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Common merganser	Rafting			-												-	-	-	-
	Waterfowl	Harlequin duck	Rafting	T/-		-												-	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-												-	May	Sep	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Red-breasted merganser	Rafting			-												-	-	-	-
	Waterfowl	Ruddy duck	Rafting			-												-	Dec-Jan	-	-
	Waterfowl	Scaup	Rafting			-												-	Dec-Jan	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
	Waterfowl	White-winged scoter	Rafting			-												-	-	-	-
9	Gull/Tern	G. black-backed gull	Roosting			-												May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting			-												-	-	-	-
	Waterfowl	Common eider	Roosting			-												May-Aug	-	-	-
15	Waterfowl	Purple sandpiper	Vulnerable Occurrence			-												-	Apr-May	Oct	-
17	Shorebird	American golden-plover	Concentration Area			Foraging												-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area	C/-		Foraging												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area			Foraging												-	-	-	-
	Shorebird	BB sandpiper	Concentration Area			Foraging												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area			Foraging												-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area			Foraging												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area			Foraging												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area			Foraging												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-		Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area			Foraging												-	Apr-May	Sep-Oct	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence			-												-	Apr-May	Oct	-
	Shorebird	Red Knot	Concentration Area	C/-	T	Foraging												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area			Foraging												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-		Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area			Foraging												-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area			Foraging												-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area			Foraging												-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-		Foraging												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area			Foraging												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-/C		Foraging												May-Aug	May-Jun	Jul-Sep	-
28	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-												-	May-Jun	May	Sep
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Shorebird	Black-bellied plover	Roosting			-													May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-C		-													May-Aug	May-Jun	-
35	Diving	Common Loon	Rafting	-T		-													-	-	-
	Diving	D. crested cormorant	Rafting			-													Jun-Sep	-	-
	Gull/Tern	G. black-backed gull	Rafting			-													May-Aug	-	-
	Gull/Tern	Herring gull	Rafting			-													-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-													May-Sep	-	-
	Waterfowl	American black duck	Rafting			-													Apr-Aug	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-
	Waterfowl	Common eider	Rafting			-													May-Aug	-	-
	Waterfowl	Goldeneye	Rafting			-													-	-	-
	Waterfowl	Green-winged teal	Rafting			-													May-Aug	-	-
	Waterfowl	Long-tailed duck	Rafting			-													May	Sep	-
	Waterfowl	Mallard	Rafting			-													Apr-Aug	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-													-	Dec-Jan	-
	Waterfowl	Scoters	Rafting			-													-	-	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-
77	Diving	D. crested cormorant	Roosting			-													Jun-Sep	-	-
	Shorebird	American golden-plover	Roosting			-													Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-
	Shorebird	BB sandpiper	Roosting			-													Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	Jul-Oct	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-													-	May-Aug	May-Jun	Jul-Sep
89	Waterfowl	Scaup	Rafting			-													-	Dec-Jan	-	-
91	Diving	D. crested cormorant	Rafting			-													-	Jun-Sep	-	-
	Gull/Tern	G. black-backed gull	Rafting			-													-	May-Aug	-	-
	Gull/Tern	Herring gull	Rafting			-													-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-													-	May-Sep	-	-
	Waterfowl	American black duck	Rafting			-													-	Apr-Aug	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-	-
	Waterfowl	Goldeneye	Rafting			-													-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-													-	May-Aug	-	-
	Waterfowl	Long-tailed duck	Rafting			-													-	May	Sep	-
	Waterfowl	Mallard	Rafting			-													-	Apr-Aug	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-													-	Dec-Jan	-	-
	Waterfowl	Scoters	Rafting			-													-	-	-	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-	-
92	Waterfowl	American black duck	Rafting			-													-	Apr-Aug	-	-
	Waterfowl	Black Scoter	Rafting			-													-	-	-	-
	Waterfowl	Bufflehead	Rafting			-													-	-	-	-
	Waterfowl	Common eider	Rafting			-													-	May-Aug	-	-
	Waterfowl	Common goldeneye	Rafting			-													-	-	-	-
	Waterfowl	Common merganser	Rafting			-													-	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-													-	May	Sep	-
	Waterfowl	Mallard	Rafting			-													-	Apr-Aug	-	-
	Waterfowl	Red-breasted merganser	Rafting			-													-	Dec-Jan	-	-
	Waterfowl	Ruddy duck	Rafting			-													-	-	-	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-	-
	Waterfowl	White-winged scoter	Rafting			-													-	-	-	-
93	Diving	Common Loon	Rafting	-/T		-													-	-	-	-
	Waterfowl	Common eider	Rafting			-													-	May-Aug	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
94	Waterfowl	Harlequin duck	Rafting	T/-	-													-	-	-	-
95	Diving	Common Loon	Rafting	-JT	-													-	-	-	-
	Waterfowl	Goldeneye	Rafting		-													-	-	-	-
	Waterfowl	Green-winged teal	Rafting		-													May-Aug	-	-	-
	Waterfowl	Scoters	Rafting		-													-	-	-	-
96	Waterfowl	Brant	Rafting		-													-	Feb	Dec	-
	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-													-	-	-	-
97	Diving	D. crested cormorant	Rafting		-													Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Rafting		-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting		-													-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-	-													May-Sep	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence		-													-	Dec-Jan	-	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-IC	-													-	-	-	Mar-Oct	Mar-Oct
301	Diadromous	American eel	Migration	-IC	-													-	-	-	Mar-Oct	Mar-Oct

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
480	Wetland	Tidal Marsh	High Ecological Value		-												

**REPTILES & AMPHIBIANS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
665	Amphibian	B. spotted salamander	Vulnerable Occurrence	C/C	Very Low													Apr-May	May-Jun	-	Jan-Dec	Apr-Jun
	Amphibian	Jefferson salamander	Vulnerable Occurrence	C/C	Rare													Apr-May	May-Jun	-	Jan-Dec	Apr-Jun
	Amphibian	Northern leopard frog	Vulnerable Occurrence	C/C	Low													Apr-Jun	May-Jul	-	May-Sep	Jan-Dec
	Amphibian	Spotted salamander	Concentration Area		Common													Mar-May	Apr-Jun	-	May-Sep	Mar-Jun
	Amphibian	Wood Frog	Concentration Area		Common													Mar-Apr	Apr-Jun	-	Jun-Sep	Mar-Sep
	Turtle	Spotted turtle	Vulnerable Occurrence	T/T	Very Low													May-Jul	Aug-Oct	-	Jan-Dec	Jan-Dec
	Turtle	Wood turtle	Vulnerable Occurrence	C/C	Very Low													May-Jul	Aug-Oct	-	Jan-Dec	Jan-Nov

**INVERTEBRATES**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
675	Bivalve	Softshell clam	Harvest Area	-IC	-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
679	Bivalve	Atl. jackknife clam	Harvest Area		-													-	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
744	Pinniped	Harbor seal	Haul Out	S	F	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-

WIDESPREAD IN MAPPED AREA ( &gt; 10 SQUARE KILOMETERS )

## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
Alcid	Razorbill	General Distribution	T/-	-	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
Diving	Common Loon	General Distribution	-JT	-	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Great cormorant	General Distribution	T/-	-	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
Gull/Tern	Arctic tern	General Distribution	T/C	-													May-Oct	-	-	-
	Common tern	General Distribution	C/T	-													May-Aug	-	-	-
	Roseate tern	General Distribution	E/E	E													-	-	-	-

## FISH



Subelement	Species	Mapping Qualifier	ME/NH	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
Diadromous	Alewife	Migration	-C	-	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Apr-Dec	Apr-Jul
	American eel	Migration	-C	-	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Mar-Oct	Mar-Oct
	American shad	Migration	-C	-													-	-	-	May-Jul	May-Jul
	Atlantic salmon	Migration	-C	E													-	-	-	Jan-Dec	May-Mar
	Atlantic sturgeon	General Distribution	-T	T													-	-	-	Jan-Dec	Jan-Dec
	Atlantic sturgeon	Migration	-T	T													-	-	-	Jan-Dec	Jan-Dec
	Blueback herring	Migration	-C	-													-	-	-	Jan-Dec	Jan-Dec
	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
	Sea lamprey	Migration	-C	-													-	-	-	Apr-Jul	Apr-Jul
	Shortnose sturgeon	General Distribution	E/E	E													-	-	-	Jan-Dec	Jan-Dec
	Shortnose sturgeon	Migration	E/E	E													-	-	-	Jan-Dec	Jan-Dec
	Striped bass	Concentration Area		High													-	-	-	Jan-Dec	Jan-Dec
	Striped bass	Migration		-													-	-	-	Jan-Dec	Jan-Dec
Estuarine Nursery	Black Seabass	Concentration Area		Low													-	-	-	Jan-Dec	Jan-Dec
Freshwater	Rainbow smelt	Migration	-C	-													-	-	-	Jan-Dec	Oct-Apr
Marine Benthic	Atlantic tomcod	Migration		-													Dec-Feb	-	-	Jan-Dec	Jan-Dec

## REPTILES &amp; AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
Turtle	Green sea turtle	General Distribution	-/-	T	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jun-Nov	Jun-Nov
	K. ridley sea turtle	General Distribution	E/-	E													-	-	-	Jun-Nov	Jun-Nov
	Leatherback sea turtle	General Distribution	E/-	E													-	-	-	Jun-Nov	Jun-Nov
	Loggerhead sea turtle	General Distribution	E/-	T													-	-	-	Jun-Nov	Jun-Nov







## INVERTEBRATES



Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F		J	F	M	A	M	J	J	A	S	O	N	D					
	Bivalve	Blue mussel			-													May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec
		Sea scallop	-/C		-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
	Crab	Horseshoe crab	-/C		Low													May-Jul	May-Jul	-	Jan-Dec	Jan-Dec

ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS


Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Black guillemot												May-Aug	-	-	-
		Dovekie												-	-	-	-
	Diving	Thick-billed murre												-	-	-	-
		D. crested cormorant												Jun-Sep	-	-	-
		Horned grebe												-	-	-	-
		Red-necked grebe												-	-	-	-
	Gull/Tern	Red-throated loon												-	-	-	-
		G. black-backed gull												-	-	-	-
		Herring gull												-	-	-	-
		Ring-billed gull												-	-	-	-
	Pelagic	Northern gannet												-	-	-	-

## FISH




Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous	Striped bass												-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Atlantic herring												-	-	Oct-May	Jan-Dec	Apr-Dec
	Marine Benthic	Black Seabass												-	-	-	Jan-Dec	Jan-Dec
		Winter flounder												-	-	-	Jan-Dec	-
		Winter flounder												-	-	-	Mar-Oct	Mar-Oct
		American plaice												-	-	-	Mar-Oct	Mar-Oct
		American plaice												-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
		American sand lance												-	-	-	Mar-Oct	Mar-Oct
		American sand lance												-	-	Dec-Jun	Jan-Dec	Mar-Nov
		Atlantic cod												Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
		Atlantic Wolffish												Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
		Cunner												Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
		Cunner												-	-	-	Mar-Oct	Mar-Oct
		Haddock												-	Mar-Jun	Mar-Jun	Mar-Jun	-
		Haddock												-	Mar-Jun	-	Mar-Oct	Mar-Oct
		Longhorn sculpin												-	-	-	Mar-Oct	Mar-Oct
		Longhorn sculpin												Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
		Northern searobin												-	-	-	Mar-Oct	Mar-Oct
		Northern searobin												-	-	-	Jul-Oct	Jul-Oct
		Ocean pout												-	-	-	Mar-Oct	Mar-Oct
														-	-	-	Mar-Oct	Mar-Oct
														-	-	-	Mar-Oct	Mar-Oct

Downeast Maine: Map 20B



## FISH (continued)

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	Skates													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	White hake													-	-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Butterfish													-	-	-	May-Oct	May-Oct
	Butterfish													-	-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Hooded seal													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence											
		J	F	M	A	M	J	J	A	S	O	N	D
	Beaver												-
	Muskrat												-
	Northern river otter												-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

# SHORELINE RESOURCES

## ESI POLYGON HABITAT TYPES



ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	4.22	0.01
10B	Freshwater Marshes	68.70	0.11
10C	Swamps	277.12	0.43
10D	Scrub and Shrub Wetlands	63.81	0.10
7	Exposed Tidal Flats	79.58	0.12
5	Mixed Sand and Gravel Beaches	25.97	0.04
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	279.94	0.44

## ESI SHORELINE HABITAT TYPES



ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	259.50	0.16	< 1%
10B	Freshwater Marshes	61.52	0.04	< 1%
10C	Swamps	164.00	0.10	< 1%
9B	Vegetated Low Banks	13,269.68	8.25	17%
7	Exposed Tidal Flats	6,592.82	4.10	8%
6A	Gravel Beaches	757.81	0.47	1%
6B	Riprap	928.92	0.58	1%
5	Mixed Sand and Gravel Beaches	7,619.24	4.73	9%
4	Coarse Grained Sand Beaches	7,012.91	4.36	9%
3A	Fine to Medium Grained Sand Beaches	338.82	0.21	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	35,710.32	22.19	44%
1A	Exposed, Rocky Shores	6,837.67	4.25	9%
1B	Exposed, Solid Man-Made Structures	837.53	0.52	1%

Total ESI Shoreline: 80,390.74      Total ESI Shoreline: 49.95  
Total Shoreline: 56,535.43      Total Shoreline: 35.13

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)





Map 20C  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
					J	F	M	A	M	J	J	A	S	O	N	D
SAV	Eelgrass	High Ecological Value		0% To 10% Cover												
SAV	Eelgrass	High Ecological Value		10% To 40% Cover												
SAV	Eelgrass	High Ecological Value		40% To 70% Cover												
SAV	Eelgrass	High Ecological Value		70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F C/T	Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
2	Raptor	Bald eagle	Vulnerable Occurrence		-													Mar-May	-	-	-
3	Wading Waterfowl	Wading birds Waterfowl	Vulnerable Occurrence Vulnerable Occurrence		-													Apr-Nov Apr-Nov	Apr-Jun Apr-Jun	Jul-Nov Jul-Nov	- -
4	Shorebird	American golden-plover	Concentration Area	C/-	Foraging													-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area		Foraging													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area		Foraging													-	-	-	-
	Shorebird	BB sandpiper	Concentration Area		Foraging													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area		Foraging													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area		Foraging													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area		Foraging													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area		Foraging													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Concentration Area	C/- T	Foraging													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area		Foraging													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area	C/-	Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area		Foraging													-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area		Foraging													-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area		Foraging													-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area	C/-	Foraging													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area		Foraging													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area	-C	Foraging													May-Aug	May-Jun	Jul-Sep	-
6	Waterfowl	American black duck	Rafting		-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting		-													-	-	-	-
	Waterfowl	Bufflehead	Rafting		-													-	-	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
10	Waterfowl	Canada goose	Rafting	-	-	-													Apr-Aug	-	-	-
	Waterfowl	Common eider	Rafting	-	-	-													May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting	-	-	-													-	-	-	-
	Waterfowl	Long-tailed duck	Rafting	-	-	-													-	May	Sep	-
	Waterfowl	Mallard	Rafting	-	-	-													Apr-Aug	-	-	-
	Waterfowl	White-winged scoter	Rafting	-	-	-													-	-	-	-
	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-	-	-													-	-	-	-
	Shorebird	Purple sandpiper	Vulnerable Occurrence	-	-	-													-	Apr-May	Oct	-
	Shorebird	American golden-plover	Roosting	-	-	-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-	-	-													May-Jun	May	Sep	-
15	Shorebird	Baird's sandpiper	Roosting	-	-	-													-	-	-	-
	Shorebird	BB sandpiper	Roosting	-	-	-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting	-	-	-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting	-	-	-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting	-	-	-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting	-	-	-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting	C/-	-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	-	-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting	-	-	-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
30	Shorebird	Ruddy turnstone	Roosting	-	-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting	-	-	-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting	-	-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-	-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting	-	-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting	-	-	-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting	-	-	-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting	-	-	-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-	-	-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting	-	-	-													-	May-Jun	Jul-Oct	-
34	Shorebird	Willet	Roosting	-	-	-													May-Aug	May-Jun	Jul-Sep	-
	Alcid	Black guillemot	Roosting	-	-	-													May-Aug	-	-	-
	Raptor	Peregrine falcon	Vulnerable Occurrence	E/T	-	-													-	-	-	-
	Diving	Common Loon	Rafting	-	-	-													-	-	-	-
	Diving	D. crested cormorant	Rafting	-	-	-													Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Rafting	-	-	-													May-Aug	-	-	-
	Gull/Tern	Herring gull	Rafting	-	-	-													-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-	-	-													May-Sep	-	-	-
	Waterfowl	American black duck	Rafting	-	-	-													Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting	-	-	-													-	-	-	-
35	Waterfowl	Bufflehead	Rafting	-	-	-													-	-	-	-
	Waterfowl	Common eider	Rafting	-	-	-													-	-	-	-
	Waterfowl	Goldeneye	Rafting	-	-	-													May-Aug	-	-	-
	Waterfowl	Green-winged teal	Rafting	-	-	-													May-Aug	-	-	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
				S	F	J	F	M	A	M	J	J	A	S	O	N	D				
	Waterfowl	Long-tailed duck	Rafting															-	May	Sep	-
	Waterfowl	Mallard	Rafting															Apr-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence															-	Dec-Jan	-	-
	Waterfowl	Scoters	Rafting															-	-	-	-
	Waterfowl	Surf scoter	Rafting															-	-	-	-
39	Gull/Tern	Arctic tern																May-Oct	-	-	-
43	Gull/Tern	G. black-backed gull	Vulnerable Occurrence	T/C														May-Aug	-	-	-
	Gull/Tern	Herring gull	Roosting															-	-	-	-
	Shorebird	American golden-plover	Roosting															-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-														May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting															-	-	-	-
	Shorebird	BB sandpiper	Roosting															-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting															-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting															-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting															-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting															-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting															-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting															-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-														-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting															-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting															-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting															-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-														-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting															-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-C														May-Aug	May-Jun	Jul-Sep	-
	Waterfowl	Common eider	Roosting															May-Aug	-	-	-
52	Wading	Great blue heron	Roosting	C/-														May-Sep	-	-	-
61	Waterfowl	American black duck	Rafting															Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting															-	-	-	-
	Waterfowl	Bufflehead	Rafting															-	-	-	-
	Waterfowl	Common eider	Rafting															May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting															-	-	-	-
	Waterfowl	Long-tailed duck	Rafting															-	May	Sep	-
	Waterfowl	Mallard	Rafting															Apr-Aug	-	-	-
64	Diving	Common Loon	Rafting	-T														-	-	-	-
	Diving	D. crested cormorant	Rafting															-	-	-	-
	Gull/Tern	G. black-backed gull	Rafting															Jun-Sep	-	-	-
	Gull/Tern	Herring gull	Rafting															May-Aug	-	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-													May-Sep	-	-	-
	Waterfowl	Green-winged teal	Rafting			-													May-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-													-	Dec-Jan	-	-
	Waterfowl	Scoters	Rafting			-													-	-	-	-
	Waterfowl	Surf scoter	Rafting			-													-	-	-	-
66	Waterfowl	Canada goose	Rafting			-													Apr-Aug	-	-	-
	Waterfowl	White-winged scoter	Rafting			-													-	-	-	-
73	Gull/Tern	Roseate tern	Vulnerable Occurrence	E/E	E	-													May-Aug	May	Aug	-
75	Gull/Tern	Roseate tern	Nesting	E/E	E	-													May-Aug	May	Aug	-
98	Gull/Tern	Roseate tern	Vulnerable Occurrence	E/E	E	-													May-Aug	May	Aug	-
	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting			-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting	C/-		-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-C		-													May-Aug	May-Jun	Jul-Sep	-
99	Shorebird	American golden-plover	Roosting			-													-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-													May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-													-	-	-	-
	Shorebird	BB sandpiper	Roosting			-													-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-													-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-													-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-													-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-													-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-													-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-													-	Apr-May	Sep-Oct	-



**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Purple sandpiper	Vulnerable Occurrence		-													-	Apr-May	Oct	-
	Shorebird	Red Knot	Roosting	C/- T	-													-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting		-													-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-	-													-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting		-													-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting		-													-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting		-													-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-	-													-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting		-													-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C	-													May-Aug	May-Jun	Jul-Sep	-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
						J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-/C	-													-	-	-	Mar-Oct	Mar-Oct
287	Diadromous	Alewife	Migration	-/C	-													-	-	-	Apr-Dec	Apr-Jul
306	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	-	Jan-Dec	Oct-Apr
332	Diadromous	American eel	Migration	-/C	-													-	-	-	Mar-Oct	Mar-Oct
	Diadromous	Atlantic sturgeon	Migration	-/T T	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Brook trout (sea run)	Migration	C/-	-													-	-	-	Jan-May	Jan-May
	Diadromous	Shortnose sturgeon	Migration	E/E E	-													-	-	-	Jan-Dec	Jan-Dec
	Diadromous	Striped bass	Migration		-													-	-	-	Jan-Dec	Jan-Dec
	Freshwater	Rainbow smelt	Migration	-/C	-													-	-	-	Jan-Dec	Oct-Apr
	Marine Benthic	Atlantic tomcod	Migration		-													Dec-Feb	-	-	Jan-Dec	Jan-Dec

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence											
						J	F	M	A	M	J	J	A	S	O	N	D
480	Wetland	Tidal Marsh	High Ecological Value		-												
481	Wetland	Rare ecol. community	High Ecological Value		-												
486	Upland	Rare upland community	High Ecological Value		-												
509	Plant	A. water minerslettuce	Vulnerable Occurrence	C/-	-												
518	Plant	Marsh felwort	Vulnerable Occurrence	T/-	-												
521	Plant	Pickering's reedgrass	Vulnerable Occurrence	T/-	-												
522	Plant	Twining screwworm	Vulnerable Occurrence	T/-	-												
524	Plant	Fragrant woodfern	Vulnerable Occurrence	C/-	-												

# REPTILES & AMPHIBIANS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
665	Amphibian	B. spotted salamander	Vulnerable Occurrence	C/C		Very Low												Apr-May	May-Jun	-	Jan-Dec	Apr-Jun
	Amphibian	Jefferson salamander	Vulnerable Occurrence	C/C		Rare												Apr-May	May-Jun	-	Jan-Dec	Apr-Jun
	Amphibian	Northern leopard frog	Vulnerable Occurrence	C/C		Low												Apr-Jun	May-Jul	-	May-Sep	Jan-Dec
	Amphibian	Spotted salamander	Concentration Area			Common												Mar-May	Apr-Jun	-	May-Sep	Mar-Jun
	Amphibian	Wood Frog	Concentration Area			Common												Mar-Apr	Apr-Jun	-	Jun-Sep	Mar-Sep
	Turtle	Spotted turtle	Vulnerable Occurrence	T/T		Very Low												May-Jul	Aug-Oct	-	Jan-Dec	Jan-Dec
	Turtle	Wood turtle	Vulnerable Occurrence	C/C		Very Low												May-Jul	Aug-Oct	-	Jan-Dec	Jan-Nov

# INVERTEBRATES

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
674	Bivalve	Sea scallop	Harvest Area	-/C		-												Jul-Oct	-	-	Jan-Dec	Jan-Dec
675	Bivalve	Softshell clam	Harvest Area	-/C		-												May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec

# MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Mating	Calving	Pupping	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
744	Pinniped	Harbor seal	Haul Out			-												-	-	-	-

WIDESPREAD IN MAPPED AREA ( > 10 SQUARE KILOMETERS )


# BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Alcid	Atlantic puffin	T/-		-												-	-	-	-
		Razorbill	T/-		-												-	-	-	-
	Diving	Common Loon	-/T		-												-	-	-	-
		Great cormorant	T/-		-												-	-	-	-
	Gull/Tern	Arctic tern	T/C		-												May-Oct	-	-	-
		Common tern	C/T		-												May-Aug	-	-	-
		Roseate tern	E/E	E	-												-	-	-	-
	Pelagic	Leach's storm-petrel	C/-		-												-	-	-	-
	Shorebird	Red-necked phalarope	C/-		-												-	Jun	-	-

# FISH

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
	Diadromous	Atlantic sturgeon	-/T	T	Rare												-	-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	E/E	E	Rare												-	-	-	Jan-Dec	Jan-Dec
		Striped bass			High												-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Black Seabass			Low												-	-	-	Jan-Dec	Jan-Dec


## REPTILES & AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
	Turtle																				
	Green sea turtle	General Distribution	-/-	T	Rare																
	K. ridley sea turtle	General Distribution	E/-	E	Rare																
	Leatherback sea turtle	General Distribution	E/-	E	Low																
	Loggerhead sea turtle	General Distribution	E/-	T	Low																

## INVERTEBRATES








Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
			S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D				
	Crab	General Distribution	-/-	C	Low																
	Northern shrimp	General Distribution	-/-	C	Low																

## MARINE MAMMALS

	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Whale	Fin whale	General Distribution	E/-	E	Low																
		Humpback whale	General Distribution	E/-	E	Low																
		N.A. right whale	General Distribution	E/-	E	Low																
		Sei whale	General Distribution	E/-	E	Low																
		Sperm whale	General Distribution	E/-	E	Rare																





ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)

## BIRDS





Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Black guillemot													May-Aug	-	-	-
	Common murre														-	-	-
	Dovekie														-	-	-
	Thick-billed murre														-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe														-	-	-
	Red-necked grebe														-	-	-
	Red-throated loon														-	-	-
	G. black-backed gull														-	-	-
	Herring gull														-	-	-
	Ring-billed gull														-	-	-
	Cory's shearwater														-	-	-
	Great shearwater														-	-	-
	Manx shearwater														-	-	-
	Northern fulmar														-	-	-
	Northern gannet														-	-	-
	Sooty shearwater														-	-	-
	Wilson's storm-petrel														-	-	-
	Red phalarope														-	-	-

FISH




Monthly Presence

Subelement	Species	J	F	M	A	M	J	J	A	S	O	N	D	Spawn	Eggs	Larvae	Juveniles	Adults
 Diadromous	Striped bass													-	-	-	Jan-Dec	Jan-Dec
 Estuarine Nursery	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	Winter flounder													-	-	-	Jan-Dec	-
 Marine Benthic	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	Dec-Jun	Jan-Dec	Mar-Nov
	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Haddock													-	Mar-Jun	Mar-Jun	Jan-Dec	-
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Red hake													-	Jun-Oct	Jun-Oct	Mar-Nov	May-Nov
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	Skates													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
 Marine Pelagic	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D				
 Bivalve	Northern quahog													-	-	Jan-Dec	Jan-Dec
 Crab	Atlantic rock crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	Jan-Dec	Jan-Dec
 Echinoderm	Green urchin													Mar-Jun	Mar-Jun	Jan-Dec	Jan-Dec
 Lobster	American lobster													Jun-Oct	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Dolphin	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
 Pinniped	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
 Whale	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
 Small Mammal	Beaver													-	-	-	-
	Muskrat													-	-	-	-
	Northern river otter													-	-	-	-

For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
10A	Salt and Brackish Water Marshes	14.14	0.02
10B	Freshwater Marshes	11.96	0.02
10C	Swamps	186.95	0.29
10D	Scrub and Shrub Wetlands	116.73	0.18
9A	Sheltered Tidal Flats	21.66	0.03
7	Exposed Tidal Flats	102.86	0.16
5	Mixed Sand and Gravel Beaches	126.62	0.20
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	271.52	0.42

## ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
10A	Salt and Brackish Water Marshes	425.62	0.26	< 1%
10C	Swamps	281.45	0.17	< 1%
10D	Scrub and Shrub Wetlands	308.58	0.19	< 1%
9A	Sheltered Tidal Flats	2,441.77	1.52	2%
9B	Vegetated Low Banks	10,041.27	6.24	10%
7	Exposed Tidal Flats	7,478.62	4.65	7%
6A	Gravel Beaches	1,124.35	0.70	1%
6B	Riprap	1,438.91	0.89	1%
5	Mixed Sand and Gravel Beaches	17,692.02	10.99	17%
4	Coarse Grained Sand Beaches	5,006.85	3.11	5%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	41,385.82	25.72	40%
1A	Exposed, Rocky Shores	13,707.76	8.52	13%
1B	Exposed, Solid Man-Made Structures	1,119.75	0.70	1%

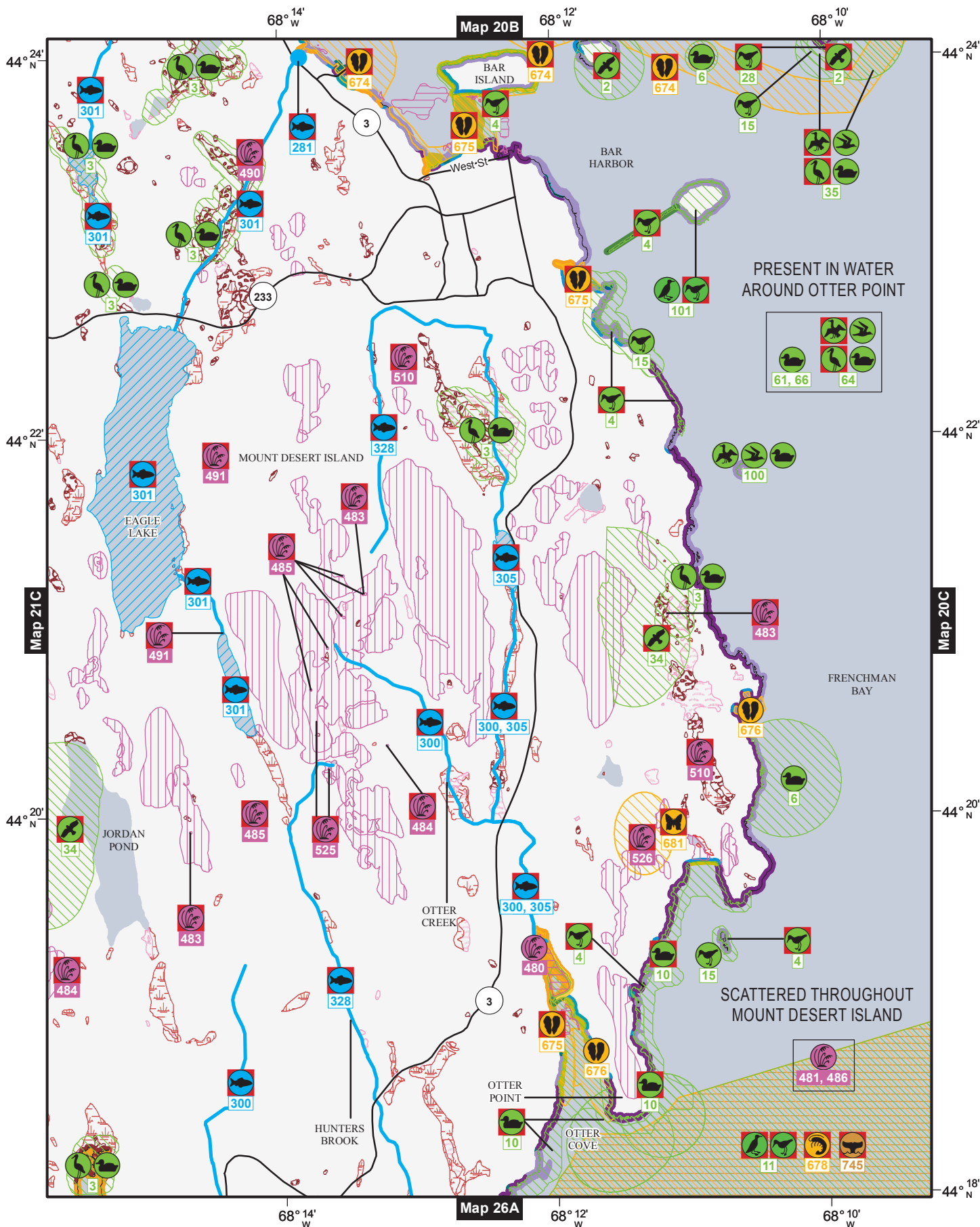
Total ESI Shoreline: 102,452.76      Total ESI Shoreline: 63.66  
 Total Shoreline: 65,052.41      Total Shoreline: 40.42

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)









Map 20D  
Downeast Maine

BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

DISPLAYED ON MAP

BENTHIC

Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence											
							J	F	M	A	M	J	J	A	S	O	N	D
Softbottom	Worm bed	Harvest Area				High												
SAV	Eelgrass	High Ecological Value				0% To 10% Cover												
SAV	Eelgrass	High Ecological Value				10% To 40% Cover												
SAV	Eelgrass	High Ecological Value				40% To 70% Cover												
SAV	Eelgrass	High Ecological Value				70% To 100% Cover												

BIRDS

Map ID	Subelement	Species	Mapping Qualifier	ME/NH	S	F	Concentration	Monthly Presence										Nest	Mig.(S)	Mig.(F)	Molt
								J	F	M	A	M	J	J	A	S	O	N			
2	Raptor	Bald eagle	Vulnerable Occurrence		C/T	-	-											Mar-May	-	-	-
3	Wading	Wading birds	Vulnerable Occurrence			-	-											Apr-Nov	Apr-Jun	Jul-Nov	-
	Waterfowl	Waterfowl	Vulnerable Occurrence			-	-											Apr-Nov	Apr-Jun	Jul-Nov	-
4	Shorebird	American golden-plover	Concentration Area				Foraging											-	Aug	Oct	-
	Shorebird	American oystercatcher	Concentration Area		C/-		Foraging											May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Concentration Area				Foraging											-	-	-	-
	Shorebird	BB sandpiper	Concentration Area				Foraging											-	Aug	Oct	-
	Shorebird	Black-bellied plover	Concentration Area				Foraging											-	May	Jul-Oct	-
	Shorebird	Dunlin	Concentration Area				Foraging											-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Concentration Area				Foraging											-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Concentration Area				Foraging											-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Concentration Area				Foraging											-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Concentration Area		C/-		Foraging											-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Concentration Area				Foraging											-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Concentration Area		C/-	T	Foraging											-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Concentration Area				Foraging											-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Concentration Area				Foraging											-	Apr-May	-	-
	Shorebird	Semipalmated plover	Concentration Area				Foraging											-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Concentration Area		C/-		Foraging											-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Concentration Area				Foraging											-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Concentration Area				Foraging											-	Jun	-	-
	Shorebird	Stilt sandpiper	Concentration Area				Foraging											-	Jul	Sep	-
	Shorebird	Western sandpiper	Concentration Area				Foraging											-	Jul	Oct	-
	Shorebird	Whimbrel	Concentration Area		C/-		Foraging											-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Concentration Area				Foraging											-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Concentration Area		-C		Foraging											May-Aug	May-Jun	Jul-Sep	-
6	Waterfowl	American black duck	Rafting			-	-											Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-	-											-	-	-	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Waterfowl	Bufflehead	Rafting			-													-	-	-
	Waterfowl	Canada goose	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-												-	May	Sep	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	White-winged scoter	Rafting			-												-	-	-	-
10	Waterfowl	Harlequin duck	Vulnerable Occurrence	T/-		-												-	-	-	-
11	Alcid	Atlantic puffin	General Distribution	T/-		-												-	-	-	-
	Pelagic	Leach's storm-petrel	General Distribution	C/-		-												-	-	-	-
	Shorebird	Red-necked phalarope	General Distribution	C/-		-												-	Jun	-	-
15	Shorebird	Purple sandpiper	Vulnerable Occurrence			-												-	Apr-May	Oct	-
28	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting	C/-		-												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	Jul-Oct	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting	C/-	T	-												-	May	Aug-Oct	-
	Shorebird	Ruddy turnstone	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-												-	Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-												-	May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-												-	Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-												-	Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-												-	Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-												-	-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-/C		-												-	May-Aug	Jul-Sep	-
34	Raptor	Peregrine falcon	Vulnerable Occurrence	E/T		-												-	-	-	-
35	Diving	Common Loon	Rafting	-/T		-												-	-	-	-
	Diving	D. crested cormorant	Rafting			-												-	Jun-Sep	-	-
	Gull/Tern	G. black-backed gull	Rafting			-												-	May-Aug	-	-
	Gull/Tern	Herring gull	Rafting			-												-	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence	C/-		-												-	May-Sep	-	-
	Waterfowl	American black duck	Rafting			-												-	Apr-Aug	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-

BIRDS (continued)

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Monthly Presence												Nest	Mig. (S)	Mig. (F)	Molt
				S	F	Concentration	J	F	M	A	M	J	J	A	S	O	N	D			
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Aug	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-												-	May	Sep	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-												-	Dec-Jan	-	-
	Waterfowl	Scoters	Rafting			-												-	-	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
61	Waterfowl	American black duck	Rafting			-												Apr-Aug	-	-	-
	Waterfowl	Black Scoter	Rafting			-												-	-	-	-
	Waterfowl	Bufflehead	Rafting			-												-	-	-	-
	Waterfowl	Common eider	Rafting			-												May-Aug	-	-	-
	Waterfowl	Goldeneye	Rafting			-												-	-	-	-
	Waterfowl	Long-tailed duck	Rafting			-												-	May	Sep	-
	Waterfowl	Mallard	Rafting			-												Apr-Aug	-	-	-
64	Diving	Common Loon	Rafting			-												-	-	-	-
	Diving	D. crested cormorant	Rafting			-												-	-	-	-
	Gull/Tern	G. black-backed gull	Rafting			-												Jun-Sep	-	-	-
	Gull/Tern	Herring gull	Rafting			-												May-Aug	-	-	-
	Wading	Great blue heron	Vulnerable Occurrence			-												-	-	-	-
	Waterfowl	Green-winged teal	Rafting			-												May-Sep	-	-	-
	Waterfowl	Scaup	Vulnerable Occurrence			-												May-Aug	-	-	-
	Waterfowl	Scoters	Rafting			-												-	Dec-Jan	-	-
	Waterfowl	Surf scoter	Rafting			-												-	-	-	-
	Waterfowl	Canada goose	Rafting			-												-	-	-	-
66	Waterfowl	White-winged scoter	Rafting			-												Apr-Aug	-	-	-
	Waterfowl		Rafting			-												-	-	-	-
100	Diving	D. crested cormorant	Roosting			-												Jun-Sep	-	-	-
	Gull/Tern	G. black-backed gull	Roosting			-												May-Aug	-	-	-
	Gull/Tern	GW gull/H gull hybrid	Roosting			-												-	-	-	-
	Gull/Tern	Herring gull	Roosting			-												-	-	-	-
	Waterfowl	Common eider	Roosting			-												May-Aug	-	-	-
101	Alcid	Black guillemot	Roosting			-												May-Aug	-	-	-
	Shorebird	American golden-plover	Roosting			-												-	Aug	Oct	-
	Shorebird	American oystercatcher	Roosting			-												May-Jun	May	Sep	-
	Shorebird	Baird's sandpiper	Roosting			-												-	-	-	-
	Shorebird	BB sandpiper	Roosting			-												-	Aug	Oct	-
	Shorebird	Black-bellied plover	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Dunlin	Roosting			-												-	May	Aug-Oct	-
	Shorebird	Greater yellowlegs	Roosting			-												-	May	Jul-Oct	-
	Shorebird	Hudsonian godwit	Roosting			-												-	-	-	-
	Shorebird	Least sandpiper	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Lesser yellowlegs	Roosting			-												-	May-Jun	Jul-Oct	-
	Shorebird	Pectoral sandpiper	Roosting			-												-	Apr-May	Sep-Oct	-
	Shorebird	Red Knot	Roosting			-												-	May	Aug-Oct	-

**BIRDS (continued)**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
				S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Shorebird	Ruddy turnstone	Roosting			-														May-Jun	Jul-Oct	-
	Shorebird	Sanderling	Roosting			-														Apr-May	-	-
	Shorebird	Semipalmated plover	Roosting			-														May-Jun	Jul-Oct	-
	Shorebird	Semipalmated sandpiper	Roosting	C/-		-														May-Jun	Jul-Oct	-
	Shorebird	Short-billed dowitcher	Roosting			-														May-Jun	Jul-Oct	-
	Shorebird	Solitary sandpiper	Roosting			-														Jun	-	-
	Shorebird	Stilt sandpiper	Roosting			-														Jul	Sep	-
	Shorebird	Western sandpiper	Roosting			-														Jul	Oct	-
	Shorebird	Whimbrel	Roosting	C/-		-														-	Jul-Oct	-
	Shorebird	White-rumped sandpiper	Roosting			-														May-Jun	Jul-Oct	-
	Shorebird	Willet	Roosting	-C		-														May-Aug	May-Jun	Jul-Sep
						-																-

**FISH**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
281	Diadromous	American eel	Harvest Area	-C		-													-	-	-	Mar-Oct	Mar-Oct
300	Diadromous	Brook trout (sea run)	Migration	C/-		-													-	-	-	Jan-May	Jan-May
301	Diadromous	American eel	Migration	-C		-													-	-	-	Mar-Oct	Mar-Oct
305	Diadromous	American eel	Migration	-C		-													-	-	-	Mar-Oct	Mar-Oct
	Freshwater	Rainbow smelt	Migration	-C		-													-	-	-	Jan-Dec	Oct-Apr
328	Freshwater	Rainbow smelt	Migration	-C		-													-	-	-	Jan-Dec	Oct-Apr

**HABITATS & RARE PLANTS**

Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
480	Wetland	Tidal Marsh	High Ecological Value			-													-	-	-	-	-
481	Wetland	Rare ecol. community	High Ecological Value			-													-	-	-	-	-
483	Plant	Rare plant	Vulnerable Occurrence	C/C		-													-	-	-	-	-
484	Plant	Endangered plant	Vulnerable Occurrence	E/E		-													-	-	-	-	-
485	Plant	Northern blueberry	Vulnerable Occurrence	C/-		-													-	-	-	-	-
486	Upland	Rare upland community	High Ecological Value			-													-	-	-	-	-
490	Plant	Nantucket serviceberry	Vulnerable Occurrence	T/-		-													-	-	-	-	-
491	Plant	Threatened plant	Vulnerable Occurrence	T/T		-													-	-	-	-	-
510	Plant	Lesser brown sedge	Vulnerable Occurrence	E/-		-													-	-	-	-	-
525	Plant	Appalachian stitchwort	Vulnerable Occurrence	C/-		-													-	-	-	-	-
526	Plant	Combleaf mermaidweed	Vulnerable Occurrence	E/-		-													-	-	-	-	-

**INVERTEBRATES**




Map ID	Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
				S	F		J	F	M	A	M	J	J	A	S	O	N	D					
674	Bivalve	Sea scallop	Harvest Area	-C		-													Jul-Oct	-	-	Jan-Dec	Jan-Dec
675	Bivalve	Softshell clam	Harvest Area	-C		-													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
676	Bivalve	Blue mussel	Harvest Area			-													May-Nov	May-Nov	May-Nov	Jan-Dec	Jan-Dec
678	Shrimp	Northern shrimp	General Distribution	-C		Low													-	Dec-Apr	Jan-Dec	Jan-Dec	Dec-Apr
681	Insect	Rare insect	Vulnerable Occurrence	C/-		-													May-Jul	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS



Map ID	Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Mating	Calving	Pupping	Molt
						J	F	M	A	M	J	J	A	S	O	N	D				
745	Whale	Fin whale	General Distribution	E/- E	Low													-	-	-	-
	Whale	Humpback whale	General Distribution	E/- E	Low													-	-	-	-
	Whale	N.A. right whale	General Distribution	E/- E	Low													-	-	-	-
	Whale	Sei whale	General Distribution	E/- E	Low													-	-	-	-
	Whale	Sperm whale	General Distribution	E/- E	Rare													-	-	-	-

WIDESPREAD IN MAPPED AREA ( &gt; 10 SQUARE KILOMETERS )


## BIRDS

Subelement	Species	Mapping Qualifier	ME/NH		Concentration	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
			S	F		J	F	M	A	M	J	J	A	S	O	N	D				
	Alcid	Razorbill	General Distribution	T/-	-													-	-	-	
	Diving	Common Loon	General Distribution	-/T	-													-	-	-	
	Great cormorant	General Distribution	T/-	-	-													-	-	-	
	Arctic tern	General Distribution	T/C	-	-													May-Oct	-	-	
	Common tern	General Distribution	C/T	-	-													May-Aug	-	-	
	Roseate tern	General Distribution	E/E	E	-													-	-	-	

## FISH

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Diadromous	Atlantic sturgeon	General Distribution	-/T	T												-	-	-	Jan-Dec	Jan-Dec
		Shortnose sturgeon	General Distribution	E/E E	-												-	-	-	Jan-Dec	Jan-Dec
	Estuarine Nursery	Striped bass	Concentration Area	-	High												-	-	-	Jan-Dec	Jan-Dec
		Black Seabass	Concentration Area	-	Low												-	-	-	Jan-Dec	Jan-Dec

## REPTILES &amp; AMPHIBIANS

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Nest	Hatch	Internest	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Turtle	Green sea turtle	General Distribution	-/T	T												-	-	-	Jun-Nov	Jun-Nov
		K. ridley sea turtle	General Distribution	E/- E	-												-	-	-	Jun-Nov	Jun-Nov
		Leatherback sea turtle	General Distribution	E/- E	-												-	-	-	Jun-Nov	Jun-Nov
		Loggerhead sea turtle	General Distribution	E/- T	-												-	-	-	Jun-Nov	Jun-Nov

## INVERTEBRATES

Subelement	Species	Mapping Qualifier	ME/NH S F	Concentration	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
					J	F	M	A	M	J	J	A	S	O	N	D					
	Crab	Horseshoe crab	General Distribution	-/C	-												May-Jul	May-Jul	-	Jan-Dec	Jan-Dec


## BIRDS

Subelement	Species	Monthly Presence												Nest	Mig.(S)	Mig.(F)	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
Alcid	Black guillemot													May-Aug	-	-	-
	Common murre													-	-	-	-
	Dovekie													-	-	-	-
Diving	Thick-billed murre													-	-	-	-
	D. crested cormorant													Jun-Sep	-	-	-
	Horned grebe													-	-	-	-
Gull/Tern	Red-necked grebe													-	-	-	-
	Red-throated loon													-	-	-	-
	G. black-backed gull													-	-	-	-
	Herring gull													-	-	-	-
	Ring-billed gull													-	-	-	-
Pelagic	Cory's shearwater													-	-	-	-
	Great shearwater													-	-	-	-
	Manx shearwater													-	-	-	-
	Northern fulmar													-	-	-	-
	Northern gannet													-	-	-	-
Shorebird	Sooty shearwater													-	-	-	-
	Wilson's storm-petrel													-	-	-	-
	Red phalarope													-	-	-	-





## FISH

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
Diadromous	Striped bass													-	-	-	Jan-Dec	Jan-Dec
	Atlantic herring													-	-	Oct-May	Jan-Dec	Apr-Dec
	Black Seabass													-	-	-	Jan-Dec	Jan-Dec
	Winter flounder													-	-	-	Jan-Dec	-
Marine Benthic	Winter flounder													-	-	-	Mar-Oct	Mar-Oct
	American plaice													-	Mar-Jun	Mar-Jul	Mar-Nov	Mar-Nov
	American plaice													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
	American sand lance													-	-	-	Mar-Oct	Mar-Oct
Atlantic Wolffish	Atlantic cod													Nov-Mar	Nov-Jun	Nov-Jul	Jan-Dec	Oct-Jul
	Atlantic Wolffish													Apr-Sep	Apr-Sep	Jan-Dec	Jan-Dec	Jan-Dec
	Cunner													-	-	-	Mar-Oct	Mar-Oct
	Cunner													Mar-Aug	Mar-Aug	Mar-Sep	Jan-Dec	Jan-Dec
	Cunner													-	Mar-Jun	Mar-Jun	Mar-Jun	-
Haddock	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Haddock													-	Mar-Jun	-	Mar-Oct	Mar-Oct
	Longhorn sculpin													Dec-Apr	Dec-Apr	Jan-Jun	Jan-Dec	Jan-Dec
	Longhorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Jul-Oct	Jul-Oct
Northern searobin	Northern searobin													-	-	-	Mar-Oct	Mar-Oct
	Northern searobin													-	-	-	Mar-Oct	Mar-Oct




## FISH (continued)

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Ocean pout													-	-	-	Mar-Oct	Mar-Oct
	Pollock													-	Nov-Feb	Nov-Mar	Jan-Dec	-
	Red hake													-	Jun-Oct	Jun-Oct	Jan-Nov	May-Nov
	Red hake													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													-	-	-	Mar-Oct	Mar-Oct
	Rock gunnel													Dec-Mar	Dec-Apr	Jan-May	Jan-Dec	Jan-Dec
	Shorthorn sculpin													-	-	-	Sep-May	Sep-May
	Shorthorn sculpin													-	-	-	Mar-Oct	Mar-Oct
	Silver hake													-	-	-	Apr-Nov	Apr-Nov
	Silver hake													-	-	-	Mar-Oct	Mar-Oct
	Skates													-	-	-	Jan-Dec	Jan-Dec
	Skates													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	-	-	Mar-Oct	Mar-Oct
	White hake													-	Jul-Oct	Jul-Oct	May-Nov	May-Nov
	Yellowtail flounder													-	-	-	Mar-Oct	Mar-Oct
	Yellowtail flounder													-	Apr-Sep	Apr-Sep	Apr-Sep	-
	Atlantic mackerel													-	Jun-Jul	Jun-Jul	Mar-Oct	Mar-Oct
	Atlantic mackerel													-	-	-	May-Nov	May-Nov
	Butterfish													-	-	-	May-Oct	May-Oct
	Butterfish													-	-	-	May-Oct	May-Oct


## INVERTEBRATES

Subelement	Species	Monthly Presence												Spawn	Eggs	Larvae	Juveniles	Adults
		J	F	M	A	M	J	J	A	S	O	N	D					
	Northern quahog													Jun-Aug	-	-	Jan-Dec	Jan-Dec
	Atlantic rock crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Blue crab													Jun-Aug	Jun-Aug	Jun-Aug	Jan-Dec	Jan-Dec
	Jonah crab													May-Oct	May-Oct	May-Oct	Jan-Dec	Jan-Dec
	Green urchin													Mar-Jun	Mar-Jun	Apr-Jul	Jan-Dec	Jan-Dec
	American lobster													Jun-Oct	-	-	Jan-Dec	Jan-Dec

## MARINE MAMMALS

Subelement	Species	Monthly Presence												Mating	Calving	Pupping	Molt
		J	F	M	A	M	J	J	A	S	O	N	D				
	Atl. wh.-side dolphin													-	-	-	-
	Dolphins													-	-	-	-
	Harbor porpoise													-	-	-	-
	Gray seal													-	-	-	-
	Harbor seal													-	-	-	-
	Harp seal													-	-	-	-
	Harp seal													-	-	-	-
	Hooded seal													-	-	-	-
	Lf pilot whale													-	-	-	-
	Minke whale													-	-	-	-

## TERRESTRIAL MAMMALS

Subelement	Species	Monthly Presence											
		J	F	M	A	M	J	J	A	S	O	N	D
	Beaver												
	Muskrat												
Northern river otter													


For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## SHORELINE RESOURCES

### ESI POLYGON HABITAT TYPES

ESI Rank	Habitat Classification	Area (Acres)	Area (Sq. Miles)
 10A	Salt and Brackish Water Marshes	2.29	0.00
10B	Freshwater Marshes	169.10	0.26
10C	Swamps	420.61	0.66
10D	Scrub and Shrub Wetlands	279.08	0.44
9A	Sheltered Tidal Flats	19.82	0.03
7	Exposed Tidal Flats	66.17	0.10
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	97.39	0.15

### ESI SHORELINE HABITAT TYPES

ESI Rank	Shoreline Habitat Classification	Length (Meters)	Length (Miles)	% of ESI Shoreline
 10C	Swamps	210.96	0.13	< 1%
10D	Scrub and Shrub Wetlands	2,423.24	1.51	4%
9A	Sheltered Tidal Flats	1,590.02	0.99	3%
9B	Vegetated Low Banks	6,061.89	3.77	10%
8A	Sheltered, Impermeable, Rocky Shores	478.40	0.30	1%
8C	Sheltered Riprap	165.94	0.10	< 1%
7	Exposed Tidal Flats	5,759.24	3.58	9%
6A	Gravel Beaches	501.04	0.31	1%
6B	Riprap	1,353.87	0.84	2%
5	Mixed Sand and Gravel Beaches	1,657.44	1.03	3%
4	Coarse Grained Sand Beaches	2,613.73	1.62	4%
3A	Fine to Medium Grained Sand Beaches	22.91	0.01	< 1%
2A	Exposed, Wave-Cut Platforms (Bedrock/Mud/Clay)	20,392.84	12.67	33%
2B	Exposed Scarps and Steep Slopes (Clay)	165.88	0.10	< 1%
1A	Exposed, Rocky Shores	15,835.62	9.84	26%
1B	Exposed, Solid Man-Made Structures	2,251.17	1.40	4%
Total ESI Shoreline:		61,484.19	Total ESI Shoreline:	38.20
		41,002.75	Total Shoreline:	25.48

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)







## Human-Use Features

	Abandoned Vessel		Renewable Energy
	Access		Repeated Measurement Site
	Airport		River Mile
	Anchorage		State Protected Area
	Aquaculture		Tribal Land
	Army Corp of Engineers		Water Intake
	Beach		Wildlife Refuge
	Boat Ramp		Road
	Campground		State Highway or Route
	Critical Habitat		US Highway
	EPA Facility		Interstate
	Essential Habitat		Ferry Route
	Heliport		Pipeline
	Historic Wreck		Rail Route
	Historical Site		Shipping Lane
	Lock and Dam		Management
	Management		Map ID
	Marina		
	Military		
	Mine Site		
	National Estuarine Research Reserve		
	National Park		
	Nature Conservancy		
	Oil Facility		
	Park		
	Port		

## ESI Shoreline and Habitat Ranking

	1A) Exposed, Rocky Shores
	1B) Exposed, Solid Man-Made Structures
	2A) Exposed Wave-Cut Platforms (Bedrock/Mud/Clay)
	2B) Exposed Scarps and Steep Slopes (Clay)
	3A) Fine to Medium Grained Sand Beaches
	3B) Scarps and Steep Slopes (Sand)
	4) Coarse-Grained Sand Beaches
	5) Mixed Sand and Gravel Beaches
	6A) Gravel Beaches
	6B) Riprap
	7) Exposed Tidal Flats
	8A) Sheltered Scarps (Bedrock/Mud/Clay)
	8A) Sheltered, Impermeable, Rocky Shores
	8B) Sheltered, Solid Man-Made Structures
	8C) Sheltered Riprap
	8D) Sheltered, Rocky, Rubble Shores
	9A) Sheltered Tidal Flats
	9B) Vegetated Low Banks
	10A) Salt and Brackish Water Marshes
	10B) Freshwater Marshes
	10C) Swamps
	10D) Scrub and Shrub Wetlands

### Examples of Double and Triple Shoreline Rankings:

10D & 2A

10C & 10A & 4

Shorelines often contain varied geomorphology, and therefore may require two or three ESI types to describe. These symbols will look similar to the examples above. The first shoreline type listed is the most landward shore type.

## Sensitive Biological Resources



Birds



Birds



Alcid/Pelagic



Diving



Gull/Tern/Bird



Passerine



Raptor



Shorebird



Wading



Waterfowl



Fish



Fish



Fish



Fish



Invertebrates



Invertebrates



Crab/Invertebrate/Shellfish



Bivalve/Barnacle/Chordate



Cephalopod



Insect



Echinoderm



Gastropod



Lobster



Marine Mammals



Dolphin



Pinniped



Whale



Terrestrial Mammals



Small Mammal



Habitats



Upland/Wetland/Plant



Reptiles & Amphibians



Amphibian/Snake



Turtle



Threatened or  
Endangered  
Species

1 2 3 4 5 6 Map ID

### Guidelines for Interpreting Environmental Sensitivity Index (ESI) Maps

The following guidelines may help map users interpret the ESI maps. Additional information about resources mapped for this atlas can be found in the ESI Intro pages and associated metadata.

**Sensitive Biological Resources (1:50,000 scale maps):** Species are arranged into eight major categories or "elements" and further subdivided into "subelement" groupings representing species that share similar lifestyle characteristics and risks to oiling.

Biological resources may be mapped as points, lines, and/or polygons. Each element is represented by a unique color and/or hatch pattern, and icons illustrate the subelement(s) found within each feature. If a species is state or federally listed as threatened or endangered, a solid red square is placed behind the icon. When multiple elements occur in the same location, overlapping hatch patterns will be shown.

The associated Map ID "links" to the map report where the species and attributes are listed. To maximize readability, biological polygons covering more than 10 square km are not displayed on the map. Instead, these species are listed in the "Widespread in Mapped Area" section of the report. Occurrences of non-listed species assigned a "General Distribution" mapping qualifier are listed under "Also Present in Mapped Area" regardless of polygon size.

**Shoreline Habitat Resources (all maps):** The shoreline was mapped at mean-high water, then classified based on vulnerability to spilled oil and ease of clean-up. Shorelines are ranked on a scale from 1 (least vulnerable) to 10 (most vulnerable). Cooler colors represent less vulnerable shoreline types; warm and hot colors indicate increased vulnerability. A shoreline may have more than one habitat type present. When this happens, the most landward shoreline type is mapped on the shoreline, and the more seaward type(s) are mapped adjacent to the water. The areal extent of intertidal and marsh habitats may also be mapped as polygons. Most often these polygons represent tidal flats and marshes, though in particularly rocky shored areas, these may include exposed, wave-cut platforms and sand and gravel beaches.

**Human-Use Features (1:100,000 scale maps):** Locations of human-use features and jurisdictional boundaries are mapped as points, lines, or polygons. As with biological features, the human-use features appearing on the map include Map ID which "links" to a description of the feature in the map report. Additional features, particularly jurisdictional and management boundaries that cover the majority or entirety of the mapped area, are listed in the report, but not shown on the map.

