# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: HYDRO (Hydrography Lines and Polygons)

## **Metadata:**

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

### Identification\_Information:

### Citation:

### 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.

### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

### Publication\_Date:

201003

### *Title*:

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

### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

*Series\_Information*:

Series Name:

None

*Issue\_Identification*:

Southern California

### 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 Southern California. 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 Southern California. 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:

1977

Ending\_Date:

2009

### Currentness\_Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 1977 to 2009 and are documented in the Lineage section.

### Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

Spatial Domain:

Bounding\_Coordinates:

*West\_Bounding\_Coordinate:* 

-120.60100

East Bounding Coordinate:

-117.00100

*North\_Bounding\_Coordinate*:

34.50000

*South\_Bounding\_Coordinate*:

32.44500

# 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 Theme: *Theme\_Keyword\_Thesaurus*: NOS Data Explorer Topic Category Theme Keyword:

**Environmental Monitoring** 

Place:

*Place\_Keyword\_Thesaurus*:

None

*Place\_Keyword:* 

Southern California

Access Constraints:

None

*Use\_Constraints*:

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

derived from these data.

*Browse\_Graphic*:

Browse\_Graphic\_File\_Name:

datafig.jpg

*Browse\_Graphic\_File\_Description*:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

*Browse\_Graphic\_File\_Type*:

**JPEG** 

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

Native\_Data\_Set\_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

*Logical\_Consistency\_Report*:

A multi-stage error checking process, described in the above

Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 Southern California. *Positional\_Accuracy*:

Horizontal\_Positional\_Accuracy:

Horizontal\_Positional\_Accuracy\_Report:

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

### Lineage:

*Source\_Information:* 

Source Citation:

Citation\_Information:

*Originator*:

CALIFORNIA COASTAL RECORDS PROJECT

*Publication\_Date*:

20051004

Title:

PHOTOGRAPHIC DATABASE DOCUMENTING

CALIFORNIA'S COAST

 $Geospatial\_Data\_Presentation\_Form:$ 

**PHOTOGRAPH** 

Online\_Linkage:

http://www.californiacoastline.org

*Type\_of\_Source\_Media*:

online

Source Time Period of Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2005

Source\_Currentness\_Reference:

DATE OF SURVEY

Source Citation Abbreviation:

NONE

*Source\_Contribution*:

### **HYDRO INFORMATION**

*Source\_Information*:

Source\_Citation:

*Citation\_Information*:

Originator:

GOOGLE EARTH PRO

*Publication\_Date*:

2009

Title:

IMAGERY OF CALIFORNIA SHORELINE FOR ESI ANALYSIS

 $Geospatial\_Data\_Presentation\_Form:$ 

remote-sensing image

Publication\_Information:

Publication\_Place:

MOUNTAIN VIEW, CA

Publisher:

GOOGLE, INC.

*Other\_Citation\_Details*:

IMAGE DATES RANGE FROM 2006 TO 2009. IMAGE SOURCES INCLUDE DIGITAL GLOBE, U.S. GEOLOGICAL SURVEY, AND TERRA METRICS.

Type of Source Media:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

*Range\_of\_Dates/Times*:

Beginning\_Date:

2006

Ending\_Date:

2009

Source Currentness Reference:

DATE OF SURVEY

*Source\_Citation\_Abbreviation*:

**NONE** 

*Source\_Contribution*:

**HYDRO INFORMATION** 

*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL OCEAN SERVICE (NOS), OFFICE OF RESPONSE AND RESTORATION (OR&R), EMERGENCY RESPONSE DIVISION (ERD)

Publication Date:

1995

Title:

SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE TO SPILLED OIL: SOUTHERN

```
Geospatial_Data_Presentation_Form:
                     vector digital data
                Publication_Information:
                     Publication_Place:
                           SEATTLE, WA
                     Publisher:
                           NOAA
                Other_Citation_Details:
                     7600 SAND POINT WAY, SEATTLE, WA, 98115-6349
                Online_Linkage:
                     http://response.restoration.noaa.gov/esi
     Source Scale Denominator:
           24000
     Type_of_Source_Media:
           CD-ROM
     Source_Time_Period_of_Content:
           Time_Period_Information:
                Single_Date/Time:
                     Calendar Date:
                           1995
           Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source Citation Abbreviation:
          NONE
     Source Contribution:
           HYDRO INFORMATION
Source Information:
     Source_Citation:
           Citation_Information:
                Originator:
                     NOAA NATIONAL MARINE SANCTUARIES
                     PROGRAM
                Publication_Date:
                     200806
                Title:
                     CINM_PY
                Geospatial_Data_Presentation_Form:
                     vector digital data
                Publication_Information:
                     Publication_Place:
                           SILVER SPRING, MD
                     Publisher:
                           NOAA NATIONAL MARINE SANCTUARIES
                           PROGRAM
                Online_Linkage:
                     http://sanctuaries.noaa.gov/
     Source_Scale_Denominator:
           20000
     Type_of_Source_Media:
           online
```

CALIFORNIA: ESI: HYDRO

```
Source Time Period of Content:
           Time_Period_Information:
                Single_Date/Time:
                     Calendar_Date:
                           200806
          Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          HYDRO INFORMATION
Source_Information:
     Source Citation:
           Citation_Information:
                Originator:
                     RESEARCH PLANNING, INC.
                Publication Date:
                     2008
                Title:
                     ESI INDEX
                Geospatial_Data_Presentation_Form:
                     vector digital data
                Other Citation Details:
                     UNPUBLISHED
     Source_Scale_Denominator:
          24000
     Type_of_Source_Media:
          DIGITAL
     Source_Time_Period_of_Content:
           Time_Period_Information:
                Single_Date/Time:
                     Calendar Date:
                           2008
          Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          HYDRO INFORMATION
Source_Information:
     Source_Citation:
           Citation Information:
                Originator:
                     U.S. FISH AND WILDLIFE SERVICE
                Publication Date:
                     2006
                Title:
                     NATIONAL WETLANDS INVENTORY POLYGONS
                     (CALIFORNIA STATEWIDE)
                Geospatial_Data_Presentation_Form:
                     vector digital data
```

Publication\_Information:
Publication\_Place:
WASHINGTON, D.C.
Publisher:

U.S. FISH AND WILDLIFE SERVICE, BRANCH OF HABITAT ASSESSMENT

Source\_Scale\_Denominator:

24000

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Range\_of\_Dates/Times:

Beginning\_Date:

1977

Ending\_Date:

2004

Source\_Currentness\_Reference:

DATE OF SURVEY

Source\_Citation\_Abbreviation:

**NONE** 

*Source\_Contribution*:

HYDRO INFORMATION

*Process\_Step*:

Process\_Description:

The shoreline of the original ESI maps, published in 1995, were reexamined and updated using the following methods: interpretation of the 2008 contiguous aerial photography (California Coastal Records Project), USFWS Wetland coverages (used to classify marshes and swamps), Google Earth in areas where no other current data could be obtained, and through verification via overflights conducted in October 27-30 of 2008. 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 1:24,000 scale for verification of polygonal and linear attributes. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and humanuse data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the HYDRO data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process\_Date:

201003

```
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
```

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```
Spatial_Data_Organization_Information:
     Direct Spatial Reference Method:
           Vector
     Point_and_Vector_Object_Information:
          SDTS Terms Description:
                SDTS_Point_and_Vector_Object_Type:
                      GT-polygon composed of chains
                Point_and_Vector_Object_Count:
                      835
          SDTS Terms Description:
                SDTS_Point_and_Vector_Object_Type:
                      Area point
                Point_and_Vector_Object_Count:
                      836
          SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Complete chain
                Point_and_Vector_Object_Count:
                      5179
          SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                Point_and_Vector_Object_Count:
                      93014
          SDTS_Terms_Description:
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SDTS_Point_and_Vector_Object_Type:
                      Label Point
                 Point_and_Vector_Object_Count:
                       608
           SDTS_Terms_Description:
                 SDTS_Point_and_Vector_Object_Type:
                       Node, planar graph
                 Point_and_Vector_Object_Count:
                       5170
Spatial_Reference_Information:
     Horizontal_Coordinate_System_Definition:
           Geographic:
                 Latitude_Resolution:
                      0.0000001
                 Longitude_Resolution:
                      0.0000001
                 Geographic_Coordinate_Units:
                      Decimal degrees
           Geodetic Model:
                 Horizontal_Datum_Name:
                       North American Datum of 1983
                 Ellipsoid Name:
                       Geodetic Reference System 80
                 Semi-major_Axis:
                       6378137.000000
                 Denominator of Flattening Ratio:
                       298.257222
Entity_and_Attribute_Information:
     Detailed_Description:
           Entity_Type:
                 Entity_Type_Label:
                       HYDRO.AAT
                 Entity_Type_Definition:
                       The HYDRO.AAT table contains attribute information for the vector
                       lines representing linear hydrography features in the HYDRO data layer.
                 Entity_Type_Definition_Source:
                      NOAA ESI Guidelines
           Attribute:
                 Attribute Label:
                      LINE
                 Attribute_Definition:
                       Type of geographic feature.
                 Attribute Definition Source:
                       NOAA ESI Guidelines
```

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

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В Enumerated\_Domain\_Value\_Definition: Breakwater *Enumerated\_Domain\_Value\_Definition\_Source*: NOAA ESI Guidelines Attribute Domain Values: Enumerated\_Domain: Enumerated\_Domain\_Value: Enumerated\_Domain\_Value\_Definition: Hydrography Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines *Attribute\_Domain\_Values*: Enumerated\_Domain: Enumerated Domain Value: Enumerated\_Domain\_Value\_Definition: Index Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines Attribute\_Domain\_Values: Enumerated Domain: Enumerated\_Domain\_Value: *Enumerated\_Domain\_Value\_Definition*: Shoreline Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines Attribute: Attribute Label: SOURCE\_ID Attribute\_Definition: Source identifier that links to the SOURCES data table. This identifier indicates the source of a vector line segment. Attribute\_Definition\_Source: NOAA ESI Guidelines Attribute\_Domain\_Values: Range\_Domain: Range\_Domain\_Minimum: Range Domain Maximum:

*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.

Overview\_Description:

Entity\_and\_Attribute\_Overview:

The geographic data layer containing resource information (in this case, HYDRO) is linked to the SOURCES table using the SOURCE\_ID. 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 and Attribute Detail Citation:

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines

(http://response.restoration.noaa.gov/esi guidelines).

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Distribution\_Information:

Distributor:

*Contact\_Information*:

Contact\_Person\_Primary:

Contact\_Person:

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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

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*Metadata\_Reference\_Information*:

Metadata Date:

20100927

*Metadata\_Review\_Date*:

20100927

*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
{\it Metadata\_Standard\_Name:}
     Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version:
     FGDC-STD-001-1998
Metadata Extensions:
      Online_Linkage:
           http://www.ncddc.noaa.gov/metadataresource/metadata-
           references/files/ncddcmdprofile_v2.pdf
     Profile Name:
```

Center's Data Catalog Version 2.0

Content Specification for Metadata in the National Coastal Data Development

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# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: ESI (Shoreline Types - Lines and Polygons)

## **Metadata:**

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity\_and\_Attribute\_Information
- Distribution Information
- Metadata Reference Information

### Identification\_Information:

### Citation:

### 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.

### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

### Publication\_Date:

201003

### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: ESI (Shoreline Types - Lines and Polygons)

### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

*Series\_Information*:

Series Name:

None

*Issue\_Identification*:

Southern California

### 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 the shoreline and coastal habitats of Southern California, classified according to the Environmental Sensitivity Index (ESI) classification system. This data set comprises a portion of the ESI data for Southern California. 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 humanuse 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:

1977

*Ending\_Date*:

2009

### Currentness Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 1977 to 2009 and are documented in the Lineage section.

### Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

### Spatial\_Domain:

*Bounding\_Coordinates*:

*West\_Bounding\_Coordinate:* 

-120.60100

*East\_Bounding\_Coordinate*:

-117.00100

*North\_Bounding\_Coordinate*:

34.50000

*South\_Bounding\_Coordinate*:

32,44500

### Keywords:

Theme:

*Theme\_Keyword\_Thesaurus*:

ISO 19115 Topic Category

*Theme\_Keyword:* 

biota

Theme Keyword:

environment

Theme:

*Theme\_Keyword\_Thesaurus*:

None

*Theme\_Keyword*:

**Environmental Monitoring** 

*Theme\_Keyword:* 

**ESI** 

*Theme\_Keyword:* 

Sensitivity maps

*Theme\_Keyword:* 

Coastal resources

Theme\_Keyword:

Oil spill planning

*Theme\_Keyword:* 

Coastal Zone Management

Theme\_Keyword:

Wildlife

Theme:

*Theme\_Keyword\_Thesaurus*:

NOS Data Explorer Topic Category

*Theme\_Keyword*:

**Environmental Monitoring** 

Place:

Place\_Keyword\_Thesaurus:

None

Place\_Keyword:

Southern California

*Access\_Constraints*:

None

Use Constraints:

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

*Browse\_Graphic*:

Browse Graphic File Name:

datafig.jpg

Browse\_Graphic\_File\_Description:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

*Browse\_Graphic\_File\_Type*:

**JPEG** 

Data\_Set\_Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

Native\_Data\_Set\_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

*Attribute\_Accuracy*:

Attribute\_Accuracy\_Report:

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

Logical\_Consistency\_Report:

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical

consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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.

Positional\_Accuracy:

*Horizontal\_Positional\_Accuracy*:

Horizontal\_Positional\_Accuracy\_Report:

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

Lineage:

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

CALIFORNIA COASTAL RECORDS PROJECT

Publication Date:

20051004

Title:

PHOTOGRAPHIC DATABASE DOCUMENTING CALIFORNIA'S COAST

Geospatial\_Data\_Presentation\_Form:

PHOTOGRAPH

Online\_Linkage:

http://www.californiacoastline.org

*Type\_of\_Source\_Media*:

online

*Source\_Time\_Period\_of\_Content:* 

Time\_Period\_Information:

Single Date/Time:

Calendar Date:

2005

Source\_Currentness\_Reference:

DATE OF SURVEY

Source Citation Abbreviation:

**NONE** 

```
Source Contribution:
          ESI INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                    GOOGLE EARTH PRO
               Publication_Date:
                    2009
               Title:
                    IMAGERY OF CALIFORNIA SHORELINE FOR ESI
                    ANALYSIS
               Geospatial Data Presentation Form:
                    remote-sensing image
               Publication_Information:
                    Publication Place:
                         MOUNTAIN VIEW, CA
                    Publisher:
                         GOOGLE, INC.
               Other Citation Details:
                    IMAGE DATES RANGE FROM 2006 TO 2009. IMAGE
                    SOURCES INCLUDE DIGITAL GLOBE, U.S.
                    GEOLOGICAL SURVEY, AND TERRA METRICS.
     Type_of_Source_Media:
          online
     Source_Time_Period_of_Content:
          Time_Period_Information:
               Range_of_Dates/Times:
                    Beginning_Date:
                         2006
                    Ending_Date:
                         2009
          Source_Currentness_Reference:
               DATE OF SURVEY
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          ESI INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                    NATIONAL OCEANIC AND ATMOSPHERIC
                    ADMINISTRATION (NOAA), NATIONAL OCEAN
                    SERVICE (NOS), OFFICE OF RESPONSE AND
                    RESTORATION (OR&R), EMERGENCY RESPONSE
                    DIVISION (ERD)
               Publication_Date:
                    1995
               Title:
                    SENSITIVITY OF COASTAL ENVIRONMENTS AND
```

```
WILDLIFE TO SPILLED OIL: SOUTHERN CALIFORNIA: ESI: HYDRO
```

Geospatial\_Data\_Presentation\_Form:

vector digital data

Publication\_Information:

Publication\_Place:

SEATTLE, WA

Publisher:

**NOAA** 

Other\_Citation\_Details:

7600 SAND POINT WAY, SEATTLE, WA, 98115-6349

Online\_Linkage:

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

Source\_Scale\_Denominator:

24000

Type\_of\_Source\_Media:

CD-ROM

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

1995

Source\_Currentness\_Reference:

DATE OF PUBLICATION

 $Source\_Citation\_Abbreviation:$ 

**NONE** 

Source Contribution:

**ESI INFORMATION** 

Source\_Information:

Source Citation:

*Citation\_Information*:

Originator:

RESEARCH PLANNING, INC.

*Publication\_Date*:

2008

Title:

**ESI INDEX** 

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

*Other\_Citation\_Details*:

**UNPUBLISHED** 

Source Scale Denominator:

24000

*Type\_of\_Source\_Media*:

**DIGITAL** 

*Source\_Time\_Period\_of\_Content:* 

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar Date:

2008

Source\_Currentness\_Reference:

### DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source\_Contribution:

**ESI INFORMATION** 

*Source\_Information*:

*Source\_Citation*:

Citation\_Information:

Originator:

RESEARCH PLANNING, INC.

Publication\_Date:

2008

*Title*:

**OVERFLIGHT OBLIQUES** 

Geospatial\_Data\_Presentation\_Form:

**PHOTOGRAPH** 

Other\_Citation\_Details:

**UNPUBLISHED** 

*Type\_of\_Source\_Media*:

DIGITAL PHOTOGRAPH

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2008

Source\_Currentness\_Reference:

DATE OF SURVEY

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

**ESI INFORMATION** 

*Source\_Information*:

*Source\_Citation*:

Citation\_Information:

Originator:

U.S. FISH AND WILDLIFE SERVICE

*Publication\_Date*:

2006

*Title*:

NATIONAL WETLANDS INVENTORY POLYGONS (CALIFORNIA STATEWIDE)

Geospatial Data Presentation Form:

vector digital data

Publication\_Information:

Publication\_Place:

WASHINGTON, D.C.

Publisher:

U.S. FISH AND WILDLIFE SERVICE, BRANCH OF HABITAT ASSESSMENT

Source\_Scale\_Denominator:

24000

*Type\_of\_Source\_Media*: online *Source\_Time\_Period\_of\_Content: Time\_Period\_Information*: Range\_of\_Dates/Times: Beginning Date: 1977 Ending\_Date: 2004 Source\_Currentness\_Reference: DATE OF SURVEY Source Citation Abbreviation: **NONE** Source Contribution: **ESI INFORMATION** Process Step:

Process\_Description:

The shoreline habitats on the original ESI maps, published in 1995, were re-examined and updated using the following methods: interpretation of the 2008 contiguous aerial photography (California Coastal Records Project), U.S. Fish and Wildlife (USFWS) Wetland coverages (used to classify marshes and swamps), Google Earth in areas where no other current data could be obtained, and through verification via overflights conducted in October 27- 30 of 2008. Flights were conducted using fixed-wing aircraft flying at slow air speeds at altitudes of 400-600 feet, excluding areas near military installations (San Nicholas) where the altitudes of overflight were 1000 feet. All flights were scheduled to maximize optimal low tide conditions, flying approximately 2.5 hours preceding and 2.5 hours following peak low tides. During these flights a geomorphologist utilized a digital SLR camera to capture a continuous set of overlapping oblique images of the intertidal zone. Throughout the overflight mission a Global Positioning System (GPS) receiver collected and recorded flight path data. Following completion of the overflight mission, all digital photographs of the intertidal zone were georeferenced using photo-mapping software and the GPS flight path data. With Geographic Information System (GIS) software a geomorphologist reviewed each georeferenced oblique image of the intertidal zone and assigned ESI rankings to the digital shoreline. Where appropriate, multiple rankings were assigned. The above digital and/or hardcopy sources were compiled to create the ESI data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) hardcopy maps are digitized at their source scale; 2) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources; and 3) overflight changes are digitized from the scanned and registered hardcopy field maps or aerial photography. After the initial shoreline classification, these data are edgematched and checked for logical consistency errors. Review maps are plotted at 1:24,000 scale for verification of polygonal and linear attributes. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the

participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the ESI data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process Date:

201003

*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

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*Spatial\_Data\_Organization\_Information*: *Direct\_Spatial\_Reference\_Method:* Vector *Point\_and\_Vector\_Object\_Information*: SDTS\_Terms\_Description: SDTS\_Point\_and\_Vector\_Object\_Type: GT-polygon composed of chains Point and Vector Object Count: 1856 SDTS\_Terms\_Description: SDTS\_Point\_and\_Vector\_Object\_Type: Area point Point\_and\_Vector\_Object\_Count: 1857 SDTS\_Terms\_Description: SDTS\_Point\_and\_Vector\_Object\_Type: Complete chain Point\_and\_Vector\_Object\_Count: 6517

```
SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type:
    Link
    Point_and_Vector_Object_Count:
    139657

SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type:
    Node,planar graph
    Point_and_Vector_Object_Count:
    5920
```

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*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

Attribute\_Definition:

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Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label:

ESI.AAT

Entity\_Type\_Definition:

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

Entity\_Type\_Definition\_Source:

NOAA ESI Guidelines

Attribute:

Attribute\_Label:

ESI

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:

1A

Enumerated\_Domain\_Value\_Definition:

**Exposed Rocky Shores** 

Enumerated\_Domain\_Value\_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:

Exposed Wave-cut Platforms in Bedrock

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:

6D

*Enumerated\_Domain\_Value\_Definition*:

Boulder Rubble

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 Rocky Shores** 

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

8B

*Enumerated\_Domain\_Value\_Definition*:

Sheltered, Solid Man-made Structures

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

8C

*Enumerated\_Domain\_Value\_Definition*:

Sheltered Riprap

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

9A

*Enumerated\_Domain\_Value\_Definition*:

**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:

9C

Enumerated\_Domain\_Value\_Definition:

Hypersaline 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:

LINE

*Attribute\_Definition*:

Type of geographic feature.

Attribute Definition Source:

NOAA ESI Guidelines

```
Enumerated Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                     Breakwater
                Enumerated_Domain_Value_Definition_Source:
                     NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated Domain Value Definition:
                     Flat
                Enumerated_Domain_Value_Definition_Source:
                     NOAA ESI Guidelines
     Attribute Domain Values:
          Enumerated Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                     Hydrography
                Enumerated_Domain_Value_Definition_Source:
                     NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                Enumerated_Domain_Value_Definition_Source:
                     NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated Domain Value:
                Enumerated_Domain_Value_Definition:
                     Marsh
                Enumerated_Domain_Value_Definition_Source:
                     NOAA ESI Guidelines
     Attribute_Domain_Values:
          Enumerated Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                     Shoreline
                Enumerated_Domain_Value_Definition_Source:
                     NOAA ESI Guidelines
Attribute:
     Attribute Label:
          SOURCE_ID
```

Attribute\_Domain\_Values:

```
Attribute_Definition:
           Source identifier that links to the SOURCES data table. This identifier
           indicates the source of a vector line segment.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Range_Domain:
                 Range_Domain_Minimum:
                 Range_Domain_Maximum:
Attribute:
     Attribute Label:
           ENVIR
     Attribute_Definition:
           Type of regional environment.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                       Ε
                 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 identifier
           indicates the source of the ESI classification of a line segment. Vector
           features that were not surveyed or do not qualify for an ESI classification
           have a value of -1.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Range_Domain:
                 Range_Domain_Minimum:
                       -1
                 Range_Domain_Maximum:
                       N
```

*Detailed\_Description*:

*Entity\_Type*: Entity\_Type\_Label: **ESI.PAT** *Entity\_Type\_Definition*: The ESI.PAT table contains attribute information for the vector polygons representing polygonal features with ESI classification. Entity\_Type\_Definition\_Source: NOAA ESI Guidelines Attribute: Attribute Label: ESI *Attribute\_Definition*: The item ESI contains values representing the ESI polygon type. Attribute\_Definition\_Source: NOAA ESI Guidelines Attribute Domain Values: Enumerated Domain: Enumerated\_Domain\_Value: 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: 9C *Enumerated\_Domain\_Value\_Definition*: Hypersaline 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:

IJ

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:

T

*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:
                       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 identifier
                 indicates the source of the ESI classification of a polygon. Polygon
                 features that do not have an associated ESI value are given an
                 ESI SOURCE value of -1.
           Attribute_Definition_Source:
                 NOAA ESI Guidelines
           Attribute_Domain_Values:
                 Range Domain:
                       Range_Domain_Minimum:
                             -1
                       Range_Domain_Maximum:
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:

Page 20 of 25

```
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:
                 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\_Label:

Attribute:

Attribute Label:

DATA\_FORMAT

Attribute\_Definition:

The format of the source material.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

PUB PLACE

Attribute\_Definition:

Publication place.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLISHER** 

Attribute\_Definition:

Publisher.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLICATION** 

*Attribute\_Definition*:

Additional citation information.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

ONLINE\_LINK

Attribute\_Definition:

Online computer resource URL.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

SCALE

Attribute\_Definition:

Description of the source scale.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute\_Label:

TIME\_PERIOD

Attribute\_Definition:

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

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

# Overview\_Description:

Entity\_and\_Attribute\_Overview:

The geographic data layer containing resource information (in this case, ESI) is linked to the SOURCES table using the SOURCE\_ID. 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\_and\_Attribute\_Detail\_Citation:

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines

(http://response.restoration.noaa.gov/esi\_guidelines).

#### **Back To Index**

#### Distribution Information:

## Distributor:

*Contact\_Information*:

Contact\_Person\_Primary:

Contact\_Person:

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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

### Back To Index

```
Metadata_Reference_Information:
     Metadata Date:
           20100927
     Metadata_Review_Date:
           20100927
     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

*Metadata\_Extensions*:

Online\_Linkage:

http://www.ncddc.noaa.gov/metadataresource/metadata-

references/files/ncddcmdprofile\_v2.pdf

Profile\_Name:

Content Specification for Metadata in the National Coastal Data Development Center's Data Catalog Version 2.0

# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: ACP (Area Contingency Plan Points)

# **Metadata:**

- Identification Information
- <u>Data\_Quality\_Information</u>
- 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.

#### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: ACP (Area Contingency Plan Points)

#### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

*Series\_Information*:

Series Name:

None

*Issue\_Identification*:

Southern California

#### *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 data for Area Contingency Plan (ACP) sensitive sites in Southern California. Vector points in this data set represent sites identified as sensitive for biological and/or human-use resources that should be prioritized for protection during spill response activities. This data set comprises a portion of the ESI data for Southern California. 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:
                2000
           Ending Date:
                2010
```

#### Currentness\_Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 2000 to 2010 and are documented in the Lineage section.

```
Status:
     Progress:
           Complete
     Maintenance_and_Update_Frequency:
           None Scheduled
Spatial_Domain:
     Bounding_Coordinates:
           West Bounding Coordinate:
                -120.60100
           East_Bounding_Coordinate:
                -117.00100
           North_Bounding_Coordinate:
                34.50000
           South_Bounding_Coordinate:
                32.44500
```

# *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:* 

Area contingency plan

#### Theme:

*Theme\_Keyword\_Thesaurus*:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

#### Place:

Place Keyword Thesaurus:

None

Place\_Keyword:

Southern California

#### Access Constraints:

None

#### *Use\_Constraints*:

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

Browse\_Graphic:

Browse\_Graphic\_File\_Name:

datafig.jpg

Browse\_Graphic\_File\_Description:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

Browse\_Graphic\_File\_Type:

**JPEG** 

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

Native Data Set Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

Program\_Affiliation:

Program Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

Attribute Accuracy:

Attribute\_Accuracy\_Report:

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

# *Logical\_Consistency\_Report*:

A multi-stage error checking process, described in the above

Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 Los Angeles / Long Beach and San Diego Oil Spill Contingency Plans.

Positional\_Accuracy:

*Horizontal\_Positional\_Accuracy*:

Horizontal\_Positional\_Accuracy\_Report:

The ACP data set was developed from pre-existing digital data and reflects 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:

CDF&G OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR)

*Publication\_Date*:

2009

Title:

ACP SENSITIVE SITES AND SHORELINE ACCESS POINTS

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

Other\_Citation\_Details:

**UNPUBLISHED** 

Online\_Linkage:

http://www.dfg.ca.gov/ospr/Response/ACP\_Marine.aspx

*Type\_of\_Source\_Media*:

CD-ROM

Source Time Period of Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar Date:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

NONE

Source\_Contribution:

#### ACP INFORMATION

```
Process_Step:
Process_Description:
These data were
California Depa
```

These data were imported from digital data sets provided by the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR). The point data and associated attribute information were plotted on hardcopy maps and reviewed for accuracy. Edits, if any, were made by the resource experts during the review period.

Process\_Date: 201003

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

#### Back To Index

```
Longitude_Resolution:
                      0.0000001
                 Geographic_Coordinate_Units:
                       Decimal degrees
           Geodetic_Model:
                 Horizontal_Datum_Name:
                       North American Datum of 1983
                 Ellipsoid Name:
                       Geodetic Reference System 80
                 Semi-major_Axis:
                       6378137.000000
                 Denominator_of_Flattening_Ratio:
                       298.257222
Entity_and_Attribute_Information:
     Detailed_Description:
           Entity_Type:
                 Entity_Type_Label:
                       ACP.PAT
                 Entity_Type_Definition:
                       The ACP.PAT table contains attribute information for the vector points
                       representing sensitive area features in the ACP data layer.
                 Entity_Type_Definition_Source:
                       California Department of Fish and Game (CDF&G),
                       http://www.dfg.ca.gov/ospr/Response/ACP Marine.aspx.
           Attribute:
                 Attribute_Label:
                       LATDD
                 Attribute_Definition:
                       ACP site latitude in decimal degrees.
                 Attribute_Definition_Source:
                       CDF&G
                 Attribute_Domain_Values:
                       Range_Domain:
                            Range_Domain_Minimum:
                            Range Domain Maximum:
                                  90
           Attribute:
                 Attribute Label:
                      LONDD
                 Attribute_Definition:
                       ACP site longitude in decimal degrees.
                 Attribute_Definition_Source:
                       CDF&G
                 Attribute_Domain_Values:
                       Range_Domain:
                            Range_Domain_Minimum:
```

Latitude Resolution: 0.0000001

-180
Range\_Domain\_Maximum:
180

Attribute:

*Attribute\_Label*:

SITE NUM N

*Attribute\_Definition*:

ID of the ACP site.

Attribute\_Definition\_Source:

CDF&G

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Free Text.

Attribute:

Attribute\_Label:

SITE NAME

Attribute\_Definition:

Name of the ACP site.

Attribute\_Definition\_Source:

CDF&G

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Free Text.

Attribute:

Attribute\_Label:

DATE

*Attribute\_Definition*:

Date of the last ACP site survey.

Attribute\_Definition\_Source:

CDF&G

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

MM/DD/YYYY

*Enumerated\_Domain\_Value\_Definition*:

MM for month, DD for day, and YYYY for year.

Enumerated\_Domain\_Value\_Definition\_Source:

CDF&G

#### **Back To Index**

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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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:
           20100927
     Metadata Review Date:
           20100927
     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

*Metadata\_Extensions*:

Online\_Linkage:

 $\underline{http://www.ncddc.noaa.gov/metadataresource/metadata-}$ 

references/files/ncddcmdprofile\_v2.pdf

Profile\_Name:

Content Specification for Metadata in the National Coastal Data Development Center's Data Catalog Version 2.0

# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: INDEX (Index Polygons)

# **Metadata:**

- Identification Information
- Data\_Quality\_Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity\_and\_Attribute\_Information
- Distribution Information
- Metadata Reference Information

### *Identification\_Information*:

#### Citation:

# Citation\_Information:

#### Originator:

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.

#### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: INDEX (Index Polygons)

#### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

#### *Series\_Information*:

Series Name:

None

*Issue\_Identification*:

Southern California

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

#### Purpose:

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

*Time\_Period\_of\_Content*:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar Date:

2009

*Currentness\_Reference*:

The data were compiled during 2008-2010. The currentness date for the data is 2009 and is documented in the Lineage section.

#### Status:

*Progress*:

Complete

Maintenance and Update Frequency:

None Scheduled

*Spatial\_Domain*:

Bounding\_Coordinates:

*West\_Bounding\_Coordinate:* 

-120.60100

*East\_Bounding\_Coordinate*:

-117.00100

*North\_Bounding\_Coordinate*:

34.50000

*South\_Bounding\_Coordinate*:

32.44500

#### *Keywords*:

Theme:

Theme Keyword Thesaurus:

ISO 19115 Topic Category

Theme\_Keyword:

biota

*Theme\_Keyword:* 

environment

Theme:

Theme\_Keyword\_Thesaurus:

None

*Theme\_Keyword*:

**Environmental Monitoring** 

Theme Keyword:

**ESI** 

*Theme\_Keyword:* 

Sensitivity maps

Theme\_Keyword:

Coastal resources

*Theme\_Keyword:* 

Oil spill planning

*Theme\_Keyword:* 

Coastal Zone Management

*Theme\_Keyword:* 

Wildlife

Theme:

*Theme\_Keyword\_Thesaurus*:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

Place:

*Place\_Keyword\_Thesaurus*:

None

Place\_Keyword:

Southern California

Access\_Constraints:

None

*Use\_Constraints*:

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

Browse Graphic:

Browse\_Graphic\_File\_Name:

datafig.jpg

Browse Graphic File Description:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

*Browse\_Graphic\_File\_Type*:

**JPEG** 

Data\_Set\_Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

Native Data Set Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

#### **Back To Index**

*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

Logical\_Consistency\_Report:

A multi-stage error checking process, described in the above

Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for

proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 as part of the ESI Southern California, as well as digital data extents.

Positional\_Accuracy:

*Horizontal\_Positional\_Accuracy*:

Horizontal\_Positional\_Accuracy\_Report:

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

#### Lineage:

Source\_Information:

Source Citation:

Citation\_Information:

Originator:

RESEARCH PLANNING, INC.

Publication\_Date:

2008

*Title*:

**ESI INDEX** 

Geospatial\_Data\_Presentation\_Form:

vector digital data

Other\_Citation\_Details:

**UNPUBLISHED** 

Source Scale Denominator:

24000

*Type\_of\_Source\_Media*:

DIGITAL

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

*Calendar\_Date*:

2008

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source Citation Abbreviation:

**NONE** 

Source Contribution:

INDEX INFORMATION

*Source Information:* 

Source\_Citation:

```
Citation_Information:
          Originator:
               U.S. GEOLOGICAL SURVEY
          Publication Date:
               2009
          Title:
               TOPOGRAPHIC MAPS
          Geospatial_Data_Presentation_Form:
               raster digital data
          Publication Information:
               Publication Place:
                    RESTON, VA
               Publisher:
                    USGS
Source_Scale_Denominator:
     24000
Type_of_Source_Media:
     online
Source_Time_Period_of_Content:
     Time_Period_Information:
          Range_of_Dates/Times:
               Beginning_Date:
                    1943
               Ending_Date:
                    1988
     Source_Currentness_Reference:
          DATE OF PUBLICATION
Source_Citation_Abbreviation:
     NONE
Source Contribution:
     ANACAPA ISLAND, CALIF. (1973); CARPINTERIA, CALIF. (1988);
     DANA POINT, CALIF. (1975); DEL MAR, CALIF. (1975); DOS
     PUEBLOS CANYON, CALIF. (1988); ENCINITAS, CALIF. (1975);
     GAVIOTA, CALIF. (1982); GOLETA, CALIF. (1988); IMPERIAL
     BEACH, CALIF.-BAJA CALIF. NORTE (1975); LA JOLLA, CALIF.
     (1975); LAGUNA BEACH, CALIF. (1981); LAS PULGAS CANYON,
     CALIF. (1975); LONG BEACH, CALIF. (1981); LOS ALAMITOS,
     CALIF. (1981); MALIBU, CALIF. (1981); NATIONAL CITY, CALIF.
     (1975); NEWPORT BEACH, CALIF. (1981); OCEANSIDE, CALIF.
     (1975); OXNARD, CALIF. (1967); PITAS POINT, CALIF. (1967);
     POINT CONCEPTION, CALIF. (1974); POINT DUME, CALIF.
     (1981); POINT LOMA, CALIF. (1975); POINT MUGU, CALIF. (1967);
     REDONDO BEACH, CALIF. (1981); SACATE, CALIF. (1953); SAN
     CLEMENTE ISLAND CENTRAL, CALIF. (1980); SAN CLEMENTE
     ISLAND NORTH, CALIF. (1980); SAN CLEMENTE ISLAND
     SOUTH, CALIF. (1980); SAN CLEMENTE, CALIF. (1975); SAN
     JUAN CAPISTRANO, CALIF. (1981); SAN LUIS REY, CALIF.
     (1975); SAN MIGUEL ISLAND EAST, CALIF. (1943); SAN MIGUEL
     ISLAND WEST, CALIF. (1943); SAN NICOLAS ISLAND, CALIF.
```

(1956); SAN ONOFRE BLUFF, CALIF. (1975); SAN PEDRO, CALIF.

(1981); SANTA BARBARA ISLAND, CALIF. (1973); SANTA

BARBARA, CALIF. (1988); SANTA CATALINA EAST, CALIF. (1980); SANTA CATALINA NORTH, CALIF. (1980); SANTA CATALINA WEST, CALIF. (1980); SANTA CRUZ ISLAND A, CALIF. (1974); SANTA CRUZ ISLAND B, CALIF. (1943); SANTA CRUZ ISLAND C, CALIF. (1974); SANTA CRUZ ISLAND D, CALIF. (1974); SANTA ROSA ISLAND EAST, CALIF. (1943); SANTA ROSA ISLAND NORTH, CALIF. (1943); SANTA ROSA ISLAND SOUTH, CALIF. (1943); SANTA ROSA ISLAND WEST, CALIF. (1943); SEAL BEACH, CALIF. (1981); TAJIGUAS, CALIF. (1982); TOPANGA, CALIF. (1981); TORRANCE, CALIF. (1981); TRIUNFO PASS, CALIF. (1967); VENICE, CALIF. (1981); VENTURA, CALIF. (1967); WHITE LEDGE PEAK, CALIF. (1967).

#### *Process\_Step*:

Process\_Description:

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

Process Date:

201003

*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

# Back To Index

Spatial\_Data\_Organization\_Information:
 Direct\_Spatial\_Reference\_Method:
 Vector
 Point\_and\_Vector\_Object\_Information:

```
SDTS Terms Description:
                SDTS_Point_and_Vector_Object_Type:
                      GT-polygon composed of chains
                Point_and_Vector_Object_Count:
                      56
          SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Area point
                Point_and_Vector_Object_Count:
                      57
          SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Complete chain
                Point_and_Vector_Object_Count:
                      238
          SDTS Terms Description:
                SDTS_Point_and_Vector_Object_Type:
                      Link
                Point_and_Vector_Object_Count:
                      241
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Node, planar graph
                Point_and_Vector_Object_Count:
                      187
Spatial Reference Information:
```

#### **Back To Index**

```
Horizontal_Coordinate_System_Definition:
     Geographic:
           Latitude Resolution:
                0.0000001
           Longitude Resolution:
                0.0000001
           Geographic_Coordinate_Units:
                Decimal degrees
     Geodetic\_Model:
           Horizontal_Datum_Name:
                 North American Datum of 1983
           Ellipsoid_Name:
                 Geodetic Reference System 80
           Semi-major_Axis:
                 6378137.000000
           Denominator_of_Flattening_Ratio:
                 298.257222
```

```
Entity and Attribute Information:
     Detailed_Description:
           Entity_Type:
                 Entity_Type_Label:
```

```
INDEX.PAT
```

*Entity\_Type\_Definition*:

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

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

#### Attribute:

Attribute Label:

TILE-NAME

Attribute\_Definition:

The TILE-NAME contains the map number according to the specified layout of the atlas.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Range\_Domain:

Range\_Domain\_Minimum:

1

Range\_Domain\_Maximum: 53

#### Attribute:

Attribute Label:

**TOPO-NAME** 

Attribute\_Definition:

USGS Topographic map name, short description of location, or atlas name.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute\_Label:

**SCALE** 

Attribute\_Definition:

SCALE contains the value of the denominator of the scale at which the map is plotted in the final map product.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

24000

*Enumerated\_Domain\_Value\_Definition*:

Scale = 1:24,000

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

#### Attribute:

Attribute\_Label:

**MAPANGLE** 

```
Attribute_Definition:
```

MAPANGLE contains the value to rotate the final map product so that it is situated straight up and down.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

Range\_Domain:

Range\_Domain\_Minimum:

-5.4980

Range\_Domain\_Maximum:

23.7630

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** 

#### Overview Description:

Entity\_and\_Attribute\_Overview:

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).

#### **Back To Index**

#### 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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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:
           20100927
     Metadata Review Date:
           20100927
     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:
```

Southern California ESI: INDEX

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

*Metadata\_Extensions*:

Online\_Linkage:

 $\underline{http://www.ncddc.noaa.gov/metadataresource/metadata-}$ 

references/files/ncddcmdprofile\_v2.pdf

Profile\_Name:

Content Specification for Metadata in the National Coastal Data Development Center's Data Catalog Version 2.0

# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: MGT (Management Area Polygons)

# **Metadata:**

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

### *Identification\_Information*:

#### Citation:

# Citation\_Information:

# Originator:

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.

#### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: MGT (Management Area Polygons)

#### *Edition*:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

*Series\_Information*:

Series Name:

None

*Issue\_Identification*:

Southern California

# 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 human-use data for critical habitats, fishery areas, management areas, marine sanctuaries, national forests, national parks, The Nature Conservancy (TNC) lands, parks, and wildlife refuges in Southern California. 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 Southern California. 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 Southern California 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:

2002

Ending\_Date:

2010

Currentness Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 2002 to 2010 and are documented in the Lineage section.

#### Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

*Spatial\_Domain*:

Bounding\_Coordinates:

West Bounding Coordinate:

-120.60100

*East\_Bounding\_Coordinate*:

-117.00100

North Bounding Coordinate:

34.50000

*South\_Bounding\_Coordinate*:

32.44500

#### *Keywords*:

Theme:

*Theme\_Keyword\_Thesaurus*:

ISO 19115 Topic Category

*Theme\_Keyword:* 

biota

*Theme\_Keyword:* 

environment

#### Theme:

Theme\_Keyword\_Thesaurus:

None

Theme Keyword:

**Environmental Monitoring** 

*Theme\_Keyword:* 

**ESI** 

*Theme\_Keyword:* 

Sensitivity maps

Theme\_Keyword:

Coastal resources

*Theme\_Keyword:* 

Oil spill planning

Theme Keyword:

Coastal Zone Management

*Theme\_Keyword:* 

Wildlife

Theme\_Keyword:

Management

#### Theme:

Theme Keyword Thesaurus:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

#### Place:

Place Keyword Thesaurus:

None

*Place\_Keyword*:

Southern California

#### Access Constraints:

None

#### *Use\_Constraints*:

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

originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

# *Browse\_Graphic*:

*Browse\_Graphic\_File\_Name*:

datafig.jpg

*Browse\_Graphic\_File\_Description*:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

 $Browse\_Graphic\_File\_Type$ :

**JPEG** 

Data\_Set\_Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

Native Data Set Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

Program\_Affiliation:

Program\_Name:

National Ocean Service Data Explorer

Back To Index

Data\_Quality\_Information:

*Attribute\_Accuracy*:

Attribute\_Accuracy\_Report:

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

depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

# Logical\_Consistency\_Report:

A multi-stage error checking process, described in the above

Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 Southern California ESI database, for additional human-use information. These data do not necessarily represent all management areas in Southern California.

#### Positional Accuracy:

*Horizontal\_Positional\_Accuracy*:

Horizontal Positional Accuracy Report:

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

## Lineage:

Source\_Information:
Source\_Citation:

Citation Information:

Originator:

CAL STATE PARKS ACQUISITION AND DEVELOPMENT DIVISION

Publication Date:

2008

Title:

#### CSP OPBDYS072008

Geospatial\_Data\_Presentation\_Form:

vector digital data

Other\_Citation\_Details:

#### CALIFORNIA STATE PARKS

Source\_Scale\_Denominator:

24000

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar Date:

2008

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

MGT INFORMATION

Source\_Information:

*Source\_Citation*:

Citation\_Information:

Originator:

CDF&G AND CHANNEL ISLANDS NATIONAL MARINE SANCTUARY (CINMS)

Publication\_Date:

2007

*Title*:

BOUNDARIES OF MARINE PROTECTED AREAS (MPAS) WITHIN THE CHANNEL ISLANDS NATIONAL MARINE SANCTUARY

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

Other Citation Details:

**UNPUBLISHED** 

*Type\_of\_Source\_Media*:

**EMAIL** 

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar Date:

2007

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source Citation Abbreviation:

**NONE** 

*Source\_Contribution*:

**MGT INFORMATION** 

Source\_Information:

Source\_Citation:

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Citation_Information:
                Originator:
                     CDF&G MARINE REGION GIS
               Publication_Date:
                     2008
                Title:
                     STATE MARINE PROTECTED AREAS WITHIN THE
                     SOUTH COAST STUDY AREA
                Geospatial_Data_Presentation_Form:
                     vector digital data
                Other_Citation_Details:
                     UNIVERSITY OF CALIFORNIA SANTA BARBARA,
                     MARINE LIFE PROTECTION ACT (UCSB MLPA)
     Type_of_Source_Media:
          online
     Source Time Period of Content:
          Time_Period_Information:
               Single_Date/Time:
                     Calendar_Date:
                          2008
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          MGT INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
               Originator:
                     CDF&G OFFICE OF SPILL PREVENTION AND
                     RESPONSE (OSPR)
               Publication_Date:
                     2009
                Title:
                     FISHERY SEASONS
               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:
                          2009
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
```

```
Source Contribution:
           MGT INFORMATION
Source_Information:
     Source_Citation:
           Citation_Information:
                Originator:
                      California Department of Fish and Game
                Publication_Date:
                      200902
                Title:
                      California Department of Fish and Game Owned Lands
                      (DFG Owned Lands)
                Geospatial Data Presentation Form:
                      vector digital data
                Online_Linkage:
                      http://ftp.dfg.ca.gov/Public/Wildlife Branch/DFG Lands/
     Source Scale Denominator:
           24000
     Type_of_Source_Media:
           online
     Source_Time_Period_of_Content:
           Time_Period_Information:
                Single_Date/Time:
                      Calendar Date:
                           200902
           Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source_Citation_Abbreviation:
           NONE
     Source Contribution:
           MGT INFORMATION
Source_Information:
     Source_Citation:
           Citation_Information:
                Originator:
                      MARINE LIFE PROTECTION ACT (MLPA)
                Publication_Date:
                      2009
                Title:
                      MLPA COMMERCIAL FISH (VARIOUS SPECIES)
                Geospatial_Data_Presentation_Form:
                      vector digital data
                Other_Citation_Details:
                      UNPUBLISHED
     Type_of_Source_Media:
           online
     Source_Time_Period_of_Content:
           Time_Period_Information:
                Single Date/Time:
                      Calendar Date:
                            2009
```

```
Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source_Citation_Abbreviation:
           NONE
     Source Contribution:
           MGT INFORMATION
Source_Information:
     Source_Citation:
           Citation_Information:
                Originator:
                     NOAA NATIONAL MARINE SANCTUARIES
                     PROGRAM
                Publication Date:
                     2008
                Title:
                     CINMS_BOUNDARY_6_08
                Geospatial_Data_Presentation_Form:
                     vector digital data
                Other_Citation_Details:
                     NOAA NATIONAL MARINE SANCTUARIES
                     PROGRAM
     Type_of_Source_Media:
           CD-ROM
     Source_Time_Period_of_Content:
           Time_Period_Information:
                Single_Date/Time:
                     Calendar_Date:
                           2004
           Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          MGT INFORMATION
Source Information:
     Source_Citation:
           Citation_Information:
                Originator:
                     National Park Service
                Publication Date:
                     20090401
                Title:
                     Current Administrative Boundaries of National Park System
                     Units 04/01/2009
                Geospatial_Data_Presentation_Form:
                     vector digital data
                Online_Linkage:
                     http://www.nps.gov/gis/data_info/
     Source_Scale_Denominator:
           24000
```

*Type\_of\_Source\_Media*:

```
online
     Source_Time_Period_of_Content:
          Time_Period_Information:
                Range_of_Dates/Times:
                     Beginning_Date:
                          20020201
                     Ending_Date:
                          2009
          Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          MGT INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
                Originator:
                     THE NATURE CONSERVANCY, U.S. GEOLOGICAL
                     SURVEY
                Publication Date:
                     2005
                Title:
                     SANTA CRUZ ISLAND MAP
                Geospatial_Data_Presentation_Form:
                     HARDCOPY MAP
                Other_Citation_Details:
                     UNPUBLISHED
     Type_of_Source_Media:
          EMAIL
     Source_Time_Period_of_Content:
          Time Period Information:
                Single_Date/Time:
                     Calendar_Date:
                          2005
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source_Contribution:
          MGT INFORMATION
Source Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     U.S. NAVY
                Publication Date:
                     2010
                Title:
                     SEAL BEACH NAVAL WEAPONS RESERVE
```

**BOUNDARY** 

```
Geospatial_Data_Presentation_Form:
                     HARDCOPY MAP
                Other_Citation_Details:
                     UNPUBLISHED
     Source_Scale_Denominator:
           24000
     Type_of_Source_Media:
          paper
     Source_Time_Period_of_Content:
           Time_Period_Information:
                Single_Date/Time:
                     Calendar_Date:
                           2010
          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:
                     2009
                Title:
                     FWS CRITICAL HABITAT FOR THREATENED AND
                     ENDANGERED SPECIES
                Geospatial_Data_Presentation_Form:
                     vector digital data
                Online_Linkage:
                     http://criticalhabitat.fws.gov/
     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:
          MGT INFORMATION
Source_Information:
     Source Citation:
           Citation_Information:
                Originator:
```

```
USDA Forest Service - Pacific Southwest Region - Regional
                      Office
                 Publication_Date:
                      200901
                 Title:
                      AdministrativeForest09 1
                 Geospatial_Data_Presentation_Form:
                      vector digital data
                 Online Linkage:
                      http://www.fs.fed.us/r5/rsl/projects/frdb/layers/owner.html
     Source_Scale_Denominator:
           24000
     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:
           MGT INFORMATION
Source_Information:
     Source_Citation:
           Citation_Information:
                 Originator:
                      USFWS, Region 1, Division of Refuge Planning
                 Publication Date:
                      20040513
                 Title:
                      FWS_R1_NWR_ApBnd
                 Geospatial_Data_Presentation_Form:
                      vector digital data
                 Online_Linkage:
                      http://www.fws.gov/GIS/index.htm
     Source_Scale_Denominator:
           24000
     Type_of_Source_Media:
           online
     Source_Time_Period_of_Content:
           Time_Period_Information:
                 Single Date/Time:
                      Calendar Date:
                            2004
           Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source_Citation_Abbreviation:
           NONE
```

# Source\_Contribution: MGT INFORMATION

Process\_Step:

Process\_Description:

Numerous digital coverages were used to depict management areas for this data layer. Data layers were provided by: NOAA National Marine Sanctuaries, California State Parks (CSP), U.S. Fish and Wildlife Service (USFWS), University of California Marine Life Protection Act (MLPA), U.S. Department of Agriculture (USDA) Forest Service, National Park Service (NPS), California Department of Fish and Game (CDF&G), and The Nature Conservancy. The above digital and/or hardcopy sources were compiled by the project biologist to create the MGT data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the MGT data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process Date:

201003

*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

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```
Spatial_Data_Organization_Information:
     Direct_Spatial_Reference_Method:
           Vector
     Point_and_Vector_Object_Information:
           SDTS Terms Description:
                SDTS_Point_and_Vector_Object_Type:
                      GT-polygon composed of chains
                Point_and_Vector_Object_Count:
                      1772
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Area point
                Point_and_Vector_Object_Count:
                      1773
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Complete chain
                Point_and_Vector_Object_Count:
                      3189
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Link
                Point_and_Vector_Object_Count:
                      139696
           SDTS_Terms_Description:
                SDTS Point and Vector Object Type:
                      Node, planar graph
                Point_and_Vector_Object_Count:
                      2267
```

#### **Back To Index**

```
Spatial_Reference_Information:
     Horizontal_Coordinate_System_Definition:
           Geographic:
                 Latitude_Resolution:
                      0.0000001
                 Longitude_Resolution:
                      0.0000001
                 Geographic Coordinate Units:
                      Decimal degrees
           Geodetic_Model:
                 Horizontal Datum Name:
                      North American Datum of 1983
                 Ellipsoid_Name:
                      Geodetic Reference System 80
                 Semi-major Axis:
                      6378137.000000
                 Denominator_of_Flattening_Ratio:
                       298.257222
```

```
Entity and Attribute Information:
     Detailed_Description:
           Entity_Type:
                 Entity_Type_Label:
                       MGT.PAT
                 Entity_Type_Definition:
                       The MGT.PAT table contains attribute information for the vector
                       polygons representing critical habitats, fishery areas, management areas,
                       marine sanctuaries, national forests, national parks, The Nature
                       Conservancy (TNC) lands, parks, and wildlife refuges. Note that all
                       attribute information is stored in a series of relational files, described
                       below and in the Overview Description section. See the
                       Browse_Graphic section for a link to the entity-relationship diagram,
                       which describes the relationships between attribute tables in the ESI data
                       structure.
                 Entity_Type_Definition_Source:
                       NOAA ESI Guidelines
           Attribute:
                 Attribute Label:
                       TYPE
                 Attribute_Definition:
                       The human-use features depicted on the maps are those that could be
                       impacted by an oil spill or could provide access for response operations.
                       TYPE can be used as a quick identifier for the managed polygon
                       features. Greater detail about the object is provided in the SOC_DAT
                       table.
                 Attribute Definition Source:
                       NOAA ESI Guidelines
                 Attribute Domain Values:
                       Enumerated Domain:
                             Enumerated Domain Value:
                                   CH
                             Enumerated_Domain_Value_Definition:
                                   Designated Critical Habitat
                             Enumerated_Domain_Value_Definition_Source:
                                   NOAA ESI Guidelines
                 Attribute Domain Values:
                       Enumerated Domain:
                             Enumerated_Domain_Value:
                             Enumerated Domain Value Definition:
                                   Fishery Area
                             Enumerated_Domain_Value_Definition_Source:
                                   NOAA ESI Guidelines
                 Attribute_Domain_Values:
                       Enumerated_Domain:
                             Enumerated_Domain_Value:
                             Enumerated_Domain_Value_Definition:
```

**National Forest** 

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

MA

Enumerated\_Domain\_Value\_Definition:

Management Area

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

MI

Enumerated\_Domain\_Value\_Definition:

Military

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:

MS

*Enumerated\_Domain\_Value\_Definition*:

Marine Sanctuary

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

NP

Enumerated\_Domain\_Value\_Definition:

National Park

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

p

Enumerated Domain Value Definition:

Regional or State Park

Enumerated\_Domain\_Value\_Definition\_Source:

### **NOAA ESI Guidelines** Attribute Domain Values: Enumerated\_Domain: Enumerated\_Domain\_Value: 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 (209), 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: 2091100002 Range Domain Maximum: 2091101855 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: 209000393 Range\_Domain\_Maximum: 209001158 *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:
                             209000001
                       Range_Domain_Maximum:
                             209001158
     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 (209), element number (10=SOCECON, 11=MGT), and record
                 number. ID values of 9999 are holes in polygons and do not contain
                 information.
           Attribute_Definition_Source:
                 NOAA
           Attribute_Domain_Values:
                 Range Domain:
                       Range_Domain_Minimum:
                             2091000001
                       Range Domain Maximum:
                             2091101855
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*: 209000001 Range\_Domain\_Maximum: 209001158 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: **AQUACULTURE** Enumerated\_Domain\_Value\_Definition: Aquaculture Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines *Attribute\_Domain\_Values*: Enumerated Domain: Enumerated\_Domain\_Value: **BEACH** Enumerated\_Domain\_Value\_Definition: Beach Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Enumerated\_Domain\_Value:

Attribute Domain Values:

Enumerated Domain:

**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:

**CRITICAL HABITAT** 

Enumerated Domain Value Definition:

Designated Critical Habitat

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

FISHERY AREA

*Enumerated\_Domain\_Value\_Definition*:

Fishery Area

*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:

MARINE SANCTUARY

Enumerated Domain Value Definition:

Marine Sanctuary

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

*Enumerated\_Domain\_Value*:

**MILITARY** 

Enumerated\_Domain\_Value\_Definition:

Military

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

NATIONAL FOREST

Enumerated\_Domain\_Value\_Definition:

National Forest

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

NATIONAL PARK

*Enumerated\_Domain\_Value\_Definition*:

National Park

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**OIL FACILITY** 

*Enumerated\_Domain\_Value\_Definition*:

Oil Facility

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**OIL SEEP** 

*Enumerated\_Domain\_Value\_Definition*:

Oil Seep

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:

**PLATFORM** 

*Enumerated\_Domain\_Value\_Definition*:

Platform

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:
                       Range_Domain_Maximum:
     Attribute:
           Attribute_Label:
                 A_SOURCE
           Attribute_Definition:
                 Attribute source identifier that links records in the SOC_DAT data table
                 to records in the SOURCES data table.
           Attribute_Definition_Source:
                 NOAA ESI Guidelines
           Attribute_Domain_Values:
                 Range_Domain:
                       Range_Domain_Minimum:
                       Range Domain Maximum:
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:
                 Range_Domain_Maximum:
Attribute:
     Attribute_Label:
           ORIGINATOR
     Attribute Definition:
           Author or developer of source material or data set.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Unrepresentable_Domain:
                 Acceptable values change from atlas to atlas.
Attribute:
     Attribute Label:
           DATE PUB
     Attribute_Definition:
           Date of source material, publication, or date of personal communication
           with expert source.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                       YYYYMM
                 Enumerated Domain Value Definition:
                       YYYY for year and optionally MM for month
                 Enumerated_Domain_Value_Definition_Source:
                       NOAA ESI Guidelines
Attribute:
     Attribute Label:
           TITLE
     Attribute Definition:
           Title of source material or data.
     Attribute_Definition_Source:
```

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

DATA\_FORMAT

Attribute\_Definition:

The format of the source material.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

PUB\_PLACE

Attribute\_Definition:

Publication place.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLISHER** 

Attribute\_Definition:

Publisher.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLICATION** 

*Attribute\_Definition*:

Additional citation information.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

ONLINE LINK

Attribute\_Definition:

Online computer resource URL.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**SCALE** 

Attribute\_Definition:

Description of the source scale.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

TIME PERIOD

Attribute\_Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Overview\_Description:

Entity\_and\_Attribute\_Overview:

Two relational attribute or data tables, SOC\_DAT, and SOURCES, are used to store the complex socioeconomic data in the ESI data structure. The geographic data layer containing socioeconomic data resource information (in this case, 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 Southern California, the number is 209). ID is a unique combination of the atlas number (209), an element specific number (MGT = 11), and a unique record number. SOC\_DAT and the other relational data tables are described in detail in the Detailed\_Description sections. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

*Entity\_and\_Attribute\_Detail\_Citation*:

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines

(<a href="http://response.restoration.noaa.gov/esi\_guidelines">http://response.restoration.noaa.gov/esi\_guidelines</a>).

Back To Index

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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

#### Back To Index

*Metadata\_Reference\_Information*:

Metadata Date:

20100927

*Metadata\_Review\_Date*:

20100927

*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
Content Standards for Digital Geospatial Metadata
```

*Metadata\_Standard\_Name*:

Metadata\_Standard\_Version:

FGDC-STD-001-1998

Metadata Extensions:

Online\_Linkage:

http://www.ncddc.noaa.gov/metadataresource/metadata-

references/files/ncddcmdprofile\_v2.pdf

Profile Name:

Content Specification for Metadata in the National Coastal Data Development Center's Data Catalog Version 2.0

**Back To Index** 

# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: SOCECON (Socioeconomic Resource Points and Lines)

## Metadata:

- Identification Information
- <u>Data\_Quality\_Information</u>
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- <u>Distribution\_Information</u>
- 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.

#### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: SOCECON (Socioeconomic Resource Points and Lines)

#### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

Series\_Information:

Series Name:

None

Issue\_Identification:

Southern California

#### 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 point data for access sites, airports, aquaculture sites, beaches, boat ramps, marinas, coast guard facilities, oil facilities, oil seeps, platforms, recreational fishing sites and water intakes in Southern California. The data set also contains line data for county boundaries, international borders, bridges, shipping lanes, and state waters in Southern California. Vector points and lines in the data set represent human-use site locations. Location-specific type and source information is 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 Southern California. 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 Southern California 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:

1995

Ending Date:

2009

*Currentness\_Reference*:

The data were compiled during 2008-2010. The currentness dates for the data range from 1995 to 2009 and are documented in the Lineage section.

#### Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

Spatial\_Domain:

*Bounding\_Coordinates*:

*West\_Bounding\_Coordinate:* 

-120.60100

East Bounding Coordinate:

-117.00100

*North\_Bounding\_Coordinate:* 

34.50000

South\_Bounding\_Coordinate: 32.44500

*Keywords*:

Theme:

Theme\_Keyword\_Thesaurus:

ISO 19115 Topic Category

*Theme\_Keyword:* 

biota

Theme\_Keyword:

environment

Theme:

Theme Keyword Thesaurus:

None

*Theme\_Keyword:* 

**Environmental Monitoring** 

*Theme\_Keyword:* 

**ESI** 

*Theme\_Keyword:* 

Sensitivity maps

*Theme\_Keyword:* 

Coastal resources

Theme Keyword:

Oil spill planning

*Theme\_Keyword:* 

Coastal Zone Management

Theme Keyword:

Wildlife

*Theme\_Keyword:* 

Socioeconomic

Theme:

*Theme\_Keyword\_Thesaurus*:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

Place:

Place\_Keyword\_Thesaurus:

None

Place\_Keyword:

Southern California

Access\_Constraints:

None

*Use\_Constraints*:

DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or

resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

*Browse\_Graphic*:

Browse Graphic File Name:

datafig.jpg

Browse\_Graphic\_File\_Description:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

Browse\_Graphic\_File\_Type:

**JPEG** 

Data\_Set\_Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

*Native\_Data\_Set\_Environment:* 

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute Accuracy Report:

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data

(such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

#### *Logical\_Consistency\_Report*:

A multi-stage error checking process, described in the above

Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 and digital data on socioeconomic resources. See also the MGT data layer, part of the larger Southern California ESI database, for additional human-use information. These data do not necessarily represent all human-use sites in Southern California.

#### Positional\_Accuracy:

Horizontal\_Positional\_Accuracy:

*Horizontal\_Positional\_Accuracy\_Report*:

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

#### Lineage:

Source\_Information:
Source\_Citation:
Citation\_Information:
Originator:
CALTRANS
Publication\_Date:
2008

Title:

CALIFORNIA AIRPORTS

Geospatial\_Data\_Presentation\_Form:

vector digital data

Other\_Citation\_Details:

CALTRANS HQ AERONAUTICS

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2008

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

NONE

Source\_Contribution:

SOCECON INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

**CDF&G MARINE REGION** 

*Publication\_Date*:

2009

Title:

STATE-WIDE FISHING PIERS

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

Other\_Citation\_Details:

**UNPUBLISHED** 

*Type\_of\_Source\_Media*:

CD-ROM

*Source\_Time\_Period\_of\_Content:* 

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2009

*Source\_Currentness\_Reference*:

DATE OF PUBLICATION

Source Citation Abbreviation:

**NONE** 

*Source\_Contribution*:

SOCECON INFORMATION

*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

CDF&G MARINE REGION GIS

*Publication\_Date*:

2009

Title:

POWER POINT INTAKES (PPINTAKES)

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

Other Citation Details:

**UNPUBLISHED** 

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar Date:

2009

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source Citation Abbreviation:

**NONE** 

Source Contribution:

SOCECON INFORMATION

Source\_Information:

*Source\_Citation*:

Citation\_Information:

Originator:

CDF&G OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR)

Publication\_Date:

2009

*Title*:

ACP SENSITIVE SITES AND SHORELINE ACCESS POINTS

Geospatial\_Data\_Presentation\_Form:

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Other\_Citation\_Details:

**UNPUBLISHED** 

Online\_Linkage:

http://www.dfg.ca.gov/ospr/response/acp/marine\_acp.html

*Type\_of\_Source\_Media*:

CD-ROM

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single Date/Time:

Calendar\_Date:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

NONE

Source Contribution:

SOCECON INFORMATION

*Source\_Information*:

Southern California ESI: SOCECON

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                Originator:
                     KONG, C. (CDF&G, OSPR)
                Publication_Date:
                     2009
                Title:
                     SOCECON RESOURCES IN LA AND ORANGE
                     COUNTIES
                Geospatial_Data_Presentation_Form:
                     EXPERT KNOWLEDGE
                Other Citation Details:
                     UNPUBLISHED
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     Source_Time_Period_of_Content:
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                Single_Date/Time:
                     Calendar_Date:
                          2009
          Source_Currentness_Reference:
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Source_Information:
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          Citation_Information:
                Originator:
                     LERMA, D. (TIERRA DATA INC.)
                Publication_Date:
                     2009
                Title:
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Source\_Citation:

*Citation\_Information*:

Originator:

LEWIS, R. (CDF&G OSPR)

*Publication\_Date*:

2009

Title:

DISTRIBUTION OF SOCECON AND BIOLOGICAL RESOURCES IN SOUTHERN CALIFORNIA

*Geospatial\_Data\_Presentation\_Form*:

EXPERT KNOWLEDGE

Other\_Citation\_Details:

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Type\_of\_Source\_Media:

PERSONAL COMMUNICATION

*Source\_Time\_Period\_of\_Content:* 

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2009

Source Currentness Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

SOCECON INFORMATION

Source\_Information:

Source Citation:

Citation\_Information:

Originator:

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL OCEAN SERVICE (NOS), OFFICE OF RESPONSE AND RESTORATION (OR&R), EMERGENCY RESPONSE DIVISION (ERD)

Publication Date:

1995

*Title*:

SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE TO SPILLED OIL: SOUTHERN CALIFORNIA: T\_MAMMAL: SOCECON

Geospatial\_Data\_Presentation\_Form:

vector digital data

Publication\_Information:

Publication\_Place:

SEATTLE, WA

Publisher:

**NOAA** 

*Other\_Citation\_Details*:

Southern California ESI: SOCECON

#### 7600 SAND POINT WAY, SEATTLE, WA 98115-6349

Online\_Linkage:

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

Source\_Scale\_Denominator:

24000

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Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

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DATE OF PUBLICATION

*Source\_Citation\_Abbreviation*:

**NONE** 

Source Contribution:

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*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

OFFICE OF SPILL PREVENTION AND RESPONSE

(OSPR) AND CDF&G (T. MOORE)

Publication\_Date:

2009

Title:

AQUACULTURE\_SOCAL

 $Geospatial\_Data\_Presentation\_Form:$ 

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Other\_Citation\_Details:

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Source Citation Abbreviation:

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Source\_Contribution:

SOCECON INFORMATION

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Source Citation:

Citation\_Information:

Originator:

OSPR. CSLC

*Publication\_Date*:

2004

Title:

CALIFORNIA COASTAL BOATING FACILITIES

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Other Citation Details:

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CD-ROM

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*Time\_Period\_Information*:

Range\_of\_Dates/Times:

Beginning\_Date:

2003

Ending\_Date:

2004

Source\_Currentness\_Reference:

DATE OF SURVEY

Source\_Citation\_Abbreviation:

**NONE** 

Source\_Contribution:

SOCECON INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

PEUGH, J. (SAN DIEGO AUDUBON)

*Publication\_Date*:

2009

Title:

SAN DIEGO COUNTY BIRDS

Geospatial\_Data\_Presentation\_Form:

EXPERT KNOWLEDGE

*Other\_Citation\_Details*:

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Single\_Date/Time:

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2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

*Source\_Citation\_Abbreviation*:

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Source\_Contribution:

SOCECON INFORMATION

Source Information:

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Citation\_Information:

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Originator:
                     PRYOR, D.
                Publication_Date:
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                Title:
                     SPECIES DISTRIBUTION, LOS ANGELES COUNTY
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                Originator:
                     R. IMAI/ M. LAMPINEN CDF&G
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                     Ending_Date:
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                Originator:
                     UNIVERSITY OF CALIFORNIA SANTA BARBARA,
                     MARINE LIFE PROTECTION ACT (UCSB MLPA)
                Publication_Date:
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                DATE OF PUBLICATION
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                     UNIVERSITY OF CALIFORNIA SANTA BARBARA,
                     MARINE LIFE PROTECTION ACT (UCSB MLPA)
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          Citation_Information:
               Originator:
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               Publication_Date:
                     2009
                Title:
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                     CALIFORNIA
                Geospatial_Data_Presentation_Form:
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                Other_Citation_Details:
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Calendar\_Date: 2009

Southern California ESI: SOCECON

# Source\_Currentness\_Reference: DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

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Source Contribution:

SOCECON INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

WILSON, K. (CDF&G OSPR, RETIRED)

*Publication\_Date*:

2009

Title:

SOCECON AND MANAGEMENT INFO FOR SOUTHERN CALIFORNIA

Geospatial\_Data\_Presentation\_Form:

EXPERT KNOWLEDGE

Other\_Citation\_Details:

**UNPUBLISHED** 

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2009

*Source\_Currentness\_Reference*:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

NONE

Source Contribution:

SOCECON INFORMATION

*Process\_Step*:

Process Description:

Two main sources of data were used to depict human-use resources for this data layer: 1) personal interviews with resource experts from California Department of Fish and Game (CDF&G) Office of Spill Prevention and Response (OSPR), California State Parks (CSP), San Diego Audubon, and 2) digital data provided by CDF&G, University of California Santa Barbara (UCSB) Marine Life Protection Act (MLPA), and California Department of Transportation (CALTRANS). The above digital and/or hardcopy sources were compiled by the project biologist to create the SOCECON data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled

ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the SOCECON data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process\_Date:

201003

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

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```
Spatial_Data_Organization_Information:
     Direct Spatial Reference Method:
           Vector
     Point_and_Vector_Object_Information:
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Entity point
                Point_and_Vector_Object_Count:
                      672
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Complete chain
                Point_and_Vector_Object_Count:
                      64
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Link
```

```
Point_and_Vector_Object_Count:
13496
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
Node,planar graph
Point_and_Vector_Object_Count:
76
```

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*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

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```
Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label:

SOCECON.AAT

Entity_Type_Definition:

The SOCECON.AAT table contains attribute information for the vector lines representing county boundaries, international borders, bridges, shipping lanes, and state waters.
```

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute\_Label:

**TYPE** 

*Attribute\_Definition*:

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

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Southern California ESI: SOCECON

Enumerated Domain:

Enumerated Domain Value:

CB

*Enumerated\_Domain\_Value\_Definition*:

County Border

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

 $\mathbf{I}\mathbf{B}$ 

Enumerated Domain Value Definition:

International Border

Enumerated\_Domain\_Value\_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:

SL

*Enumerated\_Domain\_Value\_Definition*:

Shipping Lane

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

SW

*Enumerated\_Domain\_Value\_Definition*:

State Waters

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, aquaculture sites, beaches, boat ramps, marinas, coast guard facilities, oil facilities, oil seeps, platforms, recreational fishing sites, and water intakes. Note that all attribute information is stored in a series of relational files, described below and in the Overview\_Description section. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships

between attribute tables in the ESI data structure.

*Entity\_Type\_Definition\_Source*:

**NOAA ESI Guidelines** 

Attribute:

*Attribute\_Label*:

**TYPE** 

Attribute\_Definition:

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

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

Α

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:

AQ

Enumerated\_Domain\_Value\_Definition:

Aquaculture

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

R

*Enumerated\_Domain\_Value\_Definition*:

Beach

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

BR

Enumerated\_Domain\_Value\_Definition:

Boat Ramp

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

CG

Enumerated\_Domain\_Value\_Definition:

Coast Guard

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

M

*Enumerated\_Domain\_Value\_Definition*:

Marina

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

OF

 $Enumerated\_Domain\_Value\_Definition:$ 

Oil Facility

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated Domain Value:

OS

Enumerated Domain Value Definition:

Oil Seep

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

PF

Enumerated\_Domain\_Value\_Definition:

Platform

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:
                       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 (209), element number (10), and record number.
           Attribute Definition Source:
                 NOAA
           Attribute_Domain_Values:
                 Range_Domain:
                       Range_Domain_Minimum:
                             2091000001
                       Range_Domain_Maximum:
                             2091000672
     Attribute:
           Attribute_Label:
                 HUNUM
           Attribute_Definition:
                 An identifier that links directly to the SOC DAT table.
           Attribute_Definition_Source:
                 NOAA
           Attribute_Domain_Values:
                 Range_Domain:
                       Range_Domain_Minimum:
                             209000001
                       Range Domain Maximum:
                             209000893
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:

209000001

 $Range\_Domain\_Maximum$ :

209001158

#### 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 (209), element number (10=SOCECON, 11=MGT), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute\_Definition\_Source:

**NOAA** 

Attribute\_Domain\_Values:

Range\_Domain:

*Range\_Domain\_Minimum*:

2091000001

Range\_Domain\_Maximum:

2091101855

#### 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:

209000001

Range\_Domain\_Maximum:

209001158

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:

**AQUACULTURE** 

*Enumerated\_Domain\_Value\_Definition*:

Aquaculture

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**BEACH** 

Enumerated Domain Value Definition:

Beach

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**BOAT RAMP** 

Enumerated Domain Value Definition:

**Boat Ramp** 

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

*Enumerated\_Domain\_Value*:

**COAST GUARD** 

*Enumerated\_Domain\_Value\_Definition*:

Coast Guard

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

CRITICAL HABITAT

Enumerated\_Domain\_Value\_Definition:

Designated Critical Habitat

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

FISHERY AREA

Enumerated\_Domain\_Value\_Definition:

Fishery Area

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:

MARINE SANCTUARY

Enumerated\_Domain\_Value\_Definition:

Marine Sanctuary

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

**MILITARY** 

*Enumerated\_Domain\_Value\_Definition*:

Military

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

NATIONAL FOREST

*Enumerated\_Domain\_Value\_Definition*:

National Forest

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

NATIONAL PARK

Enumerated\_Domain\_Value\_Definition:

National Park

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**OIL FACILITY** 

*Enumerated\_Domain\_Value\_Definition*:

Oil Facility

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

**OIL SEEP** 

*Enumerated\_Domain\_Value\_Definition*:

Oil Seep

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:

**PLATFORM** 

Enumerated\_Domain\_Value\_Definition:

Platform

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** 

Southern California ESI: SOCECON

```
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:
                       Range_Domain_Maximum:
     Attribute:
           Attribute Label:
                 A_SOURCE
           Attribute Definition:
                 Attribute source identifier that links records in the SOC DAT data table
                 to records in the SOURCES data table.
           Attribute_Definition_Source:
                 NOAA ESI Guidelines
           Attribute Domain Values:
                 Range_Domain:
                       Range_Domain_Minimum:
                       Range_Domain_Maximum:
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
```

Southern California ESI: SOCECON

```
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:
                 Range_Domain_Maximum:
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.

Southern California ESI: SOCECON

Attribute:

Attribute Label:

SCALE

*Attribute\_Definition*:

Description of the source scale.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

TIME PERIOD

Attribute\_Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Overview\_Description:

Entity\_and\_Attribute\_Overview:

Two relational attribute or data tables, SOC\_DAT, and SOURCES, are used to store the complex socioeconomic data in the ESI data structure. The geographic data layer containing socioeconomic data resource information (in this case, SOCECON) is linked to the Socioeconomic Resources table (SOC\_DAT) using the unique ID and the lookup table SOC\_LUT, or it can be linked directly using HUNUM. HUNUM is a unique reference number concatenated with the atlas number (for Southern California, the number is 209). ID is a unique combination of the atlas number (209), an element specific number (SOCECON = 10), and a unique record number. SOC\_DAT and the other relational data tables are described in detail in the Detailed\_Description sections. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

Entity\_and\_Attribute\_Detail\_Citation:

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines

(http://response.restoration.noaa.gov/esi\_guidelines).

#### Back To Index

Distribution\_Information:

Distributor:

Contact\_Information:

Contact\_Person\_Primary:

Contact Person:

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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

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*Metadata\_Reference\_Information*:

Metadata Date:

20100927

Metadata Review Date:

20100927

*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:

Southern California ESI: SOCECON

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

*Metadata\_Extensions*:

Online\_Linkage:

http://www.ncddc.noaa.gov/metadataresource/metadata-

references/files/ncddcmdprofile\_v2.pdf

Profile\_Name:

Content Specification for Metadata in the National Coastal Data Development Center's Data Catalog Version 2.0

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# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: BIRDS (Bird Polygons)

# Metadata:

- Identification Information
- Data\_Quality\_Information
- Spatial\_Data\_Organization\_Information
- Spatial Reference Information
- Entity\_and\_Attribute\_Information
- Distribution Information
- Metadata Reference Information

## Identification\_Information:

Citation:

Citation Information:

Originator:

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.

Originator:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

Publication Date:

201003

Title:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: BIRDS (Bird Polygons)

Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

Series\_Information:

Series\_Name:

None

Issue\_Identification:

Southern California

*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 wading birds, shorebirds, waterfowl, raptors, diving birds, seabirds, passerine birds, and gulls and terns in Southern California. Vector polygons in this data set represent bird nesting, roosting, migratory staging, and wintering sites. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described in the Overview\_Description) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Southern California. 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 Southern California 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*:

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Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date:
1989
Ending_Date:
2009
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## Currentness\_Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 1989 to 2009 and are documented in the Lineage section.

#### Status:

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Progress:
Complete
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Maintenance\_and\_Update\_Frequency:

None Scheduled

Spatial Domain:

Bounding\_Coordinates:

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-120.60100

*East\_Bounding\_Coordinate*:

-117.00100

North Bounding Coordinate:

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South\_Bounding\_Coordinate: 32.44500

# 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 Theme: *Theme\_Keyword\_Thesaurus*: NOS Data Explorer Topic Category *Theme\_Keyword:* **Environmental Monitoring** Place: *Place\_Keyword\_Thesaurus*:

None

Place Keyword:

Southern California

Access\_Constraints:

None

Use Constraints:

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

Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse Graphic:

Browse\_Graphic\_File\_Name:

datafig.jpg

Browse\_Graphic\_File\_Description:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

Southern California ESI: BIRDS

 $Browse\_Graphic\_File\_Type:$ 

**JPEG** 

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

#### Native Data Set Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.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.

 $Program\_Affiliation:$ 

Program\_Name:

National Ocean Service Data Explorer

**Back To Index** 

*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

#### Logical\_Consistency\_Report:

A multi-stage error checking process, described in the above Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 bird nesting, wintering, migratory staging and other spatial/temporal concentration areas. See also the NESTS data layer, part of the larger Southern California ESI database, for additional bird information. These data do not necessarily represent all bird occurrences in Southern California. 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; 6, Eared grebe, Podiceps nigricollis; 7, Western grebe, Aechmophorus occidentalis; 8, Double-crested cormorant, Phalacrocorax auritus; 9, Brandt's cormorant, Phalacrocorax penicillatus; 10, Pelagic cormorant, Phalacrocorax pelagicus; 12, Canada goose, Branta canadensis; 13, Brant, Branta bernicla; 14, Greater white-fronted goose, Anser albifrons; 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; 23, Lesser scaup, Aythya affinis; 24, Common goldeneye, Bucephala clangula; 26, Bufflehead, Bucephala albeola; 30, Surf scoter, Melanitta perspicillata; 31, Pacific loon, Gavia pacifica; 33, Red-breasted merganser, Mergus serrator; 34, American coot, Fulica americana; 36, Glaucous-winged gull, Larus glaucescens; 37, Western gull, Larus occidentalis; 39, California gull, Larus californicus; 40, Ring-billed gull, Larus delawarensis; 42, Bonaparte's gull, Larus philadelphia; 43, Heermann's gull, Larus heermanni; 45, Common tern, Sterna hirundo; 46, Common murre, Uria aalge; 47, Pigeon guillemot, Cepphus columba; 49, Cassin's auklet, Ptychoramphus aleuticus; 50, Rhinoceros auklet, Cerorhinca monocerata; 52, Wilson's phalarope, Phalaropus tricolor; 53, Red-necked phalarope, Phalaropus lobatus; 54, Great blue heron, Ardea herodias; 55, Whimbrel, Numenius phaeopus; 57, Wandering tattler, Heteroscelus incanus; 58, Greater yellowlegs, Tringa melanoleuca; 60, Red knot, Calidris canutus; 62, Least sandpiper, Calidris minutilla; 63, Dunlin, Calidris alpina; 64, Shortbilled dowitcher, Limnodromus griseus; 65, Long-billed dowitcher, Limnodromus scolopaceus; 66, Western sandpiper, Calidris mauri; 67, Sanderling, Calidris alba; 68, Black oystercatcher, Haematopus bachmani; 69, Semipalmated plover, Charadrius semipalmatus; 70, Killdeer, Charadrius vociferus; 71, Black-bellied plover, Pluvialis squatarola; 72, Surfbird, Aphriza virgata; 73, Ruddy turnstone, Arenaria interpres; 74, Black turnstone, Arenaria melanocephala; 76, Bald eagle, Haliaeetus leucocephalus; 77, Osprey, Pandion haliaetus; 85, California least tern, Sternula antillarum browni; 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; 96, Leach's storm-petrel, Oceanodroma leucorhoa; 97, Green heron, Butorides virescens; 100, Black-legged kittiwake, Rissa tridactyla; 107, Peregrine falcon, Falco peregrinus; 118, Brown pelican, Pelecanus occidentalis; 124, Redhead, Aythya americana; 129, Northern fulmar, Fulmarus glacialis; 131, White-tailed kite, Elanus leucurus; 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; 141, American avocet, Recurvirostra americana; 142, Blacknecked stilt, Himantopus mexicanus; 143, Xantus's murrelet, Synthliboramphus hypoleucus; 144, Ashy storm-petrel, Oceanodroma homochroa; 145, Elegant tern, Thalasseus elegans; 146, Black storm-petrel, Oceanodroma melania; 148, Ruddy duck, Oxyura jamaicensis; 152, American oystercatcher, Haematopus palliatus; 155, Willet, Catoptrophorus semipalmatus; 160, Red phalarope, Phalaropus fulicaria; 162, Gadwall, Anas strepera; 163, Reddish egret, Egretta rufescens; 169, American wigeon, Anas americana; 172, Sandhill crane, Grus canadensis; 176, Short-eared owl, Asio flammeus; 179, Pied-billed grebe, Podilymbus podiceps; 181, Northern harrier, Circus cyaneus; 182, American kestrel, Falco sparverius; 187, Virginia rail, Rallus limicola; 188, Sora, Porzana carolina; 200, Sooty shearwater, Puffinus griseus; 202, Pink-footed shearwater, Puffinus creatopus; 205, Light-footed clapper rail, Rallus longirostris levipes; 209, Long-billed curlew, Numenius americanus; 210, Marbled godwit, Limosa fedoa; 216, Belted kingfisher, Ceryle alcyon; 220, Merlin, Falco columbarius; 225, Marsh wren, Cistothorus palustris; 230, Red-tailed hawk, Buteo jamaicensis; 239, Clark's grebe, Aechmophorus clarkii; 261, Brown booby, Sula leucogaster; 270, Western snowy plover, Charadrius alexandrinus nivosus; 271, Rails, n/a; 272, Teals, Anas sp.; 273, Geese, n/a; 278, Saltmarsh sharp-tailed sparrow, Ammodramus caudacutus; 286, Dowitchers, Limnodromus spp.; 299, Scaup, Aythya spp.; 302, Scoters, Melanitta spp.; 326, Jaegers, Stercorarius spp.; 345, Storm-petrels, Oceanodroma spp.; 349, Burrowing owl, Athene cunicularia hypugea; 387, Buteo hawks, Buteo spp.; 396, Phalaropes, Phalaropus spp.; 406, Cinnamon teal, Anas cyanoptera; 455, Yellow-billed cuckoo, Coccyzus americanus; 462, Loons, Gavia spp.; 646, Black-vented shearwater, Puffinus opisthomelas; 722, Common yellowthroat, Geothlypis trichas; 811, Willow flycatcher, Empidonax traillii; 851, Belding's savannah sparrow, Passerculus sandwichensis beldingi; 852, Buller's shearwater, Puffinus bulleri; 853, California horned lark, Eremophila alpestris actia; 854, Coastal California gnatcatcher, Polioptila californica californica; 855, Large-billed savannah sparrow, Passerculus sandwichensis rostratus; 856, Least Bell's vireo, Vireo bellii pusillus; 857, Ross's goose, Chen rossii; 1001, Gulls, n/a; 1002, Shorebirds, n/a; 1003, Waterfowl, n/a; 1004, Wading birds, n/a; 1005, Raptors, n/a; 1006, Diving birds, n/a; 1008, Terns, n/a; 1009, Shearwaters, n/a; 1010, Pelagic birds, n/a; 1013, Dabbling ducks, n/a; 1014, Diving ducks, n/a; 1015, Egrets, n/a; 1016, Herons, n/a; 1019, Sea ducks, n/a; 1021, Ducks, n/a; 1022, Seabirds, n/a; 1024, Alcids, n/a; 1026, Grebes, n/a; 1035, Pelicans, Pelecanus spp.; 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 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

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ANGELES/LONG BEACH; 2008 USCG SECTOR SAN DIEGO

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CHANNEL ISLANDS SPECIES DISTRIBUTION

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DISTRIBUTION OF USFWS RESOURCES IN SAN DIEGO AND

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Originator:

MAREK, J. (USFWS)

Publication\_Date:

2009

Title:

THREATENED AND ENDANGERED SPECIES IN SANTA BARBARA AND VENTURA COUNTIES

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MASON, MCCHESNEY, MCIVER, CARTER, TAKEKAWA, GOLIGHTLY, ACKERMAN, ORTHMEYER, PERRY, YEE, PIERSON, MCCRARY

Publication Date:

2007

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AT-SEA DISTRIBUTION AND ABUNDANCE OF SEABIRDS OFF SOUTHERN CALIFORNIA: A 20-YEAR COMPARISON
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STUDIES IN AVIAN BIOLOGY NO. 33. A PUBLICATION OF THE COOPER ORNITHOLOGICAL SOCIETY

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online

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2007

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DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

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Source\_Contribution:

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Source\_Citation:

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Originator:

MCCHESNEY, G. (USFWS)

Publication Date:

1994

Title:

RECORDED OBSERVATIONS OF BROWN PELICAN BETWEEN 1992 AND 1994 ON SAN NICOLAS ISLAND

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Other Citation Details:

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL OCEAN SERVICE

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(NOS), OFFICE OF RESPONSE AND RESTORATION (OR&R),
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                    SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE
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**BIRDS INFORMATION** 

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Citation\_Information:

Originator:

NATIONAL PARK SERVICE

Publication\_Date:

2009

Title:

CHANNEL ISLANDS NATIONAL PARK: ASHY STORM-

PETREL

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**NATURESERVE** 

*Publication\_Date*:

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WWW.NATURESERVE.ORG

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*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

NOAA NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE (NCCOS)

Publication\_Date:

2005

Title:

A BIOGEOGRAPHIC ASSESSMENT OF THE CHANNEL ISLANDS NATIONAL MARINE SANCTUARY: A REVIEW OF BOUNDARY EXPANSION CONCEPTS FOR NOAA'S NATIONAL MARINE SANCTUARY PROGRAM.

Geospatial Data Presentation Form:

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Other\_Citation\_Details:

PREPARED BY NCCOS'S BIOGEOGRAPHY TEAM IN COOPERATION WITH THE NATIONAL MARINE SANCTUARY PROGRAM. SILVER SPRING, MD. NOAA TECHNICAL MEMORANDUM NOS NCCOS 21. 215 PP.

*Type\_of\_Source\_Media*:

online

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Source\_Information:

Source\_Citation:

Citation Information:

*Originator*:

PAGE, G. POINT REYES BIRD OBSERVATORY (PRBO)

*Publication\_Date*:

2005 Title: SNOWY PLOVER LOCATIONS AND SEASONALILTY IN CENTRAL CALIFORNIA 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: 2005 Source\_Currentness\_Reference: DATE OF COMMUNICATION Source\_Citation\_Abbreviation: **NONE** Source Contribution: **BIRDS INFORMATION** Source\_Information: Source Citation: Citation\_Information: Originator: PAGEL, J. (USFWS) Publication\_Date: 2009 Title: RAPTOR DISTRIBUTION AND SEASONALITY IN SOUTHERN **CALIFORNIA** 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: 2009 Source\_Currentness\_Reference: DATE OF COMMUNICATION Source Citation Abbreviation: **NONE** Source Contribution: **BIRDS INFORMATION** Source\_Information: Source\_Citation: Citation\_Information:

PEUGH, J. (SAN DIEGO AUDUBON)

Originator:

Publication\_Date: 2009

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OFFSHORE BIRDS, SOUTHERN CALIFORNIA

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               Publication Date:
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Title:

WORKING DRAFT: THE WESTERN SNOWY PLOVER IN LOS

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ANGELES COUNTY, CALIFORNIA: 2008 ANNUAL REPORT
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# SNOWY PLOVER WINTERING AND NESTING SITES AND CONCENTRATIONS 2003-2009

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Citation\_Information:

Originator:

SCHALLMAN, B. (U.S. NAVY)

Publication\_Date:

2009

Title:

SPECIES DISTRIBUTION ON U.S. NAVY PROPERTY

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Source\_Citation:

Citation\_Information:

*Originator*:

SHUFORD, W.D. AND GARDALI, T. EDITORS

*Publication\_Date*:

2008

Title:

CALIFORNIA BIRD SPECIES OF SPECIAL CONCERN: A RANKED ASSESSMENT OF SPECIES, SUBSPECIES, AND

# DISTINCT POPULATIONS OF BIRDS OF IMMEDIATE CONSERVATION CONCERN IN CALIFORNIA.

Geospatial\_Data\_Presentation\_Form:

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STUDIES OF WESTERN BIRDS 1. WESTERN FIELD ORNITHOLOGISTS, CAMARILLO, CALIFORNIA, AND CDF&G, SACRAMENTO.

*Type\_of\_Source\_Media*:

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Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

**BIRDS INFORMATION** 

Source\_Information:

Source Citation:

Citation\_Information:

Originator:

SMITH, R.

Publication\_Date:

2009

Title:

SNOWY PLOVER, LEAST TERN, AND OTHER SPECIES SITES IN SANTA BARBARA AND VENTURA COUNTIES

Geospatial\_Data\_Presentation\_Form:

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**NONE** 

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Originator:

TIJUANA ESTUARY

Publication\_Date:

2009

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                    RECOVERY PLAN FOR THE PACIFIC COAST POPULATION
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    Source Citation:
          Citation Information:
               Originator:
                    U.S. FISH AND WILDLIFE SERVICE
               Publication_Date:
                    2009
               Title:
                    ATLAS OF CALIFORNIA BROWN PELICAN ROOST SITES ON
                    THE SOUTHERN CALIFORNIA MAINLAND
               Geospatial Data Presentation Form:
                    atlas
               Publication_Information:
                    Publication_Place:
                         CARLSBAD, CA
                    Publisher:
                         U.S. FISH AND WILDLIFE SERVICE
               Other Citation Details:
                    TECHNICAL REPORT CFWO-EC 2009-1. U.S. FISH AND
                    WILDLIFE SERVICE, CARLSBAD, CA. 61 PAGES +
                    APPENDICES.
     Type_of_Source_Media:
          paper
     Source_Time_Period_of_Content:
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Time_Period_Information:
                Single_Date/Time:
                     Calendar_Date:
                          2009
          Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          BIRDS INFORMATION
Source Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     US NAVY
                Publication Date:
                     2008
                Title:
                     BRANDTS CORMORANT ROOST
                Geospatial Data Presentation Form:
                     vector digital data
                Other_Citation_Details:
                     DELINEATES THE EXTENT OF BRANDTS CORMORANT
                     ROOSTS ON SAN NICOLAS ISLAND FOR THE YEAR 1994
     Type_of_Source_Media:
          EMAIL
     Source_Time_Period_of_Content:
          Time\_Period\_Information:
                Range of Dates/Times:
                     Beginning_Date:
                          1994
                     Ending_Date:
                          2008
          Source Currentness Reference:
                DATE OF SURVEY
     Source\_Citation\_Abbreviation:
          NONE
     Source Contribution:
          BIRDS INFORMATION
Source_Information:
     Source_Citation:
          Citation Information:
               Originator:
                     USFWS
                Publication Date:
                     2009
                Title:
                     LIGHT-FOOTED CLAPPER RAIL
                Geospatial_Data_Presentation_Form:
                     HARDCOPY TEXT
                Online_Linkage:
                     http://www.fws.gov/bolsachica/LFCRaccntBC.htm
     Type_of_Source_Media:
          online
     Source_Time_Period_of_Content:
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                     Calendar_Date:
                          2009
          Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          BIRDS INFORMATION
Source Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     USFWS
                Publication Date:
                     1998
                Title:
                     CHECKLIST OF BIRDS OF NAVAL WEAPONS STATION SEAL
                     BEACH NATIONAL WILDLIFE REFUGE.
                Geospatial_Data_Presentation_Form:
                     HARDCOPY TEXT
                Other Citation Details:
                     USFWS. JAMESTOWN, ND: NORTHERN PRAIRIE WILDLIFE
                     RESEARCH CENTER ONLINE.
                     http://www.npwrc.usgs.gov/resource/birds/chekbird/r1/seal.htm
                Online_Linkage:
                     \underline{http://www.npwrc.usgs.gov/}
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     Source_Time_Period_of_Content:
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               Single_Date/Time:
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                          1998
          Source_Currentness_Reference:
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     Source_Citation_Abbreviation:
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     Source_Contribution:
          BIRDS INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     USFWS
                Publication_Date:
                     2004
                Title:
                     BELDING'S SAVANNAH SPARROW
                Geospatial_Data_Presentation_Form:
                     HARDCOPY TEXT
                Online Linkage:
                     http://www.fws.gov/bolsachica/BSSaccntBC.htm
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     Source Contribution:
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Source_Information:
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                Originator:
                     USFWS
                Publication_Date:
                     2008
                Title:
                     CALIFORNIA LEAST TERN PRODUCTIVITY IN 2008
                Geospatial_Data_Presentation_Form:
                     spreadsheet
                Other_Citation_Details:
                     UNPUBLISHED
     Type_of_Source_Media:
          paper
     Source_Time_Period_of_Content:
          Time Period Information:
               Single_Date/Time:
                     Calendar_Date:
                          2008
          Source Currentness Reference:
                DATE OF SURVEY
     Source_Citation_Abbreviation:
          NONE
     Source_Contribution:
          BIRDS INFORMATION
Source Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     USFWS
                Publication_Date:
                     1999
               Title:
                     TIJUANA SLOUGH NATIONAL WILDLIFE REFUGE: TIJUANA
                     RIVER NATIONAL ESTUARINE RESEARCH RESERVE
                     BIRDLIST
                Geospatial_Data_Presentation_Form:
                     HARDCOPY TEXT
                Other Citation Details:
                     TIJUANA SLOUGH NWR, 11 PP.
     Type_of_Source_Media:
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online

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Source_Time_Period_of_Content:
          Time_Period_Information:
               Single_Date/Time:
                    Calendar Date:
                         1999
          Source_Currentness_Reference:
               DATE OF PUBLICATION
    Source_Citation_Abbreviation:
          NONE
    Source Contribution:
          BIRDS INFORMATION
Source_Information:
    Source_Citation:
          Citation_Information:
               Originator:
                    USFWS CARLSBAD OFFICE
               Publication Date:
                    2009
               Title:
                    SAN DIEGO COUNTY FEDERALLY LISTED SPECIES
                    DISTRIBUTION AND SEASONALITY INFORMATION
               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:
                         2009
          Source Currentness Reference:
               DATE OF COMMUNICATION
    Source_Citation_Abbreviation:
          NONE
     Source_Contribution:
          BIRDS INFORMATION
Source Information:
    Source_Citation:
          Citation_Information:
               Originator:
                    WHITWORTH, D.L., H.R. CARTER, J.S. KOEPKE, AND F.
                    GRESS.
               Publication Date:
                    2008
               Title:
                    NEST MONITORING OF XANTUS'S MURRELETS AT
                    ANACAPA ISLAND. CALIFORNIA: 2007 REPORT.
               Geospatial_Data_Presentation_Form:
                    HARDCOPY TEXT
               Publication Information:
                    Publication Place:
                         DAVIS, CALIFORNIA
                    Publisher:
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# CALIFORNIA INSTITUTE OF ENVIRONMENTAL STUDIES

 $Other\_Citation\_Details:$ 

PREPARED FOR THE AMERICAN TRADER TRUSTEE COUNCIL AND CINP. 33 PP.

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2008

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

**BIRDS INFORMATION** 

Source\_Information:

Source Citation:

Citation\_Information:

Originator:

WOLF, S. (BIOLOGICAL CONSULTANT FOR BATIQUITOS LAGOON AND STATE BEACHES)

Publication\_Date:

2009

Title:

SAN DIEGO COUNTY BIRDS

 $Geospatial\_Data\_Presentation\_Form:$ 

**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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

**BIRDS INFORMATION** 

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

ZEINER, D.C., W.F. LAUDENSLAYER, JR., K.E. MAYER, AND M. WHITE.

Publication Date:

1990

Title:

LIFE HISTORY ACCOUNTS FOR SPECIES IN THE

Southern California ESI: BIRDS

## CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS (CWHR) SYSTEM. CAL'S WILDLIFE. VOL. I-III.

Geospatial\_Data\_Presentation\_Form:

HARDCOPY TEXT

Publication\_Information:

Publication\_Place:

SACRAMENTO, CA.

Publisher:

CALIFORNIA DEPT. OF FISH AND GAME

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

1990

Source Currentness Reference:

DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

**BIRDS INFORMATION** 

Process Step:

*Process\_Description*:

Three main sources of data were used to depict nest distribution and seasonality for this data layer: 1) personal interviews with resource experts from U.S. Fish and Wildlife Service (USFWS), U.S. Navy, the Audubon Society, Ryan Ecological Consulting, California State Parks (CSP), Avian Research Associates, National Park Service (NPS), California Department of Fish and Game (CDF&G), and NOAA; 2) hardcopy documents provided/published by: Carter Biological Consulting, University of California Press, USFWS, U.S. Geological Survey (USGS), CDF&G, Ryan Ecological Consulting, NOAA, CSP; and 3) digital data provided by: U.S. Navy, CDF&G, and NOAA. The above digital and/or hardcopy sources were compiled by the project biologist to create the BIRDS data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and humanuse data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the BIRDS data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process Date:

201003

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
```

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```
Spatial_Data_Organization_Information:
     Direct_Spatial_Reference_Method:
           Vector
     Point_and_Vector_Object_Information:
           SDTS_Terms_Description:
                SDTS Point and Vector Object Type:
                      GT-polygon composed of chains
                Point_and_Vector_Object_Count:
                      2845
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Area point
                Point_and_Vector_Object_Count:
                      2846
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Complete chain
                Point_and_Vector_Object_Count:
                      6544
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Link
                Point_and_Vector_Object_Count:
                      403033
           SDTS Terms Description:
                SDTS_Point_and_Vector_Object_Type:
                      Node, planar graph
                Point_and_Vector_Object_Count:
                      4329
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## Back To Index

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Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
    Geographic:
    Latitude_Resolution:
    0.000001
    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

#### Back To Index

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label:

**BIRDS.PAT** 

*Entity\_Type\_Definition*:

The BIRDS.PAT table contains attribute information for the vector polygons in this data set representing bird nesting, roosting, migratory staging, and wintering sites. Note that all attribute information is stored in a series of relational files, described below and in the Overview\_Description section. See the Browse Graphic section for a link to the entity-relationship diagram, which

describes the relationships between attribute tables in the ESI data structure.

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute Label:

ID

Attribute Definition:

An identifier that links vector objects in the biology data layers to records in the BIO\_LUT data table. ID is a concatenation of atlas number (209), 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:

2090100002

Range\_Domain\_Maximum:

2090103227

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:

Southern California ESI: BIRDS

## 209000001 Range\_Domain\_Maximum: 209000956

*Detailed\_Description*:

Entity\_Type:

Entity\_Type\_Label:

**BIO LUT** 

*Entity\_Type\_Definition*:

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

*Entity\_Type\_Definition\_Source*:

**NOAA ESI Guidelines** 

Attribute:

*Attribute\_Label*:

**RARNUM** 

Attribute\_Definition:

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

Attribute\_Definition\_Source:

**NOAA** 

Attribute Domain Values:

Range\_Domain:

Range\_Domain\_Minimum:

209000001

Range\_Domain\_Maximum:

209001289

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 (209), 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:

2090100002

Range\_Domain\_Maximum:

2092200052

 $Detailed\_Description:$ 

*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:

209000001

Range\_Domain\_Maximum: 209001289

### 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 site, or a term that describes relative abundance of birds at a particular site. The field may contain counts or a range of counts of individuals, pairs, or nests (XX-XX BIRDS or PAIRS or NESTS). In cases where no quantitative count information was available, the field may contain descriptive terms such as "COMMON" or "HIGH" or "RARE", or a concentration approximation, such as "100s". If no concentration information was available from any source, the field was populated with "-". Counts were derived from a variety of surveys, and may range in date (see Lineage).

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute Label:

SEASON\_ID

Attribute Definition:

Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location. Attribute Definition Source: NOAA ESI Guidelines Attribute\_Domain\_Values: Range\_Domain: Range\_Domain\_Minimum: Range\_Domain\_Maximum: 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: Range\_Domain\_Maximum: 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: Range\_Domain\_Maximum: 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: 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:

```
E#####
                       Enumerated Domain Value Definition:
                             Where E is the first character of ELEMENT and the next five
                             characters are SPECIES_ID (e.g. ELEMENT = 'BIRD' and
                             SPECIES ID = 1; EL SPE = 'B00001').
                       Enumerated_Domain_Value_Definition_Source:
                            NOAA ESI Guidelines
     Attribute:
           Attribute Label:
                 EL SPE SEA
           Attribute Definition:
                 Concatenation of ELEMENT, SPECIES ID, and SEASON ID. This item links
                 records in the BIORES data table to records in the SEASONAL and BREED data
                 tables.
           Attribute Definition Source:
                 NOAA ESI Guidelines
           Attribute_Domain_Values:
                 Enumerated Domain:
                       Enumerated_Domain_Value:
                            E######
                       Enumerated Domain Value Definition:
                             Where E is the first character of ELEMENT, the next five characters
                             are SPECIES ID, and the last two characters are SEASON ID (e.g.
                             ELEMENT = 'BIRD', SPECIES ID = 1 and SEASON ID = 1;
                             EL\_SPE\_SEA = 'B0000101').
                       Enumerated_Domain_Value_Definition_Source:
                            NOAA ESI Guidelines
Detailed_Description:
     Entity_Type:
           Entity_Type_Label:
                 SPECIES
           Entity Type Definition:
                 The data table SPECIES identifies all species in the ESI data set. See the
                 Browse Graphic section for a link to the entity-relationship diagram, which
                 describes the way this table relates to other attribute tables in the ESI data
                 structure. Refer to the Completeness_Report for a list of layer-specific species.
           Entity Type Definition Source:
                 NOAA ESI Guidelines
     Attribute:
           Attribute Label:
                 SPECIES ID
           Attribute_Definition:
                 Numeric identifier for each species that is unique within each element and refers
                 to a nationwide master ESI species list maintained at NOAA.
           Attribute_Definition Source:
                 NOAA ESI Guidelines
           Attribute_Domain_Values:
                 Range_Domain:
                       Range_Domain_Minimum:
                       Range Domain Maximum:
     Attribute:
```

Enumerated Domain:

Enumerated Domain Value:

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** Birds

Enumerated\_Domain\_Value\_Definition:

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:

canine

Enumerated\_Domain\_Value\_Definition:

Canine

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:

kelp

Enumerated\_Domain\_Value\_Definition:

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

lizard

Enumerated\_Domain\_Value\_Definition:

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:

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: sea otter Enumerated Domain Value Definition: Sea otter Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines Attribute Domain Values: Enumerated\_Domain: Enumerated\_Domain\_Value: shorebird Enumerated Domain Value Definition: Shorebird Enumerated\_Domain\_Value\_Definition\_Source: **NOAA ESI Guidelines** Attribute\_Domain\_Values: Enumerated Domain: Enumerated Domain Value: shrimp  $Enumerate \bar{d\_Domain\_Value\_Definition}:$ Shrimp Enumerated\_Domain\_Value\_Definition\_Source: **NOAA ESI Guidelines** Attribute Domain Values: Enumerated\_Domain: Enumerated\_Domain\_Value: sm mammal Enumerated\_Domain\_Value\_Definition: Small mammal Enumerated Domain Value Definition Source: NOAA ESI Guidelines Attribute\_Domain\_Values: Enumerated\_Domain: Enumerated Domain Value: snake Enumerated\_Domain\_Value\_Definition: 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: upland

Enumerated\_Domain\_Value\_Definition:

Upland vegetation

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

```
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:

Enumerated\_Domain\_Value:

```
YYYY for year and optionally MM for month
                       Enumerated Domain Value Definition Source:
                            NOAA ESI Guidelines
           Attribute_Domain_Values:
                 Enumerated_Domain:
                       Enumerated Domain Value:
                       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:
                       Enumerated Domain Value Definition Source:
```

Enumerated Domain Value Definition:

**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:
                Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
Attribute:
     Attribute_Label:
           JAN
     Attribute_Definition:
           January
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                 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:
                Enumerated_Domain_Value_Definition:
                      Present in June
```

# 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: 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: *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\_Value\_Definition\_Source:

```
Enumerated Domain:
                Enumerated_Domain_Value:
                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:
                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:
                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:
                      Range_Domain_Maximum:
     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:

Ν

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:
                 Range_Domain_Maximum:
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
```

```
State threatened or endangered status.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated Domain Value:
                Enumerated_Domain_Value_Definition:
                      Endangered on state list
                Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Threatened on state list
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                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:
                Enumerated_Domain_Value_Definition:
                      Endangered on federal list
                Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Threatened on federal list
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                Enumerated_Domain_Value:
```

Attribute Definition:

```
Species of Special Concern
                 Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           Ι
     Attribute_Definition:
           International threatened or endangered status.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                      Endangered on international list
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                      Threatened on international list
                Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 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:
```

Enumerated\_Domain\_Value\_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 = 'BO0001')

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:
                 Range_Domain_Maximum:
Attribute:
     Attribute Label:
           ORIGINATOR
     Attribute_Definition:
           Author or developer of source material or data set.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Unrepresentable_Domain:
                 Acceptable values change from atlas to atlas.
Attribute:
     Attribute_Label:
           DATE PUB
     Attribute_Definition:
           Date of source material, publication, or date of personal communication with
           expert source.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated Domain Value:
                      YYYYMM
                 Enumerated_Domain_Value_Definition:
                      YYYY for year and optionally MM for month
                 Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           TITLE
     Attribute_Definition:
           Title of source material or data.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Unrepresentable Domain:
```

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

DATA\_FORMAT

*Attribute\_Definition*:

The format of the source material.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

PUB PLACE

 $Attribute\_Definition:$ 

Publication place.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLISHER** 

Attribute Definition:

Publisher.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLICATION** 

Attribute Definition:

Additional citation information.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

ONLINE\_LINK

*Attribute\_Definition*:

Online computer resource URL.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**SCALE** 

Attribute Definition:

Description of the source scale.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

TIME\_PERIOD

*Attribute\_Definition*:

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

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

Overview\_Description:

Entity and Attribute Overview:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, 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 Southern California atlas, the number is 209), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in detail in the Detailed Description sections. See the Browse Graphic section for a link to the entityrelationship 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 in the Detailed Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entityrelationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT

described in a Detailed\_Description section.

Entity\_and\_Attribute\_Detail\_Citation:

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines

(http://response.restoration.noaa.gov/esi\_guidelines).

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```
Distribution Information:
     Distributor:
           Contact_Information:
                 Contact_Person_Primary:
                       Contact Person:
                            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.

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```
Metadata_Reference_Information:
    Metadata_Date:
    20100927
    Metadata_Review_Date:
    20100927
```

Southern California ESI: BIRDS

```
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
Metadata_Extensions:
     Online_Linkage:
           http://www.ncddc.noaa.gov/metadataresource/metadata-
           references/files/ncddcmdprofile_v2.pdf
     Profile_Name:
           Content Specification for Metadata in the National Coastal Data Development Center's
```

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Data Catalog Version 2.0

# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: NESTS (Nest Points)

# **Metadata:**

- Identification Information
- Data\_Quality\_Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

#### Identification\_Information:

#### Citation:

# 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.

#### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: NESTS (Nest Points)

## Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

*Series\_Information*:

Series Name:

None

Issue\_Identification:

Southern California

#### 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 nesting and roosting gulls, terns, seabirds, shorebirds, and T/E species in Southern California. Vector points in this data set represent bird nesting and roosting 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 Southern California. 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 Southern California 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:

1989

Ending\_Date:

2009

#### Currentness Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 1989 to 2009 and are documented in the Lineage section.

#### Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

*Spatial\_Domain*:

Bounding\_Coordinates:

West Bounding Coordinate:

-120.60100

*East\_Bounding\_Coordinate*:

-117.00100

North Bounding Coordinate:

34.50000

*South\_Bounding\_Coordinate*:

32.44500

#### *Keywords*:

Theme:

*Theme\_Keyword\_Thesaurus*:

ISO 19115 Topic Category

*Theme\_Keyword:* 

biota

*Theme\_Keyword:* 

environment

#### Theme:

Theme\_Keyword\_Thesaurus:

None

Theme Keyword:

**Environmental Monitoring** 

*Theme\_Keyword:* 

**ESI** 

*Theme\_Keyword:* 

Sensitivity maps

*Theme\_Keyword:* 

Coastal resources

*Theme\_Keyword:* 

Oil spill planning

Theme Keyword:

Coastal Zone Management

*Theme\_Keyword:* 

Wildlife

*Theme\_Keyword:* 

Nest

*Theme\_Keyword:* 

Bird

Theme:

*Theme\_Keyword\_Thesaurus*:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

Place:

Place\_Keyword\_Thesaurus:

None

Place\_Keyword:

Southern California

Access\_Constraints:

None

*Use\_Constraints*:

DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or

resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse\_Graphic:

Browse Graphic File Name:

datafig.jpg

Browse\_Graphic\_File\_Description:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

Browse\_Graphic\_File\_Type:

**JPEG** 

Data\_Set\_Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

*Native\_Data\_Set\_Environment:* 

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute Accuracy Report:

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data

(such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

# *Logical\_Consistency\_Report*:

A multi-stage error checking process, described in the above

Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 and hardcopy documents on nesting and roosting sites. See also the BIRDS data layer, part of the larger Southern California ESI database, for additional bird information. These data do not necessarily represent all nest occurrences in Southern California. The following species are included in this data set: (Species\_ID, Common Name, Scientific Name [n/a if not applicable]): 9, Brandt's cormorant, Phalacrocorax penicillatus; 37, Western gull, Larus occidentalis; 47, Pigeon guillemot, Cepphus columba; 68, Black oystercatcher, Haematopus bachmani; 77, Osprey, Pandion haliaetus; 270, Western snowy plover, Charadrius alexandrinus nivosus.

#### Positional\_Accuracy:

*Horizontal\_Positional\_Accuracy*:

Horizontal\_Positional\_Accuracy\_Report:

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

on the original source data and how these data were integrated or manipulated to create the final data set.

```
Lineage:
```

*Source\_Information*:

Source\_Citation:

Citation Information:

Originator:

CARTER, H.R., G.J. MCCHESNEY, D.L. JAQUES, C.S. STRONG, M.W. PARKER, J.E. TAKEKAWA, D.L. JORY, AND D.L. WHITWORTH

*Publication\_Date*:

1992

*Title*:

BREEDING POPULATIONS OF SEABIRDS IN CALIFORNIA, 1989-1991. VOLUME I - POPULATION ESTIMATES, VOLUME II - COLONY MAPS AND APPENDICES

Geospatial\_Data\_Presentation\_Form:

HARDCOPY TEXT

*Other\_Citation\_Details*:

PACIFIC OUTER CONTINENTAL SHELF REGION OF MMS, U.S. DOI; WASHINGTON, D.C., UNDER INTERAGENCY AGREEMENT NO. 14-12-001-30456 WITH THE USFWS

*Type\_of\_Source\_Media*:

paper

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Range\_of\_Dates/Times:

Beginning\_Date:

1989

Ending\_Date:

1991

*Source\_Currentness\_Reference*:

DATE OF SURVEY

*Source\_Citation\_Abbreviation*:

**NONE** 

*Source\_Contribution*:

**NESTS INFORMATION** 

Source\_Information:

Source\_Citation:

Citation Information:

*Originator*:

LENTZ (J.E.)

Publication Date:

2006

*Title*:

INTRODUCTION TO BIRDS OF THE CALIFORNIA COAST

Geospatial\_Data\_Presentation\_Form:

HARDCOPY TEXT

Publication\_Information:

Publication Place:

BERKELEY AND LOS ANGELES, CA

Publisher:

UNIVERSITY OF CALIFORNIA PRESS

*Other\_Citation\_Details*:

UNIVERSITY OF CALIFORNIA PRESS, BERKELEY AND LOS ANGELES, CA, 316 PP.

*Type\_of\_Source\_Media*:

paper

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:

**NESTS INFORMATION** 

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

MAREK, J. (USFWS)

Publication Date:

2009

*Title*:

THREATENED AND ENDANGERED SPECIES IN SANTA BARBARA AND VENTURA COUNTIES

*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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

*Source\_Citation\_Abbreviation*:

NONE

Source Contribution:

**NESTS INFORMATION** 

Source Information:

Source Citation:

Citation\_Information:

Originator:

RYAN, T.

*Publication\_Date*:

2009

*Title*:

SNOWY PLOVER AND OTHER SPECIES DISTRIBUTION AND SEASONALITY IN SOUTHERN CALIFORNIA

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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

*Source\_Citation\_Abbreviation*:

NONE

*Source\_Contribution*:

**NESTS INFORMATION** 

*Source\_Information*:

Source\_Citation:

Citation\_Information:

*Originator*:

SMITH, R.

*Publication\_Date*:

2009

Title:

SNOWY PLOVER, LEAST TERN, AND OTHER SPECIES SITES IN SANTA BARBARA AND VENTURA COUNTIES

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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

# Source\_Contribution: NESTS INFORMATION

Process\_Step:

Process\_Description:

Two main sources of data were used to depict nest distribution and seasonality for this data layer: 1) personal interviews with USFWS and private consultants, and 2) published and unpublished reports provided by consultants. The above digital and/or hardcopy sources were compiled by the project biologist to create the NESTS data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the NESTS data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process Date:

201003

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

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```
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
```

#### **Back To Index**

```
Entity_Type:
Entity_Type_Label:
NESTS.PAT
Entity_Type_Definition:
The NESTS.PAT table contains attribute information for the vector points in this data set representing bird nesting and roosting sites. Note that all attribute information is stored in a series of relational files, described below and in the Overview_Description section. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.
```

Entity\_Type\_Definition\_Source: NOAA ESI Guidelines

Attribute:

Entity\_and\_Attribute\_Information:

Detailed\_Description:

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 (209),

```
element number (5), and record number.
           Attribute Definition Source:
                 NOAA
           Attribute_Domain_Values:
                  Range_Domain:
                       Range Domain Minimum:
                             2090500001
                       Range_Domain_Maximum:
                             2090500012
     Attribute:
           Attribute_Label:
                 RARNUM
           Attribute Definition:
                  An identifier that links directly to the BIORES table or the flat format
                  BIOFILE table.
           Attribute Definition Source:
                 NOAA
           Attribute_Domain_Values:
                  Range_Domain:
                       Range_Domain_Minimum:
                             209000019
                       Range_Domain_Maximum:
                             209000214
Detailed Description:
      Entity_Type:
           Entity_Type_Label:
                 BIO LUT
           Entity Type Definition:
                  The data table BIO_LUT is a lookup table that contains items necessary
                  for linking vector objects in the biological data layers with the BIORES
                  data table. Note that all attribute information is stored in a series of
                  relational files, described below and in the Overview Description
                  section. See the Browse_Graphic section for a link to the entity-
                  relationship diagram, which describes the way this table relates to other
                  attribute tables in the ESI data structure.
           Entity_Type_Definition_Source:
                 NOAA ESI Guidelines
     Attribute:
           Attribute Label:
                 RARNUM
           Attribute_Definition:
                  An identifier that links records in the BIO LUT data table to records in
                  the BIORES data table or the flat format BIOFILE data table. RARNUM
                  values of 0 are holes in polygons and do not contain information.
           Attribute Definition Source:
                  NOAA
           Attribute_Domain_Values:
                 Range_Domain:
                       Range Domain Minimum:
                             209000001
                       Range_Domain_Maximum:
```

```
209001289
     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 (209),
                  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:
                              2090100002
                        Range Domain Maximum:
                              2092200052
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:
                              209000001
                        Range_Domain_Maximum:
                              209001289
     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:
                 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 roosting site. If no concentration information was
            available from any source, the field is populated with "-". Counts were
            derived from a variety of surveys, and may range in date (see Lineage).
     Attribute Definition Source:
           NOAA ESI Guidelines
      Attribute_Domain_Values:
            Unrepresentable_Domain:
                 Acceptable values change from atlas to atlas.
Attribute:
      Attribute Label:
           SEASON ID
      Attribute_Definition:
           Numeric identifier for the unique monthly presence and life history
           characteristics of each species at a given location.
      Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Range_Domain:
                 Range_Domain_Minimum:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
Attribute:
```

Attribute\_Label:

```
S_SOURCE
```

Attribute\_Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum:

1

Range\_Domain\_Maximum:

N

Attribute:

*Attribute\_Label*:

**ELEMENT** 

Attribute Definition:

Major categories of biological data.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**BIRD** 

Enumerated\_Domain\_Value\_Definition:

**Birds** 

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated Domain Value:

**FISH** 

Enumerated Domain Value Definition:

Fish

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**HABITAT** 

Enumerated\_Domain\_Value\_Definition:

Habitats and plants

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**INVERT** 

Enumerated\_Domain\_Value\_Definition:

Invertebrates

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

M MAMMAL

Enumerated\_Domain\_Value\_Definition:

Marine mammals

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

**REPTILE** 

Enumerated Domain Value Definition:

Reptiles and Amphibians

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

T MAMMAL

Enumerated\_Domain\_Value\_Definition:

Terrestrial mammals

Enumerated Domain Value Definition Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute\_Label:

EL SPE

Attribute\_Definition:

Concatenation of ELEMENT and SPECIES\_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

E#####

Enumerated\_Domain\_Value\_Definition:

Where E is the first character of ELEMENT and the next five characters are SPECIES\_ID (e.g. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

Enumerated Domain Value Definition Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute Label:

EL SPE SEA

Attribute Definition:

Concatenation of ELEMENT, SPECIES\_ID, and SEASON\_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute\_Definition\_Source:

```
NOAA ESI Guidelines
```

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

E######

*Enumerated\_Domain\_Value\_Definition*:

Where E is the first character of ELEMENT, the next five characters are SPECIES\_ID, and the last two characters are SEASON\_ID (e.g. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

# *Detailed\_Description*:

Entity\_Type:

Entity\_Type\_Label:

**SPECIES** 

*Entity\_Type\_Definition*:

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

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

#### Attribute:

Attribute\_Label:

SPECIES ID

Attribute\_Definition:

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

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum:

1

Range\_Domain\_Maximum:

N

#### Attribute:

Attribute\_Label:

**NAME** 

Attribute Definition:

Species common name for the entire ESI data set.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*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:

canine

*Enumerated\_Domain\_Value\_Definition*:

Canine

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:

kelp

*Enumerated\_Domain\_Value\_Definition*:

Keln

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

lizard

Enumerated Domain Value Definition:

Lizard

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:

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:

Dlant

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:

sea\_otter

Enumerated\_Domain\_Value\_Definition:

Sea otter

Enumerated Domain Value Definition Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

shorebird

*Enumerated\_Domain\_Value\_Definition*:

Shorebird

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

shrimp

Enumerated\_Domain\_Value\_Definition:

Shrimp

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

sm\_mammal

Enumerated\_Domain\_Value\_Definition:

Small mammal

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

snake

*Enumerated\_Domain\_Value\_Definition*:

Snake

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

turtle

Enumerated\_Domain\_Value\_Definition:

Turtle

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

upland

Enumerated\_Domain\_Value\_Definition:

Upland vegetation

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:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
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:
                 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:
                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:
                 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:
                 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:
                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 lifehistory 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

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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:

Ε

*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:

F

Enumerated\_Domain\_Value\_Definition:

Endangered on federal list

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

Т

*Enumerated\_Domain\_Value\_Definition*:

Threatened on federal list

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

(

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:

 $\boldsymbol{C}$ 

*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:

Attribute:

Attribute\_Label:

**ORIGINATOR** 

Attribute\_Definition:

Author or developer of source material or data set.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

DATE\_PUB

Attribute\_Definition:

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

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

YYYYMM

Enumerated\_Domain\_Value\_Definition:

YYYY for year and optionally MM for month

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute Label:

TITLE

*Attribute\_Definition*:

Title of source material or data.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

DATA\_FORMAT

Attribute\_Definition:

The format of the source material.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

PUB\_PLACE

Attribute\_Definition:

Publication place.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLISHER** 

Attribute Definition:

Publisher.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLICATION** 

Attribute\_Definition:

Additional citation information.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

ONLINE LINK

Attribute\_Definition:

Online computer resource URL.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**SCALE** 

*Attribute\_Definition*:

Description of the source scale.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

TIME PERIOD

Attribute\_Definition:

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

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Overview\_Description:

Entity\_and\_Attribute\_Overview:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, NESTS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Southern California atlas, the number is 209), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in detail in the Detailed Description sections. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files 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 in the Detailed\_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G SOURCE and S SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies

should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed\_Description section.

*Entity\_and\_Attribute\_Detail\_Citation*:

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines

(http://response.restoration.noaa.gov/esi\_guidelines).

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```
Distribution_Information:
     Distributor:
           Contact Information:
                 Contact_Person_Primary:
                       Contact_Person:
                             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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

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```
Metadata_Reference_Information:
     Metadata Date:
           20100927
     Metadata_Review_Date:
           20100927
     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
     Metadata_Extensions:
           Online_Linkage:
                 http://www.ncddc.noaa.gov/metadataresource/metadata-
                 references/files/ncddcmdprofile_v2.pdf
           Profile Name:
                 Content Specification for Metadata in the National Coastal Data Development
                 Center's Data Catalog Version 2.0
```

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# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: FISH (Fish Polygons)

#### Metadata:

- Identification Information
- Data\_Quality\_Information
- Spatial Data Organization Information
- Spatial\_Reference\_Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

#### Identification\_Information:

#### Citation:

#### *Citation\_Information*:

#### Originator:

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.

#### Originator:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication Date:

201003

#### Title:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: FISH (Fish Polygons)

#### Edition:

Second

Geospatial Data Presentation Form:

vector digital data

Series\_Information:

Series\_Name:

None

*Issue Identification:* 

Southern California

#### 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 beach spawners and sensitive marine, estuarine, and anadromous species in Southern California. Vector polygons in this data set represent concentration areas, spawning areas, and sensitive species locations. 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 Southern California. 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 Southern California 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:
                      2000
                 Ending Date:
                      2009
     Currentness Reference:
```

The data were compiled during 2008-2010. The currentness dates for the data range from 2000 to 2009 and are documented in the Lineage section.

```
Status:
     Progress:
           Complete
     Maintenance_and_Update_Frequency:
           None Scheduled
Spatial Domain:
     Bounding_Coordinates:
           West Bounding Coordinate:
                -120.60100
           East_Bounding_Coordinate:
                -117.00100
           North Bounding Coordinate:
                34.50000
           South_Bounding_Coordinate:
                32.44500
Keywords:
     Theme:
           Theme_Keyword_Thesaurus:
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ISO 19115 Topic Category

*Theme\_Keyword:* 

biota

*Theme\_Keyword:* 

environment

Theme:

Theme\_Keyword\_Thesaurus:

None

Theme Keyword:

**Environmental Monitoring** 

Theme Keyword:

**ESI** 

Theme\_Keyword:

Sensitivity maps

*Theme\_Keyword:* 

Coastal resources

Theme\_Keyword:

Oil spill planning

Theme Keyword:

Coastal Zone Management

*Theme\_Keyword:* 

Wildlife

Theme Keyword:

Fish

Theme:

*Theme\_Keyword\_Thesaurus*:

NOS Data Explorer Topic Category

Theme\_Keyword:

**Environmental Monitoring** 

Place:

Place Keyword Thesaurus:

None

Place Keyword:

Southern California

*Access\_Constraints*:

None

Use Constraints:

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

Browse\_Graphic:

Browse\_Graphic\_File\_Name:

datafig.jpg

*Browse\_Graphic\_File\_Description*:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

Browse\_Graphic\_File\_Type:

**JPEG** 

Data\_Set\_Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

#### *Native\_Data\_Set\_Environment*:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.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.

Program\_Affiliation:

Program\_Name:

National Ocean Service Data Explorer

#### **Back To Index**

*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

#### Logical\_Consistency\_Report:

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 concentration areas, spawning areas, and sensitive species locations for fish. See also the FISHL data layer, part of the larger Southern California ESI database, for additional fish information. These data do not necessarily represent all fish occurrences in Southern California. The following species are included in this data set: (Species\_ID, Common Name, Scientific Name [n/a if not applicable]): 74, Rainbow trout, Oncorhynchus mykiss; 106, California grunion, Leuresthes tenuis; 226, Tidewater goby, Eucyclogobius newberryi; 513, Pacific seahorse, Hippocampus ingens; 1142, Arroyo chub, Gila orcuttii; 1143, Intertidal fish, 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 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process\_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

Lineage:

Source Information:

Source\_Citation:

Citation\_Information:

Originator:

CDF&G, OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR), DEPARTMENT OF HOMELAND SECURITY (DHS), UNITED STATES COAST GUARD (USCG)

Publication Date:

2008

Title:

AREA CONTINGENCY PLAN (ACP) SECTOR LOS ANGELES/LONG BEACH; 2008 USCG SECTOR SAN DIEGO AREA CONTINGENCY PLAN (ACP)

*Geospatial\_Data\_Presentation\_Form*:

HARDCOPY TEXT

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Other_Citation_Details:
                     USCG
     Type_of_Source_Media:
          online
     Source_Time_Period_of_Content:
           Time_Period_Information:
                Single_Date/Time:
                     Calendar Date:
                           2008
           Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          FISH INFORMATION
Source_Information:
     Source Citation:
           Citation_Information:
                Originator:
                     DAME, N. (SFSU)
                Publication Date:
                     2000
                Title:
                     BIOGEOGRAPHY OF THE PACIFIC SEAHORSE
                     (HIPPOCAMPUS INGENS)
                Geospatial_Data_Presentation_Form:
                     document
                Online_Linkage:
                     http://bss.sfsu.edu/holzman/courses/Fall00Projects/seahorse.html
     Type_of_Source_Media:
          online
     Source_Time_Period_of_Content:
           Time Period Information:
                Single_Date/Time:
                     Calendar_Date:
                           2000
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                DATE OF PUBLICATION
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          FISH INFORMATION
Source_Information:
     Source_Citation:
           Citation_Information:
                Originator:
                     DELITH, C. (USFWS)
                Publication_Date:
                     2009
                Title:
                     THREATENED/ENDANGERED (T/E) SPECIES IN
                     VENTURA COUNTY
                Geospatial_Data_Presentation_Form:
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#### 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:

2009

Source Currentness Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

NONE

Source Contribution:

FISH INFORMATION

Source Information:

*Source\_Citation*:

Citation\_Information:

Originator:

DRILL, S. (UC COOPERATIVE EXTENSION NATURAL RESOURCE PROGRAM LA AND VENTURA COUNTIES)

Publication\_Date:

2009

Title:

SOUTHERN CALIFORNIA SPECIES PROFILE: ARROYO CHUB

*Geospatial\_Data\_Presentation\_Form*:

HARDCOPY TEXT

Online Linkage:

http://celosangeles.ucdavis.edu/natural\_resources/

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:

FISH INFORMATION

Source\_Information:

Source\_Citation:

*Citation\_Information*:

Originator:

ENGLE, J. UNIVERSITY OF CALIFORNIA SANTA BARBARA (UCSB)

Publication\_Date:

2009

*Title*:

#### INTERTIDAL HABITATS AND SPECIES

*Geospatial\_Data\_Presentation\_Form*:

EXPERT KNOWLEDGE

*Other\_Citation\_Details*:

**UNPUBLISHED** 

*Type\_of\_Source\_Media*:

PERSONAL COMMUNICATION

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Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

*Source\_Citation\_Abbreviation:* 

**NONE** 

Source\_Contribution:

FISH INFORMATION

*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

FOSTER, B. (AVIAN RESEARCH ASSOCIATES)

*Publication\_Date*:

2009

Title:

SAN DIEGO COUNTY SPECIES

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:

2009

Source Currentness Reference:

DATE OF COMMUNICATION

*Source\_Citation\_Abbreviation*:

NONE

Source\_Contribution:

FISH INFORMATION

Source\_Information:

Source\_Citation:

*Citation\_Information*:

Originator:

KIRSCHNER, E. (USFWS)

Publication Date:

2009

Title:

USFWS RESOURCES IN SAN DIEGO AND ORANGE

```
COUNTIES
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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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source Citation Abbreviation:

NONE

Source Contribution:

FISH INFORMATION

*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

KRONINGER, M. (CDF&G, OSPR)

*Publication\_Date*:

2009

Title:

DISTRIBUTION OF BIOLOGICAL AND SOCECON RESOURCES IN LA AND ORANGE COUNTIES

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:

2009

Source Currentness Reference:

DATE OF COMMUNICATION

Source Citation Abbreviation:

NONE

Source Contribution:

FISH INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

MARTIN, K. (PEPPERDINE UNIVERSITY)

Publication\_Date:

2009

Title:

### EDITS AND ADDITIONS TO CALIFORNIA GRUNION DISTRIBUTION AND SEASONALITY IN SOUTHERN CALIFORNIA

Geospatial\_Data\_Presentation\_Form:

HARDCOPY TEXT

*Other\_Citation\_Details*:

UNPUBLISHED

Type\_of\_Source\_Media:

**EMAIL** 

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

NONE

Source Contribution:

FISH INFORMATION

*Source\_Information*:

*Source\_Citation*:

Citation\_Information:

Originator:

MARTIN, K. (PEPPERDINE)

Publication\_Date:

2006

Title:

INTRODUCTION TO GRUNION BIOLOGY

Geospatial\_Data\_Presentation\_Form:

document

Other Citation Details:

K. MARTIN, 2006, P. 5

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:

MARTIN, K. (PEPPERDINE) AND GRUNION.ORG

Publication\_Date:

2009

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                     SOUTHERN CALIFORNIA GRUNION RUNS
                Geospatial_Data_Presentation_Form:
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                Other_Citation_Details:
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     Source_Time_Period_of_Content:
          Time_Period_Information:
                Single_Date/Time:
                     Calendar Date:
                          2009
          Source Currentness Reference:
                DATE OF SURVEY
     Source_Citation_Abbreviation:
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     Source Contribution:
          FISH INFORMATION
Source Information:
     Source Citation:
          Citation_Information:
                Originator:
                     PRYOR, D.
                Publication_Date:
                     2009
                Title:
                     SPECIES DISTRIBUTION, LOS ANGELES COUNTY
                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:
                          2009
          Source_Currentness_Reference:
                DATE OF PUBLICATION
     Source Citation Abbreviation:
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     Source Contribution:
          FISH INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     U.S. FISH AND WILDLIFE SERVICE
                Publication_Date:
                     2005
                Title:
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# RECOVERY PLAN FOR THE TIDEWATER GOBY (EUCYCLOGOBIUS NEWBERRYI).

Geospatial\_Data\_Presentation\_Form:

HARDCOPY TEXT

Publication\_Information:

Publication Place:

PORTLAND, OREGON

Publisher:

U.S. FISH AND WILDLIFE SERVICE

*Other\_Citation\_Details*:

U.S. FISH AND WILDLIFE SERVICE, PORTLAND, OREGON. VI + 199 PP.

*Type\_of\_Source\_Media*:

paper

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

*Calendar\_Date*:

2005

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source Citation Abbreviation:

NONE

Source Contribution:

FISH INFORMATION

*Source\_Information*:

Source Citation:

*Citation\_Information*:

Originator:

UNIVERSITY OF CALIFORNIA SANTA BARBARA, MARINE LIFE PROTECTION ACT (UCSB MLPA)

Publication Date:

2009

Title:

**GRUNION SPAWN** 

Geospatial\_Data\_Presentation\_Form:

vector digital data

Other Citation Details:

UNPUBLISHED

*Type\_of\_Source\_Media*:

online

Source Time Period of Content:

*Time\_Period\_Information*:

Single Date/Time:

Calendar\_Date:

2009

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

NONE

Source Contribution:

FISH INFORMATION

*Process\_Step*:

## Process\_Description:

Three main sources of data were used to depict fish distribution and seasonality for this data layer: 1) personal interviews with resource experts from the U.S. Fish and Wildlife Service (USFWS), California State Parks (CSP), University of California Santa Barbara (UCSB), Avian Research Associates, Pepperdine University, California Department of Fish and Game (CDF&G) Office of Spill Prevention and Response (OSPR); 2) published reports provided by USFWS, CDF&G; and 3) digital data provided by: UCSB Marine Life Protection Act Initiative (MLPA/MarineMap). The above digital and/or hardcopy sources were compiled by the project biologist to create the FISH data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the FISH data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

```
Process Date:
     201003
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

## Back To Index

```
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:
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                            Area point
                      Point_and_Vector_Object_Count:
                            1284
                SDTS_Terms_Description:
                      SDTS_Point_and_Vector_Object_Type:
                            Complete chain
                      Point_and_Vector_Object_Count:
                            2759
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                      SDTS_Point_and_Vector_Object_Type:
                      Point_and_Vector_Object_Count:
                            143875
                SDTS_Terms_Description:
                      SDTS_Point_and_Vector_Object_Type:
                            Node, planar graph
                      Point_and_Vector_Object_Count:
                            1872
Back To Index
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                      Longitude_Resolution:
                            0.0000001
                      Geographic_Coordinate_Units:
                            Decimal degrees
                Geodetic_Model:
                      Horizontal_Datum_Name:
                            North American Datum of 1983
                      Ellipsoid_Name:
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Geodetic Reference System 80

## Back To Index

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label:

Semi-major\_Axis:

6378137.000000

Denominator\_of\_Flattening\_Ratio:

298.257222

#### FISH.PAT

*Entity\_Type\_Definition*:

The FISH.PAT table contains attribute information for the vector polygons in this data set representing concentration areas, spawning areas, and sensitive species locations. Note that all attribute information is stored in a series of relational files, described below and in the Overview\_Description section. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity\_Type\_Definition\_Source: NOAA ESI Guidelines

Attribute:

Attribute Label:

ID

Attribute Definition:

An identifier that links vector objects in the biology data layers to records in the BIO\_LUT data table. ID is a concatenation of atlas number (209), 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:

2090200002

Range\_Domain\_Maximum: 2090201296

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:

209000957

Range\_Domain\_Maximum:

209001024

*Detailed\_Description:* 

Entity Type:

Entity\_Type\_Label:

**BIO LUT** 

Entity Type Definition:

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

```
structure.
            Entity Type Definition Source:
                  NOAA ESI Guidelines
     Attribute:
            Attribute_Label:
                  RARNUM
            Attribute_Definition:
                  An identifier that links records in the BIO LUT data table to records in the
                  BIORES data table or the flat format BIOFILE data table. RARNUM values
                  of 0 are holes in polygons and do not contain information.
            Attribute Definition Source:
                  NOAA
            Attribute_Domain_Values:
                  Range Domain:
                        Range Domain Minimum:
                              209000001
                        Range_Domain_Maximum:
                              209001289
     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 (209),
                  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:
                              2090100002
                        Range Domain Maximum:
                              2092200052
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:
                       209000001
                 Range_Domain_Maximum:
                       209001289
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:
                 Range Domain Maximum:
Attribute:
     Attribute_Label:
           CONC
     Attribute Definition:
            The field CONC refers to "concentration," abundance, or density values of a
            species at a particular location. No quantitative concentration information
            was available for fish, so the CONC field may contain descriptive terms for
            the presence of a species, such as "LIKELY", or descriptive terms for the
            possibility of fish runs, such as "FREQUENT-LARGE-RUNS" or
            "OCCASIONAL-RUNS". If no concentration information was available from
            any source, the field was populated with "-".
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
            Unrepresentable Domain:
                 Acceptable values change from atlas to atlas.
Attribute:
     Attribute Label:
           SEASON ID
     Attribute_Definition:
            Numeric identifier for the unique monthly presence and life history
            characteristics of each species at a given location.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Range_Domain:
                 Range_Domain_Minimum:
                 Range_Domain_Maximum:
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:
                Range Domain Maximum:
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:
                 Range_Domain_Maximum:
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:
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                      FISH
                 Enumerated_Domain_Value_Definition:
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
```

**HABITAT** 

Enumerated\_Domain\_Value\_Definition:

Habitats and plants

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

**INVERT** 

Enumerated\_Domain\_Value\_Definition:

Invertebrates

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated Domain Value:

M\_MAMMAL

Enumerated Domain Value Definition:

Marine mammals

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

**REPTILE** 

Enumerated\_Domain\_Value\_Definition:

Reptiles and Amphibians

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

T MAMMAL

Enumerated Domain Value Definition:

Terrestrial mammals

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute:

Attribute\_Label:

EL SPE

Attribute Definition:

Concatenation of ELEMENT and SPECIES\_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

E#####

Enumerated Domain Value Definition:

Where E is the first character of ELEMENT and the next five characters are SPECIES\_ID (e.g. ELEMENT = 'BIRD' and SPECIES ID = 1; EL SPE = 'B00001').

Enumerated\_Domain\_Value\_Definition\_Source:

```
NOAA ESI Guidelines
     Attribute:
           Attribute_Label:
                 EL_SPE_SEA
           Attribute_Definition:
                 Concatenation of ELEMENT, SPECIES ID, and SEASON ID. This item
                 links records in the BIORES data table to records in the SEASONAL and
                 BREED data tables.
           Attribute Definition Source:
                 NOAA ESI Guidelines
           Attribute Domain Values:
                 Enumerated_Domain:
                       Enumerated_Domain_Value:
                             E######
                       Enumerated Domain Value Definition:
                             Where E is the first character of ELEMENT, the next five
                             characters are SPECIES ID, and the last two characters are
                             SEASON_ID (e.g. ELEMENT = 'BIRD', SPECIES_ID = 1 and
                             SEASON_ID = 1; EL_SPE_SEA = 'B0000101').
                       Enumerated Domain Value Definition Source:
                             NOAA ESI Guidelines
Detailed_Description:
      Entity_Type:
           Entity_Type_Label:
                 SPECIES
           Entity_Type_Definition:
                 The data table SPECIES identifies all species in the ESI data set. See the
                 Browse Graphic section for a link to the entity-relationship diagram, which
                 describes the way this table relates to other attribute tables in the ESI data
                 structure. Refer to the Completeness Report for a list of layer-specific
                 species.
           Entity Type Definition Source:
                 NOAA ESI Guidelines
     Attribute:
           Attribute_Label:
                 SPECIES ID
           Attribute Definition:
                 Numeric identifier for each species that is unique within each element and
                 refers to a nationwide master ESI species list maintained at NOAA.
           Attribute Definition Source:
                 NOAA ESI Guidelines
           Attribute Domain Values:
                 Range Domain:
                       Range_Domain_Minimum:
                       Range_Domain_Maximum:
     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: canine Enumerated\_Domain\_Value\_Definition:

Canine

*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:

Enumerated\_Domain\_Value\_Definition:

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:

kelp

Enumerated Domain Value Definition:

Kelr

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

lizard

Enumerated\_Domain\_Value\_Definition:

Lizard

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:

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:

sea\_otter

Enumerated Domain Value Definition:

Sea otter

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

shorebird

*Enumerated\_Domain\_Value\_Definition*:

Shorebird

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

shrimp

Enumerated\_Domain\_Value\_Definition:

Shrimp

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

sm\_mammal

Enumerated\_Domain\_Value\_Definition:

Small mammal

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

*Attribute\_Domain\_Values*:

Enumerated Domain:

Enumerated\_Domain\_Value:

snake

Enumerated\_Domain\_Value\_Definition:

Snake

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

turtle

Enumerated\_Domain\_Value\_Definition:

Turtle

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

upland Enumerated\_Domain\_Value\_Definition: Upland vegetation 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:

Enumerated\_Domain\_Value:

```
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:
                       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:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
Attribute:
     Attribute Label:
           JAN
     Attribute_Definition:
           January
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 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:
                 Enumerated_Domain_Value_Definition:
                      Present in February
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute Label:
           MAR
     Attribute Definition:
           March
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                      Present in March
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute Label:
           APR
     Attribute_Definition:
           April
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                      X
                 Enumerated_Domain_Value_Definition:
                      Present in April
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute Label:
           MAY
     Attribute_Definition:
           May
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
```

```
X
                 Enumerated_Domain_Value_Definition:
                      Present in May
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           JUN
     Attribute Definition:
           June
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                Enumerated_Domain_Value:
                      X
                 Enumerated_Domain_Value_Definition:
                      Present in June
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           Ш
     Attribute_Definition:
           July
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                 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:
                 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:
```

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
           vear.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Range Domain:
                 Range_Domain_Minimum:
                 Range Domain Maximum:
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:
                 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:
                 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: 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: 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 auestion 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:

Y

Enumerated Domain Value:

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:
                 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:
                 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:
                 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:
                 Range_Domain_Maximum:
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:
     Attribute Definition:
           State threatened or endangered status.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
```

Endangered on state list

```
Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Threatened on state list
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated Domain Value Definition:
                      Species of Special Concern
                Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute Label:
     Attribute_Definition:
           Federal threatened or endangered status.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Endangered on federal list
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Threatened on federal list
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Species of Special Concern
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
     Attribute_Definition:
```

```
International threatened or endangered status.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                       Endangered on international list
                 Enumerated_Domain_Value_Definition_Source:
                       NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated Domain Value:
                       Т
                 Enumerated_Domain_Value_Definition:
                       Threatened on international list
                 Enumerated_Domain_Value_Definition_Source:
                       NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                      \mathbf{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

 $Range\_Domain\_Maximum$ :

Attribute:

Attribute Label:

**ORIGINATOR** 

*Attribute\_Definition*:

Author or developer of source material or data set.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

DATE PUB

*Attribute\_Definition*:

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

Attribute Definition Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

YYYYMM

Enumerated Domain Value Definition:

YYYY for year and optionally MM for month

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute:

Attribute\_Label:

TITLE

Attribute Definition:

Title of source material or data.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

DATA FORMAT

Attribute\_Definition:

The format of the source material.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute Label:

PUB\_PLACE

Attribute\_Definition:

Publication place.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute Label:

**PUBLISHER** 

Attribute Definition:

Publisher.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute Label:

**PUBLICATION** 

Attribute\_Definition:

Additional citation information.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute Label:

ONLINE LINK

Attribute\_Definition:

Online computer resource URL.

*Attribute\_Definition\_Source*:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute Label:

**SCALE** 

Attribute\_Definition:

Description of the source scale.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

TIME\_PERIOD

*Attribute\_Definition*:

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

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Overview\_Description:

*Entity\_and\_Attribute\_Overview:* 

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, 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 Southern California atlas, the number is 209), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in detail in the Detailed Description sections. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files 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 in the Detailed Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file

eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed\_Description section.

*Entity\_and\_Attribute\_Detail\_Citation*:

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

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```
Distribution Information:
     Distributor:
           Contact_Information:
                 Contact_Person_Primary:
                       Contact_Person:
                             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:
```

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:

Downloadable Data

Distribution Liability:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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

#### **Back To Index**

```
Metadata_Reference_Information:
     Metadata Date:
           20100927
     Metadata_Review_Date:
           20100927
     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
     Metadata_Extensions:
           Online_Linkage:
                 http://www.ncddc.noaa.gov/metadataresource/metadata-
                 references/files/ncddcmdprofile_v2.pdf
           Profile_Name:
                 Content Specification for Metadata in the National Coastal Data Development
                 Center's Data Catalog Version 2.0
```

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# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: FISHL (Fish Lines)

#### **Metadata:**

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

#### *Identification\_Information*:

#### Citation:

#### 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.

#### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: FISHL (Fish Lines)

#### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

#### Series\_Information:

Series Name:

None

Issue\_Identification:

Southern California

#### *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

threatened/endandered/rare and/or anadromous fish species in Southern California. Vector lines in this data set represent threatened/endandered/rare and/or anadromous fish species in streams and rivers. 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 Southern California. 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 Southern California 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:

2005

Ending\_Date:

2009

#### Currentness Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 2005 to 2009 and are documented in the Lineage section.

#### Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

*Spatial\_Domain*:

Bounding\_Coordinates:

West Bounding Coordinate:

-120.60100

*East\_Bounding\_Coordinate*:

-117.00100

North Bounding Coordinate:

34.50000

*South\_Bounding\_Coordinate*:

32.44500

#### *Keywords*:

Theme:

*Theme\_Keyword\_Thesaurus*:

ISO 19115 Topic Category

*Theme\_Keyword:* 

biota

*Theme\_Keyword:* 

environment

#### Theme:

*Theme\_Keyword\_Thesaurus*:

None

Theme Keyword:

**Environmental Monitoring** 

*Theme\_Keyword:* 

**ESI** 

*Theme\_Keyword:* 

Sensitivity maps

Theme\_Keyword:

Coastal resources

*Theme\_Keyword:* 

Oil spill planning

Theme Keyword:

Coastal Zone Management

Theme\_Keyword:

Wildlife

*Theme\_Keyword:* 

Fish

Theme:

Theme Keyword Thesaurus:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

Place:

Place Keyword Thesaurus:

None

*Place\_Keyword*:

Southern California

Access Constraints:

None

*Use\_Constraints*:

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

originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

#### *Browse\_Graphic*:

*Browse\_Graphic\_File\_Name*:

datafig.jpg

Browse\_Graphic\_File\_Description:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

Browse\_Graphic\_File\_Type:

**JPEG** 

#### *Data\_Set\_Credit*:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

#### Native Data Set Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

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#### *Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

#### *Logical\_Consistency\_Report*:

A multi-stage error checking process, described in the above

Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 and available hardcopy documents on threatened/endandered/rare and/or anadromous fish species in streams and rivers. See also the FISH data layer, part of the larger Southern California ESI database, for additional fish information. These data do not necessarily represent all fish occurrences in Southern California. The following species are included in this data set: (Species\_ID, Common Name, Scientific Name [n/a if not applicable]): 74, Rainbow trout, Oncorhynchus mykiss; 226, Tidewater goby, Eucyclogobius newberryi; 1142, Arroyo chub, Gila orcuttii.

#### Positional\_Accuracy:

Horizontal Positional Accuracy:

*Horizontal\_Positional\_Accuracy\_Report*:

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

Lineage:

```
Source_Information:
     Source Citation:
          Citation_Information:
               Originator:
                    AVERY, J. (USFWS)
               Publication Date:
                    2009
               Title:
                    USFWS RESOURCES IN SAN DIEGO AND ORANGE
                    COUNTIES
               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:
                         2009
          Source_Currentness_Reference:
               DATE OF COMMUNICATION
     Source Citation Abbreviation:
          NONE
     Source Contribution:
          FISHL INFORMATION
Source Information:
     Source_Citation:
          Citation_Information:
               Originator:
                    CDF&G, OFFICE OF SPILL PREVENTION AND
                    RESPONSE (OSPR), DEPARTMENT OF HOMELAND
                    SECURITY (DHS), UNITED STATES COAST GUARD
                    (USCG)
               Publication_Date:
                    2008
               Title:
                    AREA CONTINGENCY PLAN (ACP) SECTOR LOS
                    ANGELES/LONG BEACH; 2008 USCG SECTOR SAN
                    DIEGO AREA CONTINGENCY PLAN (ACP)
               Geospatial Data Presentation Form:
                    HARDCOPY TEXT
               Other_Citation_Details:
                    USCG
     Type_of_Source_Media:
          online
     Source_Time_Period_of_Content:
          Time Period Information:
               Single_Date/Time:
                    Calendar_Date:
```

2008

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

**NONE** 

*Source\_Contribution*:

FISHL INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

DELITH, C. (USFWS)

Publication Date:

2009

*Title*:

THREATENED/ENDANGERED (T/E) SPECIES IN

**VENTURA COUNTY** 

*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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

*Source\_Citation\_Abbreviation*:

**NONE** 

Source Contribution:

FISHL INFORMATION

Source Information:

*Source\_Citation*:

Citation\_Information:

Originator:

DRILL, S. (UC COOPERATIVE EXTENSION NATURAL RESOURCE PROGRAM LA AND VENTURA

COUNTIES)

Publication Date:

2009

Title:

SOUTHERN CALIFORNIA SPECIES PROFILE:

ARROYO CHUB

*Geospatial\_Data\_Presentation\_Form*:

HARDCOPY TEXT

Online Linkage:

http://celosangeles.ucdavis.edu/natural\_resources/

*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:
          FISHL INFORMATION
Source Information:
     Source_Citation:
          Citation_Information:
               Originator:
                     PRYOR, D.
               Publication Date:
                     2009
                Title:
                     SPECIES DISTRIBUTION, LOS ANGELES COUNTY
               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:
                          2009
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          FISHL INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                     U.S. FISH AND WILDLIFE SERVICE
               Publication_Date:
                     2005
                Title:
                     RECOVERY PLAN FOR THE TIDEWATER GOBY
                     (EUCYCLOGOBIUS NEWBERRYI)
               Geospatial Data Presentation Form:
                     HARDCOPY TEXT
```

Publication\_Information:

Publication\_Place:

PORTLAND, OREGON

Publisher:

U.S. FISH AND WILDLIFE SERVICE

*Other\_Citation\_Details*:

U.S. FISH AND WILDLIFE SERVICE, PORTLAND, OREGON. VI + 199 PP.

*Type\_of\_Source\_Media*:

paper

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar Date:

2005

Source\_Currentness\_Reference:

DATE OF PUBLICATION

*Source\_Citation\_Abbreviation*:

NONE

Source Contribution:

FISHL INFORMATION

Process Step:

*Process\_Description*:

Two main sources of data were used to depict fish distribution and seasonality for this data layer: 1) personal interviews with resource experts from the U.S. Fish and Wildlife Service (USFWS) and California State Parks (CSP), and 2) published reports provided by USFWS and California Department of Fish and Game (CDF&G). 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 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the FISHL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process Date:

201003

*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
```

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```
Spatial_Data_Organization_Information:
     Direct_Spatial_Reference_Method:
           Vector
     Point_and_Vector_Object_Information:
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Complete chain
                Point_and_Vector_Object_Count:
                      52
           SDTS Terms Description:
                SDTS_Point_and_Vector_Object_Type:
                      Link
                Point_and_Vector_Object_Count:
                      246
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Node, planar graph
                Point_and_Vector_Object_Count:
                      89
```

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```
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
```

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```
Entity_and_Attribute_Information:
      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 threatened/endandered/rare and/or
                        anadromous fish species in streams and rivers. Note that all attribute
                        information is stored in a series of relational files, described below and in
                        the Overview_Description section. See the Browse_Graphic section for a
                        link to the entity-relationship diagram, which describes the relationships
                        between attribute tables in the ESI data structure.
                  Entity_Type_Definition_Source:
                       NOAA ESI Guidelines
           Attribute:
                 Attribute_Label:
                        ID
                  Attribute_Definition:
                        An identifier that links vector objects in the biology data layers to records
                        in the BIO LUT data table. ID is a concatenation of atlas number (209),
                        element number (22), and record number.
                  Attribute Definition Source:
                        NOAA
                  Attribute Domain Values:
                        Range Domain:
                              Range_Domain_Minimum:
                                    2092200002
                              Range_Domain_Maximum:
                                    2092200052
           Attribute:
                 Attribute Label:
                        RARNUM
                  Attribute_Definition:
                        An identifier that links directly to the BIORES table or the flat format
                        BIOFILE table.
                  Attribute_Definition_Source:
                        NOAA
                 Attribute_Domain_Values:
                        Range_Domain:
                              Range_Domain_Minimum:
                                    209000957
```

Range\_Domain\_Maximum:

#### 209001002

```
Detailed_Description:
      Entity_Type:
            Entity_Type_Label:
                  BIO LUT
            Entity_Type_Definition:
                  The data table BIO_LUT is a lookup table that contains items necessary
                  for linking vector objects in the biological data layers with the BIORES
                  data table. Note that all attribute information is stored in a series of
                  relational files, described below and in the Overview_Description
                  section. See the Browse_Graphic section for a link to the entity-
                  relationship diagram, which describes the way this table relates to other
                  attribute tables in the ESI data structure.
            Entity_Type_Definition_Source:
                  NOAA ESI Guidelines
      Attribute:
            Attribute Label:
                  RARNUM
            Attribute_Definition:
                  An identifier that links records in the BIO LUT data table to records in
                  the BIORES data table or the flat format BIOFILE data table. RARNUM
                  values of 0 are holes in polygons and do not contain information.
            Attribute Definition Source:
                  NOAA
            Attribute_Domain_Values:
                  Range Domain:
                        Range_Domain_Minimum:
                              209000001
                        Range_Domain_Maximum:
                              209001289
      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 (209),
                  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:
                              2090100002
                        Range Domain Maximum:
                              2092200052
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:

209000001

Range\_Domain\_Maximum: 209001289

#### 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:

#### Attribute:

Attribute\_Label:

**CONC** 

Attribute\_Definition:

The field CONC refers to "concentration," abundance, or density values of a species at a particular location. No quantitative concentration information was available for fish, so the CONC field may contain descriptive terms for the presence of a species, such as "LIKELY", or descriptive terms for the possibility of fish runs, such as "FREQUENT-LARGE-RUNS" or "OCCASIONAL-RUNS". If no concentration information was available from any source, the field was populated with "-"

Attribute Definition Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

```
Unrepresentable_Domain:
                 Acceptable values change from atlas to atlas.
Attribute:
     Attribute_Label:
           SEASON ID
     Attribute Definition:
           Numeric identifier for the unique monthly presence and life history
           characteristics of each species at a given location.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Range_Domain:
                 Range Domain Minimum:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
                       N
Attribute:
     Attribute Label:
           ELEMENT
     Attribute_Definition:
           Major categories of biological data.
     Attribute Definition Source:
           NOAA ESI Guidelines
```

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**BIRD** 

Enumerated\_Domain\_Value\_Definition:

Birds

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

**FISH** 

Enumerated Domain Value Definition:

Fish

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

**HABITAT** 

Enumerated\_Domain\_Value\_Definition:

Habitats and plants

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**INVERT** 

*Enumerated\_Domain\_Value\_Definition*:

Invertebrates

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

M\_MAMMAL

Enumerated\_Domain\_Value\_Definition:

Marine mammals

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

*Attribute\_Domain\_Values*:

Enumerated Domain:

Enumerated\_Domain\_Value:

**REPTILE** 

Enumerated\_Domain\_Value\_Definition:

Reptiles and Amphibians

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

#### T\_MAMMAL

Enumerated\_Domain\_Value\_Definition:

Terrestrial mammals

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

#### Attribute:

Attribute\_Label:

EL\_SPE

Attribute\_Definition:

Concatenation of ELEMENT and SPECIES\_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute Definition Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

E#####

Enumerated\_Domain\_Value\_Definition:

Where E is the first character of ELEMENT and the next five characters are SPECIES\_ID (e.g. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

#### Attribute:

Attribute\_Label:

EL\_SPE\_SEA

Attribute\_Definition:

Concatenation of ELEMENT, SPECIES\_ID, and SEASON\_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

E######

Enumerated\_Domain\_Value\_Definition:

Where E is the first character of ELEMENT, the next five characters are SPECIES\_ID, and the last two characters are SEASON\_ID (e.g. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON ID = 1; EL SPE SEA = 'B0000101').

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

#### *Detailed\_Description:*

*Entity\_Type*:

Entity\_Type\_Label:

**SPECIES** 

Entity Type Definition:

The data table SPECIES identifies all species in the ESI data set. See the Browse\_Graphic section for a link to the entity-relationship diagram,

which describes the way this table relates to other attribute tables in the ESI data structure. Refer to the Completeness\_Report for a list of layer-specific species.

Entity\_Type\_Definition\_Source:

NOAA ESI Guidelines

#### Attribute:

Attribute\_Label:

SPECIES\_ID

Attribute\_Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum:

-

 $Range\_Domain\_Maximum$ :

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:

canine

*Enumerated\_Domain\_Value\_Definition*:

Canine

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:

kelp

*Enumerated\_Domain\_Value\_Definition*:

Kelp

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

lizard

Enumerated Domain Value Definition:

Lizard

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:

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:

sea otter

*Enumerated\_Domain\_Value\_Definition*:

Sea otter

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

shorebird

Enumerated\_Domain\_Value\_Definition:

Shorebird

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

shrimp

Enumerated\_Domain\_Value\_Definition:

Shrimp

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

sm\_mammal

Enumerated\_Domain\_Value\_Definition:

Small mammal

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

snake

*Enumerated\_Domain\_Value\_Definition*:

Snake

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated Domain Value:

turtle

Enumerated\_Domain\_Value\_Definition:

Turtle

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

upland

Enumerated\_Domain\_Value\_Definition:

Upland vegetation

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:
                 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:
                 Range_Domain_Maximum:
Attribute:
     Attribute Label:
           JAN
     Attribute_Definition:
           January
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 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:
                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:
                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

NOAA ESI Guidelines Attribute: *Attribute\_Label*: JUN Attribute\_Definition: June Attribute\_Definition\_Source: **NOAA ESI Guidelines** Attribute Domain Values: Enumerated\_Domain: Enumerated\_Domain\_Value: 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: 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: 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:
                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 lifehistory 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:

Ν

*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:

V

*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:

Ν

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:
                 Range_Domain_Maximum:
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:
                      Ε
                 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:
                 Enumerated_Domain_Value_Definition:
                      Endangered on federal list
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
```

Enumerated\_Domain:

```
Enumerated_Domain_Value_Definition:
                       Threatened on federal list
                 Enumerated_Domain_Value_Definition_Source:
                       NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated Domain Value:
                       \mathbf{C}
                 Enumerated_Domain_Value_Definition:
                       Species of Special Concern
                 Enumerated Domain Value Definition Source:
                       NOAA ESI Guidelines
Attribute:
     Attribute Label:
     Attribute Definition:
           International threatened or endangered status.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated Domain Value:
                       Ε
                 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.
```

Enumerated\_Domain\_Value:

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.

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 Southern California atlas, the number is 209), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The

RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in detail in the Detailed Description sections. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files 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 in the Detailed Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G SOURCE and S SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed\_Description section.

Entity\_and\_Attribute\_Detail\_Citation:

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

#### **Back To Index**

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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

#### Back To Index

Metadata\_Reference\_Information:

Metadata\_Date:

20100927

Metadata\_Review\_Date:

20100927

Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person:

Jill Petersen

Contact\_Organization:

NOAA, Office of Response and Restoration

Contact\_Position:

GIS Manager

Southern California ESI: FISHL

```
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
Metadata_Extensions:
     Online_Linkage:
           http://www.ncddc.noaa.gov/metadataresource/metadata-
           references/files/ncddcmdprofile_v2.pdf
     Profile_Name:
           Content Specification for Metadata in the National Coastal Data Development
```

Center's Data Catalog Version 2.0

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# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: INVERT (Invertebrate Polygons)

#### **Metadata:**

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

#### Identification\_Information:

#### Citation:

#### Citation\_Information:

#### Originator:

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington.

#### Originator:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: INVERT (Invertebrate Polygons)

#### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

#### *Series\_Information*:

Series Name:

None

*Issue\_Identification*:

Southern California

#### 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 sensitive bivalves, gastropods, insects, crustaceans, and other invertebrate species in Southern California. Vector polygons in this data set represent sensitive species and some commercial/recreational species 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 Southern California. 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:

1977

Ending\_Date:

2009

#### Currentness\_Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 1977 to 2009 and are documented in the Lineage section.

#### Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

Spatial Domain:

Bounding\_Coordinates:

*West\_Bounding\_Coordinate:* 

-120.60100

East Bounding Coordinate:

-117.00100

*North\_Bounding\_Coordinate*:

34.50000

*South\_Bounding\_Coordinate*:

32.44500

#### Keywords:

Theme:

*Theme\_Keyword\_Thesaurus*:

ISO 19115 Topic Category

*Theme\_Keyword:* 

biota

*Theme\_Keyword:* 

environment

#### Theme:

Theme\_Keyword\_Thesaurus:

None

*Theme\_Keyword:* 

**Environmental Monitoring** 

*Theme\_Keyword:* 

**ESI** 

Theme Keyword:

Sensitivity maps

*Theme\_Keyword:* 

Coastal resources

*Theme\_Keyword:* 

Oil spill planning

*Theme\_Keyword:* 

Coastal Zone Management

*Theme\_Keyword:* 

Wildlife

Theme\_Keyword:

Invertebrate

#### Theme:

Theme\_Keyword\_Thesaurus:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

#### Place:

Place\_Keyword\_Thesaurus:

None

*Place\_Keyword:* 

Southern California

Access Constraints:

None

#### *Use\_Constraints*:

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

derived from these data.

*Browse\_Graphic*:

Browse\_Graphic\_File\_Name:

datafig.jpg

*Browse\_Graphic\_File\_Description*:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

*Browse\_Graphic\_File\_Type*:

**JPEG** 

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

*Native\_Data\_Set\_Environment:* 

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

#### *Logical\_Consistency\_Report*:

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 sensitive species and some commercial/recreational species distributions. These data do not necessarily represent all invertebrate occurrences in Southern California. The following species are included in this data set: (Species\_ID, Common Name, Scientific Name [n/a if not applicable]): 18, Pismo clam, Tivela stultorum; 20, California mussel, Mytilus californianus; 29, Pacific littleneck, Protothaca staminea; 60, Abalone, Haliotis spp.; 61, Red abalone, Haliotis rufescens; 62, Black abalone, Haliotis cracherodii; 64, White abalone, Haliotis sorenseni; 65, Pink abalone, Haliotis corrugata; 76, Nuttall cockle, Clinocardium nuttallii; 505, Monarch butterfly, Danaus plexippus; 555, Globose dune beetle, Coelus globosus; 592, Riverside fairy shrimp, Streptocephalus woottoni; 593, San Diego fairy shrimp, Branchinecta sandiegonensis; 596, Chione spp., Chione spp.; 597, Point Mugu dune weevil, Trigonoscuta muguensis; 598, Wandering skipper, Panoquina errans; 599, Western beach tiger beetle, Cicindela latesignata; 1039, Intertidal invertebrates, 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 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the

positional accuracy of vector digital objects representing these resources. See the Lineage and Process\_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

```
Lineage:
```

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator:

BUCK, T. (CDF&G)

Publication\_Date:

2009

*Title*:

PISMO BEACH DISTRIBUTION IN SAN DIEGO

**COUNTY** 

Geospatial\_Data\_Presentation\_Form:

EXPERT KNOWLEDGE

*Other\_Citation\_Details*:

**UNPUBLISHED** 

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

 $Calendar\_Date:$ 

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

*Source\_Contribution*:

**INVERT INFORMATION** 

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

CDF&G

*Publication\_Date*:

2001

Title:

CALIFORNIA'S LIVING MARINE RESOURCES: A

STATUS REPORT (PISMO CLAM)

Geospatial\_Data\_Presentation\_Form:

HARDCOPY TEXT

*Other\_Citation\_Details*:

CDF&G, DECEMBER 2001

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

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Calendar_Date:
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                DATE OF PUBLICATION
     Source_Citation_Abbreviation:
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     Source_Contribution:
          INVERT INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     CDF&G
                Publication_Date:
                     2009
                Title:
                     CA.GOV DEPARTMENT OF FISH AND GAME (DFG)
                Geospatial_Data_Presentation_Form:
                     WEBSITE
                Online_Linkage:
                     http://www.dfg.ca.gov/
     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:
          INVERT INFORMATION
Source Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     CDF&G (REILLY, P.)
                Publication_Date:
                     2001
                Title:
                     CALIFORNIA'S LIVING MARINE RESOURCES: A
                     STATUS REPORT (LITTLENECK CLAMS)
                Geospatial Data Presentation Form:
                     HARDCOPY TEXT
                Other_Citation_Details:
                     CDF&G, DECEMBER 2001. PP. 451-452.
     Type_of_Source_Media:
          online
     Source_Time_Period_of_Content:
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Time Period Information:
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                          2001
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          INVERT INFORMATION
Source_Information:
     Source Citation:
          Citation Information:
               Originator:
                     CDF&G BIOGEOGRAPHIC DATA BRANCH
               Publication Date:
                     2009
               Title:
                     CALIFORNIA NATURAL DIVERSITY DATABASE
                     (CNDDB)
               Geospatial_Data_Presentation_Form:
                     vector digital data
               Publication_Information:
                     Publication Place:
                          SACRAMENTO, CA
                     Publisher:
                          CDF&G BIOGEOGRAPHIC DATA BRANCH
     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:
          INVERT INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
               Originator:
                     CDF&G, OFFICE OF SPILL PREVENTION AND
                     RESPONSE (OSPR), DEPARTMENT OF HOMELAND
                     SECURITY (DHS), UNITED STATES COAST GUARD
                     (USCG)
               Publication Date:
                     2008
               Title:
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#### AREA CONTINGENCY PLAN (ACP) SECTOR LOS ANGELES/LONG BEACH; 2008 USCG SECTOR SAN DIEGO AREA CONTINGENCY PLAN (ACP)

*Geospatial\_Data\_Presentation\_Form*:

HARDCOPY TEXT

Other\_Citation\_Details:

**USCG** 

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2008

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source Citation Abbreviation:

**NONE** 

Source Contribution:

**INVERT INFORMATION** 

Source\_Information:

*Source\_Citation*:

Citation\_Information:

Originator:

DELITH, C. (USFWS)

*Publication\_Date*:

2009

Title:

THREATENED/ENDANGERED (T/E) SPECIES IN VENTURA COUNTY

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:

2009

Source Currentness Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

**INVERT INFORMATION** 

Source\_Information:

Source Citation:

Citation\_Information:

Originator:

### ENGLE, J. UNIVERSITY OF CALIFORNIA SANTA BARBARA (UCSB)

Publication\_Date:

2009

Title:

INTERTIDAL HABITATS AND SPECIES

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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

*Source\_Contribution*:

**INVERT INFORMATION** 

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

KRONINGER, M. (CDF&G, OSPR)

*Publication\_Date*:

2009

Title:

DISTRIBUTION OF BIOLOGICAL AND SOCECON RESOURCES IN LA AND ORANGE COUNTIES

*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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

**INVERT INFORMATION** 

*Source\_Information*:

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Citation_Information:
               Originator:
                    LERMA, D. (TIERRA DATA INC.)
               Publication_Date:
                    2009
               Title:
                    SAN NIC AND SAN CLEMENTE 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:
                          2009
          Source_Currentness_Reference:
               DATE OF COMMUNICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          INVERT INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                    LEWIS, R. (CDF&G OSPR)
               Publication Date:
                    2009
               Title:
                    DISTRIBUTION OF SOCECON AND BIOLOGICAL
                    RESOURCES IN SOUTHERN CALIFORNIA
               Geospatial_Data_Presentation_Form:
                    EXPERT KNOWLEDGE
               Other_Citation_Details:
                    UNPUBLISHED
     Type_of_Source_Media:
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     Source Time Period of Content:
          Time_Period_Information:
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                    Calendar Date:
                          2009
          Source_Currentness_Reference:
               DATE OF COMMUNICATION
     Source Citation Abbreviation:
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     Source_Contribution:
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Source\_Citation:

#### **INVERT INFORMATION**

Source\_Information:

*Source\_Citation*:

Citation\_Information:

Originator:

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL OCEAN SERVICE (NOS), OFFICE OF RESPONSE AND RESTORATION (OR&R), EMERGENCY RESPONSE DIVISION (ERD)

Publication\_Date:

2006

*Title*:

SENSITIVITY OF COASTAL ENVIRONMENTS TO SPILLED OIL: CENTRAL CALIFORNIA ATLAS

Geospatial\_Data\_Presentation\_Form:

atlas

*Publication\_Information*:

Publication\_Place:

SEATTLE, WA

Publisher:

**NOAA** 

*Other\_Citation\_Details*:

MONTEREY BAY NATIONAL MARINE SANCTUARY (MBNMS), CDF&G OSPR, AND MONTEREY BAY SANCTUARY FOUNDATION, NOAA 7600 SAND POINT WAY, SEATTLE, WA 98115-6349

Online\_Linkage:

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

*Type\_of\_Source\_Media*:

paper

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:

**INVERT INFORMATION** 

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

NOAA NATIONAL MARINE FISHERIES SERVICE

*Publication\_Date*:

2007

Title:

PINK ABALONE HALIOTIS CORRUGATA

```
HARDCOPY TEXT
               Publication_Information:
                    Publication_Place:
                         LONG BEACH, CALIFORNIA
                    Publisher:
                         NOAA NATIONAL MARINE FISHERIES
                         SERVICE
               Other_Citation_Details:
                    NOAA FISHERIES, SOUTHWEST REGION,
                    PROTECTED RESOURCES DIVISION, 501 W. OCEAN
                    BLVD. SUITE 4200, LONG BEACH, CALIFORNIA,
                    90802-4213
     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:
          INVERT INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
               Originator:
                    NOAA NATIONAL MARINE FISHERIES SERVICE
               Publication Date:
                    2008
               Title:
                    WHITE ABALONE RECOVERY PLAN (HALIOTIS
                    SORENSENI)
               Geospatial_Data_Presentation_Form:
                    HARDCOPY TEXT
               Publication_Information:
                    Publication_Place:
                         LONG BEACH, CA
                    Publisher:
                         NOAA NATIONAL MARINE FISHERIES
                         SERVICE
     Type_of_Source_Media:
          paper
     Source_Time_Period_of_Content:
          Time_Period_Information:
               Single Date/Time:
                    Calendar Date:
                          2008
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Geospatial\_Data\_Presentation\_Form:

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Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source_Citation_Abbreviation:
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     Source Contribution:
          INVERT INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                    ONO, D. (CDF&G, MARINE REGION)
               Publication Date:
                    2009
               Title:
                    SANTA BARBARA/VENTURA/NORTHERN LA
                    COUNTY PISMO AND LITTLENECK CLAM SITES
               Geospatial_Data_Presentation_Form:
                    HARDCOPY TEXT
               Other_Citation_Details:
                    UNPUBLISHED
     Type_of_Source_Media:
          EMAIL
     Source_Time_Period_of_Content:
          Time_Period_Information:
               Single_Date/Time:
                    Calendar_Date:
                          2009
          Source_Currentness_Reference:
               DATE OF COMMUNICATION
     Source_Citation_Abbreviation:
          NONE
     Source_Contribution:
          INVERT INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
               Originator:
                    ORSAK, L.J.
               Publication Date:
                    1977
               Title:
                    THE BUTTERFLIES OF ORANGE COUNTY,
                    CALIFORNIA
               Geospatial_Data_Presentation_Form:
                    HARDCOPY TEXT
               Publication_Information:
                    Publication_Place:
                          NEW YORK
                    Publisher:
                          UNIVERSITY OF CALIFORNIA PRESS
```

*Other\_Citation\_Details*:

## CENTER FOR PATHOBIOLOGY MISCELLANEOUS PUBLICATION #3. UNIVERSITY OF CALIFORNIA PRESS, NEW YORK. 349 PP.

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

1977

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source Citation Abbreviation:

**NONE** 

*Source\_Contribution*:

**INVERT INFORMATION** 

*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

UC DAVIS SEA GRANT EXTENSION PROGRAM

*Publication\_Date*:

1997

Title:

**ABALONE** 

Geospatial\_Data\_Presentation\_Form:

HARDCOPY TEXT

Online\_Linkage:

http://seafood.ucdavis.edu/pubs/abalone.htm

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar Date:

1997

Source\_Currentness\_Reference:

DATE OF PUBLICATION

*Source\_Citation\_Abbreviation*:

**NONE** 

*Source\_Contribution*:

**INVERT INFORMATION** 

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

UNIVERSITY OF CALIFORNIA SANTA BARBARA, MARINE LIFE PROTECTION ACT (UCSB MLPA)

Publication Date:

2004

Title:

```
CRANE 2004 ABALONE
```

Geospatial\_Data\_Presentation\_Form:

vector digital data

Other\_Citation\_Details:

**USCB MLPA** 

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2004

Source Currentness Reference:

DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

**INVERT INFORMATION** 

*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

**US NAVY** 

Publication\_Date:

2009

*Title*:

BLACK\_ABALONE\_MODEL

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:

2009

*Source\_Currentness\_Reference*:

DATE OF PUBLICATION

*Source\_Citation\_Abbreviation*:

**NONE** 

*Source\_Contribution*:

INVERT INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

*Originator*:

**US NAVY** 

Publication Date:

2009

Title:

WHITE\_ABALONE\_MODEL

Geospatial\_Data\_Presentation\_Form:

vector digital data

Other\_Citation\_Details:

**UNPUBLISHED** 

*Type\_of\_Source\_Media*:

online

Source\_Time\_Period\_of\_Content:

*Time\_Period\_Information*:

Single\_Date/Time:

Calendar Date:

2009

*Source\_Currentness\_Reference*:

DATE OF PUBLICATION

Source Citation Abbreviation:

NONE

*Source\_Contribution*:

INVERT INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

**USFWS** 

Publication\_Date:

2002

Title:

SAN DIEGO FAIRY SHRIMP

*Geospatial\_Data\_Presentation\_Form*:

HARDCOPY TEXT

Online Linkage:

http://ecos.fws.gov/docs/life\_histories/K049.html

*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** 

Process\_Step:

*Process\_Description*:

Three main sources of data were used to depict invertebrate distribution and seasonality for this data layer: 1) personal interviews with resource experts from the U.S. Fish and Wildlife Service (USFWS), University of California Santa Barbara (UCSB), and California Department of Fish and

Game (CDF&G); 2) published reports provided by CDF&G and NOAA National Marine Fisheries Service; and 3) digital data provided by UCSB Marine Life Protection Act (MLPA), U.S. Navy, and CDF&G. The above digital and/or hardcopy sources were compiled by the project biologist to create the INVERT data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the INVERT data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

```
Process Date:
     201003
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

#### Back To Index

Spatial\_Data\_Organization\_Information:
 Direct\_Spatial\_Reference\_Method:
 Vector
 Point\_and\_Vector\_Object\_Information:
 SDTS\_Terms\_Description:

```
SDTS_Point_and_Vector_Object_Type:
           GT-polygon composed of chains
     Point_and_Vector_Object_Count:
           554
SDTS_Terms_Description:
     SDTS_Point_and_Vector_Object_Type:
           Area point
     Point_and_Vector_Object_Count:
           555
SDTS_Terms_Description:
     SDTS_Point_and_Vector_Object_Type:
           Complete chain
     Point and Vector Object Count:
           761
SDTS_Terms_Description:
     SDTS_Point_and_Vector_Object_Type:
           Link
     Point_and_Vector_Object_Count:
           105168
SDTS_Terms_Description:
     SDTS_Point_and_Vector_Object_Type:
           Node, planar graph
     Point_and_Vector_Object_Count:
           669
```

#### **Back To Index**

```
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
```

#### **Back To Index**

```
Entity_Type_Definition:
```

The INVERT.PAT table contains attribute information for the vector polygons in this data set representing sensitive species and some commercial/recreational species distributions. Note that all attribute information is stored in a series of relational files, described below and in the Overview\_Description section. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

#### Attribute:

*Attribute\_Label*:

ID

*Attribute\_Definition*:

An identifier that links vector objects in the biology data layers to records in the BIO\_LUT data table. ID is a concatenation of atlas number (209), 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:

2090700002

Range\_Domain\_Maximum:

2090700565

#### 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:

209001059

Range\_Domain\_Maximum:

209001096

#### Detailed\_Description:

*Entity\_Type*:

Entity\_Type\_Label:

**BIO\_LUT** 

*Entity\_Type\_Definition*:

The data table BIO\_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the Overview\_Description section. See the Browse\_Graphic section for a link to the entity-

relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

#### Attribute:

Attribute Label:

**RARNUM** 

*Attribute\_Definition*:

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

Attribute\_Definition\_Source:

**NOAA** 

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum:

209000001

Range\_Domain\_Maximum: 209001289

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 (209), 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:

2090100002

Range\_Domain\_Maximum:

2092200052

*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:

209000001

Range\_Domain\_Maximum: 209001289

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. No quantitative concentration information was available for invertebrates, therefore qualitative terms (such as "VERY HIGH", "HIGH PROBABILITY" and "POTENTIAL") were used to describe the relative abundance of particular invertebrate species at specific locations. If no concentration information was available from any source, the field was populated with "-".

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

SEASON ID

Attribute Definition:

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

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

```
Range_Domain:
                 Range_Domain_Minimum:
                 Range_Domain_Maximum:
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:
                 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:
                 Range_Domain_Maximum:
                      N
Attribute:
     Attribute Label:
           ELEMENT
     Attribute_Definition:
           Major categories of biological data.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                      BIRD
                 Enumerated_Domain_Value_Definition:
                      Birds
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
```

**FISH** 

Enumerated\_Domain\_Value\_Definition:

Fish

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

**HABITAT** 

Enumerated\_Domain\_Value\_Definition:

Habitats and plants

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

*Attribute\_Domain\_Values*:

Enumerated\_Domain:

Enumerated Domain Value:

**INVERT** 

*Enumerated\_Domain\_Value\_Definition*:

Invertebrates

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

*Enumerated\_Domain\_Value*:

M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*:

Marine mammals

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**REPTILE** 

*Enumerated\_Domain\_Value\_Definition*:

Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

T\_MAMMAL

Enumerated Domain Value Definition:

Terrestrial mammals

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

*Attribute\_Label*:

EL\_SPE

Attribute Definition:

Concatenation of ELEMENT and SPECIES\_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data

tables.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

E#####

Enumerated\_Domain\_Value\_Definition:

Where E is the first character of ELEMENT and the next five characters are SPECIES\_ID (e.g. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute\_Label:

EL SPE SEA

Attribute\_Definition:

Concatenation of ELEMENT, SPECIES\_ID, and SEASON\_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

E######

Enumerated\_Domain\_Value\_Definition:

Where E is the first character of ELEMENT, the next five characters are SPECIES\_ID, and the last two characters are SEASON\_ID (e.g. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON ID = 1; EL SPE SEA = 'B0000101').

Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines

*Detailed\_Description:* 

*Entity\_Type*:

Entity\_Type\_Label:

**SPECIES** 

*Entity\_Type\_Definition*:

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

Entity\_Type\_Definition\_Source:

NOAA ESI Guidelines

Attribute:

Attribute Label:

SPECIES ID

Attribute Definition:

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

```
Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Range_Domain:
                 Range_Domain_Minimum:
                 Range_Domain_Maximum:
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:

canine

*Enumerated\_Domain\_Value\_Definition*:

Canine

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:

kelp

Enumerated\_Domain\_Value\_Definition:

Kelp

Enumerated Domain Value Definition Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

lizard

Enumerated\_Domain\_Value\_Definition:

Lizard

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:

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:

sea\_otter

Enumerated Domain Value Definition:

Sea otter

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

shorebird

Enumerated\_Domain\_Value\_Definition:

Shorebird

Enumerated Domain Value Definition Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

shrimp

Enumerated\_Domain\_Value\_Definition:

Shrimp

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

sm\_mammal

*Enumerated\_Domain\_Value\_Definition*:

Small mammal

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

snake

Enumerated Domain Value Definition:

Snake

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

turtle

Enumerated\_Domain\_Value\_Definition:

Turtle

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

upland

*Enumerated\_Domain\_Value\_Definition*:

Upland vegetation

*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:

Rirds

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:
                 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:
                 Range_Domain_Maximum:
Attribute:
     Attribute Label:
           JAN
     Attribute_Definition:
           January
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 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:
                 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:
                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:
                 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:
                 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 lifehistory stages or activities for each species at a given location.

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

#### Attribute:

Attribute\_Label:

EL SPE SEA

Attribute\_Definition:

Concatenation of ELEMENT, SPECIES\_ID, and SEASON\_ID. This item links records in the BREED data table to records in the BIORES and SEASONAL data tables.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

E######

*Enumerated\_Domain\_Value\_Definition*:

Where E is the first character of ELEMENT, the next five characters are SPECIES\_ID, and the last two characters are SEASON\_ID (e.g. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

 $Enumerated\_Domain\_Value\_Definition\_Source:$ 

**NOAA ESI Guidelines** 

#### Attribute:

Attribute Label:

**MONTH** 

Attribute\_Definition:

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

Attribute\_Definition\_Source:

```
NOAA ESI Guidelines
     Attribute Domain Values:
           Range_Domain:
                Range_Domain_Minimum:
                Range Domain Maximum:
                      12
Attribute:
     Attribute Label:
           BREED1
     Attribute_Definition:
           Life history stage or activity type, where: if ELEMENT is "BIRD" then
           BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning;
           if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is
           "REPTILE" then BREED1 = nesting; if ELEMENT is "M_MAMMAL"
           then BREED1 = mating. This attribute is not used for HABITAT or
           T MAMMAL.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                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:
                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:
                 Range_Domain_Maximum:
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*:

Attribute Definition Source:

Attribute\_Domain\_Values:

NOAA ESI Guidelines

State threatened or endangered status.

```
Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Endangered on state list
                Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Threatened on state list
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated Domain:
                Enumerated_Domain_Value:
                      \mathbf{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:
                Enumerated Domain Value Definition:
                      Endangered on federal list
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Threatened on federal list
                Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated Domain Value:
                Enumerated_Domain_Value_Definition:
```

Enumerated\_Domain:

# 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:

Ε

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:

]

Range\_Domain\_Maximum:

N

#### Attribute:

Attribute Label:

**ORIGINATOR** 

*Attribute\_Definition:* 

Author or developer of source material or data set.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute\_Label:

DATE PUB

Attribute Definition:

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

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

**YYYYMM** 

Enumerated\_Domain\_Value\_Definition:

YYYY for year and optionally MM for month

 $Enumerated\_Domain\_Value\_Definition\_Source:$ 

**NOAA ESI Guidelines** 

Attribute:

Attribute Label:

TITLE

Attribute\_Definition:

Title of source material or data.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

DATA FORMAT

Attribute\_Definition:

The format of the source material.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

PUB\_PLACE

Attribute\_Definition:

Publication place.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLISHER** 

*Attribute\_Definition*:

Publisher.

*Attribute\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

**PUBLICATION** 

Attribute\_Definition:

Additional citation information.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

ONLINE\_LINK

Attribute\_Definition:

Online computer resource URL.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**SCALE** 

Attribute Definition:

Description of the source scale.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

TIME\_PERIOD

Attribute\_Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Overview Description:

Entity\_and\_Attribute\_Overview:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, 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 Southern California atlas, the number is 209), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in detail in the Detailed Description sections. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files 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 in the Detailed Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed Description of the BREED data table. The link to the BIOFILE may be made through the BIO LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G SOURCE and S SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed\_Description section.

Entity\_and\_Attribute\_Detail\_Citation:

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

#### **Back To Index**

```
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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

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```
Metadata_Reference_Information:
     Metadata Date:
           20100927
     Metadata_Review_Date:
           20100927
     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

Southern California ESI: INVERT

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

*Metadata\_Extensions*:

Online\_Linkage:

http://www.ncddc.noaa.gov/metadataresource/metadata-

references/files/ncddcmdprofile\_v2.pdf

Profile\_Name:

Content Specification for Metadata in the National Coastal Data Development Center's Data Catalog Version 2.0

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# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: REPTILES (Reptile Polygons)

# **Metadata:**

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity\_and\_Attribute\_Information
- Distribution Information
- Metadata Reference Information

#### Identification\_Information:

#### Citation:

# 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.

#### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: REPTILES (Reptile Polygons)

#### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

*Series\_Information*:

Series Name:

None

*Issue\_Identification*:

Southern California

#### Publication\_Information:

Publication\_Place:

Seattle, Washington

Publisher:

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

Other\_Citation\_Details:

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

Online\_Linkage:

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

# Description:

#### Abstract:

This data set contains sensitive biological resource data for rare amphibians, rare reptiles, and sea turtles in Southern California. Vector polygons in this data set represent rare and threatened/endangered reptile and amphibian 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 Southern California. 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:

2001

Ending\_Date:

2009

#### Currentness\_Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 2001 to 2009 and are documented in the Lineage section.

# Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

Spatial Domain:

Bounding\_Coordinates:

*West\_Bounding\_Coordinate:* 

-120.60100

East Bounding Coordinate:

-117.00100

*North\_Bounding\_Coordinate*:

34.50000

*South\_Bounding\_Coordinate*:

32.44500

# Keywords:

Theme:

Theme\_Keyword\_Thesaurus:

ISO 19115 Topic Category

*Theme\_Keyword:* 

biota

*Theme\_Keyword:* 

environment

#### Theme:

*Theme\_Keyword\_Thesaurus*:

None

*Theme\_Keyword*:

**Environmental Monitoring** 

*Theme\_Keyword:* 

**ESI** 

*Theme\_Keyword:* 

Sensitivity maps

*Theme\_Keyword*:

Coastal resources

*Theme\_Keyword:* 

Oil spill planning

*Theme\_Keyword:* 

Coastal Zone Management

*Theme\_Keyword:* 

Wildlife

Theme\_Keyword:

Reptile

#### Theme:

Theme\_Keyword\_Thesaurus:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

#### Place:

*Place\_Keyword\_Thesaurus*:

None

*Place\_Keyword:* 

Southern California

Access\_Constraints:

None

#### *Use\_Constraints*:

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

derived from these data.

*Browse\_Graphic*:

Browse\_Graphic\_File\_Name:

datafig.jpg

*Browse\_Graphic\_File\_Description*:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

*Browse\_Graphic\_File\_Type*:

**JPEG** 

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

Native\_Data\_Set\_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

# *Logical\_Consistency\_Report*:

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 threatened/endangered reptile and amphibian distribution. These data do not necessarily represent all reptile occurrences in Southern California. 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; 5, Leatherback sea turtle, Dermochelys coriacea; 6, Loggerhead sea turtle, Caretta caretta; 54, California red-legged frog, Rana draytonii; 187, Arroyo toad, Anaxyrus californicus; 188, California Newt, Taricha torosa; 190, Southwestern pond turtle, Actinemys marmorata pallida; 191, Two-striped garter snake, Thamnophis hammondii; 195, Island night lizard, Xantusia riversiana.

#### Positional Accuracy:

*Horizontal\_Positional\_Accuracy*:

Horizontal\_Positional\_Accuracy\_Report:

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

```
Lineage:
     Source_Information:
          Source_Citation:
               Citation_Information:
                     Originator:
                          AVERY, J. (USFWS)
                     Publication_Date:
                          2009
                     Title:
                          USFWS RESOURCES IN SAN DIEGO AND ORANGE
                          COUNTIES
                     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:
                               2009
               Source Currentness Reference:
                     DATE OF COMMUNICATION
          Source_Citation_Abbreviation:
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          Source Contribution:
               REPTILES INFORMATION
     Source_Information:
          Source Citation:
               Citation_Information:
                     Originator:
                          BENSON, S. (NOAA)
                     Publication_Date:
                          2009
                     Title:
                          LEATHERBACK SEA TURTLE DISTRIBUTION AND
                          SEASONALITY IN SOUTHERN CALIFORNIA
                     Geospatial_Data_Presentation_Form:
                          EXPERT KNOWLEDGE
                     Other_Citation_Details:
                          UNPUBLISHED
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                          Calendar_Date:
                               2009
               Source_Currentness_Reference:
```

DATE OF COMMUNICATION

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Source_Citation_Abbreviation:
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     Source_Contribution:
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Source Information:
     Source Citation:
          Citation_Information:
                Originator:
                     CALIFORNIAHERPS.COM
                Publication Date:
                     2009
                Title:
                     CALIFORNIA REPTILES AND AMPHIBIANS
                Geospatial_Data_Presentation_Form:
                     HARDCOPY TEXT
                Online Linkage:
                     http://www.californiaherps.com/
     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:
          REPTILES INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
                Originator:
                     CDF&G BIOGEOGRAPHIC DATA BRANCH
                Publication_Date:
                     2009
                Title:
                     CALIFORNIA NATURAL DIVERSITY DATABASE
                     (CNDDB)
                Geospatial_Data_Presentation_Form:
                     vector digital data
                Publication_Information:
                     Publication_Place:
                          SACRAMENTO, CA
                     Publisher:
                          CDF&G BIOGEOGRAPHIC DATA BRANCH
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          online
     Source_Time_Period_of_Content:
          Time_Period_Information:
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Single_Date/Time:
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                         2009
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          REPTILES INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                    CDF&G, OFFICE OF SPILL PREVENTION AND
                    RESPONSE (OSPR), DEPARTMENT OF HOMELAND
                    SECURITY (DHS), UNITED STATES COAST GUARD
                    (USCG)
               Publication Date:
                    2008
               Title:
                    AREA CONTINGENCY PLAN (ACP) SECTOR LOS
                    ANGELES/LONG BEACH; 2008 USCG SECTOR SAN
                    DIEGO AREA CONTINGENCY PLAN (ACP)
               Geospatial Data Presentation Form:
                    HARDCOPY TEXT
               Other Citation Details:
                    USCG
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     Source_Time_Period_of_Content:
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                    Calendar_Date:
                         2008
          Source Currentness Reference:
               DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          REPTILES INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
               Originator:
                    DELITH, C. (USFWS)
               Publication Date:
                    2009
               Title:
                    THREATENED/ENDANGERED (T/E) SPECIES IN
                    VENTURA COUNTY
               Geospatial_Data_Presentation_Form:
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#### 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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source Citation Abbreviation:

**NONE** 

Source\_Contribution:

REPTILES INFORMATION

*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

DUTTON, P. (NOAA)

Publication\_Date:

2009

Title:

GREEN SEA TURTLE DISTRIBUTION AND SEASONALITY IN SOUTHERN CALIFORNIA

*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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

 $Source\_Citation\_Abbreviation:$ 

**NONE** 

Source Contribution:

REPTILES INFORMATION

Source\_Information:

Source Citation:

Citation\_Information:

Originator:

GOLD, J. (CDF&G OSPR)

Publication Date:

2009

*Title*:

## SOCECON AND BIOLOGICAL RESOURCE DISTRIBUTION FOR SANTA BARBARA AND VENTURA COUNTIES

*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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

REPTILES INFORMATION

*Source\_Information*:

*Source\_Citation*:

Citation\_Information:

Originator:

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL OCEAN SERVICE (NOS), OFFICE OF RESPONSE AND RESTORATION (OR&R), EMERGENCY RESPONSE DIVISION (ERD)

Publication Date:

2006

Title:

SENSITIVITY OF COASTAL ENVIRONMENTS TO SPILLED OIL: CENTRAL CALIFORNIA ATLAS

Geospatial Data Presentation Form:

atlas

Publication\_Information:

Publication Place:

SEATTLE, WA

Publisher:

**NOAA** 

Other Citation Details:

MONTEREY BAY NATIONAL MARINE SANCTUARY (MBNMS), CDF&G OSPR, AND MONTEREY BAY SANCTUARY FOUNDATION, NOAA 7600 SAND POINT WAY, SEATTLE, WA 98115-6349

Online\_Linkage:

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

*Type\_of\_Source\_Media*:

paper

Source\_Time\_Period\_of\_Content:

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Time Period Information:
               Single_Date/Time:
                     Calendar_Date:
                          2006
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          REPTILES INFORMATION
Source_Information:
     Source Citation:
          Citation Information:
               Originator:
                     NOAA NATIONAL MARINE FISHERIES SERVICE
                     (NMFS)
               Publication Date:
                     2001
               Title:
                     ENVIRONMENTAL ASSESSMENT: FIGURE 10
                     (LOGGERHEAD SEA TURTLE MAP)
               Geospatial_Data_Presentation_Form:
                     map
               Other_Citation_Details:
                     NOAA NMFS PROTECTED RESOURCES DIVISION,
     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:
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     Source Contribution:
          REPTILES INFORMATION
Source_Information:
     Source_Citation:
          Citation Information:
               Originator:
                     SAN DIEGO NATURAL HISTORY MUSEUM
               Publication Date:
                     2009
               Title:
                     BUFO CALIFORNICUS ARROYO TOAD
               Geospatial Data Presentation Form:
                     HARDCOPY TEXT
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Online\_Linkage:

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http://www.sdnhm.org/fieldguide/herps/bufo-cal.html
     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
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     Source Contribution:
          REPTILES INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
                Originator:
                     SCHALLMAN, B. (U.S. NAVY)
                Publication Date:
                     2009
                Title:
                     SPECIES DISTRIBUTION ON U.S. NAVY PROPERTY
                Geospatial Data Presentation Form:
                     EXPERT KNOWLEDGE
                Other Citation Details:
                     UNPUBLISHED
     Type_of_Source_Media:
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     Source Time Period of Content:
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     Source_Citation_Abbreviation:
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     Source Contribution:
          REPTILES INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
                Originator:
                     SMITH, R.
                Publication Date:
                     2009
                Title:
                     SNOWY PLOVER, LEAST TERN, AND OTHER
                     SPECIES SITES IN SANTA BARBARA AND VENTURA
                     COUNTIES
```

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Geospatial_Data_Presentation_Form:
                     EXPERT KNOWLEDGE
                Other_Citation_Details:
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     Source Contribution:
          REPTILES INFORMATION
Source_Information:
     Source_Citation:
           Citation_Information:
                Originator:
                     US NAVY
                Publication Date:
                     2009
                Title:
                     NIGHT LIZARDS
                Geospatial_Data_Presentation_Form:
                     vector digital data
                Other_Citation_Details:
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     Type_of_Source_Media:
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Source_Information:
     Source Citation:
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                Originator:
                     USFWS CARLSBAD OFFICE
                Publication Date:
                     2009
                Title:
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# SAN DIEGO COUNTY FEDERALLY LISTED SPECIES DISTRIBUTION AND SEASONALITY INFORMATION

*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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source Citation Abbreviation:

NONE

Source Contribution:

REPTILES INFORMATION

Process\_Step:

Process\_Description:

Three main sources of data were used to depict reptile distribution and seasonality for this data layer: 1) personal interviews with resource experts from U.S. Fish and Wildlife Service (USFWS), NOAA National Marine Fisheries Service (NMFS), U.S. Navy, CDF&G and the Audubon Society; 2) published and unpublished reports and maps; and 3) digital data provided by CDF&G and U.S. Navy. The above digital and/or hardcopy sources were compiled by the project biologist to create the REPTILES data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the REPTILES data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process Date:

201003

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
```

### **Back To Index**

```
Spatial_Data_Organization_Information:
     Direct_Spatial_Reference_Method:
           Vector
     Point_and_Vector_Object_Information:
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      GT-polygon composed of chains
                Point_and_Vector_Object_Count:
                      172
           SDTS Terms Description:
                SDTS_Point_and_Vector_Object_Type:
                      Area point
                Point_and_Vector_Object_Count:
                      173
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Complete chain
                Point_and_Vector_Object_Count:
                      433
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                Point_and_Vector_Object_Count:
                      122816
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Node, planar graph
                Point_and_Vector_Object_Count:
                      412
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#### **Back To Index**

Southern California ESI: REPTILES

```
Geographic:
                 Latitude Resolution:
                      0.0000001
                 Longitude_Resolution:
                      0.0000001
                 Geographic Coordinate Units:
                      Decimal degrees
           Geodetic_Model:
                 Horizontal Datum Name:
                      North American Datum of 1983
                 Ellipsoid Name:
                      Geodetic Reference System 80
                 Semi-major_Axis:
                      6378137.000000
                 Denominator_of_Flattening_Ratio:
                       298.257222
Entity_and_Attribute_Information:
     Detailed_Description:
```

#### Back To Index

```
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 rare and threatened/endangered
            reptile and amphibian distribution. Note that all attribute information is
            stored in a series of relational files, described below and in the
            Overview Description section. See the Browse Graphic section for a
            link to the entity-relationship diagram, which describes the relationships
            between attribute tables in the ESI data structure.
      Entity Type Definition Source:
            NOAA ESI Guidelines
Attribute:
      Attribute Label:
            ID
      Attribute_Definition:
            An identifier that links vector objects in the biology data layers to records
            in the BIO LUT data table. ID is a concatenation of atlas number (209),
            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:
                        2090600002
                  Range_Domain_Maximum:
                        2090600175
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:

209001248

Range\_Domain\_Maximum:

209001279

*Detailed\_Description*:

*Entity\_Type*:

Entity Type Label:

**BIO LUT** 

Entity\_Type\_Definition:

The data table BIO\_LUT is a lookup table that contains items necessary for linking vector objects in the biological data layers with the BIORES data table. Note that all attribute information is stored in a series of relational files, described below and in the Overview\_Description section. See the Browse Graphic section for a link to the entityrelationship 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:

209000001

Range\_Domain\_Maximum:

209001289

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 (209), 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:
                             2090100002
                       Range_Domain_Maximum:
                             2092200052
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:
                             209000001
                       Range_Domain_Maximum:
                             209001289
     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:
                       Range_Domain_Maximum:
     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 information was available, the field may contain descriptive terms such as "ABUNDANT", "PRIMARY", "SECONDARY", "POSSIBLE",

"RARE", etc. If no concentration information was available from any source, the field was populated with "-".

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute\_Label:

SEASON\_ID

*Attribute\_Definition*:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum:

Range\_Domain\_Maximum:

N

#### Attribute:

Attribute Label:

G SOURCE

Attribute Definition:

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

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

*Range\_Domain*:

*Range\_Domain\_Minimum*:

1

Range\_Domain\_Maximum:

N

#### Attribute:

Attribute Label:

S SOURCE

Attribute\_Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Range Domain:

Range\_Domain\_Minimum:

1
Range\_Domain\_Maximum:
N

Attribute:

*Attribute\_Label*:

**ELEMENT** 

Attribute\_Definition:

Major categories of biological data.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

**BIRD** 

Enumerated\_Domain\_Value\_Definition:

**Birds** 

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**FISH** 

Enumerated\_Domain\_Value\_Definition:

Fish

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**HABITAT** 

Enumerated\_Domain\_Value\_Definition:

Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**INVERT** 

Enumerated\_Domain\_Value\_Definition:

**Invertebrates** 

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

M MAMMAL

Enumerated\_Domain\_Value\_Definition:

Marine mammals

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

**REPTILE** 

*Enumerated\_Domain\_Value\_Definition*:

Reptiles and Amphibians

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

T\_MAMMAL

Enumerated\_Domain\_Value\_Definition:

Terrestrial mammals

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute:

Attribute\_Label:

EL SPE

*Attribute\_Definition*:

Concatenation of ELEMENT and SPECIES\_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute Definition Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated Domain Value:

E#####

*Enumerated\_Domain\_Value\_Definition*:

Where E is the first character of ELEMENT and the next five characters are SPECIES\_ID (e.g. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source*:

**NOAA ESI Guidelines** 

Attribute:

*Attribute\_Label*:

EL\_SPE\_SEA

Attribute\_Definition:

Concatenation of ELEMENT, SPECIES\_ID, and SEASON\_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated Domain Value:

E######

Enumerated\_Domain\_Value\_Definition:

Where E is the first character of ELEMENT, the next five characters are SPECIES\_ID, and the last two characters are SEASON\_ID (e.g. ELEMENT = 'BIRD', SPECIES\_ID = 1

# and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101'). Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines

*Detailed\_Description:* 

*Entity\_Type*:

Entity\_Type\_Label:

**SPECIES** 

*Entity\_Type\_Definition*:

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

Entity\_Type\_Definition\_Source:

NOAA ESI Guidelines

Attribute:

Attribute Label:

SPECIES ID

Attribute\_Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum:

.

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:

canine

Enumerated\_Domain\_Value\_Definition:

Canine

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:

kelp

Enumerated\_Domain\_Value\_Definition:

Kelp

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

lizard

*Enumerated\_Domain\_Value\_Definition*:

Lizard

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: 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: *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

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

NOAA ESI Guidelines

Enumerated\_Domain\_Value\_Definition\_Source:

sea otter

Enumerated\_Domain\_Value\_Definition:

Sea otter

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

shorebird

Enumerated\_Domain\_Value\_Definition:

Shorebird

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

shrimp

Enumerated\_Domain\_Value\_Definition:

Shrimp

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

*Attribute\_Domain\_Values*:

Enumerated Domain:

Enumerated\_Domain\_Value:

 $sm\_mammal$ 

Enumerated\_Domain\_Value\_Definition:

Small mammal

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated Domain Value:

snake

Enumerated\_Domain\_Value\_Definition:

Snake

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

turtle

Enumerated Domain Value Definition:

Turtle

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

upland

Enumerated\_Domain\_Value\_Definition:

Upland vegetation

```
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:

C

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:
                 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:
Attribute:
     Attribute_Label:
           JAN
     Attribute_Definition:
           January
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated Domain Value:
                 Enumerated_Domain_Value_Definition:
```

# Present in January

*Enumerated\_Domain\_Value\_Definition\_Source*: **NOAA ESI Guidelines** Attribute: *Attribute\_Label*: **FEB** Attribute\_Definition: **February** Attribute\_Definition\_Source: NOAA ESI Guidelines Attribute\_Domain\_Values: Enumerated\_Domain: Enumerated Domain Value: X Enumerated\_Domain\_Value\_Definition: Present in February Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines Attribute: Attribute Label: MAR *Attribute\_Definition*: March Attribute Definition Source: NOAA ESI Guidelines Attribute\_Domain\_Values: Enumerated\_Domain: Enumerated\_Domain\_Value: *Enumerated\_Domain\_Value\_Definition*: Present in March Enumerated\_Domain\_Value\_Definition\_Source: **NOAA ESI Guidelines** Attribute: Attribute Label: **APR** Attribute\_Definition: April Attribute\_Definition\_Source: NOAA ESI Guidelines Attribute\_Domain\_Values: Enumerated Domain: Enumerated\_Domain\_Value: X Enumerated\_Domain\_Value\_Definition: Present in April Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute:

Attribute Label: MAY

```
Attribute_Definition:
           May
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                      X
                 Enumerated_Domain_Value_Definition:
                      Present in May
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           JUN
     Attribute_Definition:
           June
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 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:
                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:
                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 lifehistory 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:

1

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:

Rirds

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:

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

Enumerated\_Domain\_Value:

```
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:
                 Enumerated_Domain_Value_Definition:
                       Endangered on state list
                 Enumerated_Domain_Value_Definition_Source:
                       NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                       Threatened on state list
                 Enumerated_Domain_Value_Definition_Source:
                       NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 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:
                 Enumerated_Domain_Value_Definition:
                      Endangered on federal list
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 Enumerated Domain Value Definition:
                      Threatened on federal list
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                      Species of Special Concern
                 Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           Ι
     Attribute Definition:
           International threatened or endangered status.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                      Endangered on international list
                 Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated Domain Value:
                 Enumerated_Domain_Value_Definition:
                      Threatened on international list
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated Domain Value:
                      \mathbf{C}
```

Attribute\_Domain\_Values:

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:

Range\_Domain\_Maximum:

Attribute:

Attribute\_Label:

**ORIGINATOR** 

Attribute Definition:

Author or developer of source material or data set.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

*Attribute\_Label*:

DATE\_PUB

Attribute\_Definition:

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

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

YYYYMM

Enumerated\_Domain\_Value\_Definition:

YYYY for year and optionally MM for month

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute Label:

TITLE

Attribute\_Definition:

Title of source material or data.

Attribute Definition Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

DATA\_FORMAT

Attribute Definition:

The format of the source material.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

PUB\_PLACE

Attribute\_Definition:

Publication place.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

**PUBLISHER** 

Attribute\_Definition:

Publisher.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLICATION** 

Attribute\_Definition:

Additional citation information.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

ONLINE LINK

Attribute\_Definition:

Online computer resource URL.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**SCALE** 

*Attribute\_Definition*:

Description of the source scale.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

TIME\_PERIOD

Attribute\_Definition:

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

Attribute Definition Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

Overview\_Description:

## Entity and Attribute Overview:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, 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 Southern California atlas, the number is 209), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in detail in the Detailed\_Description sections. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files 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 in the Detailed Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed Description section.

#### Entity and Attribute Detail Citation:

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

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### Distribution Information:

Distributor:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person:

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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

#### **Back To Index**

Metadata Reference Information:

Metadata Date:

20100927

*Metadata\_Review\_Date*:

Southern California ESI: REPTILES

## 20100927

## *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

Metadata Extensions:

Online\_Linkage:

http://www.ncddc.noaa.gov/metadataresource/metadata-

references/files/ncddcmdprofile v2.pdf

*Profile\_Name*:

Content Specification for Metadata in the National Coastal Data Development Center's Data Catalog Version 2.0

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# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: M\_MAMMAL (Marine Mammal Polygons)

# **Metadata:**

- Identification Information
- Data\_Quality\_Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata\_Reference\_Information

## Identification\_Information:

#### 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.

## *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

## Publication\_Date:

201003

## *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: M\_MAMMAL (Marine Mammal Polygons)

### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

Series\_Information:

Series Name:

None

Issue\_Identification:

Southern California

## *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, sea lions, whales, dolphins, porpoises, and sea otters in Southern California. Vector polygons in this data set represent marine mammal distribution, haul-out sites, and rookeries. 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 Southern California. 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:

1998

Ending\_Date:

2010

## Currentness\_Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 1998 to 2010 and are documented in the Lineage section.

## Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

Spatial Domain:

Bounding\_Coordinates:

*West\_Bounding\_Coordinate:* 

-120.60100

East Bounding Coordinate:

-117.00100

*North\_Bounding\_Coordinate*:

34.50000

*South\_Bounding\_Coordinate*:

32.44500

## Keywords:

Theme:

*Theme\_Keyword\_Thesaurus*:

ISO 19115 Topic Category

*Theme\_Keyword:* 

biota

*Theme\_Keyword:* 

environment

## Theme:

Theme\_Keyword\_Thesaurus:

None

*Theme\_Keyword*:

**Environmental Monitoring** 

*Theme\_Keyword*:

**ESI** 

*Theme\_Keyword:* 

Sensitivity maps

*Theme\_Keyword:* 

Coastal resources

Theme\_Keyword:

Oil spill planning

*Theme\_Keyword:* 

Coastal Zone Management

Theme\_Keyword:

Wildlife

*Theme\_Keyword:* 

Marine Mammal

## Theme:

*Theme\_Keyword\_Thesaurus*:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

#### Place:

*Place\_Keyword\_Thesaurus*:

None

*Place\_Keyword:* 

Southern California

Access Constraints:

None

#### *Use\_Constraints*:

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

derived from these data.

*Browse\_Graphic*:

Browse\_Graphic\_File\_Name:

datafig.jpg

*Browse\_Graphic\_File\_Description*:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

*Browse\_Graphic\_File\_Type*:

**JPEG** 

Data\_Set\_Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

*Native\_Data\_Set\_Environment:* 

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

## Logical\_Consistency\_Report:

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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, haul-out sites, and rookeries. These data do not necessarily represent all marine mammal occurrences in Southern California. The following species are included in this data set: (Species\_ID, Common Name, Scientific Name [n/a if not applicable]): 3, Northern fur seal, Callorhinus ursinus; 4, Killer whale, Orcinus orca; 7, Sea otter, Enhydra lutris; 11, Fin whale, Balaenoptera physalus; 12, Minke whale, Balaenoptera acutorostrata; 13, Humpback whale, Megaptera novaeangliae; 17, Bottlenose dolphin, Tursiops truncatus; 19, Short-finned pilot whale, Globicephala macrorhynchus; 20, Northern right-whale dolphin, Lissodelphis borealis; 22, California sea lion, Zalophus californianus; 23, Guadalupe fur seal, Arctocephalus townsendi; 24, Northern elephant seal, Mirounga angustirostris; 26, Gray whale, Eschrichtius robustus; 29, Blue whale, Balaenoptera musculus; 45, Pacific white-sided dolphin, Lagenorhynchus obliquidens; 46, Risso's dolphin, Grampus griseus; 47, Dall's porpoise, Phocoenoides dalli dalli; 48, Sperm whale, Physeter macrocephalus; 60, Short-beaked saddleback dolphin, Delphinus delphis; 88, Bryde's whale, Balaenoptera edeni; 96, Cuvier's beaked whale, Ziphius cavirostris; 98, Baird's beaked whale, Berardius bairdii; 99, Pacific harbor seal, Phoca vitulina richardii; 100, Striped dolphin, Stenella coeruleoalba; 106, Long-beaked saddleback dolphin, Delphinus capensis; 107, North Pacific right whale, Eubalaena japonica; 1000, Whales, n/a; 1005, Mesoplodont beaked whales, Mesoplodon 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 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process\_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

```
Lineage:
     Source Information:
          Source Citation:
               Citation_Information:
                    Originator:
                         CDF&G, OFFICE OF SPILL PREVENTION AND
                         RESPONSE (OSPR), DEPARTMENT OF HOMELAND
                         SECURITY (DHS), UNITED STATES COAST GUARD
                         (USCG)
                    Publication_Date:
                         2008
                    Title:
                         AREA CONTINGENCY PLAN (ACP) SECTOR LOS
                         ANGELES/LONG BEACH; 2008 USCG SECTOR SAN
                         DIEGO AREA CONTINGENCY PLAN (ACP)
                    Geospatial_Data_Presentation_Form:
                         HARDCOPY TEXT
                    Other_Citation_Details:
                         USCG
          Type_of_Source_Media:
               online
          Source_Time_Period_of_Content:
               Time_Period_Information:
                    Single Date/Time:
                         Calendar_Date:
                              2008
               Source_Currentness_Reference:
                    DATE OF PUBLICATION
          Source_Citation_Abbreviation:
               NONE
          Source Contribution:
               M_MAMMAL INFORMATION
     Source_Information:
          Source Citation:
               Citation_Information:
                    Originator:
                         FAULKNER, K. (National Park Service)
                    Publication Date:
```

2010

Title:

#### CHANNEL ISLANDS NATIONAL PARK 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:

2010

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

*Source\_Citation\_Abbreviation*:

**NONE** 

Source Contribution:

M MAMMAL INFORMATION

*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

FAULKNER, K., CHANNEL ISLANDS NATIONAL

PARK (CINP)

Publication\_Date:

2009

Title:

CHANNEL ISLANDS SPECIES DISTRIBUTION

*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:

2009

*Source\_Currentness\_Reference*:

DATE OF COMMUNICATION

Source Citation Abbreviation:

**NONE** 

*Source\_Contribution*:

M\_MAMMAL INFORMATION

*Source\_Information*:

Source Citation:

Citation\_Information:

Originator:

GOLD, J. (CDF&G OSPR)

*Publication\_Date*:

2009

Title:

SOCECON AND BIOLOGICAL RESOURCE DISTRIBUTION FOR SANTA BARBARA AND VENTURA COUNTIES

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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source\_Contribution:

M\_MAMMAL INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

KOSKI, W.R., J.W. LAWSON, D.H. THOMSON, AND W.J. RICHARDSON

*Publication\_Date*:

1998

Title:

POINT MUGU SEA RANGE MARINE MAMMAL TECHNICAL REPORT

*Geospatial\_Data\_Presentation\_Form*:

HARDCOPY TEXT

Other\_Citation\_Details:

LGL LIMITED, OGDEN ENVIRONMENTAL, NAVAL AIR WARFARE CENTER WEAPONS DIVISON, AND SOUTHWEST DIVISION NAVAL FACILITIES ENGINEERING COMMAND. 281 PP. + APPENDICES.

*Type\_of\_Source\_Media*:

paper

*Source\_Time\_Period\_of\_Content:* 

*Time\_Period\_Information*:

Single Date/Time:

Calendar Date:

1998

Source\_Currentness\_Reference:

DATE OF PUBLICATION

Source\_Citation\_Abbreviation:

**NONE** 

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Source Contribution:
          M MAMMAL INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     LOWRY, M. (NATIONAL MARINE FISHERIES
                     SERVICE (NMFS), LA JOLLA)
                Publication Date:
                     2009
                Title:
                     CSL NONROOK SCB
                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:
                          2007
          Source_Currentness_Reference:
                DATE OF SURVEY
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          M_MAMMAL INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
                Originator:
                     LOWRY, M. (NATIONAL MARINE FISHERIES
                     SERVICE (NMFS), LA JOLLA)
                Publication_Date:
                     2009
                Title:
                     CSL PHOTO COUNTS
                Geospatial_Data_Presentation_Form:
                     spreadsheet
                Other_Citation_Details:
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     Type_of_Source_Media:
          EMAIL
     Source_Time_Period_of_Content:
          Time Period Information:
                Range_of_Dates/Times:
                     Beginning_Date:
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2005
                     Ending_Date:
                          2007
          Source_Currentness_Reference:
               DATE OF SURVEY
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          M_MAMMAL INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                     LOWRY, M. (NATIONAL MARINE FISHERIES
                     SERVICE (NMFS), LA JOLLA)
               Publication Date:
                     2009
               Title:
                     NES GROUND COUNTS
               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:
                          2006
                     Ending_Date:
                          2008
          Source_Currentness_Reference:
               DATE OF SURVEY
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          M_MAMMAL INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                     LOWRY, M. (NATIONAL MARINE FISHERIES
                     SERVICE (NMFS), LA JOLLA)
               Publication Date:
                     2009
               Title:
                     NES PT. CONCEPTION PHOTO COUNTS
               Geospatial Data Presentation Form:
                     spreadsheet
```

Other\_Citation\_Details:

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UNPUBLISHED
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                          2005
                     Ending_Date:
                          2005
          Source_Currentness_Reference:
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     Source_Contribution:
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     Source Citation:
          Citation_Information:
               Originator:
                     LOWRY, M. (NATIONAL MARINE FISHERIES
                     SERVICE (NMFS), LA JOLLA)
               Publication Date:
                     2009
               Title:
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               Geospatial_Data_Presentation_Form:
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                          2001
                     Ending_Date:
                          2005
          Source_Currentness_Reference:
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          M MAMMAL INFORMATION
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          Citation_Information:
                Originator:
                     LOWRY, M. (NATIONAL MARINE FISHERIES
                     SERVICE (NMFS), LA JOLLA)
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Publication Date:
                    2009
               Title:
                    PACIFIC HARBOR SEAL (PHS) COUNTS SOUTH CA
               Geospatial_Data_Presentation_Form:
                    spreadsheet
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                    Beginning_Date:
                          2002
                    Ending Date:
                          2007
          Source_Currentness_Reference:
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     Source Citation Abbreviation:
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     Source_Contribution:
          M MAMMAL INFORMATION
Source Information:
     Source_Citation:
          Citation_Information:
               Originator:
                    NOAA NMFS SOUTHWEST FISHERIES SCIENCE
                    CENTER (SWFSC)
               Publication Date:
                    2009
               Title:
                    CETACEAN DISTRIBUTION AND SEASONALITY IN
                    SOUTHERN CALIFORNIA
               Geospatial_Data_Presentation_Form:
                    HARDCOPY MAP
               Other_Citation_Details:
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          Time Period Information:
               Single_Date/Time:
                    Calendar_Date:
                          2009
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source_Citation_Abbreviation:
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     Source Contribution:
          M_MAMMAL INFORMATION
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Source Citation:
          Citation_Information:
               Originator:
                    PRYOR, D.
               Publication Date:
                    2009
               Title:
                    SPECIES DISTRIBUTION, LOS ANGELES COUNTY
               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:
                          2009
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          M_MAMMAL INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
               Originator:
                    RYAN, T.
               Publication_Date:
                    2009
               Title:
                    SNOWY PLOVER AND OTHER SPECIES
                    DISTRIBUTION AND SEASONALITY IN SOUTHERN
                    CALIFORNIA
               Geospatial_Data_Presentation_Form:
                    EXPERT KNOWLEDGE
               Other_Citation_Details:
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                    Calendar_Date:
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     Source_Citation_Abbreviation:
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Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                    SCHALLMAN, B. (U.S. NAVY)
               Publication Date:
                    2009
               Title:
                    SPECIES DISTRIBUTION ON U.S. NAVY PROPERTY
               Geospatial Data Presentation Form:
                    EXPERT KNOWLEDGE
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     Source Contribution:
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     Source Citation:
          Citation Information:
               Originator:
                    SENYK, N. (CHANNEL ISLANDS NATIONAL MARINE
                    SANCTUARY)
               Publication_Date:
                    2009
               Title:
                    CHANNEL ISLANDS NATIONAL MARINE
                    SANCTUARY SPECIES
               Geospatial_Data_Presentation_Form:
                    EXPERT KNOWLEDGE
               Other_Citation_Details:
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     Type of Source Media:
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          Time_Period_Information:
               Single Date/Time:
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Calendar\_Date: 2009

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Source_Currentness_Reference:
DATE OF COMMUNICATION
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Source\_Citation\_Abbreviation:

**NONE** 

Source Contribution:

M MAMMAL INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

SMITH, R.

Publication Date:

2009

Title:

SNOWY PLOVER, LEAST TERN, AND OTHER SPECIES SITES IN SANTA BARBARA AND VENTURA COUNTIES

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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source\_Contribution:

M MAMMAL INFORMATION

Source Information:

*Source\_Citation*:

Citation\_Information:

Originator:

TINKER, T. (UCSC)

*Publication\_Date*:

2005

*Title*:

SEA OTTER SEASONALITY

Geospatial\_Data\_Presentation\_Form:

EXPERT KNOWLEDGE

Other Citation Details:

**UNPUBLISHED** 

*Type\_of\_Source\_Media*:

PERSONAL COMMUNICATION

Source\_Time\_Period\_of\_Content:

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Single_Date/Time:
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                          2005
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     Source_Contribution:
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Source_Information:
     Source_Citation:
           Citation_Information:
                Originator:
                     TINKER, T. (UCSC)
                Publication_Date:
                     2005
                Title:
                     SEA OTTERS
                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:
                          2005
          Source_Currentness_Reference:
                DATE OF COMMUNICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          M MAMMAL INFORMATION
Source_Information:
     Source_Citation:
           Citation_Information:
                Originator:
                     U.S. GEOLOGICAL SURVEY
                Publication_Date:
                     2008
                Title:
                     CENSUS_SUM_08
                Geospatial_Data_Presentation_Form:
                     vector digital data
                Online_Linkage:
                     http://www.werc.usgs.gov/otters/ca-surveys.html
     Type_of_Source_Media:
          online
     Source_Time_Period_of_Content:
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*Time\_Period\_Information*:

Single\_Date/Time:

Calendar\_Date:

2008

Source\_Currentness\_Reference:

DATE OF SURVEY

*Source\_Citation\_Abbreviation*:

**NONE** 

Source Contribution:

M MAMMAL INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

Originator:

**US NAVY** 

Publication Date:

2001

*Title*:

**SEA OTTERS** 

Geospatial\_Data\_Presentation\_Form:

vector digital data

*Other\_Citation\_Details*:

DELINEATES WHERE SEA OTTERS ARE MOST OFTEN SEEN AROUND SAN NICOLAS ISLAND

*Type\_of\_Source\_Media*:

**EMAIL** 

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:

M\_MAMMAL INFORMATION

Process\_Step:

*Process\_Description*:

Three main sources of data were used to depict marine mammal distribution and seasonality for this data layer: 1) personal interviews with resource experts from NOAA National Marine Fisheries Service (NMFS) Southwest Fisheries Science Center (SWFSC), California State Parks (CSP), Ryan Ecological Consulting, U.S. Navy, Audubon Society, Channel Island National Marine Sanctuary (CINMS), University of California Santa Cruz (UCSC), National Park Service (NPS) Channel Islands National Park (CINP), and CDF&G; 2) published reports provided by CDF&G and NOAA; and 3) digital survey data, digital maps, and shapefiles provided by U.S. Geological Survey (USGS), NOAA NMFS SWFSC, and the U.S. Navy. The above digital and/or hardcopy sources were compiled by the project biologist to create the

M\_MAMMAL data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the M\_MAMMAL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

```
Process Date:
     201003
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
```

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```
Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method:
    Vector

Point_and_Vector_Object_Information:
    SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type:
    GT-polygon composed of chains
    Point_and_Vector_Object_Count:
    308

SDTS_Terms_Description:
```

```
SDTS_Point_and_Vector_Object_Type:
           Area point
     Point_and_Vector_Object_Count:
           309
SDTS_Terms_Description:
     SDTS_Point_and_Vector_Object_Type:
           Complete chain
     Point_and_Vector_Object_Count:
           1084
SDTS_Terms_Description:
     SDTS_Point_and_Vector_Object_Type:
           Link
     Point and Vector Object Count:
           266794
SDTS_Terms_Description:
     SDTS Point and Vector Object Type:
           Node, planar graph
     Point_and_Vector_Object_Count:
           885
```

#### **Back To Index**

```
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
```

#### **Back To Index**

```
Entity_and_Attribute_Information:
    Detailed_Description:
        Entity_Type:
        Entity_Type_Label:
        M_MAMMAL.PAT
        Entity_Type_Definition:
```

The M\_MAMMAL.PAT table contains attribute information for the vector polygons in this data set representing marine mammal distribution, haul-out sites, and rookeries. Note that all attribute information is stored in a series of relational files, described below and in the

Overview\_Description section. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity\_Type\_Definition\_Source:

NOAA ESI Guidelines

#### Attribute:

Attribute\_Label:

ID

Attribute\_Definition:

An identifier that links vector objects in the biology data layers to records in the BIO\_LUT data table. ID is a concatenation of atlas number (209), 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*:

2090400002

Range\_Domain\_Maximum:

2090400315

#### 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:

109001097

Range\_Domain\_Maximum: 109001247

*Detailed\_Description*:

*Entity\_Type*:

Entity\_Type\_Label:

**BIO LUT** 

*Entity\_Type\_Definition*:

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

Entity Type Definition Source:

**NOAA ESI Guidelines** 

Attribute:

```
Attribute Label:
                  RARNUM
            Attribute_Definition:
                  An identifier that links records in the BIO LUT data table to records in
                  the BIORES data table or the flat format BIOFILE data table. RARNUM
                  values of 0 are holes in polygons and do not contain information.
            Attribute_Definition_Source:
                  NOAA
            Attribute Domain Values:
                  Range Domain:
                        Range_Domain_Minimum:
                              209000001
                        Range Domain Maximum:
                              209001289
     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 (209),
                  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:
                              2090100002
                        Range_Domain_Maximum:
                              2092200052
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:
                       209000001
                 Range_Domain_Maximum:
                       209001289
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:
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.) or a range of
            counts of individuals (XX-XX INDIV.). Counts were primarily used for
            pinnipeds. When no quantitative count information was available, the
           field may contain descriptive terms such as "VERY HIGH" or
           "PRIMARY", "SECONDARY", "RARE" (used for cetaceans, mostly). If
            no concentration information was available from any source, the field
            was populated with "-". Counts were derived from a variety of surveys,
            and may range in date (see Lineage).
     Attribute Definition Source:
            NOAA ESI Guidelines
      Attribute_Domain_Values:
            Unrepresentable_Domain:
                 Acceptable values change from atlas to atlas.
Attribute:
      Attribute_Label:
            SEASON_ID
      Attribute Definition:
            Numeric identifier for the unique monthly presence and life history
            characteristics of each species at a given location.
      Attribute Definition Source:
            NOAA ESI Guidelines
      Attribute_Domain_Values:
            Range_Domain:
                 Range Domain Minimum:
                 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:
                 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:
                 Range_Domain_Maximum:
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:
```

*Enumerated\_Domain\_Value\_Definition\_Source*:

```
NOAA ESI Guidelines
```

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**HABITAT** 

*Enumerated\_Domain\_Value\_Definition*:

Habitats and plants

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**INVERT** 

*Enumerated\_Domain\_Value\_Definition*:

Invertebrates

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

M MAMMAL

Enumerated\_Domain\_Value\_Definition:

Marine mammals

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**REPTILE** 

Enumerated Domain Value Definition:

Reptiles and Amphibians

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

T\_MAMMAL

Enumerated\_Domain\_Value\_Definition:

Terrestrial mammals

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute\_Label:

EL\_SPE

*Attribute\_Definition*:

Concatenation of ELEMENT and SPECIES\_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

E#####

*Enumerated\_Domain\_Value\_Definition*:

Where E is the first character of ELEMENT and the next five characters are SPECIES\_ID (e.g. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute:

Attribute\_Label:

EL\_SPE\_SEA

Attribute\_Definition:

Concatenation of ELEMENT, SPECIES\_ID, and SEASON\_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

*Attribute\_Definition\_Source*:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

E#######

Enumerated\_Domain\_Value\_Definition:

Where E is the first character of ELEMENT, the next five characters are SPECIES\_ID, and the last two characters are SEASON\_ID (e.g. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

 $Enumerated\_Domain\_Value\_Definition\_Source:$ 

**NOAA ESI Guidelines** 

Detailed Description:

Entity\_Type:

Entity\_Type\_Label:

**SPECIES** 

*Entity\_Type\_Definition*:

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

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

*Attribute\_Label*:

SPECIES\_ID

Attribute\_Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Range\_Domain:

```
Range_Domain_Maximum:
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:
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated Domain Value:
                      HABITAT
```

Range\_Domain\_Minimum:

*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:

canine

Enumerated\_Domain\_Value\_Definition:

Canine

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:

kelp

Enumerated\_Domain\_Value\_Definition:

Kelp

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

lizard

Enumerated\_Domain\_Value\_Definition:

Lizard

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:

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:

sea otter

Enumerated\_Domain\_Value\_Definition:

Sea otter

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

shorebird

*Enumerated\_Domain\_Value\_Definition*:

Shorebird

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

shrimp

Enumerated\_Domain\_Value\_Definition:

Shrimp

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated Domain Value:

sm\_mammal

Enumerated Domain Value Definition:

Small mammal

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

snake

*Enumerated\_Domain\_Value\_Definition*:

Snake

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

turtle

*Enumerated\_Domain\_Value\_Definition*:

Turtle

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

upland

Enumerated\_Domain\_Value\_Definition:

Upland vegetation

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:

V

```
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:
                 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:
                 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:
                 Enumerated_Domain_Value_Definition:
                       Present in February
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           MAR
     Attribute_Definition:
           March
     Attribute_Definition_Source:
           NOAA ESI Guidelines
```

```
Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Present in March
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           APR
     Attribute_Definition:
           April
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                      X
                Enumerated_Domain_Value_Definition:
                      Present in April
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           MAY
     Attribute_Definition:
           May
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                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*: Ш Attribute\_Definition: July Attribute\_Definition\_Source: NOAA ESI Guidelines Attribute Domain Values: Enumerated\_Domain: Enumerated\_Domain\_Value: 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: 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: 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:
                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 lifehistory 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:

V

*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:

-

 $Range\_Domain\_Maximum$ :

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:

F

Enumerated\_Domain\_Value\_Definition:

Endangered on state list

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

Т

Enumerated\_Domain\_Value\_Definition:

Threatened on state list

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

(

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:

Т

*Enumerated\_Domain\_Value\_Definition*:

Threatened on federal list

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

C

Enumerated\_Domain\_Value\_Definition:

Species of Special Concern

Enumerated Domain Value Definition Source:

**NOAA ESI Guidelines** 

Attribute:

```
Attribute Label:
     Attribute_Definition:
           International threatened or endangered status.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated Domain Value:
                 Enumerated_Domain_Value_Definition:
                      Endangered on international list
                 Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                      Threatened on international list
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 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:

Range\_Domain\_Maximum:

#### Attribute:

Attribute Label:

ORIGINATOR

*Attribute\_Definition*:

Author or developer of source material or data set.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute\_Label:

DATE PUB

Attribute Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

**YYYYMM** 

Enumerated\_Domain\_Value\_Definition:

YYYY for year and optionally MM for month

 $Enumerated\_Domain\_Value\_Definition\_Source:$ 

NOAA ESI Guidelines

#### *Attribute*:

Attribute Label:

**TITLE** 

*Attribute\_Definition*:

Title of source material or data.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

DATA FORMAT

Attribute\_Definition:

The format of the source material.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

PUB\_PLACE

Attribute\_Definition:

Publication place.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

 $Unrepresentable\_Domain:$ 

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLISHER** 

Attribute Definition:

Publisher.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**PUBLICATION** 

*Attribute\_Definition*:

Additional citation information.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

ONLINE LINK

Attribute Definition:

Online computer resource URL.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**SCALE** 

Attribute Definition:

Description of the source scale.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

TIME PERIOD

Attribute\_Definition:

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

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Overview\_Description:

Entity\_and\_Attribute\_Overview:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, 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 Southern California atlas, the number is 209), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in detail in the Detailed\_Description sections. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files 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 in the Detailed Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed Description section.

Entity\_and\_Attribute\_Detail\_Citation:

A complete description of entity types, attributes, and attribute values for ESI atlases can be found in the NOAA ESI Guidelines

(http://response.restoration.noaa.gov/esi\_guidelines).

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```
Distribution Information:
     Distributor:
           Contact_Information:
                 Contact Person Primary:
                       Contact Person:
                             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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

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```
Metadata_Reference_Information:
     Metadata Date:
           20100927
     Metadata Review Date:
           20100927
     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

*Metadata\_Extensions*:

Online\_Linkage:

http://www.ncddc.noaa.gov/metadataresource/metadata-

references/files/ncddcmdprofile\_v2.pdf

Profile\_Name:

Content Specification for Metadata in the National Coastal Data Development Center's Data Catalog Version 2.0

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# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: T\_MAMMAL (Terrestrial Mammal Polygons)

# **Metadata:**

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- <u>Distribution\_Information</u>
- 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.

#### Originator:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

# Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

# Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: T\_MAMMAL (Terrestrial Mammal Polygons)

#### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

Series\_Information:

Series Name:

None

Issue\_Identification:

Southern California

# *Publication\_Information*:

Publication\_Place:

Seattle, Washington

Publisher:

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

*Other\_Citation\_Details*:

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

Online\_Linkage:

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

# Description:

# Abstract:

This data set contains sensitive biological resource data for rare and threatened/endangered terrestrial mammals in Southern California. Vector polygons in this data set represent distribution of rare terrestrial mammals. 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 Southern California. 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:

1990

Ending\_Date:

2009

# *Currentness\_Reference*:

The data were compiled during 2008-2010. The currentness dates for the data range from 1990 to 2009 and are documented in the Lineage section.

# Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

Spatial Domain:

Bounding\_Coordinates:

*West\_Bounding\_Coordinate:* 

-120.60100

East Bounding Coordinate:

-117.00100

*North\_Bounding\_Coordinate*:

34.50000

*South\_Bounding\_Coordinate*:

32.44500

# 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

#### Theme:

Theme\_Keyword\_Thesaurus:

NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

#### Place:

*Place\_Keyword\_Thesaurus*:

None

*Place\_Keyword:* 

Southern California

Access Constraints:

None

#### *Use\_Constraints*:

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

derived from these data.

*Browse\_Graphic*:

Browse\_Graphic\_File\_Name:

datafig.jpg

*Browse\_Graphic\_File\_Description*:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California 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 Southern California ESI data.

*Browse\_Graphic\_File\_Type*:

**JPEG** 

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

*Native\_Data\_Set\_Environment:* 

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

# *Logical\_Consistency\_Report*:

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 distribution of rare terrestrial mammals. These data do not necessarily represent all terrestrial mammal occurrences in Southern California. The following species are included in this data set: (Species\_ID, Common Name, Scientific Name [n/a if not applicable]): 263, Pacific pocket mouse, Perognathus longimembris pacificus; 264, San Diego black-tailed jackrabbit, Lepus californicus bennettii; 265, Western harvest mouse, Reithrodontomys megalotis; 268, San Miguel island fox, Urocyon littoralis littoralis; 269, Santa Rosa island fox, Urocyon littoralis santacruzae; 270, Santa Cruz island fox, Urocyon littoralis santacruzae; 271, Santa Catalina island fox, Urocyon littoralis catalinae; 272, Anacapa deermouse, Peromyscus maniculatus anacapae; 273, Channel Islands spotted skunk, Spilogale gracilis amphialus.

# Positional\_Accuracy:

*Horizontal\_Positional\_Accuracy*:

Horizontal\_Positional\_Accuracy\_Report:

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

on the original source data and how these data were integrated or manipulated to create the final data set.

```
Lineage:
```

*Source\_Information*:

Source\_Citation:

Citation\_Information:

*Originator*:

BRUBAKER, D. (USFWS)

Publication Date:

2009

Title:

NATIONAL WILDLIFE REFUGE RESOURCES IN SOUTHERN CALIFORNIA

*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:

2009

Source\_Currentness\_Reference:

DATE OF COMMUNICATION

Source\_Citation\_Abbreviation:

**NONE** 

Source\_Contribution:

T MAMMAL INFORMATION

*Source\_Information*:

Source\_Citation:

Citation\_Information:

*Originator*:

CDF&G BIOGEOGRAPHIC DATA BRANCH

*Publication\_Date*:

2009

Title:

CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB)

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

*Publication\_Information*:

Publication\_Place:

SACRAMENTO, CA

Publisher:

CDF&G BIOGEOGRAPHIC DATA BRANCH

*Type\_of\_Source\_Media*:

online

*Source\_Time\_Period\_of\_Content:* 

*Time\_Period\_Information*:

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Single_Date/Time:
                    Calendar Date:
                         2009
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source Citation Abbreviation:
          NONE
     Source_Contribution:
          T MAMMAL INFORMATION
Source_Information:
     Source_Citation:
          Citation_Information:
               Originator:
                    CDF&G, OFFICE OF SPILL PREVENTION AND
                    RESPONSE (OSPR), DEPARTMENT OF HOMELAND
                    SECURITY (DHS), UNITED STATES COAST GUARD
                    (USCG)
               Publication Date:
                    2008
               Title:
                    AREA CONTINGENCY PLAN (ACP) SECTOR LOS
                    ANGELES/LONG BEACH; 2008 USCG SECTOR SAN
                    DIEGO AREA CONTINGENCY PLAN (ACP)
               Geospatial Data Presentation Form:
                    HARDCOPY TEXT
               Other Citation Details:
                    USCG
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     Source_Time_Period_of_Content:
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               Single_Date/Time:
                    Calendar_Date:
                         2008
          Source Currentness Reference:
               DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
     Source Contribution:
          T_MAMMAL INFORMATION
Source_Information:
     Source Citation:
          Citation_Information:
               Originator:
                    FOSTER, B. (AVIAN RESEARCH ASSOCIATES)
               Publication Date:
                    2009
               Title:
                    SAN DIEGO COUNTY SPECIES
               Geospatial_Data_Presentation_Form:
                    EXPERT KNOWLEDGE
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Other_Citation_Details:
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     Source_Time_Period_of_Content:
          Time_Period_Information:
                Single_Date/Time:
                     Calendar_Date:
                          2009
          Source_Currentness_Reference:
                DATE OF COMMUNICATION
     Source_Citation_Abbreviation:
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          T_MAMMAL INFORMATION
Source Information:
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          Citation_Information:
                Originator:
                     USFWS
                Publication_Date:
                     1998
                Title:
                     RECOVERY PLAN FOR THE PACIFIC POCKET
                     MOUSE
                Geospatial_Data_Presentation_Form:
                     HARDCOPY TEXT
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                     Publication_Place:
                          PORTLAND, OR.
                     Publisher:
                          USFWS
                Other_Citation_Details:
                     PORTLAND, OR. 112 PP.
     Type_of_Source_Media:
          online
     Source_Time_Period_of_Content:
          Time_Period_Information:
                Single_Date/Time:
                     Calendar_Date:
                          1998
          Source_Currentness_Reference:
               DATE OF PUBLICATION
     Source_Citation_Abbreviation:
          NONE
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Source Contribution:

Source Citation:

*Source\_Information*:

T\_MAMMAL INFORMATION

Citation\_Information: Originator:

```
VERMEER, L. (THE NATURE CONSERVANCY)
          Publication Date:
               2009
          Title:
               THE NATURE CONSERVANCY RESOURCES IN THE
               CHANNEL ISLANDS
          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:
                    2009
     Source_Currentness_Reference:
          DATE OF COMMUNICATION
Source Citation Abbreviation:
Source Contribution:
     T MAMMAL INFORMATION
Source_Citation:
     Citation_Information:
          Originator:
               ZEINER, D.C., W.F. LAUDENSLAYER, JR., K.E.
               MAYER, AND M. WHITE.
          Publication Date:
               1990
          Title:
               LIFE HISTORY ACCOUNTS FOR SPECIES IN THE
               CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS
               (CWHR) SYSTEM. CAL'S WILDLIFE. VOL. I-III.
          Geospatial_Data_Presentation_Form:
               HARDCOPY TEXT
          Publication_Information:
               Publication Place:
                    SACRAMENTO, CA.
               Publisher:
                    CALIFORNIA DEPT. OF FISH AND GAME
Type_of_Source_Media:
Source Time Period of Content:
     Time_Period_Information:
          Single_Date/Time:
               Calendar_Date:
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**NONE** 

online

1990

DATE OF PUBLICATION

Source\_Currentness\_Reference:

Source Information:

Source\_Citation\_Abbreviation:

**NONE** 

*Source\_Contribution*:

T MAMMAL INFORMATION

*Process\_Step*:

*Process\_Description*:

Three main sources of data were used to depict terrestrial mammal distribution and seasonality for this data layer: 1) personal interviews with resource experts from U.S. Fish and Wildlife Service (USFWS), Avian Research Associates, and The Nature Conservancy; 2) published reports provided by CDF&G; and 3) digital data provided by CDF&G. The above digital and/or hardcopy sources were compiled by the project biologist to create the T MAMMAL data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the T MAMMAL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process Date:

201003

*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

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```
Spatial_Data_Organization_Information:
     Direct_Spatial_Reference_Method:
           Vector
     Point_and_Vector_Object_Information:
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      GT-polygon composed of chains
                Point_and_Vector_Object_Count:
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Area point
                Point_and_Vector_Object_Count:
                      84
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Complete chain
                Point_and_Vector_Object_Count:
                      142
           SDTS_Terms_Description:
                SDTS_Point_and_Vector_Object_Type:
                      Link
                Point_and_Vector_Object_Count:
                      31768
           SDTS Terms Description:
                SDTS_Point_and_Vector_Object_Type:
                      Node, planar graph
                Point_and_Vector_Object_Count:
                      139
```

## **Back To Index**

```
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

```
Back To Index
```

```
Entity_and_Attribute_Information:
     Detailed_Description:
           Entity_Type:
                 Entity Type Label:
                        T MAMMAL.PAT
                 Entity_Type_Definition:
                        The T MAMMAL.PAT table contains attribute information for the
                        vector polygons in this data set representing distribution of rare terrestrial
                        mammals. Note that all attribute information is stored in a series of
                        relational files, described below and in the Overview Description
                        section. See the Browse Graphic section for a link to the entity-
                        relationship diagram, which describes the relationships between attribute
                        tables in the ESI data structure.
                 Entity Type Definition Source:
                       NOAA ESI Guidelines
           Attribute:
                 Attribute_Label:
                       ID
                 Attribute_Definition:
                        An identifier that links vector objects in the biology data layers to records
                        in the BIO LUT data table. ID is a concatenation of atlas number (209),
                        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:
                                   2090900002
                             Range Domain Maximum:
                                   2090900084
           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:
                                   209001280
                             Range_Domain_Maximum:
                                   209001289
     Detailed_Description:
           Entity_Type:
```

```
Southern California ESI: T MAMMAL
      Entity_Type_Label:
            BIO LUT
      Entity_Type_Definition:
            The data table BIO_LUT is a lookup table that contains items necessary
            for linking vector objects in the biological data layers with the BIORES
            data table. Note that all attribute information is stored in a series of
            relational files, described below and in the Overview Description
            section. See the Browse_Graphic section for a link to the entity-
            relationship diagram, which describes the way this table relates to other
            attribute tables in the ESI data structure.
      Entity_Type_Definition_Source:
            NOAA ESI Guidelines
Attribute:
      Attribute_Label:
            RARNUM
      Attribute Definition:
            An identifier that links records in the BIO LUT data table to records in
            the BIORES data table or the flat format BIOFILE data table. RARNUM
            values of 0 are holes in polygons and do not contain information.
      Attribute Definition Source:
            NOAA
      Attribute_Domain_Values:
            Range Domain:
                  Range Domain Minimum:
                        209000001
                  Range_Domain_Maximum:
                        209001289
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 (209),
            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:
                        2090100002
                  Range Domain Maximum:
                        2092200052
```

*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:

209000001

Range\_Domain\_Maximum:

209001289

#### 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:

#### Attribute:

Attribute Label:

**CONC** 

Attribute\_Definition:

The field CONC refers to "concentration," abundance, or density values, and may contain counts of a species at a particular location. No quantitative or qualitative information was available on concentrations of terrestrial mammals; therefore this field was populated with "-".

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

#### Attribute:

Attribute\_Label:

**SEASON ID** 

Attribute\_Definition:

Numeric identifier for the unique monthly presence and life history

```
characteristics of each species at a given location.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Range_Domain:
                 Range_Domain_Minimum:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
Attribute:
     Attribute Label:
           ELEMENT
     Attribute_Definition:
           Major categories of biological data.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                       BIRD
                 Enumerated Domain Value Definition:
                       Birds
                 Enumerated_Domain_Value_Definition_Source:
```

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**FISH** 

Enumerated Domain Value Definition:

Fish

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**HABITAT** 

*Enumerated\_Domain\_Value\_Definition*:

Habitats and plants

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**INVERT** 

Enumerated\_Domain\_Value\_Definition:

**Invertebrates** 

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

M\_MAMMAL

Enumerated Domain Value Definition:

Marine mammals

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

**REPTILE** 

Enumerated\_Domain\_Value\_Definition:

Reptiles and Amphibians

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

T MAMMAL

*Enumerated\_Domain\_Value\_Definition*:

Terrestrial mammals

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute\_Label:

EL SPE

Attribute\_Definition:

Concatenation of ELEMENT and SPECIES\_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

E#####

*Enumerated\_Domain\_Value\_Definition*:

Where E is the first character of ELEMENT and the next five characters are SPECIES\_ID (e.g. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute:

Attribute\_Label:

EL SPE SEA

 $Attribute\_Definition:$ 

Concatenation of ELEMENT, SPECIES\_ID, and SEASON\_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute Domain Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

E######

Enumerated\_Domain\_Value\_Definition:

Where E is the first character of ELEMENT, the next five characters are SPECIES\_ID, and the last two characters are SEASON\_ID (e.g. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON ID = 1; EL SPE SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source*:

**NOAA ESI Guidelines** 

*Detailed\_Description*:

*Entity\_Type*:

Entity\_Type\_Label:

**SPECIES** 

Entity Type Definition:

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

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute\_Label:

```
SPECIES ID
     Attribute Definition:
           Numeric identifier for each species that is unique within each element
           and refers to a nationwide master ESI species list maintained at NOAA.
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Range_Domain:
                 Range_Domain_Minimum:
                 Range_Domain_Maximum:
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:
                 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:

canine

*Enumerated\_Domain\_Value\_Definition*:

Canine

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:

kelp

Enumerated\_Domain\_Value\_Definition:

Kelp

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

lizard

*Enumerated\_Domain\_Value\_Definition*:

Lizard

*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:

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:

sea otter

*Enumerated\_Domain\_Value\_Definition*:

Sea otter

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

shorebird

Enumerated\_Domain\_Value\_Definition:

Shorebird

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated Domain Value:

shrimp

Enumerated Domain Value Definition:

Shrimp

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

sm\_mammal

Enumerated\_Domain\_Value\_Definition:

Small mammal

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

snake

*Enumerated\_Domain\_Value\_Definition*:

Snake

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

turtle

*Enumerated\_Domain\_Value\_Definition*:

Turtle

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

upland

*Enumerated\_Domain\_Value\_Definition*:

Upland vegetation

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:

Λ

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:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
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:
                 Enumerated_Domain_Value_Definition:
                      Present in February
                 Enumerated_Domain_Value_Definition_Source:
```

#### **NOAA ESI Guidelines**

```
Attribute:
     Attribute_Label:
           MAR
     Attribute_Definition:
           March
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                 Enumerated Domain Value Definition:
                      Present in March
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute Label:
           APR
     Attribute_Definition:
           April
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 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:
                 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:
                 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:
                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 lifehistory 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:

particular species can have up to 12 records to account for each month of the year. Attribute\_Definition\_Source: NOAA ESI Guidelines Attribute Domain Values: Range\_Domain: Range\_Domain\_Minimum: Range\_Domain\_Maximum: 12 Attribute: Attribute Label: BREED1 Attribute\_Definition: Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning; if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is "REPTILE" then BREED1 = nesting; if ELEMENT is "M\_MAMMAL" then BREED1 = mating. This attribute is not used for HABITAT or T\_MAMMAL. Attribute\_Definition\_Source: NOAA ESI Guidelines Attribute Domain Values: Enumerated\_Domain: Enumerated\_Domain\_Value: *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*: 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

Two-digit calendar month. Each life history stage or activity type for a

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 "MAMMAL" then BREED3 = pupping. This attribute is not used for

"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:

 $\mathbf{v}$ 

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:

-

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: Enumerated\_Domain\_Value\_Definition: Endangered on state list *Enumerated\_Domain\_Value\_Definition\_Source*: **NOAA ESI Guidelines** Attribute\_Domain\_Values: Enumerated Domain: Enumerated\_Domain\_Value: Enumerated Domain Value Definition: Threatened on state list Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines Attribute Domain Values: Enumerated\_Domain: Enumerated\_Domain\_Value: 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: Enumerated\_Domain\_Value\_Definition: Endangered on federal list Enumerated\_Domain\_Value\_Definition\_Source: NOAA ESI Guidelines Attribute\_Domain\_Values: Enumerated\_Domain: Enumerated Domain Value: Enumerated\_Domain\_Value\_Definition: Threatened on federal list Enumerated Domain Value Definition Source: NOAA ESI Guidelines Attribute\_Domain\_Values:

```
Enumerated_Domain_Value:
                      \mathbf{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:
                 Enumerated_Domain_Value_Definition:
                      Endangered on international list
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                      Threatened on international list
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 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:
```

Enumerated\_Domain:

# 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:

-

Range\_Domain\_Maximum:

N

Attribute:

Attribute\_Label:

**ORIGINATOR** 

*Attribute\_Definition*:

Author or developer of source material or data set.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

DATE PUB

*Attribute\_Definition*:

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

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated Domain Value:

YYYYMM

Enumerated\_Domain\_Value\_Definition:
 YYYY for year and optionally MM for month
Enumerated\_Domain\_Value\_Definition\_Source:
 NOAA ESI Guidelines

Attribute:

Attribute\_Label:

**TITLE** 

Attribute\_Definition:

Title of source material or data.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

DATA FORMAT

Attribute\_Definition:

The format of the source material.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

PUB PLACE

Attribute\_Definition:

Publication place.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

*Attribute\_Label*:

**PUBLISHER** 

*Attribute\_Definition*:

Publisher.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute Label:

**PUBLICATION** 

*Attribute\_Definition*:

Additional citation information.

Attribute Definition Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

*Attribute\_Label*:

ONLINE LINK

*Attribute\_Definition*:

Online computer resource URL.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

**SCALE** 

*Attribute\_Definition*:

Description of the source scale.

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Attribute:

Attribute\_Label:

TIME PERIOD

Attribute\_Definition:

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

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Unrepresentable\_Domain*:

Acceptable values change from atlas to atlas.

Overview\_Description:

Entity and Attribute Overview:

In addition to the geographic data layers, six relational attribute or data tables (BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS) are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, T\_MAMMAL) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO\_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Southern California atlas, the number is 209), 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 in the Detailed Description sections. See the Browse Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data

layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files 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 in the Detailed\_Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G SOURCE and S SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed Description section.

Entity and Attribute Detail Citation:

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

#### **Back To Index**

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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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

#### Back To Index

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Metadata Reference Information:
     Metadata Date:
           20100927
     Metadata Review Date:
           20100927
     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
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Southern California ESI: T\_MAMMAL

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

*Metadata\_Extensions*:

Online\_Linkage:

http://www.ncddc.noaa.gov/metadataresource/metadata-

references/files/ncddcmdprofile\_v2.pdf

Profile\_Name:

Content Specification for Metadata in the National Coastal Data Development Center's Data Catalog Version 2.0

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# Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: HABITATS (Habitat Polygons)

#### **Metadata:**

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

#### *Identification\_Information*:

#### Citation:

#### 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.

#### *Originator*:

Department of Homeland Security, United States Coast Guard, Office of Incident Management and Preparedness, Washington, D.C.

#### Originator:

Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California.

#### Publication\_Date:

201003

#### *Title*:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Southern California: HABITATS (Habitat Polygons)

#### Edition:

Second

*Geospatial\_Data\_Presentation\_Form*:

vector digital data

*Series\_Information*:

Series Name:

None

*Issue\_Identification*:

Southern California

#### 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 kelp, submerged aquatic vegetation (SAV), and select sensitive plants in [for] Southern California. Vector polygons in this data set represent distribution of kelp, SAV, and select sensitive plants. 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 Southern California. 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.

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Time_Period_of_Content:
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*Time\_Period\_Information*:

*Range\_of\_Dates/Times*:

Beginning Date:

1982

Ending\_Date:

2009

#### Currentness\_Reference:

The data were compiled during 2008-2010. The currentness dates for the data range from 1982 to 2009 and are documented in the Lineage section.

#### Status:

Progress:

Complete

*Maintenance\_and\_Update\_Frequency*:

None Scheduled

Spatial Domain:

Bounding\_Coordinates:

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East Bounding Coordinate:

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ISO 19115 Topic Category

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*Theme\_Keyword:* 

environment

#### Theme:

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*Theme\_Keyword:* 

**ESI** 

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Sensitivity maps

*Theme\_Keyword*:

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Oil spill planning

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Coastal Zone Management

*Theme\_Keyword:* 

Wildlife

Theme\_Keyword:

Habitat

#### Theme:

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NOS Data Explorer Topic Category

*Theme\_Keyword:* 

**Environmental Monitoring** 

#### Place:

*Place\_Keyword\_Thesaurus*:

None

*Place\_Keyword:* 

Southern California

Access Constraints:

None

#### *Use\_Constraints*:

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

derived from these data.

*Browse\_Graphic*:

Browse\_Graphic\_File\_Name:

datafig.jpg

Browse\_Graphic\_File\_Description:

Depicts the relationships between spatial data layers and attribute data tables for the Southern California ESI data.

*Browse\_Graphic\_File\_Type*:

**JPEG** 

*Browse\_Graphic*:

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datafig2.jpg

Browse Graphic File Description:

Depicts the relationships between spatial data layers and desktop data tables for the Southern California ESI data.

*Browse\_Graphic\_File\_Type*:

**JPEG** 

Data Set Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (OR&R), Emergency Response Division (ERD), Seattle, Washington; the Department of Homeland Security (DHS), United States Coast Guard (USCG), Office of Incident Management and Preparedness Washington, D.C.; and the California Department of Fish and Game (CDF&G), Office of Spill Prevention and Response (OSPR), Sacramento, California.

*Native\_Data\_Set\_Environment:* 

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(R) (version 9.3) and SQL SERVER(R) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003). The Spatial\_Data\_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: acp.e00, birds.e00, esi.e00, fish.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.

*Program\_Affiliation*:

Program\_Name:

National Ocean Service Data Explorer

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*Data\_Quality\_Information*:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

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

more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section.

#### *Logical\_Consistency\_Report*:

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and SQL SERVER(R) to ARC/INFO(R) consistencies. A final review is made by the GIS manager, where the data are written to CD/DVD 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 "resource 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 kelp, SAV, and sensitive plant distribution. These data do not necessarily represent all habitat occurrences in Southern California. The following species are included in this data set: (Species\_ID, Common Name, Scientific Name [n/a if not applicable]): 1, Eelgrass, Zostera marina; 5, Salt marsh bird's-beak, Cordylanthus maritimus maritimus; 7, Surfgrass, Phyllospadix sp.; 9, Giant kelp, Macrocystis pyrifera; 309, Beach morning glory, Ipomoea pescaprea; 930, Gaviota tarplant, Deinandra increscens ssp. Villosa; 931, Wire bird's-foot trefoil, Lotus nuttallianus; 933, Ventura marsh milkvetch, Astragalus pycnostachyus var. lanosissimus; 934, Star phacelia, Phacelia stellaris; 1058, Intertidal plants, 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 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. Note that biological resource data by their very nature are considered "fuzzy", and this should be understood when considering the positional accuracy of vector digital objects representing these resources. See the Lineage and Process\_Description sections for more information on the original source data and how these data were integrated or manipulated to create the final data set.

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                     Publication_Date:
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                          NATIONAL WILDLIFE REFUGE RESOURCES IN
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2006

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                    SECURITY (DHS), UNITED STATES COAST GUARD
                    (USCG)
               Publication Date:
                    2008
               Title:
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2008

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Originator:

DELITH, C. (USFWS)

*Publication\_Date*:

2009

Title:

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Citation\_Information:

Originator:

ENGLE, J. UNIVERSITY OF CALIFORNIA SANTA BARBARA (UCSB)

Publication Date:

2009

Title:

INTERTIDAL HABITATS AND SPECIES

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KIRSCHNER, E. (USFWS)

Publication\_Date:

2009

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USFWS RESOURCES IN SAN DIEGO AND ORANGE COUNTIES

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KRONINGER, M. (CDF&G, OSPR)

*Publication\_Date*:

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               Publication_Date:
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                    SNOWY PLOVER AND OTHER SPECIES
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SANTA BARBARA CHANNELKEEPER

*Publication\_Date*:

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NOVEMBER 2009

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SCHALLMAN, B. (U.S. NAVY)

*Publication\_Date*:

2009

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               Publication_Date:
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PERSONAL COMMUNICATION

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Southern California ESI: HABITATS

Single\_Date/Time: Calendar\_Date: 2009

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*Source\_Contribution*:

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Process\_Step:

*Process\_Description*:

Three main sources of data were used to depict habitat distribution and seasonality for this data layer: 1) personal interviews with resource experts from the U.S. Fish and Wildlife Service (USFWS), California State Parks (CSP), Ryan Ecological Consulting, U.S. Navy, California Department of Fish and Game (CDF&G) Office of Spill Prevention and Response (OSPR), and University of California Santa Barbara (UCSB); 2) digital data provided by CDF&G, The Nature Conservancy, and the Santa Barbara Channelkeeper; and 3) published reports provided by CDF&G. The above digital and/or hardcopy sources were compiled by the project biologist to create the HABITATS data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews are conducted to review the maps. If necessary, edits to the HABITATS data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process Date:

201003

*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

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*Spatial\_Data\_Organization\_Information*:

Direct\_Spatial\_Reference\_Method:

Vector

*Point\_and\_Vector\_Object\_Information*:

SDTS\_Terms\_Description:

*SDTS\_Point\_and\_Vector\_Object\_Type*:

GT-polygon composed of chains

Point\_and\_Vector\_Object\_Count:

8510

SDTS\_Terms\_Description:

*SDTS\_Point\_and\_Vector\_Object\_Type*:

Area point

Point\_and\_Vector\_Object\_Count:

8511

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type:

Complete chain

Point\_and\_Vector\_Object\_Count:

13152

SDTS Terms Description:

*SDTS\_Point\_and\_Vector\_Object\_Type*:

Link

*Point\_and\_Vector\_Object\_Count*:

1665720

*SDTS\_Terms\_Description*:

SDTS\_Point\_and\_Vector\_Object\_Type:

Node, planar graph

*Point\_and\_Vector\_Object\_Count*:

11218

#### **Back To Index**

*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

#### **Back To Index**

*Entity\_and\_Attribute\_Information*:

*Detailed\_Description*:

Entity\_Type:

Entity\_Type\_Label:

HABITATS.PAT

*Entity\_Type\_Definition*:

The HABITATS.PAT table contains attribute information for the vector polygons in this data set representing distribution of kelp, submerged aquatic vegetation (SAV), and select sensitive plants. Note that all attribute information is stored in a series of relational files, described below and in the Overview\_Description section. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

Entity\_Type\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute\_Label:

ID

Attribute Definition:

An identifier that links vector objects in the biology data layers to records in the BIO\_LUT data table. ID is a concatenation of atlas number (209), 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:

2090300002

Range\_Domain\_Maximum:

2090309225

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:
                              209001025
                        Range Domain Maximum:
                              209001058
Detailed_Description:
      Entity_Type:
            Entity_Type_Label:
                  BIO LUT
            Entity_Type_Definition:
                  The data table BIO LUT is a lookup table that contains items necessary
                  for linking vector objects in the biological data layers with the BIORES
                  data table. Note that all attribute information is stored in a series of
                  relational files, described below and in the Overview Description
                  section. See the Browse Graphic section for a link to the entity-
                  relationship diagram, which describes the way this table relates to other
                  attribute tables in the ESI data structure.
            Entity Type Definition Source:
                  NOAA ESI Guidelines
      Attribute:
            Attribute Label:
                  RARNUM
            Attribute_Definition:
                  An identifier that links records in the BIO_LUT data table to records in
                  the BIORES data table or the flat format BIOFILE data table. RARNUM
                  values of 0 are holes in polygons and do not contain information.
            Attribute_Definition_Source:
                  NOAA
           Attribute_Domain_Values:
                  Range_Domain:
                        Range_Domain_Minimum:
                              209000001
                        Range Domain Maximum:
                              209001289
     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 (209),
                  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:
                              2090100002
```

Range\_Domain\_Maximum:

#### 2092200052

```
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:
                              209000001
                        Range_Domain_Maximum:
                              209001289
     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:
                        Range_Domain_Maximum:
     Attribute:
           Attribute_Label:
                 CONC
            Attribute_Definition:
                  The field CONC refers to concentration, abundance, or density value of a
                  habitat at a particular location. No quantitative or qualitative information
```

was available on concentrations of submerged aquatic vegetation, kelp, or plants; therefore this field was populated with "-". Attribute\_Definition\_Source:

```
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:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
                       N
Attribute:
     Attribute_Label:
           ELEMENT
     Attribute Definition:
           Major categories of biological data.
```

**NOAA ESI Guidelines** 

Attribute\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

BIRD

*Enumerated\_Domain\_Value\_Definition*:

**Birds** 

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

**FISH** 

Enumerated\_Domain\_Value\_Definition:

Fish

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

**HABITAT** 

Enumerated\_Domain\_Value\_Definition:

Habitats and plants

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

**INVERT** 

Enumerated\_Domain\_Value\_Definition:

Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute Domain Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

M\_MAMMAL

Enumerated\_Domain\_Value\_Definition:

Marine mammals

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

REPTILE

*Enumerated\_Domain\_Value\_Definition*:

Reptiles and Amphibians

Enumerated Domain Value Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

T MAMMAL

*Enumerated\_Domain\_Value\_Definition*:

Terrestrial mammals

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute\_Label:

EL\_SPE

*Attribute\_Definition*:

Concatenation of ELEMENT and SPECIES\_ID. This item links records in the BIORES data table to records in the SPECIES and STATUS data tables.

Attribute\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

E#####

*Enumerated\_Domain\_Value\_Definition*:

Where E is the first character of ELEMENT and the next five characters are SPECIES\_ID (e.g. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

Enumerated\_Domain\_Value\_Definition\_Source:

**NOAA ESI Guidelines** 

Attribute:

Attribute Label:

EL\_SPE\_SEA

Attribute Definition:

Concatenation of ELEMENT, SPECIES\_ID, and SEASON\_ID. This item links records in the BIORES data table to records in the SEASONAL and BREED data tables.

Attribute Definition Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated Domain Value:

E######

*Enumerated\_Domain\_Value\_Definition*:

Where E is the first character of ELEMENT, the next five characters are SPECIES\_ID, and the last two characters are SEASON\_ID (e.g. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

*Detailed\_Description*:

Entity\_Type:

Entity Type Label:

**SPECIES** 

*Entity\_Type\_Definition*:

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

*Entity\_Type\_Definition\_Source*:

NOAA ESI Guidelines

#### Attribute:

Attribute Label:

SPECIES ID

Attribute\_Definition:

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

*Attribute\_Definition\_Source*:

**NOAA ESI Guidelines** 

Attribute Domain Values:

*Range\_Domain*:

*Range\_Domain\_Minimum*:

Range\_Domain\_Maximum:

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:

canine

Enumerated\_Domain\_Value\_Definition:

Canine

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:

kelp

Enumerated\_Domain\_Value\_Definition:

Kelp

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated Domain Value:

lizard

Enumerated Domain Value Definition:

Lizard

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:

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:

sea\_otter

Enumerated\_Domain\_Value\_Definition:

Sea otter

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

shorebird

Enumerated\_Domain\_Value\_Definition:

Shorebird

*Enumerated\_Domain\_Value\_Definition\_Source*:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

*Enumerated\_Domain*:

Enumerated\_Domain\_Value:

shrimp

Enumerated\_Domain\_Value\_Definition:

Shrimp

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

*Attribute\_Domain\_Values*:

Enumerated\_Domain:

Enumerated Domain Value:

sm\_mammal

Enumerated\_Domain\_Value\_Definition:

Small mammal

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute\_Domain\_Values:

Enumerated Domain:

Enumerated\_Domain\_Value:

snake

*Enumerated\_Domain\_Value\_Definition*:

Snake

Enumerated\_Domain\_Value\_Definition\_Source:

NOAA ESI Guidelines

Attribute Domain Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

turtle

*Enumerated\_Domain\_Value\_Definition*:

Turtle

*Enumerated\_Domain\_Value\_Definition\_Source*:

**NOAA ESI Guidelines** 

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value:

upland

Enumerated Domain Value Definition:

Upland vegetation

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

```
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:
                 Range_Domain_Maximum:
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:
                 Range_Domain_Maximum:
Attribute:
     Attribute_Label:
           JAN
     Attribute_Definition:
           January
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated_Domain_Value:
                 Enumerated_Domain_Value_Definition:
                       Present in January
                 Enumerated_Domain_Value_Definition_Source:
                       NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           FEB
```

Attribute\_Definition: February

```
Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                      X
                Enumerated_Domain_Value_Definition:
                      Present in February
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute Label:
           MAR
     Attribute_Definition:
           March
     Attribute Definition Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Present in March
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           APR
     Attribute_Definition:
           April
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated Domain Value:
                      X
                Enumerated_Domain_Value_Definition:
                      Present in April
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute Label:
           MAY
     Attribute_Definition:
           May
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated Domain Value:
                      X
```

```
Enumerated_Domain_Value_Definition:
                      Present in May
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute Label:
           JUN
     Attribute_Definition:
           June
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated_Domain_Value:
                 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:
                 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:
                 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:
                 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 lifehistory 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_Label:
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
Attribute Definition Source:
     NOAA ESI Guidelines
Attribute_Domain_Values:
     Range Domain:
           Range_Domain_Minimum:
                1
           Range_Domain_Maximum:
Attribute_Label:
Attribute Definition:
     Life history stage or activity type, where: if ELEMENT is "BIRD" then
     BREED1 = nesting; if ELEMENT is "FISH" then BREED1 = spawning;
     if ELEMENT is "INVERT" then BREED1 = spawning; if ELEMENT is
     "REPTILE" then BREED1 = nesting; if ELEMENT is "M MAMMAL"
     then BREED1 = mating. This attribute is not used for HABITAT or
     T MAMMAL.
Attribute Definition Source:
     NOAA ESI Guidelines
Attribute_Domain_Values:
     Enumerated_Domain:
           Enumerated Domain Value:
                Y
           Enumerated_Domain_Value_Definition:
                Life-history stage or activity present
           Enumerated_Domain_Value_Definition_Source:
                NOAA ESI Guidelines
     Enumerated Domain:
           Enumerated_Domain_Value:
```

*Attribute\_Domain\_Values*:

Attribute:

Attribute:

**MONTH** 

the year.

BREED1

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:
                Range_Domain_Maximum:
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.
```

```
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:
                 Enumerated_Domain_Value_Definition:
                      Endangered on state list
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                 Enumerated Domain Value:
                 Enumerated_Domain_Value_Definition:
                      Threatened on state list
                 Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated Domain:
                 Enumerated Domain Value:
                 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:
                 Enumerated_Domain_Value_Definition:
                      Endangered on federal list
                 Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
```

Attribute\_Definition\_Source:

```
Enumerated Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Threatened on federal list
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated Domain Value Definition:
                      Species of Special Concern
                Enumerated_Domain_Value_Definition_Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute_Label:
           Ι
     Attribute_Definition:
           International threatened or endangered status.
     Attribute_Definition_Source:
           NOAA ESI Guidelines
     Attribute Domain Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated Domain Value Definition:
                      Endangered on international list
                Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated_Domain_Value:
                Enumerated_Domain_Value_Definition:
                      Threatened on international list
                Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
     Attribute_Domain_Values:
           Enumerated_Domain:
                Enumerated Domain Value:
                Enumerated_Domain_Value_Definition:
                      Species of Special Concern
                Enumerated Domain Value Definition Source:
                      NOAA ESI Guidelines
Attribute:
     Attribute Label:
           S DATE
     Attribute_Definition:
```

Attribute Domain Values:

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.

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

Southern California atlas, the number is 209), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described in detail in the Detailed\_Description sections. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files 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 in the Detailed Description sections), except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G SOURCE and S SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in a Detailed Description section.

Entity and Attribute Detail Citation:

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

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Distribution\_Information:
 Distributor:
 Contact\_Information:
 Contact\_Person\_Primary:
 Contact\_Person:
 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 the widest community of GIS/mapping users. Distribution formats include Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI\_Viewer product for use with the MARPLOT data are also included on the distribution CDs/DVDs 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.

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Metadata Reference Information:

Metadata Date:

20100927

*Metadata\_Review\_Date*:

20100927

*Metadata\_Contact:* 

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person:

Jill Petersen

Contact Organization:

NOAA, Office of Response and Restoration

Southern California ESI: HABITATS

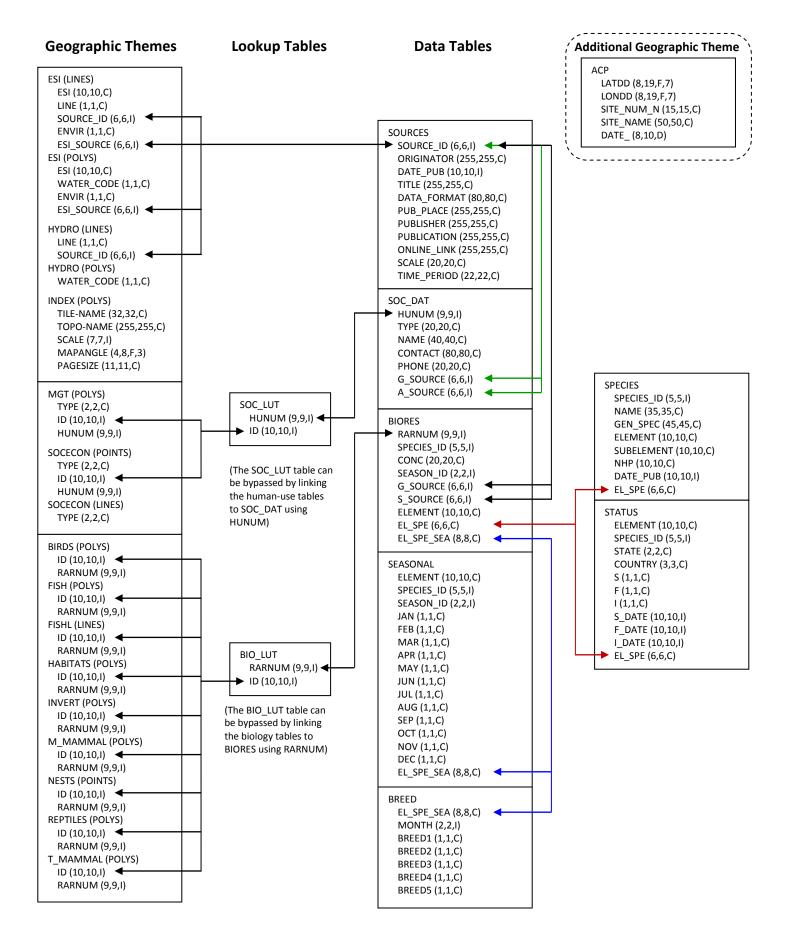
```
Contact Position:
                 GIS Manager
           Contact_Address:
                 Address_Type:
                       Physical Address
                 Address:
                       7600 Sand Point Way, N.E.
                 City:
                       Seattle
                 State_or_Province:
                       Washington
                 Postal_Code:
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           Contact_Facsimile_Telephone:
                 (206) 526-6329
           Contact_Electronic_Mail_Address:
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{\it Metadata\_Standard\_Name:}
     Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version:
     FGDC-STD-001-1998
Metadata Extensions:
      Online_Linkage:
           http://www.ncddc.noaa.gov/metadataresource/metadata-
           references/files/ncddcmdprofile_v2.pdf
     Profile Name:
```

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# Southern California ESI – March 2010 Entity Relationship Diagram for the Relational Data Tables



# Southern California ESI – March 2010 Entity Relationship Diagram for the Desktop / Flat File Approach

