Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: BENTHIC (Benthic Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: BENTHIC (Benthic Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for submerged aquatic vegetation for Delaware/New Jersey/Pennsylvania. Vector polygons in this data set represent eelgrass (Zostera marina), widgeon grass (Ruppia maritima), and water celery (Vallisneria americana) distribution. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the HABITATS data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional habitat information.
Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1979
Ending_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 1979 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's

with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent a synthesis of expert knowledge, survey data, and digital data on eelgrass (Zostera marina), widgeon grass (Ruppia maritima), and water celery (Vallisneria americana) distribution. See also the HABITATS data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional habitat information. These data do not necessarily represent all benthic occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 1, Eelgrass, Zostera marina; 80, Widgeon grass, Ruppia maritima; 83, Water celery, Vallisneria americana; 609, Submerged aquatic vegetation, n/a.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
Spatial components for the biological data layers can come from expert interviews, hardcopy,

or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND CONTROL (DNREC), COASTAL PROGRAMS
Publication_Date: 2013
Title: DELAWARE COASTAL PROGRAMS ZOSTERA MARINA RESTORATION PLOTS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1999
Ending_Date: 2004

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BENTHIC INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND

ENVIRONMENTAL CONTROL DATA COLLECTION MEETING
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BENTHIC INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - BILL MCAVOY
Publication_Date: 2013
Title: DELAWARE UNIQUE PLANT COMMUNITIES DATA
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BENTHIC INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: LATHROP, R.G. AND S. HAAG; AND MACOMBER, R.T., AND D. ALLEN

Publication_Date: 2011
Title:
ASSESSMENT OF SEAGRASS STATUS IN THE BARNEGAT BAY - LITTLE EGG HARBOR ESTUARY: 2003 AND 2009, AND THE 1979 NEW JERSEY SUBMERGED AQUATIC VEGETATION DISTRIBUTION ATLAS FINAL REPORT
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: NEW BRUNSWICK, NEW JERSEY
Publisher:
RUTGERS UNIVERSITY, GRANT F. WALTON CENTER FOR REMOTES SENSING AND SPATIAL ANALYSIS, AND EARTH SATELLITE COPRORATION, WASHINGTON D.C.

Online_Linkage: <http://crssa.rutgers.edu/projects/coastal/sav/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1979
Ending_Date: 2009

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BENTHIC INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) NATIONAL OCEAN SERVICE (NOS), COASTAL SCIENCES CENTER (CSC)
Publication_Date: 2010
Title: DELAWARE BAY BENTHIC HABITATS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA, RASTER DIGITAL DATA
Publication_Information:

Publication_Place: CHARLESTON, SC
Publisher: COASTAL SERVICES CENTER

Online_Linkage:
<http://www.csc.noaa.gov/dataviewer/index.html?action=advsearch&qType=in&qFld=id&datareg=1&qVal=1203>#

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2004
Ending_Date: 2010

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BENTHIC INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PRISCILLA COLE, PARTNERSHIP FOR THE DELAWARE ESTUARY
Publication_Date: 2012
Title:
PARTNERSHIP FOR THE DELAWARE ESTUARY SAV AND INVERTEBRATE SAMPLING DATA
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2009
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BENTHIC INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. Polygonal beds of aquatic vegetation were obtained from multiple sources, including element occurrence data from Delaware Department of Natural Resources and Environmental Control (DNREC), survey data provided by the Partnership for the Delaware Estuary (PDE), and remote sensing and GIS data from Rutgers University. Data provided by PDE and DNREC were incorporated as is, whereas the large SAV beds in Barnegat Bay and Little Egg Harbor Bay were mapped using the aggregation of the spatial extent of data from 1979, 2003, and 2009 to capture all areas where SAV is most likely to occur.

The above digital and/or hardcopy sources were compiled by the project biologist to create the BENTHIC data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the BENTHIC data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 409

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 408

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 971

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 338065

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 968

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, BENTHIC) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact

version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Entity_and_Attribute_Detail_Citation:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BENTHIC.PAT

Entity_Type_Definition:

The BENTHIC.PAT table contains attribute information for the vector polygons in this data set representing eelgrass (Zostera marina), widgeon grass (Ruppia maritima), and water celery (Vallisneria americana) distribution. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID

Attribute_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (3), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (3), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

Entity_Type_Label: BIORES
Entity_Type_Definition:

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

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: SPECIES_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC

Attribute_Definition:

The field CONC refers to "concentration," abundance, or density value of a habitat at a particular location. Concentration information was only available for the SAV in Barnegat Bay and Little Egg Harbor. In these areas it was noted that SAV beds are dominated by eelgrass (Zostera marina), with widgeon grass (Ruppia maritima) as a less common associate. Therefore concentrations were included as "COMMON" for eelgrass, and "UNCOMMON" for widgeon grass.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

'B00001').
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME
Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab

Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery
Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod

Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: passerine

Enumerated_Domain_Value_Definition: Passerine bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: sm_mammal

Enumerated_Domain_Value_Definition: Small mammal
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl
Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank
Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

in the ESI data structure.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN
Attribute_Definition: January
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in January
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB
Attribute_Definition: February
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in February
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR
Attribute_Definition: March
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X

Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP
Attribute_Definition: September
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: MONTH
Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED2
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T_MAMMAL

Enumerated_Domain_Value_Definition: Terrestrial Mammals
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE
Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:

Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of

the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.

Custom_Order_Process:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 12:00:31 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: BIRDS (Bird Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: BIRDS (Bird Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for alcids, diving birds, gulls, terns, passerines, pelagic birds, raptors, shorebirds, wading birds, and waterfowl in Delaware/New Jersey/Pennsylvania. Vector polygons in this data set represent bird nesting, migratory staging, and wintering sites. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the NESTS data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional bird information.
Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1980
Ending_Date: 2014

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 1980 to 2014 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's

with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent a synthesis of expert knowledge, available hardcopy documents, survey data, maps, and digital data on bird nesting, wintering, migratory staging and other spatial/temporal concentration areas. See also the NESTS data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional bird information. These data do not necessarily represent all bird occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 1, Common loon, Gavia immer; 3, Red-throated loon, Gavia stellata; 5, Horned grebe, Podiceps auritus; 8, Double-crested cormorant, Phalacrocorax auritus; 11, Tundra swan, Cygnus columbianus; 12, Canada goose, Branta canadensis; 13, Brant, Branta bernicla; 15, Snow goose, Chen caerulescens; 16, Mallard, Anas platyrhynchos; 17, Northern pintail, Anas acuta; 18, Green-winged teal, Anas crecca; 20, Northern shoveler, Anas clypeata; 21, Canvasback, Aythya valisineria; 22, Greater scaup, Aythya marila; 24, Common goldeneye, Bucephala clangula; 26, Bufflehead, Bucephala albeola; 27, Long-tailed duck, Clangula hyemalis; 29, White-winged scoter, Melanitta fusca; 30, Surf scoter, Melanitta perspicillata; 32, Common merganser, Mergus merganser; 33,

Red-breasted merganser, Mergus serrator; 34, American coot, Fulica americana; 38, Herring gull, Larus argentatus; 40, Ring-billed gull, Larus delawarensis; 45, Common tern, Sterna hirundo; 52, Wilson's phalarope, Phalaropus tricolor; 54, Great blue heron, Ardea herodias; 55, Whimbrel, Numenius phaeopus; 56, Spotted sandpiper, Actitis macularia; 58, Greater yellowlegs, Tringa melanoleuca; 59, Lesser yellowlegs, Tringa flavipes; 60, Red knot, Calidris canutus; 61, Pectoral sandpiper, Calidris melanotos; 62, Least sandpiper, Calidris minutilla; 63, Dunlin, Calidris alpina; 64, Short-billed dowitcher, Limnodromus griseus; 65, Long-billed dowitcher, Limnodromus scolopaceus; 66, Western sandpiper, Calidris mauri; 67, Sanderling, Calidris alba; 69, Semipalmated plover, Charadrius semipalmatus; 70, Killdeer, Charadrius vociferus; 71, Black-bellied plover, Pluvialis squatarola; 73, Ruddy turnstone, Arenaria interpres; 75, Razorbill, Alca torda; 76, Bald eagle, Haliaeetus leucocephalus; 77, Osprey, Pandion haliaetus; 86, Least tern, Sternula antillarum; 87, Little blue heron, Egretta caerulea; 88, Great egret, Ardea alba; 89, Snowy egret, Egretta thula; 90, Black-crowned night-heron, Nycticorax nycticorax; 91, Glossy ibis, Plegadis falcinellus; 92, Great black-backed gull, Larus marinus; 93, Cattle egret, Bubulcus ibis; 94, Tricolored heron, Egretta tricolor; 97, Green heron, Butorides virescens; 98, Laughing gull, Larus atricilla; 103, Common eider, Somateria mollissima; 107, Peregrine falcon, Falco peregrinus; 118, Brown pelican, Pelecanus occidentalis; 120, Yellow-crowned night-heron, Nyctanassa violacea; 123, Endangered diving bird, n/a; 124, Redhead, Aythya americana; 125, Clapper rail, Rallus longirostris; 127, Sooty tern, Onychoprion fuscatus; 133, Black skimmer, Rynchops niger; 134, Gull-billed tern, Gelochelidon nilotica; 136, Caspian tern, Hydroprogne caspia; 137, Royal tern, Thalasseus maximus; 138, Forster's tern, Sterna forsteri; 140, Threatened raptor, n/a; 141, American avocet, Recurvirostra americana; 142, Black-necked stilt, Himantopus mexicanus; 147, Savannah sparrow, Passerculus sandwichensis; 148, Ruddy duck, Oxyura jamaicensis; 152, American oystercatcher, Haematopus palliatus; 153, Piping plover, Charadrius melodus; 155, Willet, Catoptrophorus semipalmatus; 156, Semipalmated sandpiper, Calidris pusilla; 162, Gadwall, Anas strepera; 164, American golden-plover, Pluvialis dominica; 167, Northern gannet, Morus bassanus; 169, American wigeon, Anas americana; 172, Sandhill crane, Grus canadensis; 173, American white pelican, Pelecanus erythrorhynchos; 176, Short-eared owl, Asio flammeus; 178, Least bittern, Ixobrychus exilis; 179, Pied-billed grebe, Podilymbus podiceps; 180, Ring-necked duck, Aythya collaris; 181, Northern harrier, Circus cyaneus; 184, King rail, Rallus elegans; 185, American bittern, Botaurus lentiginosus; 186, American black duck, Anas rubripes; 187, Virginia rail, Rallus limicola; 188, Sora, Porzana carolina; 190, Blue-winged teal, Anas discors; 191, Wood duck, Aix sponsa; 192, Common moorhen, Gallinula chloropus; 193, Black tern, Chlidonias niger; 195, American woodcock, Scolopax minor; 196, Common snipe, Gallinago gallinago; 197, Black scoter, Melanitta nigra; 198, Hooded merganser, Lophodytes cucullatus; 210, Marbled godwit, Limosa fedoa; 213, Stilt sandpiper, Calidris himantopus; 214, Solitary sandpiper, Tringa solitaria; 216, Belted kingfisher, Ceryle alcyon; 217, Mute swan, Cygnus olor; 220, Merlin, Falco columbarius; 223, Upland sandpiper, Bartramia longicauda; 224, Sedge wren, Cistothorus platensis; 225, Marsh wren, Cistothorus palustris; 229, Swamp sparrow, Melospiza georgiana; 230, Red-tailed hawk, Buteo jamaicensis; 238, White-rumped sandpiper, Calidris fuscicollis; 275, Great cormorant, Phalacrocorax carbo; 277, Seaside sparrow, Ammodramus maritimus; 278, Saltmarsh sparrow, Ammodramus caudacutus; 284, Buff-breasted sandpiper, Tryngites subruficollis; 286, Dowitchers, Limnodromus spp.; 289, Hudsonian godwit, Limosa haemastica; 293, Yellowlegs, Tringa spp.; 299, Scaup, Aythya spp.; 301, Mergansers, n/a; 302, Scoters, Melanitta spp.; 311, Endangered passerine bird, n/a; 334, Yellow warbler, Dendroica petechia; 385, Barn owl, Tyto alba; 393, Lesser black-backed gull, Larus fuscus; 396, Phalaropes, Phalaropus spp.; 406, Cinnamon teal, Anas cyanoptera; 445, Wilson's storm-petrel, Oceanites oceanicus; 455, Yellow-billed cuckoo, Coccyzus americanus; 462, Loons, Gavia spp.; 490, Eurasian wigeon, Anas penelope; 596, Purple martin, Progne subis; 606, Rare diving bird, n/a; 609, Rare gull, n/a; 639, Yellow-bellied flycatcher, Empidonax flaviventris; 722, Common yellowthroat, Geothlypis trichas; 734, Nelson's sharp-tailed sparrow, Ammodramus nelsoni; 849, Wilson's snipe, Gallinago delicata; 857, Ross's goose, Chen rossii; 868, Federally threatened shorebird, n/a; 869, Blackpoll warbler, Setophaga striata; 870, Loggerhead shrike, Lanius ludovicianus; 871, Endangered raptor 1, n/a; 872, Endangered raptor 2, n/a; 873, Endangered raptor 3, n/a; 874, Endangered raptor 4, n/a; 875, Endangered shorebird 1, n/a; 876, Endangered shorebird 2, n/a; 877, Endangered shorebird 3, n/a; 878, Endangered tern 1, n/a; 879, Endangered tern 2, n/a; 880, Endangered tern 3, n/a; 881, Endangered tern 4, n/a; 882, Endangered wading bird 1, n/a; 883, Endangered wading bird 2, n/a; 884, Endangered wading bird 3, n/a; 885, Rare passerine 1, n/a; 886, Rare passerine 2, n/a; 887, Rare passerine 3, n/a; 888,

Rare raptor 1, n/a; 889, Rare raptor 2, n/a; 890, Rare raptor 3, n/a; 891, Rare raptor 4, n/a; 892, Rare shorebird 1, n/a; 893, Rare shorebird 2, n/a; 894, Rare wading bird 1, n/a; 895, Rare wading bird 2, n/a; 896, Rare wading bird 3, n/a; 897, Rare wading bird 4, n/a; 898, Rare wading bird 5, n/a; 899, Rare wading bird 6, n/a; 900, Rare wading bird 7, n/a; 901, Rare wading bird 8, n/a; 902, Rare wading bird 9, n/a; 903, Rare wading bird 10, n/a; 1001, Gulls, n/a; 1002, Shorebirds, n/a; 1008, Terns, n/a; 1009, Shearwaters, n/a; 1017, Sandpipers, n/a; 1024, Alcids, n/a; 1026, Grebes, n/a; 1037, Cormorants, Phalacrocorax spp..

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: CLARK, K. (NJ ENDANGERED AND NON-GAME SPECIES PROGRAM)
Publication_Date: 2014
Title: BIRD SEASONALITY FOR NEW JERSEY
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2014

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: DAVIS, C. (NJ ENDANGERED AND NON-GAME SPECIES PROGRAM)
Publication_Date: 2014
Title: BIRD SEASONALITY FOR NEW JERSEY
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2014

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND CONTROL (DNREC) - MATT DIBONA
Publication_Date: 2013
Title: DELAWARE WINTERING WATERFOWL SURVEYS
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2007
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title: IMPOUNDMENTS OF DELAWARE
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: ELEMENT OCCURRENCE RECORDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title: RED KNOT HABITAT
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - KALASZ, K., A. GONZON, M. DIBONA, M. BAILEY
Publication_Date: 2014
Title: DELAWARE BIRDS SEASONALITY INFORMATION
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2014
Ending_Date: 2014

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - KEVIN KALASZ
Publication_Date: 2013
Title: ESI BEACH NESTING BIRDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - KEVIN KALASZ
Publication_Date: 2013
Title: SHOREBIRD FLOCK COUNTS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1998
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE

Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - KEVIN KALASZ
Publication_Date: 2013
Title: BIRDS OF DELAWARE
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: HESS, G.K., R.L. WEST, M.V. BARNHILL III, L.M. FLEMING
Publication_Date: 2000
Title: BIRDS OF DELAWARE
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: PITTSBURGH, PA
Publisher: UNIVERSITY OF PITTSBURGH PRESS

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2000

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: MCWILLIAMS, JERRY AND DANIEL BRAUNING
Publication_Date: 2000
Title: THE BIRDS OF PENNSYLVANIA
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: ITHACA, NY
Publisher: CORNELL UNIVERSITY PRESS

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2000

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF FISH AND WILDLIFE (NJDEP F&W)
Publication_Date: 2010
Title: NEW JERSEY WINTERING WATERFOWL SURVEY
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2001
Ending_Date: 2010

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) ENDANGERED NONGAME SPECIES PROGRAM (ENSP)
Publication_Date: 2014
Title:
RPI NJ NATURESERVE SF POLYS 201401 FROM NATURESERVE ELEMENT OCCURRENCE (EO) DATA FOR THE NORTH ATLANTIC LCC, MARCH 2013
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2014

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) ENDANGERED NONGAME SPECIES PROGRAM (ENSP)
Publication_Date: 2014
Title:
RPI NJ NATURESERVE SF POINTS 201401 FROM NATURESERVE ELEMENT OCCURRENCE (EO) DATA FOR THE NORTH ATLANTIC LCC, MARCH 2013
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2014

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) ENDANGERED NONGAME SPECIES PROGRAM (ENSP)
Publication_Date: 2014
Title: RED KNOT ASSESSMENT BUFFERS 201401
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2014

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) ENDANGERED NONGAME SPECIES PROGRAM (ENSP) AND NATURESERVE
Publication_Date: 2014
Title: RPI NJ NATURESERVE SF POLYS 201401
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PENNSYLVANIA GAME COMMISSION (PGC) - IAN GREGG
Publication_Date: 2013
Title: PENNSYLVANIA MID-WINTER WATERFOWL SURVEYS
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1980
Ending_Date: 2001

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
R. S. MULVIHILL, PROJECT COORDINATOR. POWDERMILL AVIAN RESEARCH CENTER, CARNEGIE MUSEUM OF NATURAL HISTORY. (DATA PROVIDED BY D. BRAUNING.)
Publication_Date: 2008
Title: 2ND PENNSYLVANIA BREEDING BIRD ATLAS (2004-2008)
Geospatial_Data_Presentation_Form: SPREADSHEET

Other_Citation_Details: UNPUBLISHED

Source_Scale_Denominator: 6000
Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2004
Ending_Date: 2008

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date: 2013
Title:
EDWIN B. FORSYTHE NATIONAL WILDLIFE REFUGE SHOREBIRD SURVEY DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2011
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date: 2013
Title:

PRIME HOOK NATIONAL WILDLIFE REFUGE INTEGRATED WATERBIRD MANAGEMENT AND MONITORING
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - EMILY SILVERMAN
Publication_Date: 2012
Title: ATLANTIC COAST WINTERING SEA DUCK SURVEY DATA
Geospatial_Data_Presentation_Form: TABULAR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2008
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - HEIDI

HANLON
Publication_Date: 2004
Title:
SUPAWNA MEADOWS NATIONAL WILDLIFE REFUGE SALTMARSH SPARROW SURVEY SPECIES LIST
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2002
Ending_Date: 2004

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - HEIDI HANLON
Publication_Date: 2004
Title:
SUPAWNA MEADOWS NATIONAL WILDLIFE REFUGE MARSH BIRD CALLBACK SURVEY SPECIES LIST
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2002
Ending_Date: 2004

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - HEIDI HANLON
Publication_Date: 2004
Title: PEA PATCH ISLAND NESTING WADERS SURVEY
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2004
Ending_Date: 2004

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - HEIDI HANLON
Publication_Date: 2013
Title:
SUPAWNA MEADOWS NATIONAL WILDLIFE REFUGE MARSH BIRD DATA FROM USGS POINT COUNT DATABASE
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - JEN MCANDREWS
Publication_Date: 2013
Title:
BOMBAY HOOK NATIONAL WILDLIFE REFUGE - SALTMARSH HABITAT AND AVIAN RESEARCH PROGRAM SURVEY DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2011
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - JEN MCANDREWS
Publication_Date: 2013
Title: BOMBAY HOOK NATIONAL WILDLIFE REFUGE NATURAL RESOURCES
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - JEN MCANDREWS
Publication_Date: 2013
Title:
BOMBAY HOOK NATIONAL WILDLIFE REFUGE INTEGRATED WATERBIRD MANAGEMENT AND MONITORING
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - SUSAN GUITERAS
Publication_Date: 2013
Title:
PRIME HOOK NATIONAL WILDLIFE REFUGE SALTMARSH HABITAT AND AVIAN RESEARCH PROGRAM SURVEY
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - SUSAN GUITERAS
Publication_Date: 2012
Title:
PRIME HOOK NATIONAL WILDLIFE REFUGE SALT MARSH INTEGRITY SURVEY - MARSH BIRD CALLBACK DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2012
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) NATIONAL WILDLIFE REFUGE AT TINICUM - JOHN HEINZ
Publication_Date: 2012
Title: COMPREHENSIVE CONSERVATION PLAN
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: PHILADELPHIA, PA
Publisher: UNITED STATES FISH AND WILDLIFE SERVICE

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES GEOLOGICAL SURVEY (USGS) - ALLISON SUSSMAN
Publication_Date: 2010
Title: ATLANTIC OFFSHORE SEABIRD DATASET CATALOG
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2000
Ending_Date: 2010

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES GEOLOGICAL SURVEY PATUXENT WILDLIFE RESEARCH CENTER (USGS PWRC) & NATIONAL BIOLOGICAL INFORMATION INFRASTRUCTURE
Publication_Date: 2014
Title: BREEDING BIRD ATLAS EXPLORER (ONLINE RESOURCE)
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: LAUREL, MD
Publisher: USGS PWRC

Other_Citation_Details:
DATA COMPILED FROM: DELAWARE BREEDING BIRD ATLAS 2008-2012. DELAWARE DIVISION OF FISH AND WILDLIFE, DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL. INTERIM RESULTS USED WITH PERMISSION.
Online_Linkage: <http://www.pwrc.usgs.gov/bba>

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Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: WALSH, J., V. ELIA, R. KANE, T. HALLIWELL
Publication_Date: 1999
Title: BIRDS OF NEW JERSEY
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
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Publication_Place: BERNARDSVILLE, NJ
Publisher: NEW JERSEY AUDUBON SOCIETY

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Calendar_Date: 1999

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
WOERNER, P. NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE ENDANGERED AND NONGAME SPECIES PROGRAM
Publication_Date: 2014
Title: RED KNOT AND SHOREBIRD DISTRIBUTION IN NJ
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2014

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. Three main sources of data were used to depict bird distribution and seasonality for this data layer: 1) personal interviews with resource experts from: Delaware Department of Natural Resources and Environmental Control (DNREC), NJ Department of Environmental Protection Division of Fish and Wildlife (NJDEP F&W), NJDEP F&W Endangered and Nongame Species Program (ENSP), U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), and Pennsylvania Game Commission (PGC); 2) numerous published and unpublished reports; and 3) digital/tabular data sets provided by: DNREC, NJDEP F&W, NJDEP ENSP, USFWS, USGS, and PGC. DE, NJ, and PA waterfowl: Waterfowl surveys were conducted in (11 zones in DE, 29 zones in NJ, and 2 zones in PA) from Oct.-Jan. ranging from 1980-2012 (dependent on state). In all three states, surveys provided simple counts of all species within the survey zones. A 'wetlands and inland water bodies' habitat class was created by selecting ESI 10A, -B, -C, and –D within the survey zones and buffering them by 10 m before merging them with all adjacent inland water bodies. The resulting polygons were then edited to eliminate any gaps or isolated polygons less than 10,000 m2. The second habitat class was defined as ‘large open water bodies’. This habitat type includes the inland bays and sounds of DE and NJ as well as portions of the Delaware River. Concentrations were calculated as the maximum value of summed points within a month across all years surveyed and generalized to categorical bins of 10s, 100s, 1,000s, etc. Survey zones were aggregated if they were geographically adjacent and had similar maximum counts and species assemblages. Delaware Bay and Atlantic Ocean seabirds – Two data sets were used: 1) USFWS Atlantic Coast Wintering Sea Duck Survey (ACWSDS) and the USGS Atlantic Offshore Seabird Dataset Catalog (AOSDC). Based on expert advice, data was first grouped into nearshore (1 nautical mile from shore) and offshore (1-12 nm) polygons. Data was futher subdivided between DE and NJ coasts, and between the Delaware Bay and open ocean waters. Data from the ACWSDS were used for the majority of the ESI study area, as the data had better coverage, replication, and consistency. The AOSDC data was only incorporated along the Delaware River between the Delaware Memorial Bridge and

Nantuxent Point, NJ/Bombay Hook, DE. The majority of surveys for the ACWSDS were flown from Oct.-Mar. along predetermined latitudinal transects spaced 5 nm apart. Concentrations of seabird species for a given region were calculated as the maximum value of summed points within a survey period across all years surveyed. DE Element Occurrence Data – Rare and endangered species of birds were mapped in part using element occurrence data provided by DNREC. Polygons with diameters greater than 100 m were mapped as is and all other polygons were mapped after applying a polygonal buffer and a randomized geographic shift. DE Shorebirds – DNREC provided polygonal data representing red knot concentration areas during spring migration, beach nesting bird locations, and impoundments. Please note that names were obscured for all DE species that are listed DE State endangered and/or federally threatened to generic names such as 'endangered shorebird'. DNREC also provided shorebird flock count data along Delaware Bay beaches. Data from the last 10 years (2003-2013) was summarized for inclusion in the atlas and was generalized to categorical bins of 10s, 100s, 1,000s, etc., representing the max counts for each species within each site over the survey period. DE Marshbirds and Passerines – DNREC provided Delaware Breeding Bird Atlas 2008-2012 data for secretive marsh birds and marsh-breeding passerines. In each BBA quad in which a species was indicated as "present", that species was mapped to all appropriate ESI habitats. DE NWR birds – Bombay Hook and Prime Hook NWRs provided Integrated Waterbird Management and Monitoring (IWMM) survey data, Saltmarsh Habitat and Avian Research Program (SHARP) survey data, and Saltmarsh Integrity (SMI) survey data. The IWMM data was limited to discrete survey areas within each refuge. Data from 2010-2013 was summarized for inclusion in the atlas. Concentrations were generalized to categorical bins of 10s, 100s, 1,000s, etc., representing high counts for each species within each IWMM site over the survey period. SHARP and SMI surveys covered refuge habitat more broadly, so they were used to create species lists that covered the remaining extent of these refuges. New Jersey ENSP Shorebirds – Polygonal buffers were provided by NJ ENSP for spring shorebird concentration areas and red knot 'status assessments'. NJ ENSP provided polygonal data on Colonial Waterbird nesting areas. Colonial waterbirds utilize many habitats for breeding, including salt marshes and salt marsh islands, barrier islands and beaches, dredge spoil islands, and natural sand shoals, particularly behind the barrier islands and in the major bay systems in coastal NJ. NJ ENSP Raptors - A buffer, as specified by the data provider, was applied to all raptor nests that were delivered to RPI as points. Raptor nests that were delivered to RPI as polygons (buffer was applied by NJ ENSP around nest site prior to data delivery) were portrayed 'as is'. NJ NWR birds – Supawna Meadows NWR provided marsh bird survey and saltmarsh sparrow survey data. Species, including: shorebirds, wading birds, raptors, gulls, terns, and other passerines were mapped to the entirety of the Supawna Meadows NWR and adjacent marshes. Pea Patch Island (DE) nesting wading birds survey data were also provided by Supawna Meadows NWR. Data from Edwin B. Forsythe NWR were compiled with data received from ENSP to capture the full suite and range of species mapped within the reserve boundaries. Pennsylvania BBA birds – PGC provided data from the 2nd Pennsylvania Breeding Bird Atlas (2ndPBBA). The 2ndPBBA atlas contained data on all breeding birds and observance data of non-breeding birds. Breeding bird data records categorized as "Confirmed" or "Probable" were mapped in the appropriate habitat for each species within the 2nd BBA quad where each species was present. These records were listed with a nesting season in the ESI seasonality table. Observance data of non-nesters (categorized in the dataset as "Observed") were mapped in the ESI atlas when coordinates were included with the record. Nesting seasons were not included in the ESI seasonality table for these records. Pennsylvania raptors – Peregrine falcon (PA SE) and bald eagle (PA ST) nest locations were provided by PGC. Nest points were mapped as is. Federally threatened (FT) and state listed endangered (SE) or threatened (ST) or rare (not listed) bird species for which common names were obscured in one or more states (DE and/or NJ), due to requests from data providers within those states, were renamed based on their federal or state listing status and ESI subelement: e.g., 'endangered tern', 'threatened shorebird', 'rare passerine', etc.

The above digital and/or hardcopy sources were compiled by the project biologist to create the BIRDS data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the BIRDS data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
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Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 6184

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 6183

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 14282

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 2320222

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 10081

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, BIRDS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact

version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Entity_and_Attribute_Detail_Citation:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BIRDS.PAT

Entity_Type_Definition:

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

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID

Attribute_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (1), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (1), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

Entity_Type_Label: BIORES
Entity_Type_Definition:
The data table BIORES contains both biological attribute data and items necessary for linking

vector objects in the biological data layers via the BIO_LUT data table to other associated data tables. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: SPECIES_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC

Attribute_Definition:

The field CONC refers to "concentration," abundance, or density values, and may contain counts of individuals for each species present at a particular nesting or wintering site, or a term that describes relative abundance of birds at a particular site (XX INDIV, 1 NEST, 1000S). In cases where no quantitative count data was available, the field may either be blank or contain descriptive terms such as "ABUNDANT", "HIGH", "COMMON", "OCCASIONAL", "RARE", "UNCOMMON", or "VERY HIGH". Counts were derived from a variety of surveys, and may range in date (see lineage).

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

'B00001').
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME
Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab

Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery
Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod

Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: passerine

Enumerated_Domain_Value_Definition: Passerine bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: sm_mammal

Enumerated_Domain_Value_Definition: Small mammal
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl
Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank
Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

in the ESI data structure.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN
Attribute_Definition: January
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in January
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB
Attribute_Definition: February
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in February
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR
Attribute_Definition: March
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X

Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP
Attribute_Definition: September
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: MONTH
Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED2
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T_MAMMAL

Enumerated_Domain_Value_Definition: Terrestrial Mammals
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE
Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:

Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of

the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.

Custom_Order_Process:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 12:00:16 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: ESIL (Environmental Sensitivity Index Shoreline Types - Lines)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: ESIL (Environmental Sensitivity Index Shoreline Types - Lines)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

Other_Citation_Details:

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

Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:

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

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2013

Currentness_Reference:

The data were compiled during 2013-2014. The currentness dates for this data range from 2010 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export

format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent coastal shorelines and habitats classified according to the Environmental Sensitivity Index (ESI) classification system. See also the ESIP data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional ESI information.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: GOOGLE EARTH
Publication_Date: 2013
Title: GOOGLE EARTH IMAGERY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Online_Linkage: <http://www.google.com/earth/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) ENDANGERED NONGAME SPECIES PROGRAM (ENSP)
Publication_Date: 2012
Title:
NJDEP SPECIES BASED HABITAT, DELAWARE BAY REGION (VERSION 3.1, 20120221)
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: TRENTON, NJ
Publisher: NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: MICROSOFT BING
Publication_Date: 2013
Title: BING AERIAL IMAGERY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Publication_Information:

Publication_Place: ROCHESTER, NY
Publisher: MICROSOFT BING

Other_Citation_Details:
IMAGERY PRODUCED FOR MICROSOFT BING BY DIGITAL GLOVE, PICTOMETRY INTERNATIONAL CORP, AND NOKIA.
Online_Linkage: <http://www.bing.com/maps/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2011

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PICTOMETRY INTERNATIONAL CORPORATION
Publication_Date: 2013
Title: OBLIQUE AERIAL PHOTOGRAPHY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Publication_Information:

Publication_Place: ROCHESTER, NY
Publisher: PICTOMETRY INTERNATIONAL CORPORATION

Other_Citation_Details:
IMAGERY PRODUCED FOR MICROSOFT BING BY DIGITAL GLOBE, PICTOMETRY INTERNATIONAL CORP, AND NOKIA.
Online_Linkage: <http://www.bing.comp/maps/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2011

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date: 2010
Title: NATIONAL WETLANDS INVENTORY (NWI) - WETLANDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: WASHINGTON D.C.
Publisher: U.S.FISH AND WILDLIFE SERVICE

Online_Linkage: <http://www.fws.gov/wetlands>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1972
Ending_Date: 2009

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIL INFORMATION

Process_Step:

Process_Description:
The shoreline was derived from the integration of the U.S. Fish and Wildlife Service (FWS) National Wetlands Inventory (NWI) dataset (1972-2009); New Jersey Department of Environmental Protection (NJDEP) species based habitat dataset (2012); the National Oceanic and Atmospheric Administration (NOAA) Continually Updated Shoreline Product (CUSP) (1997-2012); and manual digitization at 1:4,000 from 2010-2011 BING aerial and 2010-2013 GOOGLE EARTH aerial imagery. The most recent shoreline was utilized where available. The intertidal shoreline habitats were classified based on 2010-2011 low-altitude oblique aerial photography from: BING Pictometry; 2010-2011 BING aerial imagery; and 2010-2013 GOOGLE EARTH aerial imagery. Shoreline features of 10 meters or greater in length were classified. In addition, wetland polygon datasets originally created by the FWS National Wetlands Inventory and the NJDEP were modified and updated to be used in conjunction with the ESI shoreline. Where necessary, multiple types were described for each shoreline

segment. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the ESIL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 29807

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 2266191

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 29878

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, one relational attribute or data table, SOURCES, is used to store the source data information in the ESI data structure. The geographic data layer containing resource information (in this case, ESIL) is linked to the SOURCES table using the SOURCE_ID. The entity-relationship diagram describes relationships between attribute tables in the ESI data structure.
Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (<http://response.restoration.noaa.gov/esi_guidelines>).

Detailed_Description:

Entity_Type:

Entity_Type_Label: ESIL.AAT
Entity_Type_Definition:
The ESIL.AAT table contains attribute information for the vector lines representing linear shoreline features with ESI classification.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

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

are also important factors in the ESI ranking. Generally speaking, areas exposed to high levels of physical energy, such as wave action and tidal currents, and low biological activity rank low on the scale, whereas sheltered areas with associated high biological activity have the highest ranking.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 1B
Enumerated_Domain_Value_Definition: Exposed, Solid Man-made Structures
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 2A
Enumerated_Domain_Value_Definition: Wave-cut Platforms in Clay, Mud, or Bedrock
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 2B
Enumerated_Domain_Value_Definition: Exposed Scarps and Steep Slopes in Clay or Mud
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 7
Enumerated_Domain_Value_Definition: Exposed Tidal Flats
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 8A
Enumerated_Domain_Value_Definition: Sheltered Scarps in Clay or Mud
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 8E
Enumerated_Domain_Value_Definition: Peat Shorelines
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 9A
Enumerated_Domain_Value_Definition: Sheltered Tidal Flats
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 10D
Enumerated_Domain_Value_Definition: Scrub-Shrub Wetlands
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: U
Enumerated_Domain_Value_Definition: Unranked
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: LINE
Attribute_Definition: Type of geographic feature.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: B
Enumerated_Domain_Value_Definition: Breakwater
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: H
Enumerated_Domain_Value_Definition: Hydrography
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: S
Enumerated_Domain_Value_Definition: Shoreline
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links to the SOURCES data table. This id indicates the source of a vector line segment.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: ENVIR
Attribute_Definition: Type of regional environment.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Estuarine
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ESI_SOURCE
Attribute_Definition:
Source identifier that links to the SOURCES data table. This id indicates the source of the ESI classification of a line segment. Vector features that were not surveyed or do not qualify for an ESI classification have a value of -1.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data

Distribution_Liability:

Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.

Custom_Order_Process:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Fri Mar 28 14:58:22 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: ESIP (Environmental Sensitivity Index Shoreline Types - Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: ESIP (Environmental Sensitivity Index Shoreline Types - Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

Other_Citation_Details:

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

Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:

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

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2013

Currentness_Reference:

The data were compiled during 2013-2014. The currentness dates for this data range from 2010 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export

format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent coastal shorelines and habitats classified according to the Environmental Sensitivity Index (ESI) classification system. See also the ESIL data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional ESI information.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: GOOGLE EARTH
Publication_Date: 2013
Title: GOOGLE EARTH IMAGERY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Online_Linkage: <http://www.google.com/earth/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIP INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) ENDANGERED NONGAME SPECIES PROGRAM (ENSP)
Publication_Date: 2012
Title:
NJDEP SPECIES BASED HABITAT, DELAWARE BAY REGION (VERSION 3.1, 20120221)
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: TRENTON, NJ
Publisher: NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIP INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: MICROSOFT BING
Publication_Date: 2013
Title: BING AERIAL IMAGERY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Publication_Information:

Publication_Place: ROCHESTER, NY
Publisher: MICROSOFT BING

Other_Citation_Details:
IMAGERY PRODUCED FOR MICROSOFT BING BY DIGITAL GLOVE, PICTOMETRY INTERNATIONAL CORP, AND NOKIA.
Online_Linkage: <http://www.bing.com/maps/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2011

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIP INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PICTOMETRY INTERNATIONAL CORPORATION
Publication_Date: 2013
Title: OBLIQUE AERIAL PHOTOGRAPHY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Publication_Information:

Publication_Place: ROCHESTER, NY
Publisher: PICTOMETRY INTERNATIONAL CORPORATION

Other_Citation_Details:
IMAGERY PRODUCED FOR MICROSOFT BING BY DIGITAL GLOBE, PICTOMETRY INTERNATIONAL CORP, AND NOKIA.
Online_Linkage: <http://www.bing.comp/maps/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2011

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIP INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date: 2010
Title: NATIONAL WETLANDS INVENTORY (NWI) - WETLANDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: WASHINGTON D.C.
Publisher: U.S.FISH AND WILDLIFE SERVICE

Online_Linkage: <http://www.fws.gov/wetlands>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1972
Ending_Date: 2009

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: ESIP INFORMATION

Process_Step:

Process_Description:
The shoreline was derived from the integration of the U.S. Fish and Wildlife Service (FWS) National Wetlands Inventory (NWI) dataset (1972-2009); New Jersey Department of Environmental Protection (NJDEP) species based habitat dataset (2012); the National Oceanic and Atmospheric Administration (NOAA) Continually Updated Shoreline Product (CUSP) (1997-2012); and manual digitization at 1:4,000 from 2010-2011 BING aerial and 2010-2013 GOOGLE EARTH aerial imagery. The most recent shoreline was utilized where available. The intertidal shoreline habitats were classified based on 2010-2011 low-altitude oblique aerial photography from: BING Pictometry; 2010-2011 BING aerial imagery; and 2010-2013 GOOGLE EARTH aerial imagery. Shoreline features of 10 meters or greater in length were classified. In addition, wetland polygon datasets originally created by the FWS National Wetlands Inventory and the NJDEP were modified and updated to be used in conjunction with the ESI shoreline. Where necessary, multiple types were described for each shoreline

segment. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the ESIP data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 28757

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 28756

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 59451

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 3841494

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 50194

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, one relational attribute or data table, SOURCES, is used to store the source data information in the ESI data structure. The geographic data layer containing resource information (in this case, ESIP) is linked to the SOURCES table using the SOURCE_ID. The entity-relationship diagram describes relationships between attribute tables in the ESI data structure.
Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (<http://response.restoration.noaa.gov/esi_guidelines>).

Detailed_Description:

Entity_Type:

Entity_Type_Label: ESIP.PAT
Entity_Type_Definition:
The ESIP.PAT table contains attribute information for the vector polygons representing polygonal features with ESI classification.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ESI
Attribute_Definition: The item ESI contains values representing the ESI polygon type.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 7
Enumerated_Domain_Value_Definition: Exposed Tidal Flats
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 9A
Enumerated_Domain_Value_Definition: Sheltered Tidal Flats
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 10D
Enumerated_Domain_Value_Definition: Scrub-Shrub Wetlands
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: U
Enumerated_Domain_Value_Definition: Unranked
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: L
Enumerated_Domain_Value_Definition: Land
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: W
Enumerated_Domain_Value_Definition: Water
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ENVIR
Attribute_Definition: Type of regional environment.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Estuarine
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: U
Enumerated_Domain_Value_Definition: Unclassified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ESI_SOURCE
Attribute_Definition:
Source identifier that links to the SOURCES data table. This id indicates the source of the ESI classification of a polygon. Vector features that were not surveyed or do not qualify for an ESI classification have a value of -1.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
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Metadata_Standard_Name: Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: FGDC-STD-001-1998

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Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: FISH (Fish Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: FISH (Fish Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for marine, estuarine, anadromous, and freshwater fish species in Delaware/New Jersey/Pennsylvania. Vector polygons in this data set represent fish distribution, concentration areas, spawning areas, and anadromous fish spawning runs. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the FISHL data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional fish information.

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 1985 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's

with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent a synthesis of expert knowledge, survey data, and digital data on fish distribution, concentration areas, spawning areas, and anadromous fish spawning runs. See also the FISHL data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional fish information. These data do not necessarily represent all fish occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 65, Bluefish, Pomatomus saltatrix; 74, Rainbow trout, Oncorhynchus mykiss; 81, Spiny dogfish, Squalus acanthias; 85, Alewife, Alosa pseudoharengus; 86, Blueback herring, Alosa aestivalis; 87, American shad, Alosa sapidissima; 88, Winter flounder, Pleuronectes americanus; 97, Tautog, Tautoga onitis; 98, American eel, Anguilla rostrata; 100, Brown trout, Salmo trutta; 101, Shortnose sturgeon, Acipenser brevirostrum; 102, Atlantic sturgeon, Acipenser oxyrinchus; 104, Striped bass, Morone saxatilis; 105, Hickory shad, Alosa mediocris; 108, Summer flounder, Paralichthys dentatus; 110, Black sea bass, Centropristis striata; 113, Bay anchovy, Anchoa mitchilli; 115, Atlantic menhaden, Brevoortia tyrannus; 121, Spot, Leiostomus xanthurus; 122, Black drum, Pogonias cromis; 123, Atlantic croaker, Micropogonias

undulatus; 138, Weakfish, Cynoscion regalis; 145, White perch, Morone americana; 146, Atlantic herring, Clupea harengus; 147, Atlantic mackerel, Scomber scombrus; 148, Silver hake, Merluccius bilinearis; 149, Atlantic cod, Gadus morhua; 150, Scup, Stenotomus chrysops; 152, Yellow perch, Perca flavescens; 153, Northern kingfish, Menticirrhus saxatilis; 157, Goosefish, Lophius americanus; 158, Butterfish, Peprilus triacanthus; 160, Windowpane, Scophthalmus aquosus; 163, Gizzard shad, Dorosoma cepedianum; 179, Largemouth bass, Micropterus salmoides; 180, Smallmouth bass, Micropterus dolomieu; 200, Blue catfish, Ictalurus furcatus; 201, Channel catfish, Ictalurus punctatus; 257, Flathead catfish, Pylodictis olivaris; 290, Striped anchovy, Anchoa hepsetus; 294, Spotted hake, Urophycis regia; 318, Atlantic sharpnose shark, Rhizoprionodon terraenovae; 332, Tiger shark, Galeocerdo cuvier; 365, Rare fish, n/a; 477, Cownose ray, Rhinoptera bonasus; 522, Yellowfin tuna, Thunnus albacares; 620, Endangered fish, n/a; 792, Skipjack tuna, Katsuwonus pelamis; 946, Albacore, Thunnus alalunga; 967, Sandbar shark, Carcharhinus plumbeus; 1089, Little skate, Leucoraja erinacea; 1107, Sand tiger, Carcharias taurus; 1108, Smooth dogfish, Mustelus canis; 1126, Shortfin mako, Isurus oxyrinchus; 1130, Dusky shark, Carcharhinus obscurus; 1131, Winter skate, Leucoraja ocellata; 1146, Bluefin tuna, Thunnus thynnus; 1172, Tilefish, Lopholatilus chamaeleonticeps; 1238, Thresher shark, Alopias vulpinus; 1239, Bullnose ray, Myliobatis freminvillei.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: ABLE, K.W., AND M.P. FAHAY
Publication_Date: 1998
Title:
THE FIRST YEAR IN THE LIFE OF ESTUARINE FISHES IN THE MIDDLE ATLANTIC BIGHT
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: NEW BRUNSWICK, NJ
Publisher: RUTGERS UNIVERSITY PRESS

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1998
Ending_Date: 1998

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: ATLANTIC STATES MARINE FISHERIES COMMISSION (ASMFC)
Publication_Date: 2002
Title: INTERSTATE FISHERY MANAGEMENT PLAN FOR SPINY DOGFISH
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: ATLANTIC STATES MARINE FISHERIES COMMISSION
Publisher: ATLANTIC STATES MARINE FISHERIES COMMISSION

Other_Citation_Details: FISHERY MANAGEMENT REPORT NO. 40
Online_Linkage: <http://www.asmfc.org/uploads/file/spinyDogfishFMP.pdf>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2002
Ending_Date: 2002

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: ATLANTIC STATES MARINE FISHERIES COMMISSION (ASMFC)
Publication_Date: 2013
Title:
ATLANTIC STATES MARINE FISHERIES COMMISSION ANADROMOUS FISH SPAWNING REACHES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: CASTRO, J.I.
Publication_Date: 2011
Title: THE SHARKS OF NORTH AMERICA
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: NEW YORK
Publisher: OXFORD UNIVERSITY PRESS

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2011
Ending_Date: 2011

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)

Publication_Date: 2012
Title: DELAWARE BAY 16 FT TRAWL INDEPENDENT SAMPLING DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: DELAWARE BAY 30 FT TRAWL INDEPENDENT SAMPLING DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: DELAWARE RIVER 16 FT TRAWL INDEPENDENT SAMPLING DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: ELEMENT OCCURRENCE RECORDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title:
INDIAN RIVER AND REHOBOTH BAYS 16 FT TRAWL INDEPENDENT SAMPLING DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - FISH AND SHELLFISH GROUP
Publication_Date: 2013
Title:
DELAWARE BAY FISH, SHELLFISH, MARINE MAMMAL, REPTILE REVIEW MEETING
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - MATT FISHER
Publication_Date: 2012
Title: ATLANTIC STURGEON JUVENILE TELEMETRY DATA
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2012
Ending_Date: 2012

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - MATT FISHER
Publication_Date: 2013
Title: DELAWARE BAY ATLANTIC AND SHORTNOSE STURGEON REVIEW
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: DOVE, L.E., AND R.M. NYMAN, EDS.
Publication_Date: 1995
Title: LIVING RESOURCES OF THE DELAWARE ESTUARY
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: THE DELAWARE ESTUARY PROGRAM
Publisher: THE DELAWARE ESTUARY PROGRAM

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1995
Ending_Date: 1995

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DUNTON, K.J., A. JORDAAN, K.A. MCKOWN, D.O. CONOVER, AND M.G. FRISK
Publication_Date: 2010
Title:
ABUNDANCE AND DISTRIBUTION OF ATLANTIC STURGEON (ACIPENSER OXYRINCHUS) WITHIN THE NORTHWEST ATLANTIC OCEAN, DETERMINED FROM FIVE FISHERY-INDEPENDENT SURVEYS
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: SEATTLE, WA
Publisher: FISHERY BULLETIN

Other_Citation_Details: FISHERY BULLETIN 108:450–465 (2010)

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2010

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: FISHER, M., D. FOX, M. DELUCIA, AND THE NATURE CONSERVANCY
Publication_Date: 2013
Title:
ATLANTIC STURGEON AND SHORTNOSE STURGEON DISTRIBUTIONS IN DELAWARE BAY
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: MERSON, REBEKA R., H.L. PRATT JR.
Publication_Date: 2001
Title:
DISTRIBUTION, MOVEMENTS AND GROWTH OF YOUNG SANDBAR SHARKS, CARCHARHINUS PLUMBEUS, IN THE NURSERY GROUNDS OF DELAWARE BAY

Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: BERLIN, HEIDELBERG
Publisher: SPRINGER SCIENCE+BUSINESS MEDIA

Other_Citation_Details: ENVIRONMENTAL BIOLOGY OF FISHES VOLUME 61: 13-24, 2001

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2001
Ending_Date: 2001

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) NATIONAL MARINE FISHERIES SERVICE (NMFS) OFFICE OF SUSTAINABLE FISHERIES (OSF) HIGHLY MIGRATORY SPECIES (HMS) MANAGEMENT DIVISION
Publication_Date: 2006
Title:
FINAL CONSOLIDATED ATLANTIC HIGHLY MIGRATORY SPECIES FISHERY MANAGEMENT PLAN
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: SILVER SPRING, MD
Publisher: DEPARTMENT OF COMMERCE

Online_Linkage: <http://www.nmfs.noaa.gov/sfa/hms/FMP/Consolidated_FMP.htm>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2006

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) NATIONAL MARINE FISHERIES SERVICE (NMFS) OFFICE OF SUSTAINABLE FISHERIES (OSF) HIGHLY MIGRATORY SPECIES (HMS) MANAGEMENT DIVISION
Publication_Date: 2009
Title: ESSENTIAL FISH HABITAT FOR ATLANTIC HIGHLY MIGRATORY SPECIES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: SILVER SPRING, MD
Publisher: DEPARTMENT OF COMMERCE

Online_Linkage: <http://www.nmfs.noaa.gov/sfa/hms/EFH/shapefiles.htm>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2009
Ending_Date: 2009

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) NATIONAL MARINE FISHERIES SERVICE (NMFS) OFFICE OF SUSTAINABLE FISHERIES (OSF) HIGHLY MIGRATORY SPECIES (HMS) MANAGEMENT DIVISION
Publication_Date: 2009
Title:
FINAL ADMENDMENT 1 TO THE 2006 CONSOLIDATED ATLANTIC

HIGHLY MIGRATORY SPECIES FISHERY MANAGEMENT PLAN, ESSENTIAL FISH HABITAT

Geospatial_Data_Presentation_Form: DOCUMENT

Publication_Information:

Publication_Place: SILVER SPRING, MD

Publisher: DEPARTMENT OF COMMERCE

Online_Linkage: <http://www.nmfs.noaa.gov/sfa/hms/EFH/index.htm>

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2009

Ending_Date: 2009

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) NATIONAL MARINE FISHERIES SERVICE (NMFS) OFFICE OF SUSTAINABLE FISHERIES (OSF) HIGHLY MIGRATORY SPECIES (HMS) MANAGEMENT DIVISION

Publication_Date: 2010

Title:

AMENDMENT 3 TO THE CONSOLIDATED ATLANTIC HIGHLY MIGRATORY SPECIES FISHERY PLAN

Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA

Publication_Information:

Publication_Place: SILVER SPRING, MD

Publisher: DEPARTMENT OF COMMERCE

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010

Ending_Date: 2010

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF FISH AND WILDLIFE (NJDEP F&W)
Publication_Date: 2012
Title: DELAWARE BAY 16 FT TRAWL INDEPENDENT SAMPLING DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF FISH AND WILDLIFE (NJDEP F&W)
Publication_Date: 2012
Title: NEW JERSEY DELAWARE RIVER SEINE DATA 2002-2012
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: CD-ROM
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2002

Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF MARINE FISHERIES
Publication_Date: 2013
Title: NEW JERSEY OCEAN TRAWL INDEPENDENT SAMPLING DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF MARINE FISHERIES AND SHELLFISHERIES
Publication_Date: 2013
Title:
NEW JERSEY BUREAU OF MARINE FISHERIES AND SHELLFISHERIES REVIEW MEETING
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: O'HERRON, J.C. II, K.W. ABLE, AND R.W. HASTINGS
Publication_Date: 1993
Title:
MOVEMENTS OF SHORTNOSE STURGEON (ACIPENSER BREVIROSTRUM) IN THE DELAWARE RIVER
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: CHARLOTTESVILLE, VA
Publisher: ESTUARIES

Other_Citation_Details: ESTUARIES, VOL. 16, NO. 2, P.235-240, JUNE 1993

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1993
Ending_Date: 1993

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PENNSYLVANIA FISH AND BOAT COMMISSION (PFBC)
Publication_Date: 2013
Title: GALLERY OF PENNSYLVANIA FISHES: HERRINGS

Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED
Online_Linkage: <http://fishandboat.com/pafish/fishhtms/chap10.htm>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PENNSYLVANIA FISH AND BOAT COMMISSION (PFBC)
Publication_Date: 2013
Title:
PENNSYLVANIA FISH AND BOAT COMMSSION FRESHWATER FISH SPECIES LISTS
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PERILLO, J.A. AND L.H. BUTLER
Publication_Date: 2009

Title:
EVALUATING THE USE OF FAIRMOUNT DAM FISH PASSAGE FACILITY WITH APPLICATION TO ANADROMOUS FISH RESTORATION IN THE SCHUYKILL RIVER, PENNSYLVANIA
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: JOURNAL OF THE PENNSYLVANIA ACADEMY OF SCIENCE
Publisher: JOURNAL OF THE PENNSYLVANIA ACADEMY OF SCIENCE

Other_Citation_Details: VOL. 83, NO. 1, P. 24-33, 2009

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2002
Ending_Date: 2009

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
STONE, S.L., T.A. LOWERY, J.D. FIELD, C.D. WILLIAMS, D.M. NELSON, S.H. JURY, M.E. MONACO, AND L. ANDREASEN
Publication_Date: 1994
Title:
DISTRIBUTION AND ABUNDANCE OF FISHES AND INVERTEBRATES IN MID-ATLANTIC ESTUARIES. ELMR REP. NO. 12
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: SILVER SPRING, MD
Publisher: NOAA/NOS STRATEGIC ENVIRONMENTAL ASSESSMENTS DIVISION

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1994

Ending_Date: 1994

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: THE NATURE CONSERVANCY (TNC)
Publication_Date: 2011
Title: THE NATURE CONSERVANCY ANADROMOUS FISH SPAWNING REACHES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2011
Ending_Date: 2011

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) NATIONAL WILDLIFE REFUGE AT TINICUM - JOHN HEINZ
Publication_Date: 2012
Title: COMPREHENSIVE CONSERVATION PLAN
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: PHILADELPHIA, PA
Publisher: UNITED STATES FISH AND WILDLIFE SERVICE

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: VIRGINIA INSTITUTE OF MARINE SCIENCE (VIMS)
Publication_Date: 2013
Title:
VIRGINIA INSTITUTE OF MARINE SCIENCE NORTHEAST AREA MONITORING AND ASSESSMENT PROGRAM TRAWL DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2008
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. Fish species depicted in this atlas include select marine, estuarine, and freshwater species. Species of conservation interest, commercial or recreational importance, or ecological importance are emphasized. Fish polygons were created based on survey information, digital data, and expert opinion provided primarily by resource experts at Delaware Department of Natural Resources and Environmental Control (DNREC) and New Jersey Department of Environmental Control Bureau of Marine Fisheries (NJDEP BMF), but also Atlantic States Marine Fisheries Commission (ASMFC), Pennsylvania Fish and Boat Commission (PFBC), Virginia Institute of Marine Science (VIMS), and select published literature. DNREC staff provided independent sampling data for Delaware Bay, Delaware River, and the Inland Bays: Rehoboth and Indian River. NJDEP BMF staff provided independent sampling data for Delaware Bay, Delaware River, and the Atlantic Ocean. Relatively little data was available for Pennsylvania fishes. PFBC provided species lists for a number of Delaware River tributaries, based on electrofishing surveys done during spring to

fall months. No data has been collected for the Delaware River by PFBC staff since 1996, so NJDEP BMF data was used as the primary source for species in the Delaware River. The presence of a species for a given month in a given geography was based primarily on occurrence rates in the independent sampling data. Species that were caught more than one tenth of the time at sampling stations within a survey area and across the ten year sampling window were marked as ‘present’ for that month. In special cases the cut-off for presence was lowered, either based on review by DNREC or NJDEP BMF staff or because of low but consistent catch rates across all months. Presence during the winter months, i.e. those not surveyed by DNREC or NJDEP BMF staff, were added based on expert opinion or published literature. Estuarine Living Marine Resources (ELMR) data was used to fill in species information within certain geographies and for select species in DE and NJ waters. These geographies include Delaware Bay, the DE Inland Bays, Barnegat Bay, and the other smaller inland bays along the NJ coast. Concentrations and seasonality were adopted as is. Atlantic (FE, SE) and shortnose (FE, SE) sturgeon were mapped to areas where they are known to occur. Polygons were based on data provided by DNREC staff, The Nature Conservancy (TNC), published literature, and expert knowledge from DNREC staff and Dr. Fox, Delaware State University. Emphasis was given to mapping areas known to harbor large concentrations of juveniles, large concentrations of wintering fish, and critical spawning grounds. Spawning runs for anadromous fish in the Delaware Bay region were mapped based on data from the ASMFC and TNC. ASMFC spawning data was used as the primary data source, and TNC data was used to fill in areas where coverage was lacking. Timing of spawning runs was gathered from published literature and reviewed by DNREC and NJDEP BMF staff. All concentration and seasonality information was reviewed by both NJDEP BMF and DNREC staff, and adjusted in some cases to be consistent with expert opinion. Please note, many species can be found in estuarine waters year-round but are significantly less common in the winter months. Where possible, seasonality and concentration information represents months in which a particular species is most likely to be encountered instead of all months a species could potentially be found in a location. For many species, the timing of life history events, i.e. spawning, was added based upon data from the following sources: 1) Able K. W., Fahay M. P.. 1998. The First Year in the Life of Estuarine Fishes in the Middle Atlantic Bight.; 2) Dove, L.E. and Nyman, R.M. (eds.), 1995, Living Resources of the Delaware Estuary; or 3) the mid-Atlantic ELMR data.

The above digital and/or hardcopy sources were compiled by the project biologist to create the FISH data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the FISH data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403

Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration

Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 2925

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 2924

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 5291

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 965874

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 5038

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

Horizontal_Datum_Name: North American Datum of 1983

Ellipsoid_Name: Geodetic Reference System 80
Semi-major_Axis: 6378137.000000
Denominator_of_Flattening_Ratio: 298.257222

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, FISH) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: FISH.PAT

Entity_Type_Definition:
The FISH.PAT table contains attribute information for the vector polygons in this data set representing fish distribution, concentration areas, spawning areas, and anadromous fish spawning runs. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (2), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: RARNUM
Attribute_Definition:
An identifier that links records in the BIO_LUT data table to records in the BIORES data

table or the flat format BIOFILE data table. RARNUM values of 0 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID

Attribute_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (2), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

Entity_Type_Label: BIORES

Entity_Type_Definition:

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

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: SPECIES_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC

Attribute_Definition:

The field CONC refers to "concentration," abundance, or density values of a species at a particular location. Fishery-independent sampling data was used in Delaware River, Delaware Bay, and the Atlantic Ocean to assign concentrations to species. Catch numbers were either provided by DNREC and NJDEP BMF staff as CPUE, or were converted to CPUE using the raw data, and these rates were averaged by geographic regions and across the ten year sampling window to calculate relative concentrations. Species with similar life history, behavior, and habitat requirements were grouped for comparison. Within these groups average CPUE for all months was used to assign concentrations of ‘LOW’, ‘MED’, and ‘HIGH’ within each geographic area. With ‘LOW’, ‘MED’, and ‘HIGH’ corresponding to the first, second and third, and fourth quartiles of averaged CPUE. In the case of ELMR or other data, concentrations were adopted as is. In the absence of concentration information, a concentration of ‘PRESENT’ was assigned.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E#######
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT =

'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME
Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery
Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl
Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank
Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN
Attribute_Definition: January
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in January
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB
Attribute_Definition: February
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in February
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR
Attribute_Definition: March
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP
Attribute_Definition: September
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: MONTH
Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y

Enumerated_Domain_Value_Definition: Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -

Enumerated_Domain_Value_Definition:

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: BREED2

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED3
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE

Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD

Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 12:00:00 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: FISHL (Fish Lines)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: FISHL (Fish Lines)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for anadromous fish species in Delaware/New Jersey/Pennsylvania. Vector lines in this data set represent anadromous fish distribution and spawning runs. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the FISH data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional fish information.

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1998
Ending_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 1998 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's

with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent a synthesis of vector digital data from Atlantic States Marine Fisheries Commission (ASFMC) and The Nature Conservancy (TNC) on anadromous fish distribution and spawning runs. See also the FISH data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional fish information. These data do not necessarily represent all fish occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 85, Alewife, Alosa pseudoharengus; 86, Blueback herring, Alosa aestivalis; 87, American shad, Alosa sapidissima; 98, American eel, Anguilla rostrata.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
Spatial components for the biological data layers can come from expert interviews, hardcopy,

or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: ABLE, K.W., AND M.P. FAHAY
Publication_Date: 1998
Title:
THE FIRST YEAR IN THE LIFE OF ESTUARINE FISHES IN THE MIDDLE ATLANTIC BIGHT
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: NEW BRUNSWICK, NJ
Publisher: RUTGERS UNIVERSITY PRESS

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1998
Ending_Date: 1998

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISHL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: ATLANTIC STATES MARINE FISHERIES COMMISSION (ASMFC)
Publication_Date: 2013
Title:
ATLANTIC STATES MARINE FISHERIES COMMISSION ANADROMOUS

FISH SPAWNING REACHES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISHL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - FISH AND SHELLFISH GROUP
Publication_Date: 2013
Title:
DELAWARE BAY FISH, SHELLFISH, MARINE MAMMAL, REPTILE REVIEW MEETING
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISHL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: THE NATURE CONSERVANCY (TNC)
Publication_Date: 2011
Title: THE NATURE CONSERVANCY ANADROMOUS FISH SPAWNING REACHES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2011
Ending_Date: 2011

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: FISHL INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. Spawning runs for anadromous fish in the Delaware Bay region were mapped based on data from the Atlantic States Marine Fisheries Commission (ASFMC) and The Nature Conservancy (TNC). ASMFC data included confirmed spawning areas for alewife, American shad, blueback herring, and hickory shad. TNC data only provided coverage of three species: alewife, American shad, and blueback herring. Data were provided as vector lines corresponding to streams and rivers in the Delaware Bay region. Where these spawning runs overlapped the ESI hydro layer they were converted to polygonal features; otherwise they were left as polylines. ASMFC spawning data was used as the primary data source, and TNC data was used to fill in areas where coverage was lacking. Timing of spawning runs was gathered from published literature and reviewed by Delaware Department of Natural Resources and Environmental Control (DNREC) and New Jersey Department of Environmental Protection Bureau of Marine Fisheries (NJDEP BMF) staff. The above digital and/or hardcopy sources were compiled by the project biologist to create the FISHL data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the FISHL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.
Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 2974

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 16165

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 4200

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, FISHL) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Entity_and_Attribute_Detail_Citation:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: FISHL.AAT

Entity_Type_Definition:

The FISHL.AAT table contains attribute information for the vector lines in this data set representing anadromous fish distribution and spawning runs. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between

attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID

Attribute_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (22), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

Entity_Type_Label: BIO_LUT

Entity_Type_Definition:

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

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (22), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: RARNUM
Attribute_Definition:
An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC
Attribute_Definition:
The field CONC refers to "concentration," abundance, or density values of a species at a particular location. Concentrations for all anadromous fish were assigned as "HIGH SPAWNING", as a way to highlight the importance of these spawning grounds and the extremely high abundance of anadromous fish that can occur during spawning runs.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: REPTILE
Enumerated_Domain_Value_Definition: Reptiles and Amphibians

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

layer specific species.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME
Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery
Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl
Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank
Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN
Attribute_Definition: January
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in January
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB
Attribute_Definition: February
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in February
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR
Attribute_Definition: March
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP

Attribute_Definition: September
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: MONTH
Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED2
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED3
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED4
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles;

if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED5

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT

Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE
Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and

A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: ORIGINATOR

Attribute_Definition: Author or developer of source material or data set.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE

Attribute_Definition: Publication place.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington

Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 12:00:03 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: HABITATS (Habitat Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: HABITATS (Habitat Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for terrestrial and wetland plants and sensitive plant communities in Delaware/New Jersey/Pennsylvania. Vector polygons in this data set represent rare and endangered plant and plant community distributions. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the BENTHIC data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional habitat information.
Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1979
Ending_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 1979 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's

with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent a synthesis of expert knowledge, available hardcopy documents, and digital data on rare and endangered plant, and plant community distributions. See also the BENTHIC data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional habitat information. These data do not necessarily represent all habitat occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 59, Endangered plant, n/a; 60, Threatened plant, n/a; 145, Seabeach amaranth, Amaranthus pumilus; 170, Knieskern's beaked rush, Rhynchospora knieskernii; 190, Virginia jointvetch, Aeschynomene virginica; 198, Swamp-pink, Helonias bullata; 214, Rare plant, n/a; 258, Threatened wetland/aquatic plant, n/a; 1185, Acidic fen, n/a; 1186, Unique plant community, n/a; 1187, Fiveangled dodder, Cuscuta pentagona; 1188, Coast cockspur grass, Echinochloa walteri; 1189, Forked rush, Juncus dichotomus; 1190, Rare ecological community, n/a.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: ELEMENT OCCURRENCE RECORDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - BILL MCAVOY

Publication_Date: 2013
Title: ACIDIC FEN COMMUNITY LOCATIONS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - BILL MCAVOY
Publication_Date: 2013
Title: DELAWARE UNIQUE PLANT COMMUNITIES DATA
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - KEVIN KALASZ
Publication_Date: 2013
Title: SEABEACH AMARANTH HABITAT LOCATIONS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: MCWILLIAMS, JERRY AND DANIEL BRAUNING
Publication_Date: 2000
Title: THE BIRDS OF PENNSYLVANIA
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: ITHACA, NY
Publisher: CORNELL UNIVERSITY PRESS

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2000

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF PARKS AND FORESTRY (NJDEP)OFFICE OF NATURAL LANDS MANAGEMENT
Publication_Date: 2009
Title: NATURAL HERITAGE GRID MAP
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: TRENTON, NJ
Publisher:
OFFICE OF NATURAL LANDS MANAGEMENT,DIVISION OF PARKS AND FORESTRY, NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION

Online_Linkage: <http://www.state.nj.us/dep/gis/stateshp.html#NHPGRID>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2009

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF PARKS AND FORESTRY (NJDEP) OFFICE OF NATURAL LANDS MANAGEMENT
Publication_Date: 2007
Title: NATURAL HERITAGE PRIORITY SITES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: TRENTON, NJ
Publisher:
OFFICE OF NATURAL LANDS MANAGEMENT, DIVISION OF PARKS AND FORESTRY, NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION

Other_Citation_Details: PRISITES
Online_Linkage: <http://www.state.nj.us/dep/gis/stateshp.html#PRIORITY>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2007

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) NATIONAL WILDLIFE REFUGE AT TINICUM - JOHN HEINZ
Publication_Date: 2012
Title: COMPREHENSIVE CONSERVATION PLAN
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: PHILADELPHIA, PA
Publisher: UNITED STATES FISH AND WILDLIFE SERVICE

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. Two main sources of data were used to depict habitat distribution and seasonality for this data layer: 1) personal interviews with resource experts from Delaware Department of Natural Resources and Environmental Control (DNREC), NJ Department of Environmental Protection (NJDEP) Division of Parks and Forestry Office of Natural Lands Management, United States Fish & Wildlife Service (USFWS); and 2) digital data sets provided by DNREC and NJDEP. New Jersey Rare and Endangered Species Element Occurrence Data NJDEP - Office of Natural Lands Management, NJ Natural

Heritage Program provided guidance and links to a publicly available 2009 shapefile. The shapefile includes a list of rare plant occurrences in an approximately 365 acre grid cell. The data are freely downloadable and contains generalized geographic locations (in the form of a grid-based polygon shapefile) of rare plant species and ecological communities for the entire state. By default, the data masks highly sensitive species and community names. In addition, a shapefile of NJ 'Priority Sites' (polygonal shapes based on habitat instead of grids) was downloaded and analyzed to include rare/sensitive plants and communities that were not covered in the 2009 grid-based data. Ninety-four unique NJ state endangered plants fell within the Area of Interest (AOI). In order to simplify the tabular ESI data, the individual species names were all mapped and listed in the ESI tables as 'endangered plant'. In addition, occurrence records for four federally threatened plants fell within the NJ AOI: 1) Knieskern's beaked rush (FT, NJ SE); 2) seabeach amaranth (FT, NJ SE); 3) sensitive joint-vetch (FT, NJ SE); and 4) swamp-pink (FT, NJ SE). As a result of the data being publically available, exact locations of these species were already obscured by the data provider. Therefore, it was appropriate to map these species by name in the ESI in order for federally listed species to be given a high priority for protection. Delaware Rare and Endangered Species Element Occurrence Data – Rare and federally threatened plants in Delaware were mapped in part by using element occurrence data provided by DNREC. The names of two federally threatened species as well as a number of other Delaware 'rare' plants were obscured as per the request of the data provider. Polygons with diameters greater than 100 m were mapped as is, and all other polygons were mapped after applying a polygonal buffer and a randomized geographic shift. Additionally, some rare plant communities were added as polygonal features based on separate digital data sets provided by DNREC, including 'acidic fens' and select 'unique plant communities'.

The above digital and/or hardcopy sources were compiled by the project biologist to create the HABITATS data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the HABITATS data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403

Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 342

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 341

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 593

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 75943

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 471

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, HABITATS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Entity_and_Attribute_Detail_Citation:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: HABITATS.PAT

Entity_Type_Definition:

The HABITATS.PAT table contains attribute information for the vector polygons in this data set representing rare and endangered plant and plant community distributions. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (3), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (3), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: RARNUM
Attribute_Definition:
An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC
Attribute_Definition:
The field CONC refers to the "concentration," abundance, or density value of a habitat at a particular location. No quantitative data was available for habitats, so the concentration field is blank.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME
Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT

Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery
Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl
Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank
Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN
Attribute_Definition: January
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in January
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB
Attribute_Definition: February
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in February
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR
Attribute_Definition: March
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP
Attribute_Definition: September
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: MONTH
Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1

= spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED2

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED3
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE
Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944

Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 12:00:26 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: HYDRO (Hydrography Lines and Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: HYDRO (Hydrography Lines and Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains vector lines and polygons representing coastal hydrography used in the creation of the Environmental Sensitivity Index (ESI) for Delaware/New Jersey/Pennsylvania. The Hydro data layer contains all annotation used in producing the atlas. The annotation features are categorized into three subclasses in order to simplify the mapping and quality control procedures: GEOG for geographic features, SOC for socioeconomic features, and HYDRO for water features. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the ESIL and ESIP data layers, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional ESI information.
Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 2010 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's

with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent linear and polygonal hydrography for Delaware/New Jersey/Pennsylvania. See also the ESIL and ESIP data layers, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional ESI information.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
The hydrography data set was developed from pre-existing digital data and reflects the positional accuracy of these original data. The horizontal positional accuracy of the 1:45,000 USGS topographic quads should conform to National Map Accuracy Standards at scales of 1:45,000. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: GOOGLE EARTH
Publication_Date: 2013
Title: GOOGLE EARTH IMAGERY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Online_Linkage: <http://www.google.com/earth/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: HYDRO INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) ENDANGERED NONGAME SPECIES PROGRAM (ENSP)
Publication_Date: 2012
Title:
NJDEP SPECIES BASED HABITAT, DELAWARE BAY REGION (VERSION 3.1, 20120221)
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: TRENTON, NJ
Publisher: NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: HYDRO INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: MICROSOFT BING
Publication_Date: 2013
Title: BING AERIAL IMAGERY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Publication_Information:

Publication_Place: ROCHESTER, NY
Publisher: MICROSOFT BING

Other_Citation_Details:
IMAGERY PRODUCED FOR MICROSOFT BING BY DIGITAL GLOVE, PICTOMETRY INTERNATIONAL CORP, AND NOKIA.
Online_Linkage: <http://www.bing.com/maps/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2011

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: HYDRO INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PICTOMETRY INTERNATIONAL CORPORATION
Publication_Date: 2013
Title: OBLIQUE AERIAL PHOTOGRAPHY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Publication_Information:

Publication_Place: ROCHESTER, NY
Publisher: PICTOMETRY INTERNATIONAL CORPORATION

Other_Citation_Details:
IMAGERY PRODUCED FOR MICROSOFT BING BY DIGITAL GLOBE, PICTOMETRY INTERNATIONAL CORP, AND NOKIA.
Online_Linkage: <http://www.bing.comp/maps/>

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2011

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: HYDRO INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: RESEARCH PLANNING, INC.
Publication_Date: 2013
Title: ESI SHORELINE BOUNDARY AND PRINTING INDEX
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Source_Scale_Denominator: 45000
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: HYDRO INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES DEPARTMENT OF COMMERCE (DOC), NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL OCEAN SERVICE (NOS), NATIONAL GEODETIC SURVEY (NGS)
Publication_Date: 2012
Title:
CONTINUALLY UPDATED SHORELINE PRODUCT. SHORELINE MAPPING PROGRAM.

Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: SILVER SPRING , MARYLAND
Publisher: NOAA'S OCEAN SERVICE (NOS), NATIONAL GEODETIC SURVEY (NGS)

Online_Linkage:
<http://www.ngs.noaa.gov/RSD/shoredata/NGS_Shoreline_Products.htm>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1997
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: HYDRO INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date: 2010
Title: NATIONAL WETLANDS INVENTORY (NWI) - WETLANDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: WASHINGTON D.C.
Publisher: U.S.FISH AND WILDLIFE SERVICE

Online_Linkage: <http://www.fws.gov/wetlands>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1972
Ending_Date: 2009

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: HYDRO INFORMATION

Process_Step:

Process_Description:
The shoreline was derived from the integration of the U.S. Fish and Wildlife Service (FWS) National Wetlands Inventory (NWI) dataset (1972-2009); New Jersey Department of Environmental Protection (NJDEP) species based habitat dataset (2012); the National Oceanic and Atmospheric Administration (NOAA) Continually Updated Shoreline Product (CUSP) (1997-2012); and manual digitization at 1:4,000 from 2010-2011 BING aerial and 2010-2013 GOOGLE EARTH aerial imagery. The most recent shoreline was utilized where available. The above digital and/or hardcopy sources were compiled to create the HYDRO data layer. Depending on the type of source data, four general approaches are used for compiling the data layer: 1) hardcopy maps are digitized at their source scale; 2) digital data layers are evaluated and used "as is" or integrated with the other data sources; 3) overflight classifications are digitized from the scanned and registered hardcopy field maps; and/or 4) classifications are interpreted from oblique gps referenced photography or video taken during the overflights. After the initial shoreline classification, these data are edgematched and checked for logical consistency errors. Review maps are plotted at 1:45,000 scale for verification of polygonal and linear attributes. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the HYDRO data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.
Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains

Point_and_Vector_Object_Count: 13245

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 13244

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 19419

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 2721522

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Label Point
Point_and_Vector_Object_Count: 331

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 19226

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, one relational attribute or data table, SOURCES, is used to store the source data information in the ESI data structure. The geographic data layer containing resource information (in this case, HYDRO) is linked to the SOURCES table using the SOURCE_ID. The entity-relationship diagram describes relationships between attribute tables in the ESI data structure.

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: LINE
Attribute_Definition: Type of geographic feature.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: B
Enumerated_Domain_Value_Definition: Breakwater
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: H
Enumerated_Domain_Value_Definition: Hydrography
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: I
Enumerated_Domain_Value_Definition: Index
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: S
Enumerated_Domain_Value_Definition: Shoreline
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links to the SOURCES data table. This id indicates the source of a

vector line segment.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Detailed_Description:

Entity_Type:

Entity_Type_Label: HYDRO.PAT
Entity_Type_Definition:
The HYDRO.PAT table contains attribute information for the vector polygons representing polygonal hydrography features in the HYDRO data layer.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: WATER_CODE
Attribute_Definition: Specifies a polygon as either water or land.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: L
Enumerated_Domain_Value_Definition: Land
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: W
Enumerated_Domain_Value_Definition: Water
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: ANNO.GEOG
Entity_Type_Definition:
The spatial data layer HYDRO contains label points representing annotation for geographic features.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: ANNO.HYDRO
Entity_Type_Definition:

The spatial data layer HYDRO contains label points representing annotation for water features.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: ANNO.SOC

Entity_Type_Definition:

The spatial data layer HYDRO contains label points representing annotation for socioeconomic features.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: SOURCES

Entity_Type_Definition:

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

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SOURCE_ID

Attribute_Definition:

Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: ORIGINATOR

Attribute_Definition: Author or developer of source material or data set.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK

Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the

physical medium is delivered in damaged condition.

Custom_Order_Process:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Fri Mar 28 15:01:58 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: INDEX (Overlapping Polygons (Regions))

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: INDEX (Overlapping Polygons (Regions))
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains vector polygons grouped into regions representing the boundaries of all hardcopy cartographic products produced as part of the Environmental Sensitivity Index (ESI) for Delaware/New Jersey/Pennsylvania. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the SOCECON data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional human use information.

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

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness date for this data is 2013 and is documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Environmental Monitoring
Theme_Keyword: ESI
Theme_Keyword: Sensitivity maps
Theme_Keyword: Coastal resources
Theme_Keyword: Oil spill planning
Theme_Keyword: Coastal Zone Management
Theme_Keyword: Wildlife

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00,

socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent the boundaries of all hardcopy cartographic products and digital data extents produced as part of the Delaware/New Jersey/Pennsylvania ESI atlas. See also the SOCECON data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional human use information.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

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

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: RESEARCH PLANNING, INC.
Publication_Date: 2013
Title: ESI SHORELINE BOUNDARY AND PRINTING INDEX

Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Source_Scale_Denominator: 45000
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INDEX INFORMATION

Process_Step:

Process_Description:
Primarily, 1:45,000 polygons were used to provide boundaries for cartographic products. The polygons were tiled and arranged in a way as to best capture the shoreline product. In some cases these polygons overlapped due to scale versus features depicted. An index region was added to handle the overlap and aid in map production.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 90

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 89

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 318

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 11599

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 230

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, relational attribute or data tables are used to store information in the ESI data structure. The entity-relationship diagram describes relationships between attribute tables in the ESI data structure. This particular geographic data layer (INDEX) does not link to other ESI tables.

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: INDEX.PATINDEX
Entity_Type_Definition:
The INDEX.PATINDEX table contains attribute information for the vector polygons grouped into regions representing the boundaries of the maps and digital data boundaries used in the creation of the ESI atlas.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TILE-NAME
Attribute_Definition:
The TILE-NAME contains the map number according to the specified layout of the atlas.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 55

Attribute:

Attribute_Label: TOPO-NAME
Attribute_Definition:
USGS Topographic map name, short description of location, or atlas name.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition:
SCALE contains the value of the denominator of the scale at which the map is plotted in the final map product.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 45000
Enumerated_Domain_Value_Definition: Scale = 1:45,000
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: -0.5777
Range_Domain_Maximum: 0.4390
Attribute_Units_of_Measure: Degree

Attribute:

Attribute_Label: PAGESIZE
Attribute_Definition:
PAGESIZE contains the value of the width and height of the map in the final map product.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 11,17
Enumerated_Domain_Value_Definition: Page size= 11" by 17"
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

---

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 12:00:06 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: INVERT (Invertebrate Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: INVERT (Invertebrate Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for terrestrial, marine, and estuarine invertebrate species in Delaware/New Jersey/Pennsylvania. Vector polygons in this data set represent invertebrate distribution and concentration areas. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.
Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2014

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 1985 to 2014 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export

format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

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

Logical_Consistency_Report:

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

Completeness_Report:

These data represent a synthesis of expert knowledge, available hardcopy documents, survey data, maps, and digital data on invertebrate distribution and concentration areas. These data do not necessarily represent all invertebrate occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 19, Blue mussel, Mytilus edulis; 25, Softshell clam, Mya arenaria; 42, Northern quahog, Mercenaria mercenaria; 43, Eastern oyster, Crassostrea virginica; 44, Horseshoe crab, Limulus polyphemus; 45, American lobster, Homarus americanus; 46, Channeled whelk, Busycon canaliculatum; 47, Knobbed whelk, Busycon carica; 49, Blue crab, Callinectes sapidus; 73, Longfin squid, Loligo pealeii; 286, Ocean quahog, Arctica islandica; 287, Atlantic surfclam, Spisula solidissima; 367, Eastern pondmussel, Ligumia nasuta; 377, Tidewater mucket, Leptodea ochracea; 378, Rare insect, n/a; 380, Rare freshwater mussel, n/a; 544, Yellow lampmussel, Lampsilis cariosa; 554, Eastern elliptio, Elliptio complanata; 557, Eastern lampmussel, Lampsilis radiata; 632, Eastern floater, Pyganodon cataracta; 634, Triangle floater, Alasmidonta undulata; 638, Endangered freshwater mussel, n/a; 639, Endangered insect 1, n/a; 640, Endangered insect 2, n/a; 641, Endangered insect 3, n/a.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: CENTER FOR THE INLAND BAYS
Publication_Date: 2013
Title: HORSESHOE CRAB SPAWNING RECORDS 2008-2011
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2008
Ending_Date: 2011

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: DELAWARE BAY 16 FT TRAWL INDEPENDENT SAMPLING DATA

Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: ELEMENT OCCURRENCE RECORDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)

Publication_Date: 2013
Title:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL DATA COLLECTION MEETING
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title: DELAWARE'S ARTIFICIAL REEF PROGRAM - REEF LOCATIONS
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - MICHAEL GRECO
Publication_Date: 2008
Title: DNREC OYSTER SPAT SURVEY POINTS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2005
Ending_Date: 2008

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - MICHAEL GRECO
Publication_Date: 2013
Title: DELAWARE NATURAL OYSTER BEDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - FISH AND SHELLFISH GROUP
Publication_Date: 2013
Title:
DELAWARE BAY FISH, SHELLFISH, MARINE MAMMAL, REPTILE REVIEW MEETING
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - KALASZ, K., A. GONZON, M. DIBONA, M. BAILEY
Publication_Date: 2014
Title: DELAWARE BIRDS SEASONALITY INFORMATION
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2014
Ending_Date: 2014

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: DOVE, L.E., AND R.M. NYMAN, EDS.
Publication_Date: 1995
Title: LIVING RESOURCES OF THE DELAWARE ESTUARY
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: THE DELAWARE ESTUARY PROGRAM
Publisher: THE DELAWARE ESTUARY PROGRAM

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1995
Ending_Date: 1995

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)
NATIONAL MARINE FISHERIES SERVICE (NMFS)
Publication_Date: 1999
Title:
ESSENTIAL FISH HABITAT SOURCE DOCUMENT: ATLANTIC SURFCLAM, SPISULA SOLIDISSIMA, LIFE HISTORY AND HABITAT CHARACTERISTICS
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: WOODS HOLE, MA
Publisher: NORTHEAST FISHERIES SCIENCE CENTER

Other_Citation_Details: NOAA TECHNICAL MEMORANDUM NMFS-NE-142

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1999
Ending_Date: 1999

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)
NATIONAL MARINE FISHERIES SERVICE (NMFS)
Publication_Date: 1999
Title:
ESSENTIAL FISH HABITAT SOURCE DOCUMENT: OCEAN QUAHOG, ARCTICA ISLANDICA, LIFE HISTORY AND HABITAT CHARACTERISTICS
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: WOODS HOLE, MA
Publisher: NORTHEAST FISHERIES SCIENCE CENTER

Other_Citation_Details: NOAA TECHNICAL MEMORANDUM NMFS-NE-148

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1999
Ending_Date: 1999

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W)
Publication_Date: 2012
Title: DELAWARE BAY 16 FT TRAWL INDEPENDENT SAMPLING DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W)
Publication_Date: 2012
Title: NEW JERSEY DELAWARE RIVER SEINE DATA 2002-2012
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: CD-ROM
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2002
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF MARINE FISHERIES
Publication_Date: 2013
Title: NEW JERSEY OCEAN TRAWL INDEPENDENT SAMPLING DATA
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF MARINE FISHERIES AND SHELLFISHERIES
Publication_Date: 2013
Title:
NEW JERSEY BUREAU OF MARINE FISHERIES AND SHELLFISHERIES REVIEW MEETING
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF SHELLFISHERIES
Publication_Date: 2009
Title:
INVENTORY OF NEW JERSEY'S SURF CLAM (SPISULA SOLIDISSIMA) RESOURCE
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2009
Ending_Date: 2009

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF SHELLFISHERIES - MIKE CELESTINO
Publication_Date: 1988
Title: NORTHERN QUAHOG DISTRIBUTIONS, GREAT BAY, NJ
Geospatial_Data_Presentation_Form: MAP
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1988
Ending_Date: 1988

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF SHELLFISHERIES - MIKE CELESTINO
Publication_Date: 2003
Title:
INVESTIGATION OF POTENTIAL AQUACULTURE EXPANSION AREAS: A REPORT TO THE AQUACULTURE ADVISORY COUNCIL
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2003

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF SHELLFISHERIES - MIKE CELESTINO
Publication_Date: 2011
Title: SHELLFISH STOCK ASSESSMENT OF LITTLE EGG HARBOR BAY (2011)
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2011
Ending_Date: 2011

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF SHELLFISHERIES AND RUTGERS UNIVERSITY
Publication_Date: 2013
Title: NJ NATURAL STATE OYSTER BEDS, HIGH AND MEDIUM QUALITY
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) ENDANGERED NONGAME SPECIES PROGRAM (ENSP) AND NATURESERVE
Publication_Date: 2014
Title: RPI NJ NATURESERVE SF POLYS 201401

Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PRISCILLA COLE, PARTNERSHIP FOR THE DELAWARE ESTUARY
Publication_Date: 2012
Title:
PARTNERSHIP FOR THE DELAWARE ESTUARY SAV AND INVERTEBRATE SAMPLING DATA
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2009
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: RUSSEL BABB, NEW JERSEY BUREAU OF SHELLFISHERIES
Publication_Date: 2013
Title: NJ STATE OYSTER BED MANAGEMENT ZONES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
STONE, S.L., T.A. LOWERY, J.D. FIELD, C.D. WILLIAMS, D.M. NELSON, S.H. JURY, M.E. MONACO, AND L. ANDREASEN
Publication_Date: 1994
Title:
DISTRIBUTION AND ABUNDANCE OF FISHES AND INVERTEBRATES IN MID-ATLANTIC ESTUARIES. ELMR REP. NO. 12
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: SILVER SPRING, MD
Publisher: NOAA/NOS STRATEGIC ENVIRONMENTAL ASSESSMENTS DIVISION

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1994
Ending_Date: 1994

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: WALLS, E.A., J. BERKSON, AND S.A. SMITH
Publication_Date: 2002
Title:
THE HORSESHOE CRAB, LIMULUS POLYPHEMUS: 200 MILLION YEARS OF EXISTENCE, 100 YEARS OF STUDY
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: REVIEWS IN FISHERIES SCIENCE, 10(1): 39-73

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2002

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: ZIMMERMAN, J., S. MICHELS, D. SMITH AND S. BENNETT
Publication_Date: 2013
Title:
HORSESHOE CRAB SPAWNING ACTIVITY IN DELAWARE BAY: 1999-2012, REPORT TO THE ATLANTIC STATES MARINE FISHERIES COMMISSION'S HORSESHOE CRAB TECHNICAL COMMITTEE
Geospatial_Data_Presentation_Form: DOCUMENT

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped

coastal habitats and shorelines. Invertebrates depicted in this atlas include select terrestrial, marine, and estuarine species of commercial, ecological, and/or conservation interest. Horseshoe crab, blue crab, eastern oyster, knobbed and channeled whelk, Atlantic surfclam, and northern quahog support highly valuable commercial shellfisheries in the Delaware Bay region. Horseshoe crab spawning beaches were mapped using data from the 2013 report “Horseshoe crab spawning in Delaware Bay: 1999-2012” to the Atlantic States Marine Fisheries Commission’s Horseshoe Crab Technical Committee. In Indian River Bay and Rehoboth Bay, spawning beaches were mapped using data from the Center for Inland Bays. Horseshoe crab distributions within Delaware Bay were mapped based upon catches in fishery independent trawl sampling data from Delaware Department of Natural Resources and Environmental Control (DNREC) and New Jersey Department of Environmental Protection Bureau of Shellfisheries (NJDEP BS). Distributions in the Atlantic Ocean were based mainly on published literature and expert knowledge. Data on eastern oyster distributions was provided by DNREC and NJDEP BS/Rutgers University. DNREC provided polygonal and point spatial data on oyster reef locations on the western side of Delaware Bay and its tributaries and NJDEP BS and Rutgers provided polygonal data for the larger oyster reef complexes on the New Jersey side of Delaware Bay. The timing of life history stages and seasonalities for all eastern oyster records were based on Estuarine Living Marine Resources (ELMR) data and expert review. Rare and endangered species of insects and other invertebrates from Delaware were mapped in part by using element occurrence data provided by DNREC. Species names were obscured to protect sensitive resources. Polygons in element occurrence records with a diameter greater than 100 meters (m) were mapped as is, and all other polygons were mapped after applying a polygonal buffer and a randomized geographic shift. Blue crab distributions were mapped in Delaware Bay based on expert knowledge from DNREC staff, and data from the fishery independent sampling surveys conducted by DNREC and NJDEP BS. Seasonality and life history stages were drafted from published literature and refined during reviews with DNREC staff. In the Inland Bays of Delaware and New Jersey, blue crab distributions, concentrations, and seasonalities were based upon mid-Atlantic ELMR data. Freshwater mussels were mapped in the Delaware River and small water bodies in Delaware and New Jersey based on data provided by DNREC, NJDEP Endangered and Nongame Species Program (ENSP), and Partnership for the Delaware Estuary (PDE). In the case of DNREC and PDE data, species names were masked to protect rare mussels. DNREC element occurrence polygons were buffered and randomly shifted when they were less than 100 m in diameter. Northern quahog was mapped in New Jersey based upon NJDEP BS hard copy documents. Additional records for northern quahog were mapped in New Jersey and Delaware from the mid-Atlantic ELMR report, in which data on occurrence and abundance of a species is generalized to much larger areas. Data on Atlantic surfclam distributions in NJ coastal waters was provided by NJDEP BS as a report on stock inventories. Report data was used to create three geographic regions with separate concentrations along the NJ coast. Mid-Atlantic ELMR data was used to fill in information about species or regions that are not directly sampled by DNREC or NJDEP BS staff. Presence/absence, concentrations, and life history stages were all incorporated as is for select geographies. These geographies include Barnegat Bay, inland bays of NJ, Delaware Bay, and the inland bays of DE. Species mapped from mid-Atlantic ELMR data include American lobster, blue crab, blue mussel, northern quahog, and softshell clam.

The above digital and/or hardcopy sources were compiled by the project biologist to create the INVERT data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the

compiled data. If necessary, edits to the INVERT data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 1365

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 1364

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 2756

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 471432

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 2387

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, INVERT) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates

performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Entity_and_Attribute_Detail_Citation:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: INVERT.PAT

Entity_Type_Definition:

The INVERT.PAT table contains attribute information for the vector polygons in this data set representing invertebrate distribution and concentration areas. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID

Attribute_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (7), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

Entity_Type_Label: BIO_LUT

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (7), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: RARNUM
Attribute_Definition:
An identifier that links records in the BIORES data table to records in the BIO_LUT data

table or the flat format BIOFILE data table.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC
Attribute_Definition:
The field CONC refers to "concentration," abundance, or density values, and may contain counts of a species at a particular location. Calculations of horseshoe crab females per square meter (m2) were used to assign concentrations of ‘LOW’, ‘MED’, and ‘HIGH’ for spawning beaches in Delaware Bay, and edited based on expert review. Concentrations of horseshoe crabs in Delaware Bay proper were designated as ‘HIGH’ after review by DNREC staff. Blue crab concentrations were assigned based on recommendations by DNREC staff in the Delaware Bay and River. Concentrations of surfclams were designated as ‘COMMON’, ‘UNCOMMON’, and ‘RARE’ based on the average CPUE from inventory surveys, but current stocks remain far below historic levels. In cases where no qualitative concentration information was available, the field was left blank. Concentrations for eastern oyster in NJ waters were adapted as ‘HIGH REEF’ and ‘MED REEF’, based on qualitative data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT

Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

Attribute:

Attribute_Label: EL_SPE_SEA

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME
Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery
Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl
Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank

Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T_MAMMAL

Enumerated_Domain_Value_Definition: Terrestrial Mammals
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN
Attribute_Definition: January
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in January
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB
Attribute_Definition: February
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in February

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR
Attribute_Definition: March
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP
Attribute_Definition: September
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: MONTH
Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED2
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED3
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -
Enumerated_Domain_Value_Definition:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE
Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE
Attribute_Definition:
Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the

BIORES and SPECIES data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.

Custom_Order_Process:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 12:00:08 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: M_MAMMAL (Marine Mammal Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: M_MAMMAL (Marine Mammal Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for seals, whales, dolphins, and porpoises in Delaware/New Jersey/Pennsylvania. Vector polygons in this data set represent marine mammal distribution, and haul-out sites. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.
Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2008
Ending_Date: 2014

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 2008 to 2014 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export

format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

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

Logical_Consistency_Report:

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

Completeness_Report:

These data represent a synthesis of expert knowledge, available hardcopy documents, survey data, maps, and digital data on marine mammal distribution and haul-out sites. These data do not necessarily represent all marine mammal occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 2, Harbor seal, Phoca vitulina; 6, Harbor porpoise, Phocoena phocoena; 11, Fin whale, Balaenoptera physalus; 13, Humpback whale, Megaptera novaeangliae; 14, Gray seal, Halichoerus grypus; 17, Bottlenose dolphin, Tursiops truncatus; 60, Short-beaked common dolphin, Delphinus delphis; 81, North Atlantic right whale, Eubalaena glacialis; 84, Hooded seal, Cystophora cristata; 85, Harp seal, Pagophilus groenlandicus; 100, Striped dolphin, Stenella coeruleoalba.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy,

or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND CONTROL (DNREC) - EDNA STETZAR
Publication_Date: 2013
Title:
MARINE MAMMAL AND SEA TURTLE DISTRIBUTION AND SEASONALITY IN THE DELAWARE BAY
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: EVERT, S. (RICHARD STOCKTON COLLEGE OF NEW JERSEY)
Publication_Date: 2013
Title: SEAL AND DOLPHIN DISTRIBUTION AND SEASONALITY IN NJ
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2014

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
MARINE EDUCATION, RESEARCH AND REHABILITATION INSTITUTE, INC. (MERR)
Publication_Date: 2013
Title: MARINE MAMMALS AND SEA TURTLES FOR DELAWARE BAY ESI
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
MARINE EDUCATION, RESEARCH AND REHABILITATION INSTITUTE, INC. (MERR) (DE), MARINE MAMMAL STRANDING CENTER (NJ), NOAA FISHERIES SERVICE (NERO) MARINE MAMMAL
Publication_Date: 2013
Title:
SPECIES LIST OF STRANDED MARINE MAMMALS WITHIN DELAWARE BAY ESI COVERAGE AREA.

Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP) OFFICE OF SCIENCE
Publication_Date: 2010
Title:
OCEAN/WIND POWER ECOLOGICAL BASELINE STUDIES JANUARY 2008-DECEMBER 2009 FINAL REPORT VOLUME III: MARINE MAMMAL AND SEA TURTLE STUDIES
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: PLANO, TX
Publisher: GEO-MARINE, INC.

Other_Citation_Details: 218 PP

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2008
Ending_Date: 2009

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: SLOCUM, C.J.
Publication_Date: 2009
Title:
FINAL REPORT: THREATS ASSESSMENT, BASELINE ABUNDANCE DATA, AND HABITAT CHARACTERIZATION OF THE GREAT BAY SEAL COLONY
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: POMONA, NJ
Publisher:
THE RICHARD STOCKTON COLLEGE OF NEW JERSEY, SCHOOL OF NATURAL SCIENCES AND MATHEMATICS

Other_Citation_Details: 34 PP.

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2009

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: TOTH,J.L., A.A. HOHN, K.W. ABLE, A.M. GORGONE
Publication_Date: 2011
Title:
PATTERNS OF SEASONAL OCCURRENCE, DISTRIBUTION, AND SITE FIDELITY OF COASTAL BOTTLENOSE DOLPHINS IN SOUTHERN NEW JERSEY, U.S.A. AND DEFINING BOTTLENOSE DOLPHIN STOCKS BASED ON ENVIRONMMENTAL, PHYSICAL, AND BEHAVIORIAL CHARACTERISTICS
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: MARINEMAMMALSCIENCE.ORG
Publisher: THE SOCIETY FOR MARINE MAMMALOGKY

Other_Citation_Details: 27(1):94-110

Source_Scale_Denominator: 24000
Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2011

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION

Process_Step:

Process_Description:

The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. Two main sources of data were used to depict marine mammal distribution and seasonality for this data layer: 1) personal interviews with resource experts from Marine Education, Research, and Rehabilitation Institute (MERR), Marine Mammal Stranding Center, NOAA Fisheries (NERO), Richard Stockton College of New Jersey, Delaware Department of Natural Resources and Control (DNREC); and 2) numerous published and unpublished reports. Marine mammals depicted in this atlas include whales, dolphins, porpoises, and seals. Bottlenose dolphins and seals are the only species likely to occur regularly in inshore areas and in bays. Bottlenose dolphins may be abundant from March through October. While four species of seals (e.g., gray, harbor, harp, and hooded) may be observed in DE and NJ waters from October through May, harbor seals are by far the most commonly observed. Gray and harp seals are occasionally observed while hooded seals are very rarely observed. Important haul-out sites for harbor seals in DE occur at Cape Henlopen and the breakwaters (other species of seals may occur here as well), and Mispillion River mouth and breakwaters (gray and harp seals possible as well). Seals may be hauled-out on Atlantic and Delaware Bay beaches throughout DE and they occur in the DE Inland Bays. The most important harbor seal haul-out in the study area in NJ occurs in Great Bay (up to 155 seals). Other smaller, but reliable haulouts include: Barnegat Inlet, Brigantine Inlet, and the mouth of the Mullica River. Besides the NJ haul-outs mentioned, harbor seals may be present and/or hauling-out in appropriate habitats throughout Barnegat Bay, Great Bay, Absecon Bay, Great Egg Harbor Bay, Hereford Inlet, and other NJ bays and channels within reasonable proximity to inlets. Other species of cetaceans that may occur in DE and/or NJ State waters and/or Federal waters that were mapped in this atlas include: harbor porpoise, short-beaked common dolphin, striped dolphin, fin whale (state and federally endangered), humpback whale (state and federally endangered), and north Atlantic right whale (state and federally endangered). Other species of cetaceans have been reported via stranding data or other observations, but are not included due to their relative rarity of occurrence within the mapped ‘Area of Interest’ (AOI) for this atlas.

The above digital and/or hardcopy sources were compiled by the project biologist to create the M_MAMMAL data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The

ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the M_MAMMAL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 1178

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 1177

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 2272

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 478443

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph

Point_and_Vector_Object_Count: 2213

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, M_MAMMAL) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described

above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Entity_and_Attribute_Detail_Citation:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: M_MAMMAL.PAT

Entity_Type_Definition:

The M_MAMMAL.PAT table contains attribute information for the vector polygons in this data set representing marine mammal distribution, and haul-out sites. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID

Attribute_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (4), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (4), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: RARNUM
Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: SPECIES_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC

Attribute_Definition:

The field CONC refers to "concentration," abundance, or density values. The field may contain counts of individuals (XX INDIV). Where no quantitative count data was available, the field may either be blank, or contain descriptive terms such as "ABUNDANT", "COMMON", "HIGH", "OCCASIONAL", "POSSIBLE", "PRESENT", "UNCOMMON", or "VERY RARE". Counts were provided by resource experts and/or published reports.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE

Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME
Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: diadromous
Enumerated_Domain_Value_Definition: Diadromous fish

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery
Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pelagic
Enumerated_Domain_Value_Definition: Pelagic bird

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl
Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank
Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN
Attribute_Definition: January
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in January
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB
Attribute_Definition: February
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in February
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR

Attribute_Definition: March
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP
Attribute_Definition: September
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X

Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: MONTH
Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: BREED2
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED3
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD

Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SPECIES_ID
Attribute_Definition:
Numeric identifier for each species that is unique within each element and refers to a

nationwide master ESI species list maintained at NOAA.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE
Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product

are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 14:53:11 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: MGT (Management Area Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: MGT (Management Area Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains management boundaries for: artifical reefs, management areas, The Nature Conservancy (TNC) lands, parks, and National Wildlife Refuges in Delaware/New Jersey/Pennsylvania. Vector polygons in this data set represent management areas. Location specific type and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the SOCECON data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional human-use information.

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2001
Ending_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 2001 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's

with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent a synthesis of digital boundaries for management areas. See also the SOCECON data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional human-use information. These data do not necessarily represent all management areas in Delaware/New Jersey/Pennsylvania.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
Spatial components for the human-use data layers can come from expert interviews, hardcopy, or digital sources. Most of the spatial components of the human-use data layers are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Some of the spatial components of the human-use data layers are compiled on

hardcopy base maps with a scale of 1:45,000. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2011
Title: DELAWARE NATIONAL ESTUARINE RESEARCH RESERVE LOCATIONS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2011

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title: DELAWARE'S ARTIFICIAL REEF PROGRAM - REEF LOCATIONS
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013

Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title: IMPOUNDMENTS FINAL AND PUBLICLY OWNED IMPOUNDMENTS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) DIVISION OF PARKS AND RECREATION
Publication_Date: 2013
Title: DELAWARE OUTDOOR RECREATION INVENTORY FOR FISH AND WILDLIFE
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) DIVISION OF PARKS AND RECREATION
Publication_Date: 2013
Title: DELAWARE OUTDOOR RECREATION INVENTORY FOR PARKS AND RECREATION
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) NATIONAL MARINE FISHERIES SERVICE (NMFS)
Publication_Date: 2001
Title: CARL N. SHUSTER, JR. HORSESHOE CRAB RESERVE
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED
Online_Linkage: <http://www.nmfs.noaa.gov/horseshoecrb_map.htm>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2001

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) NATIONAL MARINE FISHERIES SERVICE (NMFS) OFFICE OF PROTECTED RESOURCES (OPR)
Publication_Date: 2013
Title:
MID-ATLANTIC SEASONAL MANAGEMENT AREAS FOR NORTH ATLANTIC RIGHT WHALE
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Online_Linkage: <http://www.nmfs.noaa.gov/pr/shipstrike/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) NATIONAL MARINE FISHERIES SERVICE (NMFS) OFFICE OF SUSTAINABLE FISHERIES (OSF) HIGHLY MIGRATORY SPECIES (HMS) MANAGEMENT DIVISION
Publication_Date: 2009
Title:

FINAL ADMENDMENT 1 TO THE 2006 CONSOLIDATED ATLANTIC HIGHLY MIGRATORY SPECIES FISHERY MANAGEMENT PLAN, ESSENTIAL FISH HABITAT

Geospatial_Data_Presentation_Form: DOCUMENT

Publication_Information:

Publication_Place: SILVER SPRING, MD

Publisher: DEPARTMENT OF COMMERCE

Online_Linkage: <http://www.nmfs.noaa.gov/sfa/hms/EFH/index.htm>

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2009

Ending_Date: 2009

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)

Publication_Date: 2012

Title:

NJDEP STATE OWNED, PROTECTED OPEN SPACE AND RECREATION AREAS IN NEW JERSEY

Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA

Publication_Information:

Publication_Place: TRENTON, NJ

Publisher: NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)

Online_Linkage:
<http://www.state.nj.us/dep/gis/digidownload/zips/statewide/newstate.zip>

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W)
Publication_Date: 2013
Title: NEW JERSEY'S ARTIFICIAL REEF PROGRAM - REEF LOCATIONS
Geospatial_Data_Presentation_Form: DOCUMENT
Other_Citation_Details: UNPUBLISHED
Online_Linkage: <http://www.nj.gov/dep/fgw/pdf/reeflocs.pdf>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF SHELLFISHERIES
Publication_Date: 2013
Title: NEW JERSEY BUREAU OF SHELLFISHERIES AQUACULTURE LEASES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
PENNSYLVANIA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES (DCNR)
Publication_Date: 2012
Title: PA STATE PARKS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: RUTGERS UNIVERSITY INSTITUTE OF MARINE AND COASTAL SCIENCES
Publication_Date: 2011
Title: JACQUES COUSTEAU NATIONAL ESTUARINE RESEARCH RESERVE BOUNDARIES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: THE NATURE CONSERVANCY (TNC)
Publication_Date: 2013
Title: TNC OWNED PROPERTIES AND EASEMENTS FOR DELAWARE BAY ESI
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS)
Publication_Date: 2012
Title: SIMPLIFIED FWS BOUNDARIES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: ARLINGTON, VA
Publisher: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS)

Online_Linkage: <http://www.fws.gov/GIS/data/CadastralDB/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - SUSAN GUITERAS
Publication_Date: 2013
Title: PRIME HOOK NATIONAL WILDLIFE REFUGE OFFICIAL BOUNDARY
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. The main sources of data used to depict human-use resources for this data layer were digital data sets provided by the following agencies: 1) Delaware Department of Natural Resources and Environmental Control (DNREC) Artificial Reef Program; 2) New Jersey Department of Environmental Protection (NJDEP) Division of Fish and Wildlife (F&W) Artificial Reef Program; 3) Rutgers University Institute of Marine and Coastal Sciences; 4) NOAA NMFS Office of Protected Resources and Office of Sustainable Fisheries; 5) NJDEP DFW Bureaus of Marine Fisheries and Shellfisheries; 6) DNREC Division of Parks and Recreation; 7) The Nature Conservancy (TNC); 8) Delaware State Parks; 9) NJ Parks and Forestry; 10) PA Department of Conservation and Natural Resources; and 11) U.S. Fish and Wildlife Service (USFWS). Artificial Reef: Locations of artificial reefs were mapped in Delaware Bay and the Atlantic Ocean. Artificial reef data for DE was provided by DNREC's Artificial Reef Program. Artificial reef data for NJ was provided by NJDEP DFW's Artificial Reef Program. Management Area: 'Management Areas' in this ESI Atlas include state-managed: Wildlife Management Areas (WMA), Natural Areas, Preserves,

Wildlife Areas, some beaches, Reserves, DE impoundments, and NJ shellfish leases. The Jacques Cousteau National Estuarine Research Reserve, the Carl H. Shuster, Jr. Horseshoe Crab Reserve, a habitat area of particular concern for sandbar shark and the North Atlantic Right Whale seasonal management area are also included. Nature Conservancy: Boundaries of The Nature Conservancy properties were provided by TNC. Parks: State park boundaries were provided by Delaware State Parks, NJ Parks and Forestry, and PA Department of Conservation and Natural Resources. Recreational Fishing: Recreational fishing locations were provided by NJDEP DFW Bureau of Marine Fisheries and DNREC. Wildlife Refuges: Six wildlife refuges fall within the Area of Interest (AOI): 1) Bombay Hook NWR (DE); 2) Cape May NWR (NJ); 3) Edwin B. Forsythe NWR (NJ); 4) John Heinz NWR Tinicum (PA); 5) Prime Hook NWR (DE); and 6)Supawna Meadows NWR (NJ). Locations of National Wildlife Refuges were provided by the USFWS.
The above digital and/or hardcopy sources were compiled by the project biologist to create the MGT data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the MGT data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 3606

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 3605

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 6768

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 725402

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 5371

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, two relational attribute or data tables, SOC_DAT, and SOURCES, are used to store the complex socioeconomic data in the ESI data structure. The geographic data layer containing socioeconomic data resource information (in this case, MGT) is linked to the Socioeconomic Resources table (SOC_DAT) using the unique ID and the lookup table SOC_LUT, or it can be linked directly using HUNUM. HUNUM is a unique reference number concatenated with the atlas number (for Delaware/New Jersey/Pennsylvania, the number is 212). ID is a unique combination of the atlas number (212), an element specific number (MGT = 11), and a unique record number. SOC_DAT and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: TYPE
Attribute_Definition:
The human-use features depicted on the maps are those that could be impacted by an oil spill or could provide access for response operations.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: AR
Enumerated_Domain_Value_Definition: Artificial Reef
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: MA
Enumerated_Domain_Value_Definition: Management Area
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: NC
Enumerated_Domain_Value_Definition: Nature Conservancy
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the human-use data layers to records in the SOC_LUT data table. ID is a concatenation of atlas number (212), element number (11), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the human-use data layers to records in the SOC_LUT data table. ID is a concatenation of atlas number (212), element number (11), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: TYPE
Attribute_Definition:
The human-use features depicted on the maps are those that could be impacted by an oil spill or could provide access for response operations.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: ACCESS
Enumerated_Domain_Value_Definition: Access
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: AIRPORT
Enumerated_Domain_Value_Definition: Airport
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FERRY
Enumerated_Domain_Value_Definition: Ferry
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HELIPORT
Enumerated_Domain_Value_Definition: Heliport
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: MARINA
Enumerated_Domain_Value_Definition: Marina
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: NATURE CONSERVANCY
Enumerated_Domain_Value_Definition: Nature Conservancy
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: NAME
Attribute_Definition: The feature name.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: CONTACT
Attribute_Definition: Contact person or entity.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PHONE
Attribute_Definition: Contact telephone number.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Any character
Enumerated_Domain_Value_Definition: Free text
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the SOC_DAT data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: A_SOURCE
Attribute_Definition:
Attribute source identifier that links records in the SOC_DAT data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle

State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: NESTS (Nest Points)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: NESTS (Nest Points)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for raptor and wading bird nests in Delaware/New Jersey/Pennsylvania. Vector points in this data set represent raptor and wading bird nests. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the BIRDS data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional bird information.

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2000
Ending_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 2000 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's

with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

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

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

Completeness_Report:
These data represent a synthesis of expert knowledge, survey data, maps, and digital data on bird nesting sites. See also the BIRDS data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional bird information. These data do not necessarily represent all nest occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 76, Bald eagle, Haliaeetus leucocephalus; 77, Osprey, Pandion haliaetus; 90, Black-crowned night-heron, Nycticorax nycticorax; 107, Peregrine falcon, Falco peregrinus.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
Spatial components for the biological data layers can come from expert interviews, hardcopy,

or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: SAFE DATES FOR DELAWARE BIRDS WITH ADDITIONAL NOTES AND DATES
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: DOVER, DE
Publisher: DELAWARE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

Other_Citation_Details: PART OF THE BREEDING BIRD ATLAS PROJECT
Online_Linkage:
<http://www.dnrec.delaware.gov/fw/Education/Documents/Safedate_complete.pdf>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC) - ANTHONY GONZON
Publication_Date: 2007
Title: DELAWARE OSPREY NEST SITES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2007

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: HESS, G.K., R.L. WEST, M.V. BARNHILL III, L.M. FLEMING
Publication_Date: 2000
Title: BIRDS OF DELAWARE
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: PITTSBURGH, PA
Publisher: UNIVERSITY OF PITTSBURGH PRESS

Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2000

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PENNSYLVANIA GAME COMMISSION (PGC) - ARTHUR MCMORRIS
Publication_Date: 2013
Title: BIRDS OF PENNSYLVANIA
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PENNSYLVANIA GAME COMMISSION (PGC) - DANIEL BRAUNING
Publication_Date: 2012
Title: PENNSYLVANIA PEREGRINE FALCON NEST SITES
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2012
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PENNSYLVANIA GAME COMMISSION (PGC) - DANIEL BRAUNING

Publication_Date: 2012
Title: SOUTHEASTERN PENNSYLVANIA BALD EAGLE NEST SITES
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PENNSYLVANIA GAME COMMISSION (PGC) - PATTI BARBER
Publication_Date: 2013
Title: BIRDS OF PENNSYLVANIA
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - JEN MCANDREWS
Publication_Date: 2013
Title: BOMBAY HOOK NATIONAL WILDLIFE REFUGE NATURAL RESOURCES
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. Two main sources of data were used to depict nests for this data layer: 1) personal interviews with resource experts from: Delaware Department of Natural Resources and Environmental Control (DNREC), U.S. Fish and Wildlife Service (USFWS) Bombay Hook National Wildlife Refuge (NWR), and Pennsylvania Game Commission (PGC); and 2) digital/tabular data sets provided by DNREC and PGC. Peregrine falcon (PA state endangered) and bald eagle (PA state threatened) nest locations were provided by PGC. Osprey nest locations were provided by DNREC. Nest points were mapped as is. Nest locations for bald eagles and black-crowned night-heron (DE SE) were provided by Bombay Hook National Wildlife Refuge (NWR).
The above digital and/or hardcopy sources were compiled by the project biologist to create the NESTS data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the NESTS data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.
Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.

City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 322

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, NESTS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these

tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Entity_and_Attribute_Detail_Citation:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: NESTS.PAT

Entity_Type_Definition:

The NESTS.PAT table contains attribute information for the vector points in this data set representing raptor and wading bird nests. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID

Attribute_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (5), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (5), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: RARNUM
Attribute_Definition:
An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC
Attribute_Definition:
The field CONC refers to "concentration," abundance, or density values and may contain counts of individuals or nests for each species present at a particular nesting site. The field may contain counts of individuals (XX INDIV) or (X NEST).
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME

Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery
Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl
Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank
Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: SEASONAL

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN
Attribute_Definition: January
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in January
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB

Attribute_Definition: February
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in February
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR
Attribute_Definition: March
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP
Attribute_Definition: September
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X

Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: MONTH
Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED2
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED3
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting;

if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED4

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

in the ESI data structure.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE
Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data

Distribution_Liability:

Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.

Custom_Order_Process:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 12:00:23 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: REPTILES (Reptile Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: REPTILES (Reptile Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for sea turtles and estuarine turtles and endangered/rare reptiles and amphibians Delaware/New Jersey/Pennsylvania. Vector polygons in this data set represent reptile and amphibian occurrence and distribution areas. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2014

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 1985 to 2014 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's with Windows Operating System 7.

The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

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

Logical_Consistency_Report:

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

Completeness_Report:

These data represent a synthesis of expert knowledge, available hardcopy documents, survey data, and digital data on reptile and amphibian occurrence and/or distribution. These data do not necessarily represent all reptile occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 2, Green sea turtle, Chelonia mydas; 4, Kemp's ridley sea turtle, Lepidochelys kempii; 5, Leatherback sea turtle, Dermochelys coriacea; 6, Loggerhead sea turtle, Caretta caretta; 7, Diamondback terrapin, Malaclemys terrapin; 112, Rare amphibian, n/a; 183, Rare reptile, n/a; 184, Southern leopard frog, Lithobates sphenocephalus; 211, Endangered amphibian, n/a; 212, Endangered reptile, n/a; 213, Northern red-bellied cooter, Pseudemys rubriventris.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND CONTROL (DNREC) - EDNA STETZAR
Publication_Date: 2013
Title:
MARINE MAMMAL AND SEA TURTLE DISTRIBUTION AND SEASONALITY IN THE DELAWARE BAY
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: ELEMENT OCCURRENCE RECORDS

Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL DATA COLLECTION MEETING
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

MARINE EDUCATION, RESEARCH AND REHABILITATION INSTITUTE, INC. (MERR)
Publication_Date: 2013
Title: MARINE MAMMALS AND SEA TURTLES FOR DELAWARE BAY ESI
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: NATURESERVE
Publication_Date: 2014
Title:
NATURESERVE EXPLORER: AN ONLINE ENCYCLOPEDIA OF LIFE [WEB APPLICATION]. VERSION 7.0
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: ARLINGTON, VA
Publisher: NATURESERVE

Other_Citation_Details: ACCESSED: JANUARY 2014
Online_Linkage: <http://www.natureserve.org/explorer>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2014

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP) OFFICE OF SCIENCE
Publication_Date: 2010
Title:
OCEAN/WIND POWER ECOLOGICAL BASELINE STUDIES JANUARY 2008-DECEMBER 2009 FINAL REPORT VOLUME III: MARINE MAMMAL AND SEA TURTLE STUDIES
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Publication_Information:

Publication_Place: PLANO, TX
Publisher: GEO-MARINE, INC.

Other_Citation_Details: 218 PP

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2008
Ending_Date: 2009

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PALMER, W.M., AND C.L. CORDES
Publication_Date: 1988
Title:
HABITAT SUITABILITY INDEX MODELS: DIAMONDBACK TERRAPIN (NESTING) -- ATLANTIC COAST
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: WASHINGTON D.C.
Publisher:
NATIONAL WETLANDS RESEARCH CENTER, U.S. FISH AND WILDLIFE SERVICE

Other_Citation_Details: BIOLOGICAL REPORT 82(10.151) 18 PP.

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1988

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) - HEIDI HANLON
Publication_Date: 2004
Title:
SUPAWNA MEADOWS NATIONAL WILDLIFE REFUGE SALTMARSH SPARROW SURVEY SPECIES LIST
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2002
Ending_Date: 2004

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) NATIONAL WILDLIFE REFUGE AT TINICUM - JOHN HEINZ
Publication_Date: 2012
Title: COMPREHENSIVE CONSERVATION PLAN
Geospatial_Data_Presentation_Form: DOCUMENT

Publication_Information:

Publication_Place: PHILADELPHIA, PA
Publisher: UNITED STATES FISH AND WILDLIFE SERVICE

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Process_Step:

Process_Description:

The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. The main sources of data used to depict reptile and amphibian distribution and seasonality for this data layer were personal interviews with resource experts from Delaware Department of Natural Resources and Environmental Control (DNREC) and published/unpublished reports. Diamondback terrapin – DNREC staff provided habitat guidelines for mapping potential nesting sites within the Delaware Bay system. These areas include salt marsh banks and beaches along the Delaware Bay and its tributaries. Delaware Rare and Endangered Species Element Occurrence Data – Rare and endangered species of reptiles and amphibians from Delaware were mapped in part by using element occurrence data provided by DNREC. Species names were obscured as per the guidelines for data use provided by DNREC. Polygons with diameter greater than 100 meters (m) were mapped as is, and all other polygons were mapped after applying a polygonal buffer and a randomized geographic shift. Sea turtles – Green (FT, DE SE, NJ ST), Kemp's ridley (FE, DE and NJ SE), leatherback (FE, DE and NJ SE) and loggerhead (FT, DE and NJ SE) sea turtles were included in this atlas. Polygons represent potential in-water presence in Delaware Bay, the Atlantic Ocean, DE Inland Bays, and the lower Delaware River. Green sea turtles are uncommon, Kemp's ridley are possible, leatherbacks are occasional, and loggerheads are common in the Area of Interest (AOI) waters from April-November. The following list includes state listed endangered (SE) or rare (not listed) reptile and amphibian species for which common names were obscured in DE, by request of the data providers within DE. Species were renamed based on their federal or state listing status and ESI subelement: e.g., 'endangered amphibian', 'rare reptile', etc. Amphibians: • Barking treefrog – DE, SE • Eastern mud salamander – DE, SE • Eastern tiger salamander – DE, SE • Cope's gray treefrog – not listed • Spotted salamander – not listed Reptiles: • Corn snake – DE, SE • Copperhead – not listed • Eastern ribbon snake – not listed • Queen snake – not listed • Rough green snake – not listed

The above digital and/or hardcopy sources were compiled by the project biologist to create the REPTILES data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The

ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the REPTILES data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 2913

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 2912

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 6683

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 1725864

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph

Point_and_Vector_Object_Count: 5749

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, REPTILES) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described

above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Entity_and_Attribute_Detail_Citation:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: REPTILES.PAT

Entity_Type_Definition:

The REPTILES.PAT table contains attribute information for the vector polygons in this data set representing reptile and amphibian occurrence and distribution areas. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID

Attribute_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (6), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (6), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: RARNUM
Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: SPECIES_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC

Attribute_Definition:

The field CONC refers to "concentration," abundance, or density values of a species at a particular location. In cases where no quantitative count data was available, the field may either be blank or contain descriptive terms such as "COMMON", "OCCASIONAL", "POSSIBLE", OR "UNCOMMON".

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE

Attribute_Definition:

Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: ELEMENT

Attribute_Definition: Major categories of biological data.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: BIRD

Enumerated_Domain_Value_Definition: Birds

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH

Enumerated_Domain_Value_Definition: Fish

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT

Enumerated_Domain_Value_Definition: Habitats and plants

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME
Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T_MAMMAL

Enumerated_Domain_Value_Definition: Terrestrial Mammals
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery
Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster
Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor
Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl
Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank
Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SPECIES_ID
Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN

Attribute_Definition: January

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X

Enumerated_Domain_Value_Definition: Present in January

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB

Attribute_Definition: February

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X

Enumerated_Domain_Value_Definition: Present in February

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR

Attribute_Definition: March

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP
Attribute_Definition: September
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E#######
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are

SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MONTH

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y

Enumerated_Domain_Value_Definition: Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -

Enumerated_Domain_Value_Definition:

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: BREED2
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED3
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: BREED5
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5

= adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y

Enumerated_Domain_Value_Definition: Life-history stage or activity present

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -

Enumerated_Domain_Value_Definition:

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

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: STATUS

Entity_Type_Definition:

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

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ELEMENT

Attribute_Definition: Major categories of biological data.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: BIRD

Enumerated_Domain_Value_Definition: Birds

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE
Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE

Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: E#####
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are

SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: SOURCES

Entity_Type_Definition:

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

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SOURCE_ID

Attribute_Definition:

Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: ORIGINATOR

Attribute_Definition: Author or developer of source material or data set.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Tue Mar 25 14:53:04 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: SOCECON (Socioeconomic Resource Points and Lines)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: SOCECON (Socioeconomic Resource Points and Lines)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

Other_Citation_Details:
Prepared by Research Planning, Inc., Columbia, South Carolina for the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains human-use resource data for: access sites, airports, archaeological sites, boat ramps, coast guard stations, ferries, heliports, historical sites, marinas, recreational fishing, and water intakes in Delaware/New Jersey/Pennsylvania. Vector points and lines in this data set represent human-use site locations. Location specific type and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the MGT data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional human-use information.
Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003
Ending_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 2003 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States

Coast Guard Office of Incident Management and Preparedness, Washington, D.C.

Native_Data_Set_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's with Windows Operating System 7.

The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

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

Logical_Consistency_Report:

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

Completeness_Report:

These data represent a synthesis of digital data for socioeconomic resources. See also the MGT data layer, part of the larger Delaware/New Jersey/Pennsylvania ESI database, for additional human-use information. These data do not necessarily represent all human-use sites in Delaware/New Jersey/Pennsylvania.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the human-use data layers can come from expert interviews, hardcopy, or digital sources. Most of the spatial components of the human-use data layers are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Some of the spatial components of the human-use data layers are compiled on hardcopy base maps with a scale of 1:45,000. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: DELAWARE BOAT RAMPS AND FISHING PIERS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title: DELAWARE MARINAS
Geospatial_Data_Presentation_Form: SPREADSHEET
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title: DELAWARE SURFACE WATER INTAKES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: DELAWARE RIVER AND BAY AUTHORITY
Publication_Date: 2013
Title: DELAWARE BAY FERRY LOCATIONS
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: NEW CASTLE, DE
Publisher: DELAWARE RIVER AND BAY AUTHORITY

Online_Linkage: <http://www.drba.net/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF ACCESS

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: DELAWARE STATE HISTORIC PRESERVATION OFFICE - ALICE GUERRANT
Publication_Date: 2013
Title: DELAWARE NATIONAL HISTORIC LANDMARKS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: DELAWARE STATE HISTORIC PRESERVATION OFFICE - ALICE GUERRANT
Publication_Date: 2013
Title: DELAWARE NATIONAL HISTORIC PROPERTIES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: DELAWARE STATE HISTORIC PRESERVATION OFFICE - ALICE GUERRANT

Publication_Date: 2013
Title: DELAWARE NATIONAL REGISTER DATASET
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: DELAWARE STATE HISTORIC PRESERVATION OFFICE - ALICE GUERRANT
Publication_Date: 2013
Title: DELAWARE NATIONAL REGISTER HISTORIC DISTRICTS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
FEDERAL AVIATION ADMINISTRATION (FAA) AERONAUTICAL INFORMATION SERVICES, ATA-100
Publication_Date: 2012
Title: AIRPORTS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: WASHINGTON, D.C.
Publisher:
RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION'S BUREAU OF TRANSPORTATION STATISTICS (RITA/BTS)

Other_Citation_Details: FROM THE NATIONAL TRANSPORTATION ATLAS DATABASES (NTAD) 2012
Online_Linkage:
<http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_atlas_database/2012/index.html>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: GOOGLE EARTH
Publication_Date: 2013
Title: GOOGLE EARTH IMAGERY
Geospatial_Data_Presentation_Form: REMOTE-SENSING IMAGE
Online_Linkage: <http://www.google.com/earth/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2010
Ending_Date: 2013

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NATIONAL PARK SERVICE (NPS), NATIONAL REGISTER OF HISTORIC PLACES
Publication_Date: 2007
Title: NATIONAL REGISTER OF HISTORIC PLACES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: WASHINGTON, D.C.
Publisher: NATIONAL PARK SERVICE, NATIONAL REGISTER OF HISTORIC PLACES

Other_Citation_Details: PRODUCED BY WANDAMERE TECHNOLOGIES
Online_Linkage: <http://nrhp.focus.nps.gov/natreg/docs/Download.html>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2007
Ending_Date: 2007

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)
Publication_Date: 2012

Title:
NJDEP STATE OWNED, PROTECTED OPEN SPACE AND RECREATION AREAS IN NEW JERSEY
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: TRENTON, NJ
Publisher: NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)

Online_Linkage:
<http://www.state.nj.us/dep/gis/digidownload/zips/statewide/newstate.zip>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)
Publication_Date: 2013
Title: NEW JERSEY BEACH ACCESS SITES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP), NATURAL AND HISTORIC RESOURCES HISTORIC PRESERVATION OFFICE (HPO)
Publication_Date: 2010
Title: NJDEP ARCHAEOLOGICAL SITE GRID OF NEW JERSEY
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: TRENTON, NJ
Publisher: NJDEP/NHR/HRO

Online_Linkage: <http://www.nj.gov/dep/gis/stateshp.html>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2010

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF FISH AND WILDLIFE (NJDEP F&W) BUREAU OF MARINE FISHERIES
Publication_Date: 2003
Title: NJDEP SPORT OCEAN FISHING GROUNDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: PORT REPUBLIC, NJ
Publisher: NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)

Online_Linkage:
<http://www.state.nj.us/dep/gis/digidownload/zips/statewide/sportfishing.zip>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2003

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: NEW JERSEY SEAGRANT CONSORTIUM
Publication_Date: 2013
Title: NEW JERSEY BOAT RAMPS AND MARINAS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: PENNSYLVANIA FISH AND BOAT COMMISSION (PFBC)
Publication_Date: 2012
Title: FISHING AND BOATING ACCESS POINTS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Publication_Information:

Publication_Place: UNIVERSITY PARK, PENNSYLVANIA
Publisher: PENNSYLVANIA FISH AND BOAT COMMISSION (PFBC)

Online_Linkage: <http://www.pasda.psu.edu/>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2012

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: UNITED STATES COAST GUARD (USCG)
Publication_Date: 2013
Title: DELAWARE BAY COAST GUARD LOCATIONS
Geospatial_Data_Presentation_Form: DOCUMENT
Publication_Information:

Publication_Place: PHILADELPHIA, PA
Publisher: UNITED STATES COAST GUARD

Online_Linkage: <http://www.uscg.mil/d5/sectDelawareBay/Subunits/SecUnits.asp>

Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2013

Source_Currentness_Reference: DATE OF ACCESS

Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. The main sources of data used to depict human-use resources for this data layer were digital data sets provided by the following agencies: Pennsylvania Fish and Boat Commission (PFBC), New Jersey Department of Environmental Protection (NJDEP) Division of Fish and Wildlife (F&W) Bureaus of Marine Fisheries and Shellfisheries (BMF & BS), Federal Aviation Administration (FAA), Delaware Department of Natural Resources and Environmental Control (DNREC), Delaware River and Bay Authority (DRBA), United States Coast Guard (USCG), NJDEP, Natural and Historic Resources Historic Preservation Office (HPO), Delaware State Historic Preservation Office, and the National Park Service (NPS). Access Sites: Access site data was provided by NJDEP and and indicates beach and river access locations. Airports / Heliports: Information on the locations of airports and heliports was downloaded from the National Transportation Atlas Databases maintained by the FAA. Archaeological / Historic sites: National Park Service (NPS) National Register of Historic Places data (2007) was used for all three states to depict historic sites. Delaware archaeological / historic sites: DE archaeological and historic site data was provided by the DE Division of Historical and Cultural Affairs. Four data sets were provided for inclusion in the ESI: DE National Historic Landmarks, DE State Historic Register Districts, DE National Register dataset, and DE National Historic Properties. All archaeological site points from the pre-processed data sets were buffered and offset prior to plotting in the ESI to protect the sensitivity of the resources. New Jersey Archaeological / Historic sites: NJ archaeological and historic site data was provided by NJDEP Natural and Historic Resources Historic Preservation Office (HPO). NJ HPO provided a nj_stgrd

layer, which included one added attribute from the version available at DEP's downloads page. The site_status field in the data set as provided, which is the NAME field in the ESI, indicates National Register eligibility status of the site(s) within the grid determining whether sites are one of three statuses: listed, eligible, or identified. 'Listed' sites are included in the NJ or National Registers of historic places; 'eligible' sites have been determined eligible for inclusion through federal or state processes as administered by the HPO; 'identified' sites have been identified through cultural resource survey or other documentation on file at the HPO. The centroid point of each grid cell was used for data display purposes in the ESI. Please note: This atlas was developed using NJDEP GIS digital data for archaeological and historic sites, but this secondary product has not been verified by NJDEP and is not state-authorized. Boat Ramps: Boat ramp location data was provided by NJDEP, PFBC, DNREC and NJ SeaGrant Consortium. Coast Guard: USCG locations are located in all 3 states. Location data was provided by the USCG. Ferries: Three ferries occur in the Area of Interest (AOI): Cape May – Lewes Ferry (between NJ and DE), Fort Mott – Fort Delaware Ferry (between NJ and DE), and the Riverlink Ferry (between NJ and PA). Ferry data was provided by the Delaware River and Bay Authority. Marinas: Marina location data was provided by PFBC, DNREC, and NJ SeaGrant Consortium. Recreational Fishing: Recreational fishing locations were provided by NJDEP DFW Bureau of Marine Fisheries and DNREC. Water Intake: Locations of drinking water intakes were provided by the DNREC.
The above digital and/or hardcopy sources were compiled by the project biologist to create the SOCECON data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the SOCECON data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 4427

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 18

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 1650

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 25

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:
In addition to the geographic data layers, two relational attribute or data tables, SOC_DAT, and SOURCES, are used to store the complex socioeconomic data in the ESI data structure. The geographic data layer containing socioeconomic data resource information (in this case, SOCECON) is linked to the Socioeconomic Resources table (SOC_DAT) using the unique ID and the lookup table SOC_LUT, or it can be linked directly using HUNUM. HUNUM is a unique reference number concatenated with the atlas number (for Delaware/New Jersey/Pennsylvania, the number is 212). ID is a unique combination of the atlas number (212), an element specific number (SOCECON = 10), and a unique record number. SOC_DAT and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.
Entity_and_Attribute_Detail_Citation:
A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines (<http://response.restoration.noaa.gov/esi_guidelines>).

Detailed_Description:

Entity_Type:

Entity_Type_Label: SOCECON.AAT
Entity_Type_Definition:
The SOCECON.AAT table contains attribute information for the vector lines representing roads/bridges and state borders.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TYPE
Attribute_Definition:
The human-use features depicted on the maps are those that could be impacted by an oil spill or could provide access for response operations.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: R
Enumerated_Domain_Value_Definition: Road, Transportation, or Bridge
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: SB
Enumerated_Domain_Value_Definition: State Border
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: SOCECON.PAT
Entity_Type_Definition:
The SOCECON.PAT table contains attribute information for the vector points representing access sites, airports, archaeological sites, boat ramps, coast guard stations, ferries, heliports, historical sites, marinas, recreational fishing, and water intakes. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TYPE
Attribute_Definition:
The human-use features depicted on the maps are those that could be impacted by an oil spill or could provide access for response operations.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: A
Enumerated_Domain_Value_Definition: Airport
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: A2
Enumerated_Domain_Value_Definition: Access
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: AS
Enumerated_Domain_Value_Definition: Archaeological Site
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: BR
Enumerated_Domain_Value_Definition: Boat Ramp
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: F
Enumerated_Domain_Value_Definition: Ferry
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HP
Enumerated_Domain_Value_Definition: Heliport
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: M
Enumerated_Domain_Value_Definition: Marina
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: WI
Enumerated_Domain_Value_Definition: Water Intake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the human-use data layers to records in the SOC_LUT data table. ID is a concatenation of atlas number (212), element number (10), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the human-use data layers to records in the SOC_LUT data table. ID is a concatenation of atlas number (212), element number (10), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: TYPE
Attribute_Definition:
The human-use features depicted on the maps are those that could be impacted by an oil spill or could provide access for response operations.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: ACCESS
Enumerated_Domain_Value_Definition: Access
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: AIRPORT
Enumerated_Domain_Value_Definition: Airport
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FERRY
Enumerated_Domain_Value_Definition: Ferry
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HELIPORT
Enumerated_Domain_Value_Definition: Heliport
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: MARINA
Enumerated_Domain_Value_Definition: Marina
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: NATURE CONSERVANCY
Enumerated_Domain_Value_Definition: Nature Conservancy
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: NAME
Attribute_Definition: The feature name.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: CONTACT
Attribute_Definition: Contact person or entity.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PHONE
Attribute_Definition: Contact telephone number.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Any character
Enumerated_Domain_Value_Definition: Free text
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the SOC_DAT data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: A_SOURCE
Attribute_Definition:
Attribute source identifier that links records in the SOC_DAT data table to records in the SOURCES data table.

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition:
Date of source material, publication, or date of personal communication with expert source.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE
Attribute_Definition: Publication place.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400

Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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

Generated by mp version 2.9.20 on Fri Mar 28 15:39:20 2014

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: T_MAMMAL (Terrestrial Mammal Polygons)

Metadata also available as - [Parseable text] - [SGML] - [XML]

Metadata:

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

Identification_Information:

Citation:

Citation_Information:

Originator:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.
Publication_Date: 201403
Title:
Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware/New Jersey/Pennsylvania: T_MAMMAL (Terrestrial Mammal Polygons)
Edition: Second
Geospatial_Data_Presentation_Form: vector digital data
Series_Information:

Series_Name: None
Issue_Identification: Delaware/New Jersey/Pennsylvania

Publication_Information:

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

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

Restoration, Emergency Response Division, Seattle, Washington.
Online_Linkage: <http://response.restoration.noaa.gov/esi>

Description:

Abstract:
This data set contains sensitive biological resource data for river otter, muskrat, and one endangered mammal (SE, FE) in Delaware/New Jersey/Pennsylvania. Vector polygons in this data set represent terrestrial mammal distribution. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Delaware/New Jersey/Pennsylvania. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.
Purpose:
The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2013

Currentness_Reference:
The data were compiled during 2013-2014. The currentness dates for this data range from 1985 to 2013 and are documented in the Lineage section.

Status:

Progress: Complete
Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.75000
East_Bounding_Coordinate: -74.03800
North_Bounding_Coordinate: 40.23700
South_Bounding_Coordinate: 38.37500

Keywords:

Theme:

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

Theme:

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

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Delaware/New Jersey/Pennsylvania

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

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and attribute data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: datafig2.jpg
Browse_Graphic_File_Description:
Depicts the relationships between spatial data layers and desktop data tables for the Delaware/New Jersey/Pennsylvania ESI data.
Browse_Graphic_File_Type: JPEG

Data_Set_Credit:
This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington, and The Department of Homeland Security, United States Coast Guard Office of Incident Management and Preparedness, Washington, D.C.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 10.2) and SQL SERVER(R) (version 2005). The hardware configuration is PC's with Windows Operating System 7.
The Spatial_Data_Organization Information section refers only to the source files in the ARC export

format. The following files are included in the data set: benthic.e00, birds.e00, esil.e00, esip.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut.e00, biofile.e00, biores.e00, breed.e00, breed_dt.e00, seasonal.e00, soc_dat.e00, soc_lut.e00, sources.e00, species.e00, and status.e00.

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

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

Logical_Consistency_Report:

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

Completeness_Report:

These data represent a synthesis of expert knowledge, survey data, and digital data on terrestrial mammal distribution. These data do not necessarily represent all terrestrial mammal occurrences in Delaware/New Jersey/Pennsylvania. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 8, Northern river otter, Lontra canadensis; 37, Muskrat, Ondatra zibethicus; 279, Endangered mammal, n/a.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:45,000. Some of the spatial components of the biological data sets are

developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2012
Title: ELEMENT OCCURRENCE RECORDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1985
Ending_Date: 2012

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE
Source_Contribution: T_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)
Publication_Date: 2013
Title:
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL DATA COLLECTION MEETING
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2013
Ending_Date: 2013

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE
Source_Contribution: T_MAMMAL INFORMATION

Process_Step:

Process_Description:
The mapping extent was dependent upon information availability and location of mapped coastal habitats and shorelines. Three species were mapped for the Delaware Bay ESI: river otter, muskrat, and one endangered mammal (SE, FE). Polygons representing the distribution of muskrat and river otter were produced based on expert knowledge from Delaware Department of Natural Resources and Environmental Control (DNREC) staff. The endangered mammal was mapped using polygons from element occurrence records provided by DNREC staff. Other terrestrial mammals present in the region include: coyote, gray fox, red fox, mink, muskrat, opossum, and raccoon. These species were not mapped because they are in very low densities in coastal areas and/or because they are assumed to experience little impact in the event of a spill.
The above digital and/or hardcopy sources were compiled by the project biologist to create the T_MAMMAL data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:45,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the T_MAMMAL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.
Process_Date: 201403
Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen

Contact_Address:

Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington

Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 295

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 294

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 1987

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 752679

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 1884

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

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

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, T_MAMMAL) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Delaware/New Jersey/Pennsylvania atlas, the number is 212), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Entity_and_Attribute_Detail_Citation:

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

Detailed_Description:

Entity_Type:

Entity_Type_Label: T_MAMMAL.PAT

Entity_Type_Definition:

The T_MAMMAL.PAT table contains attribute information for the vector polygons in this data set representing terrestrial mammal distribution. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute

tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ID

Attribute_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (9), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"

Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

Entity_Type_Label: BIO_LUT

Entity_Type_Definition:

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

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: RARNUM

Attribute_Definition:

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

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

Attribute_Label: ID
Attribute_Definition:
An identifier that links vector objects in the biology data layers to records in the BIO_LUT data table. ID is a concatenation of atlas number (212), element number (9), and record number. ID values of 9999 are holes in polygons and do not contain information.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Detailed_Description:

Entity_Type:

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

Attribute:

Attribute_Label: RARNUM
Attribute_Definition:
An identifier that links records in the BIORES data table to records in the BIO_LUT data table or the flat format BIOFILE data table.
Attribute_Definition_Source: NOAA
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: "NEED TO ADD"
Range_Domain_Maximum: "NEED TO ADD"

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: CONC
Attribute_Definition:
The field CONC refers to "concentration," abundance, or density values. Concentrations for river otter and muskrat were based on expert knowledge. In cases where no qualitative concentration information was available, the field was left blank.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: G_SOURCE
Attribute_Definition:
Geographic source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: S_SOURCE
Attribute_Definition:
Seasonality source identifier that links records in the BIORES data table to records in the SOURCES data table.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

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

Enumerated_Domain:

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

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

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

Detailed_Description:

Entity_Type:

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

Attribute:

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

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: NAME
Attribute_Definition: Species common name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

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

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute:

Attribute_Label: SUBELEMENT
Attribute_Definition: Element subgroup delineating a logical grouping of species.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: alcid
Enumerated_Domain_Value_Definition: Alcid
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: amphibian

Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: crab
Enumerated_Domain_Value_Definition: Crab
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

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

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: diving
Enumerated_Domain_Value_Definition: Diving bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: dolphin
Enumerated_Domain_Value_Definition: Dolphin
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: e_nursery

Enumerated_Domain_Value_Definition: Estuarine nursery fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: fish
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: freshwater
Enumerated_Domain_Value_Definition: Freshwater fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: gull_tern
Enumerated_Domain_Value_Definition: Gull or tern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: invert
Enumerated_Domain_Value_Definition: Invertebrate
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: lobster

Enumerated_Domain_Value_Definition: Lobster
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: m_benthic
Enumerated_Domain_Value_Definition: Marine benthic fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: m_pelagic
Enumerated_Domain_Value_Definition: Marine pelagic fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: passerine
Enumerated_Domain_Value_Definition: Passerine bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pelagic
Enumerated_Domain_Value_Definition: Pelagic bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: pinniped
Enumerated_Domain_Value_Definition: Pinniped
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: plant
Enumerated_Domain_Value_Definition: Plant
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: raptor

Enumerated_Domain_Value_Definition: Raptor
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: sav
Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: shorebird
Enumerated_Domain_Value_Definition: Shorebird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: sm_mammal
Enumerated_Domain_Value_Definition: Small mammal
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wading
Enumerated_Domain_Value_Definition: Wading bird
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: waterfowl

Enumerated_Domain_Value_Definition: Waterfowl
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wetland
Enumerated_Domain_Value_Definition: Wetland
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: whale
Enumerated_Domain_Value_Definition: Whale
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NHP
Attribute_Definition: Natural Heritage Program global ranking.
Attribute_Definition_Source: Network of Natural Heritage Program
Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: NHP Global Conservation Status Rank
Codeset_Source: Natural Heritage Program

Attribute:

Attribute_Label: DATE_PUB
Attribute_Definition: Date of NHP listing.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0
Enumerated_Domain_Value_Definition: Date unspecified
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE
Attribute_Definition:

Concatenation of ELEMENT and SPECIES_ID. This item links records in the SPECIES data table to records in the BIORES and STATUS data tables.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E#####

Enumerated_Domain_Value_Definition:

Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: SEASONAL

Entity_Type_Definition:

The data table SEASONAL contains information on the seasonal presence of each species associated with each spatial vector object. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ELEMENT

Attribute_Definition: Major categories of biological data.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: BIRD

Enumerated_Domain_Value_Definition: Birds

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH

Enumerated_Domain_Value_Definition: Fish

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT

Enumerated_Domain_Value_Definition: Habitats and plants

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT
Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: M_MAMMAL
Enumerated_Domain_Value_Definition: Marine Mammals
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: REPTILE
Enumerated_Domain_Value_Definition: Reptiles and Amphibians
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T_MAMMAL
Enumerated_Domain_Value_Definition: Terrestrial Mammals
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SPECIES_ID
Attribute_Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained at NOAA.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: SEASON_ID
Attribute_Definition:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: JAN
Attribute_Definition: January
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in January
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: FEB
Attribute_Definition: February
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in February
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAR
Attribute_Definition: March
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in March
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: APR
Attribute_Definition: April
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in April
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MAY
Attribute_Definition: May
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in May
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUN
Attribute_Definition: June
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in June
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: JUL
Attribute_Definition: July
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in July
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: AUG
Attribute_Definition: August
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in August
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SEP
Attribute_Definition: September

Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in September
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: OCT
Attribute_Definition: October
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in October
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: NOV
Attribute_Definition: November
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in November
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: DEC
Attribute_Definition: December
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: X
Enumerated_Domain_Value_Definition: Present in December
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the SEASONAL data table to records in the BIORES and BREED data tables.
Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E#######
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: BREED
Entity_Type_Definition:
The data table BREED identifies the monthly presence of certain life-history stages or activities for each species at a given location.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE_SEA
Attribute_Definition:
Concatenation of ELEMENT, SPECIES_ID, and SEASON_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E#######
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT, the next five characters are SPECIES_ID, and the last two characters are SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: MONTH
Attribute_Definition:
Two-digit calendar month. Each life history stage or activity type for a particular species can have up to 12 records to account for each month of the year.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: 12

Attribute:

Attribute_Label: BREED1
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T_MAMMAL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -
Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: BREED2
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -
Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: BREED3
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -
Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: BREED4
Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED4 = juveniles;

if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -
Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: BREED5

Attribute_Definition:
Life history stage or activity type, where: if ELEMENT is "FISH" then BREED5 = adults; if ELEMENT is "INVERT" then BREED5 = adults; if ELEMENT is "REPTILE" then BREED5 = adults. This attribute is not used for BIRD, M_MAMMAL, HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Y
Enumerated_Domain_Value_Definition: Life-history stage or activity present
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: N
Enumerated_Domain_Value_Definition: Life-history stage or activity not present or not reported
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: -
Enumerated_Domain_Value_Definition:
Breed category not used or not appropriate for record(s) in question
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: STATUS
Entity_Type_Definition:
The data table STATUS identifies the species that are listed as either threatened or endangered by a state, federal, or international authority. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: ELEMENT
Attribute_Definition: Major categories of biological data.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: BIRD
Enumerated_Domain_Value_Definition: Birds
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FISH
Enumerated_Domain_Value_Definition: Fish
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: HABITAT
Enumerated_Domain_Value_Definition: Habitats and Plants
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: INVERT

Enumerated_Domain_Value_Definition: Invertebrates
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: M_MAMMAL
Enumerated_Domain_Value_Definition: Marine Mammals
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: REPTILE
Enumerated_Domain_Value_Definition: Reptiles and Amphibians
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T_MAMMAL
Enumerated_Domain_Value_Definition: Terrestrial Mammals
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SPECIES_ID
Attribute_Definition:
Numeric identifier for each species that is unique within each element and refers to a nationwide master ESI species list maintained at NOAA.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1
Range_Domain_Maximum: N

Attribute:

Attribute_Label: STATE
Attribute_Definition: Two-letter state abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on international list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: EL_SPE
Attribute_Definition:
Concatenation of ELEMENT and SPECIES_ID. This item links the STATUS data table to the BIORES and SPECIES data tables.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E#####
Enumerated_Domain_Value_Definition:
Where E is the first character of ELEMENT and the next five characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and SPECIES_ID = 1; EL_SPE = 'B00001').
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Detailed_Description:

Entity_Type:

Entity_Type_Label: SOURCES
Entity_Type_Definition:
The data table SOURCES contains the primary sources used to create the ESI data set. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
Entity_Type_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: SOURCE_ID
Attribute_Definition:
Source identifier that links records in the SOURCES data table to the items G_SOURCE and

A_SOURCE in the SOC_DAT table; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID and ESI_Source in the ESI and HYDRO data layers.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 1

Range_Domain_Maximum: N

Attribute:

Attribute_Label: ORIGINATOR

Attribute_Definition: Author or developer of source material or data set.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

Date of source material, publication, or date of personal communication with expert source.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUB_PLACE

Attribute_Definition: Publication place.

Attribute_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLISHER
Attribute_Definition: Publisher.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ONLINE_LINK
Attribute_Definition: Online computer resource URL.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400
Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: Downloadable Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.
Custom_Order_Process:
Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats.

Metadata_Reference_Information:

Metadata_Date: 201403
Metadata_Review_Date: 201403
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Jill Petersen
Contact_Organization: NOAA, Office of Response and Restoration

Contact_Position: GIS Manager
Contact_Address:

Address_Type: Physical Address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington

Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Metadata_Standard_Name: Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: FGDC-STD-001-1998

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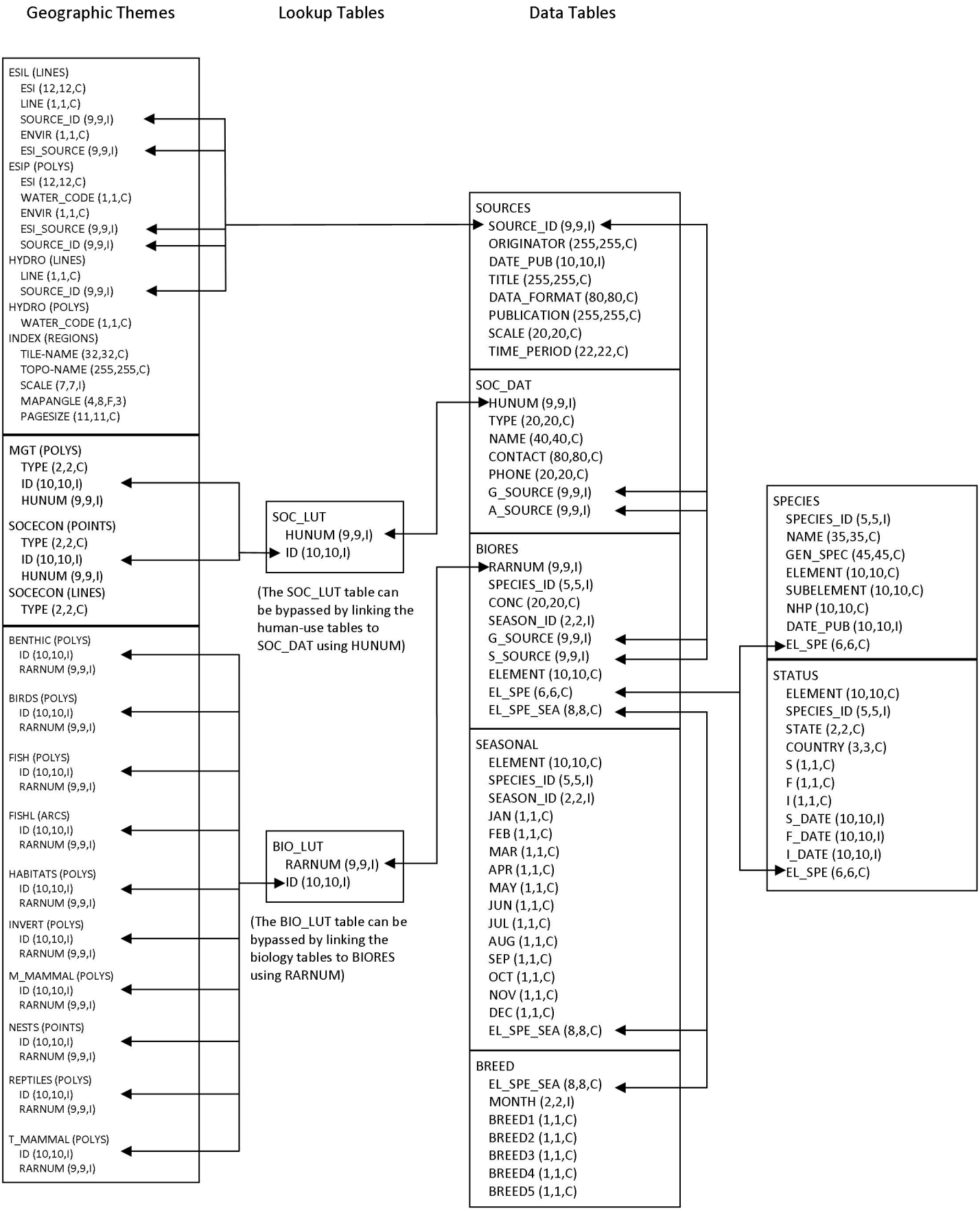
Delaware/New Jersey/Pennsylvania ESI Entity Relationship Diagram

March 2014