

# Southeast Alaska ESI: HYDRO (Hydrography Lines and Polygons)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication Date:* 200206

*Title:* Southeast Alaska ESI: HYDRO (Hydrography Lines and Polygons)

*Edition:* Second

*Geospatial Data Presentation Form:* Digital vector data

##### *Series Information:*

*Series Name:* None

*Issue Identification:* Southeast Alaska

##### *Publication Information:*

*Publication Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains vector lines and polygons representing coastal hydrography used in the creation of the Environmental Sensitivity Index (ESI) for Southeast Alaska. The data set comprises a portion of the ESI for Southeast Alaska. 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

These data were compiled during 1999-2001. The completeness dates for these data range from 1989 to 2001 and are documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -130.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.25

*South\_Bounding\_Coordinate:* 54.5

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Hydrography

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization\_Information* section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00,

fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

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

##### *Attribute\_Accuracy:*

##### *Attribute\_Accuracy\_Report:*

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

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

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

##### *Completeness\_Report:*

These data represent linear and polygonal hydrography for coastal Southeast Alaska.

##### *Positional\_Accuracy:*

##### *Horizontal\_Positional\_Accuracy:*

##### *Horizontal\_Positional\_Accuracy\_Report:*

The hydrography data set was developed from pre-existing digital and hardcopy sources and reflects the positional accuracy of these original data. The horizontal positional accuracy of the 1:63,360 USGS topographic quads should conform to National Map Accuracy Standards at scales of 1:63,360. 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:* U. S. Geological Survey

*Publication\_Date:* 1999

*Title:* DLG Hydrography

*Geospatial\_Data\_Presentation\_Form:* Vector digital data

*Source\_Scale\_Denominator:* 63360

*Type\_of\_Source\_Media:* Online

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

##### *Time\_Period\_Information:*

*Range\_of\_Dates/Times:*

*Beginning\_Date:* 1950

*Ending\_Date:* 1997

*Source\_Currentness\_Reference:* ground condition

*Source\_Citation\_Abbreviation:* None

*Source\_Contribution:* Shorelines

##### *Source\_Information:*

##### *Source\_Citation:*

##### *Citation\_Information:*

*Originator:* Tongass National Forest

*Publication\_Date:* Unpublished material

*Title:* Digital Shoreline

*Geospatial\_Data\_Presentation\_Form:* Vector digital data

*Source\_Scale\_Denominator:* 63360  
*Type\_of\_Source\_Media:* Online  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Range\_of\_Dates/Times:*  
*Beginning\_Date:* Unknown  
*Ending\_Date:* Unknown  
*Source\_Currentness\_Reference:* Digitized dates  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Shorelines  
*Source\_Information:*  
*Source\_Citation:*  
*Citation\_Information:*  
*Originator:* Alaska Department of Natural Resources  
*Publication\_Date:* 1998  
*Title:* Alaska Coastline 1 to 63,360  
*Geospatial\_Data\_Presentation\_Form:* Vector digital data  
*Source\_Scale\_Denominator:* 63360  
*Type\_of\_Source\_Media:* CD-ROM  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Single\_Date/Time:*  
*Calendar\_Date:* 1997  
*Source\_Currentness\_Reference:* Publication date  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Shorelines  
*Source\_Information:*  
*Source\_Citation:*  
*Citation\_Information:*  
*Originator:* Colin Plank  
*Publication\_Date:* Unpublished material  
*Title:* ESI Overflight  
*Geospatial\_Data\_Presentation\_Form:* Hardcopy Map  
*Source\_Scale\_Denominator:* 63360  
*Type\_of\_Source\_Media:* Paper  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Single\_Date/Time:*  
*Calendar\_Date:* 2000  
*Source\_Currentness\_Reference:* Date of overflight  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Shorelines  
*Process\_Step:*  
*Process\_Description:*  
 The shoreline was derived primarily from digital coastline data from the U.S. Geological Survey (USGS) digital line graph (DLG) dataset, Tongass National Forest, Alaska Department of Natural Resources, Research Planning, Inc. (RPI), and the 1989 Southeast Alaska ESI Atlas. The 1989 Southeast Alaska ESI data originated from Tongass National Forest data that were edgematched and generalized to eliminate many of the small islands. Within the boundaries of Glacier Bay National Park, the digital coastline data were obtained from the National Park Service (NPS). NPS data were based on NOAA nautical charts digitized at 1:80,000 scale. In some cases, additional hydrography polygons were sketched during overflights conducted during the summer months of 1999 to 2001. Overflight changes were digitized from the scanned and registered hardcopy field maps. After the initial shoreline classification, these data were edgematched and checked for logical consistency errors. Review maps were plotted at 1:63,360 scale for verification of polygonal and linear attributes.  
*Process\_Date:* 200110  
*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 rings

*Point\_and\_Vector\_Object\_Count:* 28047

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 28047

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 31111

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 1544942

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 808

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* Node, planar graph

*Point\_and\_Vector\_Object\_Count:* 31031

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*Spatial\_Reference\_Information:*

*Horizontal\_Coordinate\_System\_Definition:*

*Geographic:*

*Latitude\_Resolution:* 0.00005

*Longitude\_Resolution:* 0.00005

*Geographic\_Coordinate\_Units:* Decimal degrees

*Geodetic\_Model:*

*Horizontal\_Datum\_Name:* North American Datum of 1927

*Ellipsoid\_Name:* Clark 1866

*Semi-major\_Axis:* 6378206.400000

*Denominator\_of\_Flattening\_Ratio:* 294.978698

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*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: LINE

*Attribute\_Definition*: Type of geographic feature.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: B

*Enumerated\_Domain\_Value\_Definition*: Breakwater

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: G

*Enumerated\_Domain\_Value\_Definition*: Glacier

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: H

*Enumerated\_Domain\_Value\_Definition*: Hydrography

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: I

*Enumerated\_Domain\_Value\_Definition*: Index

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: S

*Enumerated\_Domain\_Value\_Definition*: Shoreline

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SOURCE\_ID

*Attribute\_Definition*: Data source of the ESI arcs

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 1

*Enumerated\_Domain\_Value\_Definition*: Original digital information

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 2

*Enumerated\_Domain\_Value\_Definition*: Low-altitude overflights by Research Planning, Inc.

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 4

*Enumerated\_Domain\_Value\_Definition*: Digitized from 1:24,000 USGS topographic quadrangle

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 5

*Enumerated\_Domain\_Value\_Definition*: Digitized from scanned 1:24,000-USGS topographic quadrangle

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 7

*Enumerated\_Domain\_Value\_Definition*: Research Planning, Inc. Index

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 8

*Enumerated\_Domain\_Value\_Definition*: AK Department of Natural Resources

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 9

*Enumerated\_Domain\_Value\_Definition:* Tongass National Forest

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 10

*Enumerated\_Domain\_Value\_Definition:*

National Parks Service/ National Oceanic and Atmospheric Administration

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 11

*Enumerated\_Domain\_Value\_Definition:* USGS DLGs

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* HYDRO.PAT

*Entity\_Type\_Definition:*

The HYDRO.PAT table contains attribute information for the polygons representing polygonal hydrography features in the HYDRO data layer.

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* WATER\_CODE

*Attribute\_Definition:* Specifies a polygon as either water or land

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* L

*Enumerated\_Domain\_Value\_Definition:* Land

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* W

*Enumerated\_Domain\_Value\_Definition:* Water

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

---

*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:* ESI Atlas for Southeast Alaska

*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:* 200206

*Metadata\_Review\_Date:* 200206

*Metadata\_Contact:*

*Contact\_Information:*

*Contact\_Person\_Primary:*

*Contact\_Person:* Jill Petersen

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Position:* GIS Manager

*Contact\_Address:*

*Address\_Type:* Physical Address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata

*Metadata\_Standard\_Version:* FGDC-STD-001-1998

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# Southeast Alaska ESI: ESI (Environmental Sensitivity Index Shoreline Types - Polygons and Lines)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; and Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

#### *Publication Date:* 200206

#### *Title:*

Southeast Alaska ESI: ESI (Environmental Sensitivity Index Shoreline Types - Polygons and Lines)

#### *Edition:* Second

#### *Geospatial Data Presentation Form:* Digital vector data

#### *Series Information:*

*Series Name:* None

*Issue Identification:* Southeast Alaska

#### *Publication Information:*

*Publication Place:* Seattle, Washington

#### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

#### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; and Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains vector lines and polygons representing the shoreline and coastal habitats of Southeast Alaska classified according to the Environmental Sensitivity Index (ESI) classification system. This data set comprises a portion of the ESI for Southeast Alaska. 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

These data were compiled during 1999-2001. The currentness dates for these data range from 1996 to 2001 and are documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -130.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.25

*South\_Bounding\_Coordinate:* 54.5

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; and Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization\_Information* section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00,

fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

---

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

##### *Attribute\_Accuracy:*

###### *Attribute\_Accuracy\_Report:*

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

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

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

##### *Completeness\_Report:*

These data represent coastal shorelines and habitats classified according to the Environmental Sensitivity Index (ESI) classification system.

##### *Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy\_Report:*

The ESI data set was developed from pre-existing digital sources and reflects the positional accuracy of these original data. The horizontal positional accuracy of the 1:63,360 USGS topographic quads should conform to National Map Accuracy Standards at scales of 1:63,360. The minimum mapping unit (MMU) of the actual shoreline classification segments is estimated at 50 meters when 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:* U. S. Geological Service

*Publication\_Date:* 1999

*Title:* DLG Hydrography

*Geospatial\_Data\_Presentation\_Form:* Vector digital data

*Source\_Scale\_Denominator:* 63360

*Type\_of\_Source\_Media:* Online

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

###### *Time\_Period\_Information:*

*Range\_of\_Dates/Times:*

*Beginning\_Date:* 1950

*Ending\_Date:* 1997

*Source\_Currentness\_Reference:* ground condition

*Source\_Citation\_Abbreviation:* None

*Source\_Contribution:* Shorelines

###### *Source\_Information:*

###### *Source\_Citation:*

###### *Citation\_Information:*

*Originator:* Tongass National Forest  
*Publication\_Date:* Unpublished material  
*Title:* Digital Shoreline  
*Geospatial\_Data\_Presentation\_Form:* Vector digital data

*Source\_Scale\_Denominator:* 63360  
*Type\_of\_Source\_Media:* Online  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Range\_of\_Dates/Times:*  
*Beginning\_Date:* Unknown  
*Ending\_Date:* Unknown  
*Source\_Currentness\_Reference:* Digitized dates  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Shorelines

*Source\_Information:*

*Source\_Citation:*  
*Citation\_Information:*  
*Originator:* Alaska Department of Natural Resources  
*Publication\_Date:* 1998  
*Title:* Alaska Coastline 1 to 63,360  
*Geospatial\_Data\_Presentation\_Form:* Vector digital data

*Source\_Scale\_Denominator:* 63360  
*Type\_of\_Source\_Media:* CD-ROM  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Single\_Date/Time:*  
*Calendar\_Date:* 1997  
*Source\_Currentness\_Reference:* Publication date  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Shorelines

*Source\_Information:*

*Source\_Citation:*  
*Citation\_Information:*  
*Originator:* Colin Plank  
*Publication\_Date:* Unpublished material  
*Title:* ESI Overflight  
*Geospatial\_Data\_Presentation\_Form:* Hardcopy Map

*Source\_Scale\_Denominator:* 63360  
*Type\_of\_Source\_Media:* Paper  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Single\_Date/Time:*  
*Calendar\_Date:* 2000  
*Source\_Currentness\_Reference:* Date of overflight  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Shorelines

*Process\_Step:*

*Process\_Description:*

Overflights for southeast Alaska were conducted in the summer months of 1990 to 2000. The overflights were conducted using fixed-wing aircraft operated by the U.S. Civil Air Patrol, flying at elevations of 400-600 feet and slow air speeds. All flights were planned to maximize time on site during the 2.5 hours preceding and the 2.5 hours following peak low tide. Additionally, mapping took place during spring tides, in order to maximize the amount of intertidal area exposed to the observer. During this work, the shoreline depicted on current 1:63,360-scale USGS topographic maps was annotated with the ESI ranking of observed intertidal shoreline habitats. Where appropriate, revisions to the existing shoreline were made and where necessary, multiple habitats were described for each shoreline segment. Coastal wetlands were not mapped as polygonal features.

*Process\_Date:* 200110

*Process\_Contact:*

*Contact\_Information:*

*Contact\_Organization\_Primary:*

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Person:* Jill Petersen

*Contact\_Address:*

*Address\_Type:* Physical address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

---

*Spatial\_Data\_Organization\_Information:*

*Direct\_Spatial\_Reference\_Method:* Vector

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

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* GT-polygon composed of rings

*Point\_and\_Vector\_Object\_Count:* 12551

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 12551

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 55538

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 1623370

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* Node, planar graph

*Point\_and\_Vector\_Object\_Count:* 53167

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*Spatial\_Reference\_Information:*

*Horizontal\_Coordinate\_System\_Definition:*

*Geographic:*

*Latitude\_Resolution:* 0.00005

*Longitude\_Resolution:* 0.00005

*Geographic\_Coordinate\_Units:* Decimal degrees

*Geodetic\_Model:*

*Horizontal\_Datum\_Name:* North American Datum of 1927

*Ellipsoid\_Name:* Clark 1866

*Semi-major\_Axis:* 6378206.400000

*Denominator\_of\_Flattening\_Ratio:* 294.978698

---

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ESI

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 1A

*Enumerated\_Domain\_Value\_Definition*: Exposed Rocky Shores

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 1B

*Enumerated\_Domain\_Value\_Definition*: Exposed, Solid Man-made Structures

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 2A

*Enumerated\_Domain\_Value\_Definition*:

Exposed, Wave-cut Platforms in Bedrock, Mud, or Clay; Rocky Shoals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 2B

*Enumerated\_Domain\_Value\_Definition*: Exposed Scarps and Steep Slopes in Clay

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 3A

*Enumerated\_Domain\_Value\_Definition*: Fine- to Medium-grained Sand Beaches

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 4

*Enumerated\_Domain\_Value\_Definition*: Coarse-grained Sand Beaches

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 5

*Enumerated\_Domain\_Value\_Definition*: Mixed Sand and Gravel Beaches

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 6A

*Enumerated\_Domain\_Value\_Definition*: Gravel Beaches (granules and pebbles)

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 6B

*Enumerated\_Domain\_Value\_Definition*: Gravel Beaches (cobbles and boulders)

- Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
- Enumerated\_Domain*:
  - Enumerated\_Domain\_Value*: 6C
  - Enumerated\_Domain\_Value\_Definition*: Riprap
  - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
- Enumerated\_Domain*:
  - Enumerated\_Domain\_Value*: 7
  - Enumerated\_Domain\_Value\_Definition*: Exposed Tidal Flats
  - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
- Enumerated\_Domain*:
  - Enumerated\_Domain\_Value*: 8A
  - Enumerated\_Domain\_Value\_Definition*:  
Sheltered Rocky Shores (impermeable) and Sheltered Scarps in Bedrock, Mud, or Clay
  - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
- Enumerated\_Domain*:
  - Enumerated\_Domain\_Value*: 8B
  - Enumerated\_Domain\_Value\_Definition*: Sheltered, Solid Man-made Structures
  - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
- Enumerated\_Domain*:
  - Enumerated\_Domain\_Value*: 8C
  - Enumerated\_Domain\_Value\_Definition*: Sheltered Riprap
  - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
- Enumerated\_Domain*:
  - Enumerated\_Domain\_Value*: 9A
  - Enumerated\_Domain\_Value\_Definition*: Sheltered Tidal Flats
  - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
- Enumerated\_Domain*:
  - Enumerated\_Domain\_Value*: 10A
  - Enumerated\_Domain\_Value\_Definition*: Salt- and Brackish-water Marsh
  - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
- Enumerated\_Domain*:
  - Enumerated\_Domain\_Value*: U
  - Enumerated\_Domain\_Value\_Definition*: Unranked
  - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

- Attribute\_Label*: LINE
- Attribute\_Definition*: Type of geographic feature.
- Attribute\_Definition\_Source*: Research Planning, Inc.
- Attribute\_Domain\_Values*:
  - Enumerated\_Domain*:
    - Enumerated\_Domain\_Value*: B
    - Enumerated\_Domain\_Value\_Definition*: Breakwater
    - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
  - Enumerated\_Domain*:
    - Enumerated\_Domain\_Value*: F
    - Enumerated\_Domain\_Value\_Definition*: Flat
    - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
  - Enumerated\_Domain*:
    - Enumerated\_Domain\_Value*: G
    - Enumerated\_Domain\_Value\_Definition*: Glacier
    - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
  - Enumerated\_Domain*:
    - Enumerated\_Domain\_Value*: H
    - Enumerated\_Domain\_Value\_Definition*: Hydrography
    - Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.
  - Enumerated\_Domain*:
    - Enumerated\_Domain\_Value*: I
    - Enumerated\_Domain\_Value\_Definition*: Index

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: M  
*Enumerated\_Domain\_Value\_Definition*: Marsh  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: S  
*Enumerated\_Domain\_Value\_Definition*: Shoreline  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SOURCE\_ID

*Attribute\_Definition*:

Data source of the ESI lines. 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.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 1

*Enumerated\_Domain\_Value\_Definition*: Original digital information

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 2

*Enumerated\_Domain\_Value\_Definition*: Low-altitude overflights by Research Planning, Inc.

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 4

*Enumerated\_Domain\_Value\_Definition*: Digitized from 1:24,000 USGS topographic quadrangle

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 5

*Enumerated\_Domain\_Value\_Definition*: Digitized from scanned 1:24,000-USGS topographic quadrangle

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 7

*Enumerated\_Domain\_Value\_Definition*: Research Planning, Inc. Index

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 8

*Enumerated\_Domain\_Value\_Definition*: AK Department of Natural Resources

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 9

*Enumerated\_Domain\_Value\_Definition*: Tongass National Forest

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 10

*Enumerated\_Domain\_Value\_Definition*:

National Parks Service/ National Oceanic and Atmospheric Administration

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 11

*Enumerated\_Domain\_Value\_Definition*: USGS DLGs

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ENVIR



*Attribute\_Definition:* Type of regional environment

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* E

*Enumerated\_Domain\_Value\_Definition:* Estuarine

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* U

*Enumerated\_Domain\_Value\_Definition:* Unranked

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* ESI

*Attribute\_Definition:*

The item ESI contains values representing the ESI polygon type. The ESI rankings progress from low to high susceptibility to oil spills. The ESI rankings of polygons are similar to the ESI rankings of shorelines (see the ESI attribute in the ESI.AAT section).

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 2A

*Enumerated\_Domain\_Value\_Definition:*

Exposed, Wave-cut Platforms in Bedrock, Mud, or Clay; Rocky Shoals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 7

*Enumerated\_Domain\_Value\_Definition:* Exposed Tidal Flats

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 8A

*Enumerated\_Domain\_Value\_Definition:*

Sheltered, Rocky Shores (impermeable) and Sheltered Scarps in Bedrock, Mud, and Clay

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 9A

*Enumerated\_Domain\_Value\_Definition:* Sheltered Tidal Flats

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 10A

*Enumerated\_Domain\_Value\_Definition:* Salt- and Brackish-water Marsh

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* WATER\_CODE

*Attribute\_Definition:* Specifies a polygon as either water or land

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* L

*Enumerated\_Domain\_Value\_Definition:* Land

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value*: W  
*Enumerated\_Domain\_Value\_Definition*: Water  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ENVIR  
*Attribute\_Definition*: Type of regional environment  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: E  
*Enumerated\_Domain\_Value\_Definition*: Estuarine  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

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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*: ESI Atlas for Southeast Alaska

*Distribution\_Liability*:

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

*Custom\_Order\_Process*:

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

---

*Metadata\_Reference\_Information*:

*Metadata\_Date*: 200206

*Metadata\_Review\_Date*: 200206

*Metadata\_Contact*:

*Contact\_Information*:

*Contact\_Person\_Primary*:

*Contact\_Person*: Jill Petersen

*Contact\_Organization*: NOAA, Office of Response and Restoration

*Contact\_Position*: GIS Manager

*Contact\_Address*:

*Address\_Type*: Physical Address

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

*City*: Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata

*Metadata\_Standard\_Version:* FGDC-STD-001-1998

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# Southeast Alaska ESI: INDEX (Index Polygons)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication\_Date:* 200206

##### *Title:* Southeast Alaska ESI: INDEX (Index Polygons)

##### *Edition:* Second

##### *Geospatial\_Data\_Presentation\_Form:* Digital vector data

##### *Series\_Information:*

##### *Series\_Name:* None

##### *Issue\_Identification:* Southeast Alaska

##### *Publication\_Information:*

##### *Publication\_Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains vector polygons representing the boundaries of the U.S. Geological Survey (USGS) 1:63,360 topographic maps and other map and digital data boundaries used in the creation of the Environmental Sensitivity Index (ESI) for Southeast Alaska. Specifically, these data were used for the creation of the hardcopy ESI and Socioeconomic information maps. See the BIOINDEX (Biological Index Polygons) layer for additional boundary information. This data set comprises a portion of the ESI data for Southeast Alaska. 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:* 1999*Ending\_Date:* 2001*Currentness\_Reference:*

These data were compiled during 1999-2001. The currentness date for these data is 2001 and is documented in the *Source\_Information* section.

*Status:**Progress:* Complete*Maintenance\_and\_Update\_Frequency:* None Scheduled*Spatial\_Domain:**Bounding\_Coordinates:**West\_Bounding\_Coordinate:* -130.667*East\_Bounding\_Coordinate:* -144.0*North\_Bounding\_Coordinate:* 60.25*South\_Bounding\_Coordinate:* 54.5*Keywords:**Theme:**Theme\_Keyword\_Thesaurus:* None*Theme\_Keyword:* ESI*Theme\_Keyword:* Sensitivity maps*Theme\_Keyword:* Coastal resources*Theme\_Keyword:* Oil spill planning*Theme\_Keyword:* Coastal Zone Management*Theme\_Keyword:* Wildlife*Place:**Place\_Keyword\_Thesaurus:* None*Place\_Keyword:* Southeast Alaska*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization\_Information* section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00,

fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

### *Data\_Quality\_Information:*

#### *Attribute\_Accuracy:*

##### *Attribute\_Accuracy\_Report:*

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

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

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

#### *Completeness\_Report:*

These data represent the boundaries of the hardcopy ESI and Socioeconomic map products produced as part of the Environmental Sensitivity Index (ESI) for Southeast Alaska, as well as digital data extents. Primarily, 1:63,360 U.S. Geological Survey (USGS) topographic maps were used to provide boundaries for cartographic products. In some cases, the polygons represent 1:63,360 USGS topographic maps that were re-tiled, moved, or extended to provide better cartographic coverage of the study area. Finally, polygons representing the outer extent of all digital data are included in this data layer.

#### *Positional\_Accuracy:*

##### *Horizontal\_Positional\_Accuracy:*

##### *Horizontal\_Positional\_Accuracy\_Report:*

The index polygons in this data layer were generated in Arc/INFO from the coordinates of the USGS 1:63,360 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:* U.S. Geological Survey

*Publication\_Date:* Unknown

*Title:* Topographic Quadrangles

*Geospatial\_Data\_Presentation\_Form:* Map

##### *Publication\_Information:*

*Publication\_Place:* Denver, CO or Reston, VA

*Publisher:* U.S. Geological Survey

*Source\_Scale\_Denominator:* 63360

*Type\_of\_Source\_Media:* Paper

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

##### *Time\_Period\_Information:*

*Single\_Date/Time:*

*Calendar\_Date:* Varies

*Source\_Currentness\_Reference:* Date of publication

*Source\_Citation\_Abbreviation:* None

*Source\_Contribution:* Map index

*Process\_Step:*

*Process\_Description:*

The index polygons in this data layer were generated in Arc/INFO from the coordinates of the U.S. Geological Survey (USGS) map corners, or appropriate coordinates.

*Process\_Date:* 200110

*Process\_Contact:*

*Contact\_Information:*

*Contact\_Organization\_Primary:*

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Person:* Jill Petersen

*Contact\_Address:*

*Address\_Type:* Physical address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Spatial\_Data\_Organization\_Information:*

*Direct\_Spatial\_Reference\_Method:* Vector

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

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*SDTS\_Point\_and\_Vector\_Object\_Type:* GT-polygon composed of rings

*Point\_and\_Vector\_Object\_Count:* 132

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*Point\_and\_Vector\_Object\_Count:* 132

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*Longitude\_Resolution:* 0.00005

*Geographic\_Coordinate\_Units:* Decimal degrees

*Geodetic\_Model:*

*Horizontal\_Datum\_Name:* North American Datum of 1927

*Ellipsoid\_Name:* Clark 1866

*Semi-major\_Axis:* 6378206.400000

*Denominator\_of\_Flattening\_Ratio:* 294.978698

*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 USGS 1:63,360 topographic maps and other map and digital data boundaries used in the creation of the Environmental Sensitivity Index (ESI) for Southeast Alaska.

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* TILE-NAME*Attribute\_Definition:*

The TILE-NAME contains the map number according to the specified layout of the atlas. The values for each polygon are unique and range from 1 through 60.

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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:* ESI Atlas for Southeast Alaska

*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:* 200206

*Metadata\_Review\_Date:* 200206

*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

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*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata

*Metadata\_Standard\_Version:* FGDC-STD-001-1998

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# Southeast Alaska ESI: BIOINDEX (Biological Index Polygons)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication Date:* 200206

*Title:* Southeast Alaska ESI: BIOINDEX (Biological Index Polygons)

*Edition:* Second

*Geospatial Data Presentation Form:* Digital vector data

##### *Series Information:*

*Series Name:* None

*Issue Identification:* Southeast Alaska

##### *Publication Information:*

*Publication Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains vector polygons representing the boundaries of the 1:300,000 map boundaries used in the creation of the Environmental Sensitivity Index (ESI) for Southeast Alaska. Specifically, these data were used for the creation of the hardcopy Biology information maps. See the INDEX (Index Polygons) data layer for additional boundary information. This data set comprises a portion of the ESI data for Southeast Alaska. 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

These data were compiled during 1999-2001. The currentness date for these data is 2001 and is documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

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*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization\_Information* section refers only to the source files in the ARC export format. The following files are included

in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

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

##### *Attribute\_Accuracy:*

##### *Attribute\_Accuracy\_Report:*

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

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

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

##### *Completeness\_Report:*

These data represent the boundaries of the hardcopy Biology map products produced as part of the Environmental Sensitivity Index (ESI) for Southeast Alaska, 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 Arc/INFO. 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:* U.S. Geological Survey

*Publication\_Date:* Unknown

*Title:* Topographic Quadrangles

*Geospatial\_Data\_Presentation\_Form:* Map

##### *Publication\_Information:*

*Publication\_Place:* Denver, CO or Reston, VA

*Publisher:* U.S. Geological Survey

*Source\_Scale\_Denominator:* 63360

*Type\_of\_Source\_Media:* Paper

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

##### *Time\_Period\_Information:*

*Single\_Date/Time:*

*Calendar\_Date:* Varies

*Source\_Currentness\_Reference:* Date of publication

*Source\_Citation\_Abbreviation:* None

*Source\_Contribution:* Map index

##### *Process\_Step:*

##### *Process\_Description:*

The index polygons in this data layer were generated in Arc/INFO from the coordinates of the

U.S. Geological Survey (USGS) map corners, or appropriate coordinates. Other lines, representing the outer extent of digital data, were derived from biological data layers included as part of the larger Environmental Sensitivity Index (ESI) data set for Southeast Alaska.

*Process\_Date*: 200110

*Process\_Contact*:

*Contact\_Information*:

*Contact\_Organization\_Primary*:

*Contact\_Organization*: NOAA, Office of Response and Restoration

*Contact\_Person*: Jill Petersen

*Contact\_Address*:

*Address\_Type*: Physical address

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

*City*: Seattle

*State\_or\_Province*: Washington

*Postal\_Code*: 98115-6349

*Contact\_Voice\_Telephone*: (206) 526-6944

*Contact\_Facsimile\_Telephone*: (206) 526-6329

*Contact\_Electronic\_Mail\_Address*: Jill.Petersen@noaa.gov

*Spatial\_Data\_Organization\_Information*:

*Direct\_Spatial\_Reference\_Method*: Vector

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

*SDTS\_Terms\_Description*:

*SDTS\_Point\_and\_Vector\_Object\_Type*: GT-polygon composed of rings

*Point\_and\_Vector\_Object\_Count*: 3

*SDTS\_Terms\_Description*:

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

*Point\_and\_Vector\_Object\_Count*: 3

*SDTS\_Terms\_Description*:

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

*Point\_and\_Vector\_Object\_Count*: 32

*SDTS\_Terms\_Description*:

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

*Point\_and\_Vector\_Object\_Count*: 467

*SDTS\_Terms\_Description*:

*SDTS\_Point\_and\_Vector\_Object\_Type*: Node, planar graph

*Point\_and\_Vector\_Object\_Count*: 60

*Spatial\_Reference\_Information*:

*Horizontal\_Coordinate\_System\_Definition*:

*Geographic*:

*Latitude\_Resolution*: 0.00005

*Longitude\_Resolution*: 0.00005

*Geographic\_Coordinate\_Units*: Decimal degrees

*Geodetic\_Model*:

*Horizontal\_Datum\_Name*: North American Datum of 1927

*Ellipsoid\_Name*: Clark 1866

*Semi-major\_Axis*: 6378206.400000

*Denominator\_of\_Flattening\_Ratio*: 294.978698

*Entity\_and\_Attribute\_Information*:

*Detailed\_Description*:

*Entity\_Type*:

*Entity\_Type\_Label*: BIOINDEX.PAT

*Entity\_Type\_Definition*:

The BIOINDEX.PAT table contains attribute information for the vector polygons representing the boundaries of the Environmental Sensitivity Index (ESI) for Southeast Alaska.

*Entity\_Type\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TILE-NAME

*Attribute\_Definition*:

The TILE-NAME contains the map number according to the specified layout of the atlas. The values for each polygon are unique and range from 1 through 3.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: 3

*Attribute*:

*Attribute\_Label*: TOPO-NAME

*Attribute\_Definition*: Topographic map names

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BERING GLACIER, AK (1959); ICY BAY, AK (1961)

*Enumerated\_Domain\_Value\_Definition*: USGS 1:63,360 Topographic map name

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: MT. ST. ELIAS, AK-CANADA (1959); YAKUTAT, AK-CANADA (1959)

*Enumerated\_Domain\_Value\_Definition*: USGS 1:63,360 Topographic map name

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: MT. FAIRWEATHER, AK (1961); JUNEAU, AK (1962)

*Enumerated\_Domain\_Value\_Definition*: USGS 1:63,360 Topographic map name

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 325,000

*Enumerated\_Domain\_Value\_Definition*: Scale = 325,000

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: 350,000

*Enumerated\_Domain\_Value\_Definition*: Scale = 1:350,000

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: MAPANGLE

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: -15.265

*Range\_Domain\_Maximum*: -10.125

*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* 22,17*Enumerated\_Domain\_Value\_Definition:* Page size = 22" by 17"*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* ESI Atlas for Southeast Alaska*Distribution\_Liability:*

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

*Custom\_Order\_Process:*

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

*Metadata\_Reference\_Information:**Metadata\_Date:* 200206*Metadata\_Review\_Date:* 200206*Metadata\_Contact:**Contact\_Information:**Contact\_Person\_Primary:**Contact\_Person:* Jill Petersen*Contact\_Organization:* NOAA, Office of Response and Restoration*Contact\_Position:* GIS Manager*Contact\_Address:**Address\_Type:* Physical Address*Address:* 7600 Sand Point Way, N.E.*City:* Seattle*State\_or\_Province:* Washington*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata

*Metadata\_Standard\_Version:* FGDC-STD-001-1998

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# Southeast Alaska ESI: BIRDS (Bird Polygons)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Publication\_Date:* 200206

*Title:* Southeast Alaska ESI: BIRDS (Bird Polygons)

*Edition:* Second

*Geospatial\_Data\_Presentation\_Form:* Digital vector data

##### *Series\_Information:*

*Series\_Name:* None

*Issue\_Identification:* Southeast Alaska

##### *Publication\_Information:*

*Publication\_Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains biological resource data for waterfowl in Southeast Alaska. Vector polygons in this data set represent locations of foraging and rafting 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 Environmental Sensitivity Index (ESI) data for Southeast Alaska. 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 (Nest Points) data layer, part of the larger Southeast Alaska ESI database, for additional bird information.

#### *Purpose:*

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

plans for immediate and effective protection of sensitive resources.

*Time\_Period\_of\_Content:*

*Time\_Period\_Information:*

*Range\_of\_Dates/Times:*

*Beginning\_Date:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

The biological data were compiled during 1999-2001. The currentness dates for these data range from 1980 to 2001 and are documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Bird

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization*

Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

### *Data Quality Information:*

#### *Attribute Accuracy:*

##### *Attribute Accuracy Report:*

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

#### *Logical Consistency Report:*

A multi-stage error checking process, described in the above Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary node, etc.), and ORACLE (r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-ROM and the metadata are written. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new ID's and RARNUM's or HUNUM's are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUM's are also modified to include the atlas number, so multiple atlases can be combined and RARNUM's remain unique. RARNUM's are redefined on an element basis, so "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 reports and digital data on bird nesting, foraging, and rafting concentration areas. Refer to the NESTS (Nest Points) data layer for additional nesting information. These data do not necessarily represent all bird occurrences in Southeast Alaska. The following species are included in this data set (Species\_ID, Common Name, Scientific Name, if applicable): 1003, Waterfowl.

#### *Positional Accuracy:*

##### *Horizontal Positional Accuracy:*

##### *Horizontal Positional Accuracy Report:*

The spatial components of the biological data sets are developed from maps with a scale of 1:250,000. See the Lineage and Process\_Description sections for more information on the original data source and how these data were integrated or manipulated to create the final data set. 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.

#### *Lineage:*

##### *Source Information:*

##### *Source Citation:*

##### *Citation Information:*

*Originator:* Alaska Department of Fish and Game

*Publication Date:* 1984

*Title:* Habitat Management Guide

*Geospatial Data Presentation Form:* Hardcopy Map

##### *Publication Information:*

*Publication Place:* Anchorage, AK

*Publisher:* Alaska Department of Fish and Game

*Source Scale Denominator:* 250000

*Type\_of\_Source\_Media:* Paper

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

*Time\_Period\_Information:*

*Single\_Date/Time:*

*Calendar\_Date:* 1980

*Source\_Currentness\_Reference:* Date of publication

*Source\_Citation\_Abbreviation:* None

*Source\_Contribution:* Bird Information

*Process\_Step:*

*Process\_Description:*

Sources of data used to depict bird distribution for this data layer included the Alaska Dept. of Fish and Game's Most Environmentally Sensitive Areas maps and Habitat Management Guides. Digital data were either used exactly as provided, or information from the coverages was transposed by hand onto the topographic maps if the format in which it was received was not compatible with the ESI data format. Following the data compilation phase, several sets of completed maps were sent out to the resource agencies for review, and edits were made based on recommendations by the resource experts. Concentration information varied. Where available, a numerical count of nests or individual birds was provided. In many cases, concentration information was provided by resource experts.

*Process\_Date:* 200110

*Process\_Contact:*

*Contact\_Information:*

*Contact\_Organization\_Primary:*

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Person:* Jill Petersen

*Contact\_Address:*

*Address\_Type:* Physical address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Spatial\_Data\_Organization\_Information:*

*Direct\_Spatial\_Reference\_Method:* Vector

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

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* GT-polygon composed of rings

*Point\_and\_Vector\_Object\_Count:* 17

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 17

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 17

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 1688

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* Node, planar graph

*Point\_and\_Vector\_Object\_Count:* 17

*Spatial\_Reference\_Information:*

*Horizontal\_Coordinate\_System\_Definition:*

*Geographic:**Latitude\_Resolution:* 0.00005*Longitude\_Resolution:* 0.00005*Geographic\_Coordinate\_Units:* Decimal degrees*Geodetic\_Model:**Horizontal\_Datum\_Name:* North American Datum of 1927*Ellipsoid\_Name:* Clark 1866*Semi-major\_Axis:* 6378206.400000*Denominator\_of\_Flattening\_Ratio:* 294.978698*Entity\_and\_Attribute\_Information:**Overview\_Description:**Entity\_and\_Attribute\_Overview:*

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, BIRDS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO\_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for Southeast Alaska, the number is 10), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN\_SPEC, S\_F, T\_E, NHP, DATE\_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G\_SOURCE, S\_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

*Detailed\_Description:**Entity\_Type:**Entity\_Type\_Label:* BIRDS.PAT*Entity\_Type\_Definition:*

The BIRDS.PAT table contains attribute information for the vector polygons representing bird nesting, foraging, and rafting areas. Note that all attribute information is stored in a series of relational files, described below. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.*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 (10), 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:* 100100002

*Range\_Domain\_Maximum:* 100100018

*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:* 10000075

*Range\_Domain\_Maximum:* 10000075

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* BIO\_LUT

*Entity\_Type\_Definition:*

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

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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 the polygons and do not contain information.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 10000001

*Range\_Domain\_Maximum:* 10000299

*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 (10), 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:* 100100002

*Range\_Domain\_Maximum:* 103400054

*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:* Research Planning, Inc.

*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:* 010000001

*Range\_Domain\_Maximum:* 010000299

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* CONC

*Attribute\_Definition:*

The field CONC refers to "concentration," abundance, or density values. The field is populated with a numerical count of nests or individual birds, where available; "UNKNOWN" if a count was not specified at the time of the survey; or "-" if no concentration information was available from any source.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* G\_SOURCE

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: BIRD*

*Enumerated\_Domain\_Value\_Definition: Birds*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: FISH*

*Enumerated\_Domain\_Value\_Definition: Fish*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: HABITAT*

*Enumerated\_Domain\_Value\_Definition: Habitats and plants*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: INVERT*

*Enumerated\_Domain\_Value\_Definition: Invertebrates*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: M\_MAMMAL*

*Enumerated\_Domain\_Value\_Definition: Marine mammals*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: REPTILE*

*Enumerated\_Domain\_Value\_Definition: Reptiles and Amphibians*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: T\_MAMMAL*

*Enumerated\_Domain\_Value\_Definition: Terrestrial mammals*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute:*

*Attribute\_Label: EL\_SPE*

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source: Research Planning, Inc.*

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute:*

*Attribute\_Label: EL\_SPE\_SEA*

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute*:

*Attribute\_Label*: NAME

*Attribute\_Definition*: Species common name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species common name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: GEN\_SPEC

*Attribute\_Definition*: Species scientific name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species scientific name for the entire ESI data set.

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: HABITAT  
*Enumerated\_Domain\_Value\_Definition*: Habitats and plants  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: INVERT  
*Enumerated\_Domain\_Value\_Definition*: Invertebrates  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: M\_MAMMAL  
*Enumerated\_Domain\_Value\_Definition*: Marine Mammals  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: REPTILE  
*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: T\_MAMMAL  
*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:  
*Attribute\_Label*: SUBELEMENT  
*Attribute\_Definition*: Element subgroup delineating a logical grouping of species  
*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: alcid  
*Enumerated\_Domain\_Value\_Definition*: Alcid  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: diving  
*Enumerated\_Domain\_Value\_Definition*: Diving bird  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: gull\_tern  
*Enumerated\_Domain\_Value\_Definition*: Gull or Tern  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: pelagic  
*Enumerated\_Domain\_Value\_Definition*: Pelagic bird  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: raptor  
*Enumerated\_Domain\_Value\_Definition*: Raptor  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: shorebird  
*Enumerated\_Domain\_Value\_Definition*: Shorebird

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: diadromous

*Enumerated\_Domain\_Value\_Definition*: Diadromous fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: e\_resident

*Enumerated\_Domain\_Value\_Definition*: Estuarine resident fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: e\_nursery

*Enumerated\_Domain\_Value\_Definition*: Estuarine nursery fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: freshwater

*Enumerated\_Domain\_Value\_Definition*: Freshwater fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: waterfowl

*Enumerated\_Domain\_Value\_Definition*: Waterfowl

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: m\_benthic fish

*Enumerated\_Domain\_Value\_Definition*: Marine benthic fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: m\_pelagic

*Enumerated\_Domain\_Value\_Definition*: Marine pelagic fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: sav

*Enumerated\_Domain\_Value\_Definition*: Submersed aquatic vegetation

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: dolphin

*Enumerated\_Domain\_Value\_Definition*: Dolphin

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: pinniped

*Enumerated\_Domain\_Value\_Definition*: Pinniped

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: sea\_otter

*Enumerated\_Domain\_Value\_Definition*: Otter

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: whale

*Enumerated\_Domain\_Value\_Definition:* Whale

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* bear

*Enumerated\_Domain\_Value\_Definition:* Bear

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 0

*Enumerated\_Domain\_Value\_Definition:* Not ranked

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* ELEMENT

*Attribute\_Definition:* Major categories of biological data

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* SEASON\_ID

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* JAN

*Attribute\_Definition:* January

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in January  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* FEB  
*Attribute\_Definition:* February  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* X  
*Enumerated\_Domain\_Value\_Definition:* Present in February  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* MAR  
*Attribute\_Definition:* March  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* X  
*Enumerated\_Domain\_Value\_Definition:* Present in March  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* APR  
*Attribute\_Definition:* April  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* X  
*Enumerated\_Domain\_Value\_Definition:* Present in April  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* MAY  
*Attribute\_Definition:* May  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* X  
*Enumerated\_Domain\_Value\_Definition:* Present in May  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* JUN  
*Attribute\_Definition:* June  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* X  
*Enumerated\_Domain\_Value\_Definition:* Present in June  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* JUL  
*Attribute\_Definition:* July  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* X  
*Enumerated\_Domain\_Value\_Definition:* Present in July  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* AUG  
*Attribute\_Definition:* August



*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in August

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SEP

*Attribute\_Definition*: September

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in September

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: OCT

*Attribute\_Definition*: October

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in October

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: NOV

*Attribute\_Definition*: November

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in November

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DEC

*Attribute\_Definition*: December

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in December

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT =

'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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/mating; 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 elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* BREED2

*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = laying; 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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: BREED3

*Attribute\_Definition*:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = hatching; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = interesting; if ELEMENT is "M\_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: BREED4

*Attribute\_Definition*:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED4 = fledging; if ELEMENT is "FISH" then BREED4 = juvenile; if ELEMENT is "INVERT" then BREED4 = juvenile; if ELEMENT is "REPTILE" then BREED4 = juvenile; if ELEMENT is "M\_MAMMAL" then BREED4 = molting. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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, and to G\_SOURCE and S\_SOURCE in the BIORES table.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATE\_PUB

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* TITLE

*Attribute\_Definition:* Title of source material or data

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* DATA\_FORMAT

*Attribute\_Definition:* The format of the source material

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* PUBLICATION

*Attribute\_Definition:* Additional citation information

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* SCALE

*Attribute\_Definition:* Scale denominator of the source

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* integer

*Enumerated\_Domain\_Value\_Definition:* Any integer

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* TIME\_PERIOD

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* yyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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 or federal 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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and Plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character  
*Enumerated\_Domain\_Value\_Definition*: Two-letter state abbreviation  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: S\_F  
*Attribute\_Definition*: State and Federal status.  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: F  
         *Enumerated\_Domain\_Value\_Definition*: Federally listed  
         *Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: S  
         *Enumerated\_Domain\_Value\_Definition*: State listed  
         *Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: S/F  
         *Enumerated\_Domain\_Value\_Definition*: State and federally listed  
         *Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: T\_E  
*Attribute\_Definition*: Threatened and endangered status.  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: E  
         *Enumerated\_Domain\_Value\_Definition*: Endangered on state or federal list  
         *Enumerated\_Domain\_Value\_Definition\_Source*: U.S. Fish and Wildlife Service  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: T  
         *Enumerated\_Domain\_Value\_Definition*: Threatened on state or federal list  
         *Enumerated\_Domain\_Value\_Definition\_Source*: U.S. Fish and Wildlife Service

*Attribute*:

*Attribute\_Label*: DATE\_PUB  
*Attribute\_Definition*:  
     Publication date of source material used to assign state and federal status values for each species, if used.  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: Numeric  
         *Enumerated\_Domain\_Value\_Definition*: mmyyyy  
         *Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.  
*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE =

'B00001').  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

---

*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*: ESI Atlas for Southeast Alaska*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*: 200206*Metadata\_Review\_Date*: 200206*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



# Southeast Alaska ESI: NESTS (Nest Points)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

#### *Publication\_Date:* 200206

*Title:* Southeast Alaska ESI: NESTS (Nest Points)

*Edition:* Second

*Geospatial\_Data\_Presentation\_Form:* Digital vector data

#### *Series\_Information:*

*Series\_Name:* None

*Issue\_Identification:* Southeast Alaska

#### *Publication\_Information:*

*Publication\_Place:* Seattle, Washington

#### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

#### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains biological resource data for alcids, shorebirds, waterfowl, diving birds, pelagic birds, gulls, and terns in Southeast Alaska. Points in this data set represent locations of bird nesting 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. See also the BIRDS (Bird Polygons) data layer, part of the larger Southeast Alaska ESI database, for additional bird information. This data set comprises a portion of the Environmental Sensitivity Index (ESI) data for Southeast Alaska. 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 (Bird Polygons) data layer, part of the larger Southeast Alaska ESI database, for additional bird information.

#### *Purpose:*

The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning

and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

*Time\_Period\_of\_Content:*

*Time\_Period\_Information:*

*Range\_of\_Dates/Times:*

*Beginning\_Date:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

The biological data were compiled during 1999-2001. The currentness dates for these data range from 2000 to 2001 and are documented in the Source\_Information section

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Nest

*Theme\_Keyword:* Bird

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard

workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The Spatial\_Data\_Organization\_Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

### *Data\_Quality\_Information:*

#### *Attribute\_Accuracy:*

##### *Attribute\_Accuracy\_Report:*

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

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

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

#### *Completeness\_Report:*

These data were obtained from digital data on bird nesting sites. Refer to the BIRDS (Bird Polygons) data layer for additional distribution information. These data do not necessarily represent all bird occurrences in Southeast Alaska. The following species are included in this data set (Species\_ID, Common Name, Scientific Name, if applicable): 10, Pelagic cormorant, *Phalacrocorax pelagicus*; 35, Parasitic jaeger, *Stercorarius parasiticus*; 36, Glaucous-winged gull, *Larus glaucescens*; 38, Herring gull, *Larus argentatus*; 41, Mew gull, *Larus canus*; 46, Common murre, *Uria aalge*; 47, Pigeon guillemot, *Cephus columba*; 48, Marbled murrelet, *Brachyramphus marmoratus*; 51, Tufted puffin, *Fratercula cirrhata*; 56, Spotted sandpiper, *Actitis macularia*; 68, Black oystercatcher, *Haematopus bachmani*; 69, Semipalmated plover, *Charadrius semipalmatus*; 76, Bald eagle, *Haliaeetus leucocephalus*; 80, Arctic tern, *Sterna paradisaea*; 81, Horned puffin, *Fratercula corniculata*; 96, Leach's storm-petrel, *Oceanodroma leucorhoa*; 100, Black-legged kittiwake, *Rissa tridactyla*; 101, Aleutian tern, *Sterna aleutica*; 102, Fork-tailed storm-petrel, *Oceanodroma furcata*; 106, Ancient murrelet, *Synthliboramphus antiquus*; 108, Kittlitz's murrelet, *Brachyramphus brevirostris*; 1001, Gulls.

#### *Positional\_Accuracy:*

##### *Horizontal\_Positional\_Accuracy:*

##### *Horizontal\_Positional\_Accuracy\_Report:*

This biological data set was developed from pre-existing digital sources and reflects the positional accuracy of these original data. See the Lineage and Process\_Description sections for more information on the original data source and how these data were integrated or manipulated to create the final data set. 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.

#### *Lineage:*

##### *Source\_Information:*

##### *Source\_Citation:*

*Citation Information:**Originator:* Sharp, Devi*Publication Date:* Unpublished Material*Title:* Wrangell St. Elias National Park Resources*Geospatial Data Presentation Form:* Hardcopy Maps*Source Scale Denominator:* 250000*Type of Source Media:* Paper*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:* Nest Information*Source Information:**Source Citation:**Citation Information:**Originator:* U. S. Fish and Wildlife Service*Publication Date:* 2000*Title:* Beringian Seabird Colony Catalog -- Computer Database*Geospatial Data Presentation Form:* Digital Table*Publication Information:**Publication Place:* Anchorage, AK*Publisher:* U.S. Fish and Wildlife Service, Migratory Bird Management*Type of Source Media:* CD-ROM*Source Time Period of Content:**Time Period Information:**Single Date/Time:**Calendar Date:* 2000*Source Currentness Reference:* Date of publication*Source Citation Abbreviation:* None*Source Contribution:* Nest Information*Source Information:**Source Citation:**Citation Information:**Originator:* Kravolec, Mary*Publication Date:* 2000*Title:* Bird nesting sites in Glacier Bay*Geospatial Data Presentation Form:* Digital Table*Publication Information:**Publication Place:* Gustavus, AK*Publisher:* Glacier Bay National Park*Type of Source Media:* CD-ROM*Source Time Period of Content:**Time Period Information:**Single Date/Time:**Calendar Date:* 2000*Source Currentness Reference:* Date of publication*Source Citation Abbreviation:* None*Source Contribution:* Nest Information*Process Step:**Process Description:*

Data sources used to depict bird nesting locations included the U. S. Fish and Wildlife Service Beringian Seabird Database and Glacier Bay National Park Seabird Survey database. Digital data were used exactly as provided and the attribute data were converted to a format compatible with the ESI data format. Following the data compilation phase, several sets of completed maps were sent out to the resource agencies for review, and edits were made based on recommendations by the resource experts. Concentration information was numerical counts of nests or individuals, where available, and unknown otherwise. In many cases, concentration information was provided

by resource experts.

*Process\_Date*: 200110

*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*: 355

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*Spatial\_Reference\_Information*:

*Horizontal\_Coordinate\_System\_Definition*:

*Geographic*:

*Latitude\_Resolution*: 0.00005

*Longitude\_Resolution*: 0.00005

*Geographic\_Coordinate\_Units*: Decimal degrees

*Geodetic\_Model*:

*Horizontal\_Datum\_Name*: North American Datum of 1927

*Ellipsoid\_Name*: Clark 1866

*Semi-major\_Axis*: 6378206.400000

*Denominator\_of\_Flattening\_Ratio*: 294.978698

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*Entity\_and\_Attribute\_Information*:

*Overview\_Description*:

*Entity\_and\_Attribute\_Overview*:

In addition to the geographic data layers, six relational attribute or data tables, BIORRES, 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 (BIORRES) 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 Southeast Alaska, the number is 10), 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. BIORRES and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN\_SPEC, S\_F, T\_E,

NHP, DATE\_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G\_SOURCE, S\_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layers attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* NESTS.PAT

*Entity\_Type\_Definition:*

The NESTS.PAT table contains attribute information for the points representing bird nesting sites. Note that all attribute information is stored in a series of relational files, described below. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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 (10), element number (5), and record number.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 100500001

*Range\_Domain\_Maximum:* 100500355

*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:* 10000001

*Range\_Domain\_Maximum:* 10000059

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* BIO\_LUT

*Entity\_Type\_Definition:*

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

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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 the polygons and do not contain information

*Attribute\_Definition\_Source*: NOAA

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 10000001

*Range\_Domain\_Maximum*: 10000299

*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 (10), 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*: 100100002

*Range\_Domain\_Maximum*: 103400054

*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*: Research Planning, Inc.

*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*: 010000001

*Range\_Domain\_Maximum*: 010000299

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute*:

*Attribute\_Label*: CONC

*Attribute\_Definition*:

The field CONC refers to the number of adult breeding individuals for each species present at a particular nesting site. In cases where no count was specified at the time of the survey, the field contains the word "UNKNOWN". If no concentration information was available from any source, the field contains "-".

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* G\_SOURCE

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*



*Enumerated\_Domain\_Value:* REPTILE  
*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* T\_MAMMAL  
*Enumerated\_Domain\_Value\_Definition:* Terrestrial mammals  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = BIRD and SPECIES\_ID = 1; EL\_SPE = B00001).  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = BIRD, SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = B0000101).  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*  
*Range\_Domain\_Minimum:* 1  
*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* NAME

*Attribute\_Definition:* Species common name

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value*: Species common name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: GEN\_SPEC

*Attribute\_Definition*: Species scientific name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species scientific name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SUBELEMENT

*Attribute\_Definition*: Element subgroup delineating a logical grouping of species.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: alcid

*Enumerated\_Domain\_Value\_Definition*: Alcid

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: diving

*Enumerated\_Domain\_Value\_Definition*: Diving bird

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: gull\_tern

*Enumerated\_Domain\_Value\_Definition*: Gull or Tern

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: pelagic

*Enumerated\_Domain\_Value\_Definition*: Pelagic bird

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: raptor

*Enumerated\_Domain\_Value\_Definition*: Raptor

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: shorebird

*Enumerated\_Domain\_Value\_Definition*: Shorebird

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: diadromous

*Enumerated\_Domain\_Value\_Definition*: Diadromous fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: e\_resident

*Enumerated\_Domain\_Value\_Definition*: Estuarine resident fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: e\_nursery

*Enumerated\_Domain\_Value\_Definition*: Estuarine nursery fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: freshwater

*Enumerated\_Domain\_Value\_Definition*: Freshwater fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: waterfowl

*Enumerated\_Domain\_Value\_Definition*: Waterfowl

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: m\_benthic\_fish

*Enumerated\_Domain\_Value\_Definition*: Marine benthic fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: m\_pelagic

*Enumerated\_Domain\_Value\_Definition:* Marine pelagic fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* sav

*Enumerated\_Domain\_Value\_Definition:* Submersed aquatic vegetation

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* dolphin

*Enumerated\_Domain\_Value\_Definition:* Dolphin

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* pinniped

*Enumerated\_Domain\_Value\_Definition:* Pinniped

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* sea\_otter

*Enumerated\_Domain\_Value\_Definition:* Otter

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* whale

*Enumerated\_Domain\_Value\_Definition:* Whale

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* bear

*Enumerated\_Domain\_Value\_Definition:* Bear

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 0

*Enumerated\_Domain\_Value\_Definition:* Not ranked

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = BIRD and SPECIES\_ID = 1; EL\_SPE = B00001).

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute*:

*Attribute\_Label*: SEASON\_ID

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute*:

*Attribute\_Label*: JAN

*Attribute\_Definition*: January

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in January

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: FEB

*Attribute\_Definition*: February

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in February

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: MAR

*Attribute\_Definition*: March

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in March

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: APR

*Attribute\_Definition*: April

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in April

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: MAY

*Attribute\_Definition*: May

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X  
*Enumerated\_Domain\_Value\_Definition*: Present in May  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: JUN  
*Attribute\_Definition*: June  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: X  
*Enumerated\_Domain\_Value\_Definition*: Present in June  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: JUL  
*Attribute\_Definition*: July  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: X  
*Enumerated\_Domain\_Value\_Definition*: Present in July  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: AUG  
*Attribute\_Definition*: August  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: X  
*Enumerated\_Domain\_Value\_Definition*: Present in August  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SEP  
*Attribute\_Definition*: September  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: X  
*Enumerated\_Domain\_Value\_Definition*: Present in September  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: OCT  
*Attribute\_Definition*: October  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: X  
*Enumerated\_Domain\_Value\_Definition*: Present in October  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: NOV  
*Attribute\_Definition*: November  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: X  
*Enumerated\_Domain\_Value\_Definition*: Present in November  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DEC

*Attribute\_Definition:* December

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in December

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = BIRD, SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = B0000101).

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = BIRD, SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = B0000101).

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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/mating; 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 elements.



*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: BREED2

*Attribute\_Definition*:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = laying; 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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: BREED3

*Attribute\_Definition*:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = hatching; 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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: BREED4

*Attribute\_Definition*:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED4 = fledging; if ELEMENT is "FISH" then BREED4 = juvenile; if ELEMENT is "INVERT" then BREED4 = juvenile; if ELEMENT is "REPTILE" then BREED4 = juvenile; if ELEMENT is "M\_MAMMAL" then BREED4 = molting. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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, and to G\_SOURCE and S\_SOURCE in the BIORES table.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATE\_PUB

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TITLE

*Attribute\_Definition*: Title of source material or data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATA\_FORMAT

*Attribute\_Definition*: The format of the source material

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: PUBLICATION

*Attribute\_Definition*: Additional citation information

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute:**Attribute\_Label:* SCALE*Attribute\_Definition:* Scale denominator of the source*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* integer*Enumerated\_Domain\_Value\_Definition:* Any integer*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* TIME\_PERIOD*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* yyyy*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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 or federal 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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* ELEMENT*Attribute\_Definition:* Major categories of biological data*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* BIRD*Enumerated\_Domain\_Value\_Definition:* Birds*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* FISH*Enumerated\_Domain\_Value\_Definition:* Fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* HABITAT*Enumerated\_Domain\_Value\_Definition:* Habitats and Plants*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* INVERT*Enumerated\_Domain\_Value\_Definition:* Invertebrates*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* M\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Marine Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE  
*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* T\_MAMMAL  
*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* Any character  
*Enumerated\_Domain\_Value\_Definition:* Two-letter state abbreviation  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* S\_F

*Attribute\_Definition:* State and Federal status.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* F  
*Enumerated\_Domain\_Value\_Definition:* Federally listed  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* S  
*Enumerated\_Domain\_Value\_Definition:* State listed  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* S/F  
*Enumerated\_Domain\_Value\_Definition:* State and federally listed  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* T\_E

*Attribute\_Definition:* Threatened and endangered status.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* E  
*Enumerated\_Domain\_Value\_Definition:* Endangered on state or federal list  
*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* T  
*Enumerated\_Domain\_Value\_Definition:* Threatened on state or federal list

*Enumerated\_Domain\_Value\_Definition\_Source*: U.S. Fish and Wildlife Service

*Attribute*:

*Attribute\_Label*: DATE\_PUB

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: EL\_SPE

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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 (eg. ELEMENT = BIRD and SPECIES\_ID = 1; EL\_SPE = B00001).

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: ESI Atlas for Southeast Alaska

*Distribution\_Liability*:

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

*Custom\_Order\_Process*:

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

*Metadata\_Reference\_Information:**Metadata\_Date:* 200206*Metadata\_Review\_Date:* 200206*Metadata\_Contact:**Contact\_Information:**Contact\_Person\_Primary:**Contact\_Person:* Jill Petersen*Contact\_Organization:* NOAA, Office of Response and Restoration*Contact\_Position:* GIS Manager*Contact\_Address:**Address\_Type:* Physical Address*Address:* 7600 Sand Point Way, N.E.*City:* Seattle*State\_or\_Province:* Washington*Postal\_Code:* 98115-6349*Contact\_Voice\_Telephone:* (206) 526-6944*Contact\_Facsimile\_Telephone:* (206) 526-6329*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata*Metadata\_Standard\_Version:* FGDC-STD-001-1998

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# Southeast Alaska ESI: FISH (Fish Polygons)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication\_Date:* 200206

##### *Title:* Southeast Alaska ESI: FISH (Fish Polygons)

##### *Edition:* Second

##### *Geospatial\_Data\_Presentation\_Form:* Digital vector data

##### *Series\_Information:*

##### *Series\_Name:* None

##### *Issue\_Identification:* Southeast Alaska

##### *Publication\_Information:*

##### *Publication\_Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains biological resource data for estuarine, benthic, and pelagic fish in Southeast Alaska. Vector polygons in this data set represent locations of fish concentration areas. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the Environmental Sensitivity Index (ESI) data for Southeast Alaska. 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 (Fish Lines) and FISHP (Fish Points) data layers, part of the larger Southeast Alaska 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

The biological data were compiled during 1999-2001. The currentness dates for these data range from 1985 to 2001 and are documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Fish

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization*

Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

### *Data\_Quality\_Information:*

#### *Attribute\_Accuracy:*

##### *Attribute\_Accuracy\_Report:*

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

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

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary node, etc.), and ORACLE(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-ROM and the metadata are written. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new ID's and RARNUM's or HUNUM's are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUM's are also modified to include the atlas number, so multiple atlases can be combined and RARNUM's remain unique. RARNUM's are redefined on an element basis, so "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 reports and digital data on fish concentration areas. Refer to the FISHL (Fish Lines) and FISHP (Fish Points) data layers for additional anadromous fish information. These data do not necessarily represent all fish occurrences in Southeast Alaska. The following species are included in this data set (Species\_ID, Common Name, Scientific Name, if applicable): 22, Walleye Pollock, *Theragra chalcogramma*; 77, Eulachon, *Thaleichthys pacificus*; 78, Capelin, *Mallotus villosus*.

#### *Positional\_Accuracy:*

##### *Horizontal\_Positional\_Accuracy:*

##### *Horizontal\_Positional\_Accuracy\_Report:*

The spatial components of the biological data sets are 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 basemaps with a scale of 1:250,000. 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.

### *Lineage:*

#### *Source\_Information:*

##### *Source\_Citation:*

##### *Citation\_Information:*

*Originator:* Alaska Department of Fish and Game

*Publication\_Date:* 1998

*Title:* Most Environmentally Sensitive Areas - Vol 2.

*Geospatial\_Data\_Presentation\_Form:* Digital Vector Data

##### *Publication\_Information:*

*Publication\_Place:* Anchorage, AK

*Publisher:* Alaska Department of Fish and Game

*Source\_Scale\_Denominator:* 250000  
*Type\_of\_Source\_Media:* Paper  
*Source\_Time\_Period\_of\_Content:*  
     *Time\_Period\_Information:*  
         *Range\_of\_Dates/Times:*  
             *Beginning\_Date:* 1985  
             *Ending\_Date:* 1997  
     *Source\_Currentness\_Reference:* Date of publication  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Fish Information  
*Source\_Information:*  
     *Source\_Citation:*  
         *Citation\_Information:*  
             *Originator:* Robards, Martin  
             *Publication\_Date:* Unpublished Material  
             *Title:* Glacier Bay Fishery Survey  
             *Geospatial\_Data\_Presentation\_Form:* Digital Table  
     *Type\_of\_Source\_Media:* CD-ROM  
     *Source\_Time\_Period\_of\_Content:*  
         *Time\_Period\_Information:*  
             *Range\_of\_Dates/Times:*  
                 *Beginning\_Date:* 1999  
                 *Ending\_Date:* 2000  
         *Source\_Currentness\_Reference:* Date of publication  
     *Source\_Citation\_Abbreviation:* None  
     *Source\_Contribution:* Fish Information

*Process\_Step:*

*Process\_Description:*

Data sources used to depict fish distribution for this data layer included data developed by Glacier Bay National Park, and the Alaska Dept. of Fish and Game's Most Environmentally Sensitive Areas maps and Habitat Management Guides. Information gathered from other maps were compiled onto 1:250,000 scale U.S. Geological Survey (USGS) topographic maps. Digital data were transposed by hand onto the topographic maps since the format in which they were received was not compatible with the ESI data format. Following the data compilation phase, several sets of completed maps were sent out to the resource agencies for review, and edits were made based on recommendations by the resource experts. Fish concentration is indicated by the descriptive term "HIGH", or by "-" if no concentration information was available from any source.

*Process\_Date:* 200110

*Process\_Contact:*

*Contact\_Information:*

*Contact\_Organization\_Primary:*

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Person:* Jill Petersen

*Contact\_Address:*

*Address\_Type:* Physical address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Spatial\_Data\_Organization\_Information:*

*Direct\_Spatial\_Reference\_Method:* Vector

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

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type*: GT-polygon composed of rings  
*Point\_and\_Vector\_Object\_Count*: 124  
*SDTS\_Terms\_Description*:  
*SDTS\_Point\_and\_Vector\_Object\_Type*: Area point  
*Point\_and\_Vector\_Object\_Count*: 124  
*SDTS\_Terms\_Description*:  
*SDTS\_Point\_and\_Vector\_Object\_Type*: Complete chain  
*Point\_and\_Vector\_Object\_Count*: 274  
*SDTS\_Terms\_Description*:  
*SDTS\_Point\_and\_Vector\_Object\_Type*: Link  
*Point\_and\_Vector\_Object\_Count*: 72360  
*SDTS\_Terms\_Description*:  
*SDTS\_Point\_and\_Vector\_Object\_Type*: Node, planar graph  
*Point\_and\_Vector\_Object\_Count*: 271

---

*Spatial\_Reference\_Information*:*Horizontal\_Coordinate\_System\_Definition*:*Geographic*:

*Latitude\_Resolution*: 0.00005  
*Longitude\_Resolution*: 0.00005  
*Geographic\_Coordinate\_Units*: Decimal degrees

*Geodetic\_Model*:

*Horizontal\_Datum\_Name*: North American Datum of 1927  
*Ellipsoid\_Name*: Clark 1866  
*Semi-major\_Axis*: 6378206.400000  
*Denominator\_of\_Flattening\_Ratio*: 294.978698

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*Entity\_and\_Attribute\_Information*:*Overview\_Description*:*Entity\_and\_Attribute\_Overview*:

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, FISH) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO\_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for Southeast Alaska, the number is 10), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN\_SPEC, S\_F, T\_E, NHP, DATE\_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G\_SOURCE, S\_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the

source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* FISH.PAT

*Entity\_Type\_Definition:*

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

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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 (10), 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:* 100200002

*Range\_Domain\_Maximum:* 100200018

*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:* 10000208

*Range\_Domain\_Maximum:* 10000235

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* BIO\_LUT

*Entity\_Type\_Definition:*

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

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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 the polygons and do not contain information.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 10000001

*Range\_Domain\_Maximum:* 10000299

*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 (10), 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*: 100100002

*Range\_Domain\_Maximum*: 103400054

*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*: Research Planning, Inc.

*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*: 010000001

*Range\_Domain\_Maximum*: 010000299

*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*: Research Planning, Inc.

*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. For most species in this data layer, the CONC field contains "-", which indicates that no concentration information was available. For some species, the field contains the term "HIGH", to indicate a high concentration area.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute*:

*Attribute\_Label:* G\_SOURCE

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* NAME

*Attribute\_Definition:* Species common name

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Species common name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* GEN\_SPEC

*Attribute\_Definition:* Species scientific name

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*



*Enumerated\_Domain:**Enumerated\_Domain\_Value:* Species scientific name for the entire ESI data set.*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* ELEMENT*Attribute\_Definition:* Major categories of biological data*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* BIRD*Enumerated\_Domain\_Value\_Definition:* Birds*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* FISH*Enumerated\_Domain\_Value\_Definition:* Fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* HABITAT*Enumerated\_Domain\_Value\_Definition:* Habitats and plants*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* INVERT*Enumerated\_Domain\_Value\_Definition:* Invertebrates*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* M\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Marine Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* REPTILE*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* SUBELEMENT*Attribute\_Definition:* Element subgroup delineating a logical grouping of species.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* alcid*Enumerated\_Domain\_Value\_Definition:* Alcid*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* diving*Enumerated\_Domain\_Value\_Definition:* Diving bird*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* gull\_tern  
*Enumerated\_Domain\_Value\_Definition:* Gull or Tern  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* pelagic  
*Enumerated\_Domain\_Value\_Definition:* Pelagic bird  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* raptor  
*Enumerated\_Domain\_Value\_Definition:* Raptor  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* shorebird  
*Enumerated\_Domain\_Value\_Definition:* Shorebird  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* diadromous  
*Enumerated\_Domain\_Value\_Definition:* Diadromous fish  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* e\_resident  
*Enumerated\_Domain\_Value\_Definition:* Estuarine resident fish  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* e\_nursery  
*Enumerated\_Domain\_Value\_Definition:* Estuarine nursery fish  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* freshwater  
*Enumerated\_Domain\_Value\_Definition:* Freshwater fish  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* waterfowl  
*Enumerated\_Domain\_Value\_Definition:* Waterfowl  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* m\_benthic fish  
*Enumerated\_Domain\_Value\_Definition:* Marine benthic fish  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* m\_pelagic  
*Enumerated\_Domain\_Value\_Definition:* Marine pelagic fish  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* sav  
*Enumerated\_Domain\_Value\_Definition:* Submersed aquatic vegetation  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* dolphin*Enumerated\_Domain\_Value\_Definition:* Dolphin*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* pinniped*Enumerated\_Domain\_Value\_Definition:* Pinniped*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* sea\_otter*Enumerated\_Domain\_Value\_Definition:* Otter*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* whale*Enumerated\_Domain\_Value\_Definition:* Whale*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* bear*Enumerated\_Domain\_Value\_Definition:* Bear*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* 0*Enumerated\_Domain\_Value\_Definition:* Not ranked*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* mmyyyy*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute:**Attribute\_Label:* SEASON\_ID*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Range\_Domain:**Range\_Domain\_Minimum:* 1*Range\_Domain\_Maximum:* N*Attribute:**Attribute\_Label:* JAN*Attribute\_Definition:* January*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in January*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* FEB*Attribute\_Definition:* February*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in February*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* MAR*Attribute\_Definition:* March*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in March*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* APR*Attribute\_Definition:* April*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in April*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* MAY*Attribute\_Definition:* May*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in May*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* JUN*Attribute\_Definition:* June*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in June

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* JUL

*Attribute\_Definition:* July

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in July

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* AUG

*Attribute\_Definition:* August

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in August

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* SEP

*Attribute\_Definition:* September

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in September

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* OCT

*Attribute\_Definition:* October

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in October

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* NOV

*Attribute\_Definition:* November

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in November

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* DEC

*Attribute\_Definition:* December

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in December

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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:* Research Planning, Inc.*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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/mating; 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 elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:*

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* BREED2*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = laying; 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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* BREED3*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = hatching; 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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.



*Attribute:**Attribute\_Label:* BREED4*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED4 = fledging; if ELEMENT is "FISH" then BREED4 = juvenile; if ELEMENT is "INVERT" then BREED4 = juvenile; if ELEMENT is "REPTILE" then BREED4 = juvenile; if ELEMENT is "M\_MAMMAL" then BREED4 = molting. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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:* Research Planning, Inc.*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, and to G\_SOURCE and S\_SOURCE in the BIORES table.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATE\_PUB

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TITLE

*Attribute\_Definition*: Title of source material or data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATA\_FORMAT

*Attribute\_Definition*: The format of the source material

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: PUBLICATION

*Attribute\_Definition*: Additional citation information

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SCALE

*Attribute\_Definition*: Scale denominator of the source

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: integer

*Enumerated\_Domain\_Value\_Definition*: Any integer

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TIME\_PERIOD

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: yyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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 or federal 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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and Plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Two-letter state abbreviation*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* S\_F*Attribute\_Definition:* State and Federal status.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* F*Enumerated\_Domain\_Value\_Definition:* Federally listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* S*Enumerated\_Domain\_Value\_Definition:* State listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* S/F*Enumerated\_Domain\_Value\_Definition:* State and federally listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* T\_E*Attribute\_Definition:* Threatened and endangered status.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* E*Enumerated\_Domain\_Value\_Definition:* Endangered on state or federal list*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T*Enumerated\_Domain\_Value\_Definition:* Threatened on state or federal list*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service*Attribute:**Attribute\_Label:* DATE\_PUB*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:*

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* mmyyyy*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* ESI Atlas for Southeast Alaska*Distribution\_Liability:*

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

*Custom\_Order\_Process:*

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

*Metadata\_Reference\_Information:**Metadata\_Date:* 200206*Metadata\_Review\_Date:* 200206*Metadata\_Contact:**Contact\_Information:**Contact\_Person\_Primary:**Contact\_Person:* Jill Petersen

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Position:* GIS Manager

*Contact\_Address:*

*Address\_Type:* Physical Address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata

*Metadata\_Standard\_Version:* FGDC-STD-001-1998

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# Southeast Alaska ESI: FISHL (Fish Lines)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication\_Date:* 200206

##### *Title:* Southeast Alaska ESI: FISHL (Fish Lines)

##### *Edition:* Second

##### *Geospatial\_Data\_Presentation\_Form:* Digital vector data

##### *Series\_Information:*

##### *Series\_Name:* None

##### *Issue\_Identification:* Southeast Alaska

##### *Publication\_Information:*

##### *Publication\_Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains biological resource data for anadromous fish streams in Southeast Alaska. Vector lines in this data set represent locations of fish streams. 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 Environmental Sensitivity Index (ESI) data for Southeast Alaska. 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 (Fish Polygons) and FISHP (Fish Points) data layers, part of the larger Southeast Alaska 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

The biological data were compiled during 1999-2001. The currentness dates for these data range from 2000 to 2001 and are documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Fish

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization*



Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

### *Data Quality Information:*

#### *Attribute Accuracy:*

##### *Attribute Accuracy Report:*

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

#### *Logical Consistency Report:*

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

#### *Completeness Report:*

These data were obtained from digital data on anadromous fish streams. Refer to the FISH (Fish Polygons) and FISHPT (Fish Points) data layers for additional anadromous fish information. These data do not necessarily represent all anadromous fish streams in Southeast Alaska. The following species are included in this data set (Species\_ID, Common Name, Scientific Name, if applicable): 45, Coastal Cutthroat trout, *Oncorhynchus clarkii clarkii*; 51, Pacific staghorn sculpin, *Leptocottus armatus*; 68, Chinook salmon, *Oncorhynchus tshawytscha*; 69, Coho salmon (silver), *Oncorhynchus kisutch*; 70, Pink salmon (humpy), *Oncorhynchus gorbuscha*; 71, Sockeye salmon (red), *Oncorhynchus nerka*; 72, Chum salmon (dog), *Oncorhynchus keta*; 74, Rainbow trout (steelhead), *Oncorhynchus mykiss*; 77, Eulachon, *Thaleichthys pacificus*; 83, Salmon; 91, Threespine stickleback, *Gasterosteus aculeatus*; 135, Dolly varden, *Salvelinus malma*; 164, Cisco, *Coregonus spp.*

#### *Positional Accuracy:*

##### *Horizontal Positional Accuracy:*

##### *Horizontal Positional Accuracy Report:*

This biological data set was developed from pre-existing digital sources and reflects the positional accuracy of these original data. See the Lineage and Process\_Description sections for more information on the original data source and how these data were integrated or manipulated to create the final data set. 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.

### *Lineage:*

#### *Source Information:*

##### *Source Citation:*

##### *Citation Information:*

*Originator:* Alaska Department of Fish and Game

*Publication Date:* 2000

*Title:* Waters Important to Anadromous Fish

*Geospatial Data Presentation Form:* Digital Vector Data

*Publication\_Information:**Publication\_Place:* Anchorage, AK*Publisher:* Alaska Department of Fish and Game*Source\_Scale\_Denominator:* 63360*Type\_of\_Source\_Media:* CD-ROM*Source\_Time\_Period\_of\_Content:**Time\_Period\_Information:**Single\_Date/Time:**Calendar\_Date:* 2000*Source\_Currentness\_Reference:* Date of publication*Source\_Citation\_Abbreviation:* None*Source\_Contribution:* Fish Information*Process\_Step:**Process\_Description:*

Data sources used to depict anadromous stream locations included the Alaska Department of Fish and Game's Waters Important to Anadromous Fish Database and Glacier Bay National Park Anadromous Fish Survey data. The digital positional data were used exactly as provided, and the attribute data were converted to a format compatible with the ESI data format. Following the data compilation phase, several sets of completed maps were sent out to the resource agencies for review, and edits were made based on recommendations by the resource experts.

*Process\_Date:* 200110*Process\_Contact:**Contact\_Information:**Contact\_Organization\_Primary:**Contact\_Organization:* NOAA, Office of Response and Restoration*Contact\_Person:* Jill Petersen*Contact\_Address:**Address\_Type:* Physical address*Address:* 7600 Sand Point Way, N.E.*City:* Seattle*State\_or\_Province:* Washington*Postal\_Code:* 98115-6349*Contact\_Voice\_Telephone:* (206) 526-6944*Contact\_Facsimile\_Telephone:* (206) 526-6329*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov*Spatial\_Data\_Organization\_Information:**Direct\_Spatial\_Reference\_Method:* Vector*Point\_and\_Vector\_Object\_Information:**SDTS\_Terms\_Description:**SDTS\_Point\_and\_Vector\_Object\_Type:* Complete Chain*Point\_and\_Vector\_Object\_Count:* 609*SDTS\_Terms\_Description:**SDTS\_Point\_and\_Vector\_Object\_Type:* Link*Point\_and\_Vector\_Object\_Count:* 56522*SDTS\_Terms\_Description:**SDTS\_Point\_and\_Vector\_Object\_Type:* Node, planar graph*Point\_and\_Vector\_Object\_Count:* 1203*Spatial\_Reference\_Information:**Horizontal\_Coordinate\_System\_Definition:**Geographic:**Latitude\_Resolution:* 0.00005*Longitude\_Resolution:* 0.00005*Geographic\_Coordinate\_Units:* Decimal degrees

*Geodetic\_Model:**Horizontal\_Datum\_Name:* North American Datum of 1927*Ellipsoid\_Name:* Clark 1866*Semi-major\_Axis:* 6378206.400000*Denominator\_of\_Flattening\_Ratio:* 294.978698*Entity\_and\_Attribute\_Information:**Overview\_Description:**Entity\_and\_Attribute\_Overview:*

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, FISHL) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO\_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for Southeast Alaska, the number is 10), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN\_SPEC, S\_F, T\_E, NHP, DATE\_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G\_SOURCE, S\_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

*Detailed\_Description:**Entity\_Type:**Entity\_Type\_Label:* FISHL.AAT*Entity\_Type\_Definition:*

The FISHL.AAT table contains attribute information for the vector lines representing anadromous fish streams. Note that all attribute information is stored in a series of relational files, described below. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.*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 (10), element number (22; 20 because it is a line feature, plus 2, the element value for FISH), and record number.

*Attribute\_Definition\_Source:* NOAA*Attribute\_Domain\_Values:**Range\_Domain:*

*Range\_Domain\_Minimum:* 102200001  
*Range\_Domain\_Maximum:* 102200609

*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:* 10000078

*Range\_Domain\_Maximum:* 10000207

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* BIO\_LUT

*Entity\_Type\_Definition:*

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

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 10000001

*Range\_Domain\_Maximum:* 10000299

*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 (10), element number (22; 20 because it is a line feature, plus 2, the element value for FISH), and record number.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 100100002

*Range\_Domain\_Maximum:* 103400054

*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:* Research Planning, Inc.

*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:* 010000001

*Range\_Domain\_Maximum:* 010000299

*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:* Research Planning, Inc.

*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. In this data layer, the CONC field contains a "-" because no concentration information was available for anadromous fish streams.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* G\_SOURCE

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT =

'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute:*

*Attribute\_Label*: NAME

*Attribute\_Definition*: Species common name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species common name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute:*

*Attribute\_Label*: GEN\_SPEC

*Attribute\_Definition*: Species scientific name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species scientific name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute:*

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* INVERT*Enumerated\_Domain\_Value\_Definition:* Invertebrates*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* M\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Marine Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* REPTILE*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* SUBELEMENT*Attribute\_Definition:* Element subgroup delineating a logical grouping of species.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* alcid*Enumerated\_Domain\_Value\_Definition:* Alcid*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* diving*Enumerated\_Domain\_Value\_Definition:* Diving bird*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* gull\_tern*Enumerated\_Domain\_Value\_Definition:* Gull or Tern*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* pelagic*Enumerated\_Domain\_Value\_Definition:* Pelagic bird*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* raptor*Enumerated\_Domain\_Value\_Definition:* Raptor*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* shorebird*Enumerated\_Domain\_Value\_Definition:* Shorebird*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* diadromous*Enumerated\_Domain\_Value\_Definition:* Diadromous fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:*



*Enumerated\_Domain:**Enumerated\_Domain\_Value:* e\_resident*Enumerated\_Domain\_Value\_Definition:* Estuarine resident fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* e\_nursery*Enumerated\_Domain\_Value\_Definition:* Estuarine nursery fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* freshwater*Enumerated\_Domain\_Value\_Definition:* Freshwater fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* waterfowl*Enumerated\_Domain\_Value\_Definition:* Waterfowl*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* m\_benthic fish*Enumerated\_Domain\_Value\_Definition:* Marine benthic fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* m\_pelagic*Enumerated\_Domain\_Value\_Definition:* Marine pelagic fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* sav*Enumerated\_Domain\_Value\_Definition:* Submersed aquatic vegetation*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* dolphin*Enumerated\_Domain\_Value\_Definition:* Dolphin*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* pinniped*Enumerated\_Domain\_Value\_Definition:* Pinniped*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* sea\_otter*Enumerated\_Domain\_Value\_Definition:* Otter*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* whale*Enumerated\_Domain\_Value\_Definition:* Whale*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* bear*Enumerated\_Domain\_Value\_Definition:* Bear*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* 0*Enumerated\_Domain\_Value\_Definition:* Not ranked*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* mmyyyy*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* ELEMENT*Attribute\_Definition:* Major categories of biological data*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* BIRD*Enumerated\_Domain\_Value\_Definition:* Birds*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* FISH*Enumerated\_Domain\_Value\_Definition:* Fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* HABITAT*Enumerated\_Domain\_Value\_Definition:* Habitats and plants*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* INVERT*Enumerated\_Domain\_Value\_Definition:* Invertebrates*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* M\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Marine Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* REPTILE*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Range\_Domain:**Range\_Domain\_Minimum:* 1*Range\_Domain\_Maximum:* N*Attribute:**Attribute\_Label:* SEASON\_ID*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Range\_Domain:**Range\_Domain\_Minimum:* 1*Range\_Domain\_Maximum:* N*Attribute:**Attribute\_Label:* JAN*Attribute\_Definition:* January*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in January*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* FEB*Attribute\_Definition:* February*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:*

*Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in February**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: MAR**Attribute\_Definition: March**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in March**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: APR**Attribute\_Definition: April**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in April**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: MAY**Attribute\_Definition: May**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in May**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: JUN**Attribute\_Definition: June**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in June**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: JUL**Attribute\_Definition: July**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in July**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: AUG**Attribute\_Definition: August**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in August**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:*

*Attribute\_Label*: SEP

*Attribute\_Definition*: September

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in September

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: OCT

*Attribute\_Definition*: October

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in October

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: NOV

*Attribute\_Definition*: November

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in November

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DEC

*Attribute\_Definition*: December

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in December

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B000101').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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/mating; 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 elements.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: BREED2

*Attribute\_Definition*:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = laying; 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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* BREED3*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = hatching; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = interesting; if ELEMENT is "M\_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* BREED4*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED4 = fledging; if ELEMENT is "FISH" then BREED4 = juvenile; if ELEMENT is "INVERT" then BREED4 = juvenile; if ELEMENT is "REPTILE" then BREED4 = juvenile; if ELEMENT is "M\_MAMMAL" then BREED4 = molting. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.

*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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:* Research Planning, Inc.*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, and to G\_SOURCE and S\_SOURCE in the BIORES table.

*Attribute\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* DATE\_PUB*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* mmyyyy



*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TITLE

*Attribute\_Definition*: Title of source material or data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATA\_FORMAT

*Attribute\_Definition*: The format of the source material

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: PUBLICATION

*Attribute\_Definition*: Additional citation information

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SCALE

*Attribute\_Definition*: Scale denominator of the source

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: integer

*Enumerated\_Domain\_Value\_Definition*: Any integer

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TIME\_PERIOD

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: yyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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 or federal 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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and Plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Two-letter state abbreviation

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: S\_F

*Attribute\_Definition*: State and Federal status.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* F*Enumerated\_Domain\_Value\_Definition:* Federally listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* S*Enumerated\_Domain\_Value\_Definition:* State listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* S/F*Enumerated\_Domain\_Value\_Definition:* State and federally listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* T\_E*Attribute\_Definition:* Threatened and endangered status.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* E*Enumerated\_Domain\_Value\_Definition:* Endangered on state or federal list*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T*Enumerated\_Domain\_Value\_Definition:* Threatened on state or federal list*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service*Attribute:**Attribute\_Label:* DATE\_PUB*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* mmyyyy*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* ESI Atlas for Southeast Alaska*Distribution\_Liability:*

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

*Custom\_Order\_Process:*

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

*Metadata\_Reference\_Information:**Metadata\_Date:* 200206*Metadata\_Review\_Date:* 200206*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

# Southeast Alaska ESI: FISHT (Fish Points)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication\_Date:* 200206

##### *Title:* Southeast Alaska ESI: FISHT (Fish Points)

##### *Edition:* Second

##### *Geospatial\_Data\_Presentation\_Form:* Digital vector data

##### *Series\_Information:*

*Series\_Name:* None

*Issue\_Identification:* Southeast Alaska

##### *Publication\_Information:*

*Publication\_Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains biological resource data for anadromous fish streams in Southeast Alaska. Vector points in this data set represent locations of fish streams. 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 Environmental Sensitivity Index (ESI) data for Southeast Alaska. 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 (Fish Polygons) and FISHL (Fish Lines) data layers, part of the larger Southeast Alaska 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

The biological data were compiled during 1999-2001. The currentness dates for these data range from 2000 to 2001 and are documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Fish

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization*

Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

### *Data Quality Information:*

#### *Attribute Accuracy:*

##### *Attribute Accuracy Report:*

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

#### *Logical Consistency Report:*

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

#### *Completeness Report:*

These data are obtained from digital data on anadromous fish streams. Refer to the FISH (Fish Polygons) and FISHL (Fish Lines) data layers for additional anadromous fish information. These data do not necessarily represent all anadromous fish streams in Southeast Alaska. The following species are included in this data set (Species\_ID, Common Name, Scientific Name, if applicable): 12, Starry flounder, *Platichthys stellatus*; 45, Coastal Cutthroat trout, *Oncorhynchus clarkii clarkii*; 51, Pacific staghorn sculpin, *Leptocottus armatus*; 69, Coho salmon (silver), *Oncorhynchus kisutch*; 70, Pink salmon (humpy), *Oncorhynchus gorbuscha*; 71, Sockeye salmon (red), *Oncorhynchus nerka*; 72, Chum salmon (dog), *Oncorhynchus keta*; 77, Eulachon, *Thaleichthys pacificus*; 83, Salmon; 91, Threespine stickleback, *Gasterosteus aculeatus*; 135, Dolly varden, *Salvelinus malma*; 164, Cisco, *Coregonus spp.*

#### *Positional Accuracy:*

##### *Horizontal Positional Accuracy:*

##### *Horizontal Positional Accuracy Report:*

This biological data set was developed from pre-existing digital sources and reflects the positional accuracy of these original data. See the Lineage and Process\_Description sections for more information on the original data source and how these data were integrated or manipulated to create the final data set. 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.

### *Lineage:*

#### *Source Information:*

##### *Source Citation:*

##### *Citation Information:*

*Originator:* Soiseth, Chad

*Publication Date:* 2000

*Title:* Glacier Bay National Park Salmonid Database

*Geospatial Data Presentation Form:* Digital Table

*Publication\_Information:**Publication\_Place:* Gustavus, AK*Publisher:* Glacier Bay National Park and Preserve*Type\_of\_Source\_Media:* Computer Database*Source\_Time\_Period\_of\_Content:**Time\_Period\_Information:**Single\_Date/Time:**Calendar\_Date:* 2000*Source\_Currentness\_Reference:* Date of publication*Source\_Citation\_Abbreviation:* None*Source\_Contribution:* Fish Information*Process\_Step:**Process\_Description:*

The data source used to depict anadromous stream locations was Glacier Bay National Park Anadromous Fish Survey data. Digital data were used exactly as provided and the attribute data were converted to a format compatible with the ESI data format. Following the data compilation phase, several sets of completed maps were sent out to the resource agencies for review, and edits were made based on recommendations by the resource experts.

*Process\_Date:* 200110*Process\_Contact:**Contact\_Information:**Contact\_Organization\_Primary:**Contact\_Organization:* NOAA, Office of Response and Restoration*Contact\_Person:* Jill Petersen*Contact\_Address:**Address\_Type:* Physical address*Address:* 7600 Sand Point Way, N.E.*City:* Seattle*State\_or\_Province:* Washington*Postal\_Code:* 98115-6349*Contact\_Voice\_Telephone:* (206) 526-6944*Contact\_Facsimile\_Telephone:* (206) 526-6329*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov*Spatial\_Data\_Organization\_Information:**Direct\_Spatial\_Reference\_Method:* Vector*Point\_and\_Vector\_Object\_Information:**SDTS\_Terms\_Description:**SDTS\_Point\_and\_Vector\_Object\_Type:* Entity Point*Point\_and\_Vector\_Object\_Count:* 41*Spatial\_Reference\_Information:**Horizontal\_Coordinate\_System\_Definition:**Geographic:**Latitude\_Resolution:* 0.00005*Longitude\_Resolution:* 0.00005*Geographic\_Coordinate\_Units:* Decimal degrees*Geodetic\_Model:**Horizontal\_Datum\_Name:* North American Datum of 1927*Ellipsoid\_Name:* Clark 1866*Semi-major\_Axis:* 6378206.400000*Denominator\_of\_Flattening\_Ratio:* 294.978698*Entity\_and\_Attribute\_Information:*



*Overview Description:**Entity and Attribute Overview:*

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, FISHPT) 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 Southeast Alaska, the number is 10) an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN\_SPEC, S\_F, T\_E, NHP, DATE\_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G\_SOURCE, S\_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

*Detailed Description:**Entity Type:*

*Entity Type Label:* FISHPT.PAT

*Entity Type Definition:*

The FISHPT.PAT table contains attribute information for the vector points representing anadromous fish streams. Note that all attribute information is stored in a series of relational files, described below. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

*Entity Type Definition Source:* Research Planning, Inc.

*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 (10), element number (32; 30 because it is a point feature, plus 2, the element value for FISH), and record number.

*Attribute Definition Source:* NOAA

*Attribute Domain Values:**Range Domain:*

*Range Domain Minimum:* 103200001

*Range Domain Maximum:* 103200041

*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:* 10000089

*Range\_Domain\_Maximum:* 10000233

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* BIO\_LUT

*Entity\_Type\_Definition:*

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

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 10000001

*Range\_Domain\_Maximum:* 10000299

*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 (10), element number (32; 30 because it is a point feature, plus 2, the element value for FISH), and record number.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 100100002

*Range\_Domain\_Maximum:* 103400054

*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:* Research Planning, Inc.

*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:* 010000001

*Range\_Domain\_Maximum:* 010000299

*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 RPI and NOAA.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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. In this data layer, the CONC field contains a "-" because no concentration information was available for anadromous fish streams.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* G\_SOURCE

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* HABITAT*Enumerated\_Domain\_Value\_Definition:* Habitats and plants*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* INVERT*Enumerated\_Domain\_Value\_Definition:* Invertebrates*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* M\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Marine mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* REPTILE*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Terrestrial mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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 (eg. ELEMENT = BIRD and SPECIES\_ID = 1; EL\_SPE = B00001).

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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 (eg. ELEMENT = BIRD, SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = B0000101).

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute*:

*Attribute\_Label*: NAME

*Attribute\_Definition*: Species common name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species common name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: GEN\_SPEC

*Attribute\_Definition*: Species scientific name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species scientific name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* REPTILE*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* SUBELEMENT*Attribute\_Definition:* Element subgroup delineating a logical grouping of species.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* alcid*Enumerated\_Domain\_Value\_Definition:* Alcid*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* diving*Enumerated\_Domain\_Value\_Definition:* Diving bird*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* gull\_tern*Enumerated\_Domain\_Value\_Definition:* Gull or Tern*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* pelagic*Enumerated\_Domain\_Value\_Definition:* Pelagic bird*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* raptor*Enumerated\_Domain\_Value\_Definition:* Raptor*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* shorebird*Enumerated\_Domain\_Value\_Definition:* Shorebird*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* diadromous*Enumerated\_Domain\_Value\_Definition:* Diadromous fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* e\_resident*Enumerated\_Domain\_Value\_Definition:* Estuarine resident fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* e\_nursery*Enumerated\_Domain\_Value\_Definition:* Estuarine nursery fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:*

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* freshwater*Enumerated\_Domain\_Value\_Definition:* Freshwater fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* waterfowl*Enumerated\_Domain\_Value\_Definition:* Waterfowl*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* m\_benthic fish*Enumerated\_Domain\_Value\_Definition:* Marine benthic fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* m\_pelagic*Enumerated\_Domain\_Value\_Definition:* Marine pelagic fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* sav*Enumerated\_Domain\_Value\_Definition:* Submersed aquatic vegetation*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* dolphin*Enumerated\_Domain\_Value\_Definition:* Dolphin*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* pinniped*Enumerated\_Domain\_Value\_Definition:* Pinniped*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* sea\_otter*Enumerated\_Domain\_Value\_Definition:* Otter*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* whale*Enumerated\_Domain\_Value\_Definition:* Whale*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* bear*Enumerated\_Domain\_Value\_Definition:* Bear*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 0

*Enumerated\_Domain\_Value\_Definition:* Not ranked

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = BIRD and SPECIES\_ID = 1; EL\_SPE = B00001).

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* ELEMENT

*Attribute\_Definition:* Major categories of biological data

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*



*Enumerated\_Domain:**Enumerated\_Domain\_Value:* M\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Marine Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* REPTILE*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Range\_Domain:**Range\_Domain\_Minimum:* 1*Range\_Domain\_Maximum:* N*Attribute:**Attribute\_Label:* SEASON\_ID*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Range\_Domain:**Range\_Domain\_Minimum:* 1*Range\_Domain\_Maximum:* N*Attribute:**Attribute\_Label:* JAN*Attribute\_Definition:* January*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in January*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* FEB*Attribute\_Definition:* February*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in February*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* MAR*Attribute\_Definition:* March*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in March  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* APR  
*Attribute\_Definition:* April  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
     *Enumerated\_Domain:*  
         *Enumerated\_Domain\_Value:* X  
         *Enumerated\_Domain\_Value\_Definition:* Present in April  
         *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* MAY  
*Attribute\_Definition:* May  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
     *Enumerated\_Domain:*  
         *Enumerated\_Domain\_Value:* X  
         *Enumerated\_Domain\_Value\_Definition:* Present in May  
         *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* JUN  
*Attribute\_Definition:* June  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
     *Enumerated\_Domain:*  
         *Enumerated\_Domain\_Value:* X  
         *Enumerated\_Domain\_Value\_Definition:* Present in June  
         *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* JUL  
*Attribute\_Definition:* July  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
     *Enumerated\_Domain:*  
         *Enumerated\_Domain\_Value:* X  
         *Enumerated\_Domain\_Value\_Definition:* Present in July  
         *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* AUG  
*Attribute\_Definition:* August  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
     *Enumerated\_Domain:*  
         *Enumerated\_Domain\_Value:* X  
         *Enumerated\_Domain\_Value\_Definition:* Present in August  
         *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* SEP  
*Attribute\_Definition:* September  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
     *Enumerated\_Domain:*  
         *Enumerated\_Domain\_Value:* X  
         *Enumerated\_Domain\_Value\_Definition:* Present in September  
         *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* OCT  
*Attribute\_Definition:* October

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in October

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: NOV

*Attribute\_Definition*: November

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in November

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DEC

*Attribute\_Definition*: December

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in December

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = BIRD, SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = B0000101).

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = BIRD, SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = B0000101).

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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:* Research Planning, Inc.*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/mating; 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 elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* BREED2*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = laying; 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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.

*Attribute:**Attribute\_Label:* BREED3*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = hatching; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = interesting; if ELEMENT is "M\_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* BREED4*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED4 = fledging; if ELEMENT is "FISH" then BREED4 = juvenile; if ELEMENT is "INVERT" then BREED4 = juvenile; if ELEMENT is "REPTILE" then BREED4 = juvenile; if ELEMENT is "M\_MAMMAL" then BREED4 = molting. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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, and to G\_SOURCE and S\_SOURCE in the BIORES table.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATE\_PUB

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TITLE

*Attribute\_Definition*: Title of source material or data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label:* DATA\_FORMAT

*Attribute\_Definition:* The format of the source material

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* PUBLICATION

*Attribute\_Definition:* Additional citation information

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* SCALE

*Attribute\_Definition:* Scale denominator of the source

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* integer

*Enumerated\_Domain\_Value\_Definition:* Any integer

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* TIME\_PERIOD

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* yyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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 or federal 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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* ELEMENT

*Attribute\_Definition:* Major categories of biological data

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* HABITAT*Enumerated\_Domain\_Value\_Definition:* Habitats and Plants*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* INVERT*Enumerated\_Domain\_Value\_Definition:* Invertebrates*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* M\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Marine Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* REPTILE*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Two-letter state abbreviation*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* S\_F*Attribute\_Definition:* State and Federal status.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* F*Enumerated\_Domain\_Value\_Definition:* Federally listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* S*Enumerated\_Domain\_Value\_Definition:* State listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:*



*Enumerated\_Domain:**Enumerated\_Domain\_Value:* S/F*Enumerated\_Domain\_Value\_Definition:* State and federally listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* T\_E*Attribute\_Definition:* Threatened and endangered status.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* E*Enumerated\_Domain\_Value\_Definition:* Endangered on state or federal list*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T*Enumerated\_Domain\_Value\_Definition:* Threatened on state or federal list*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service*Attribute:**Attribute\_Label:* DATE\_PUB*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* mmyyyy*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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 (eg. ELEMENT = BIRD and SPECIES\_ID = 1; EL\_SPE = B00001).

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* ESI Atlas for Southeast Alaska

*Distribution\_Liability:*

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

*Custom\_Order\_Process:*

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

*Metadata\_Reference\_Information:*

*Metadata\_Date:* 200206

*Metadata\_Review\_Date:* 200206

*Metadata\_Contact:*

*Contact\_Information:*

*Contact\_Person\_Primary:*

*Contact\_Person:* Jill Petersen

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Position:* GIS Manager

*Contact\_Address:*

*Address\_Type:* Physical Address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata

*Metadata\_Standard\_Version:* FGDC-STD-001-1998

Generated by [mp](#) version 2.7.27 on Fri Jul 05 09:27:07 2002

# Southeast Alaska ESI: M\_MAMMAL (Marine Mammal Polygons)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entity and Attribute Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)

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### *Identification Information:*

#### *Citation:*

##### *Citation Information:*

##### *Originator:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication Date:* 200206

##### *Title:* Southeast Alaska ESI: M\_MAMMAL (Marine Mammal Polygons)

##### *Edition:* Second

##### *Geospatial Data Presentation Form:* Digital vector data

##### *Series Information:*

##### *Series Name:* None

##### *Issue Identification:* Southeast Alaska

##### *Publication Information:*

##### *Publication Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains biological resource data for seals, porpoises, otters, and whales in coastal Southeast Alaska. Vector polygons in this data set represent locations of marine mammal concentrations and haulout 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 Environmental Sensitivity Index (ESI) data for Southeast Alaska. 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 M\_MAMPT (Marine Mammal Points) data layer, part of the larger Southeast Alaska ESI database, for additional marine mammal information.

#### *Purpose:*

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

*Time\_Period\_of\_Content:*

*Time\_Period\_Information:*

*Range\_of\_Dates/Times:*

*Beginning\_Date:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

The biological data were compiled during 1999-2001. The currentness dates for these data range from 1985 to 2001 and are documented in the Source\_Information section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Marine Mammal

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard

workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The Spatial\_Data\_Organization\_Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

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

##### *Attribute\_Accuracy:*

###### *Attribute\_Accuracy\_Report:*

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

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

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary node, etc.), and ORACLE(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-ROM and the metadata are written. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new ID's and RARNUM's or HUNUM's are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUM's are also modified to include the atlas number, so multiple atlases can be combined and RARNUM's remain unique. RARNUM's are redefined on an element basis, so "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 reports on marine mammal concentrations and haulout areas. Refer to the M\_MAMPT (Marine Mammal Points) data layer for additional haulout information. These data do not necessarily represent all marine mammal occurrences in Southeast Alaska. The following species are included in this data set (Species\_ID, Common Name, Scientific Name, if applicable): 2, Harbor seal, *Phoca vitulina*; 6, Harbor porpoise, *Phocoena phocoena*; 7, Sea otter, *Enhydra lutris*; 13, Humpback whale, *Megaptera novaeangliae*.

##### *Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy\_Report:*

Most of the spatial components of the biological data sets are 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 basemaps with a scale of 1:250,000. 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.

##### *Lineage:*

###### *Source\_Information:*

###### *Source\_Citation:*

###### *Citation\_Information:*

*Originator:* Alaska Department of Fish and Game

*Publication\_Date:* 1998

*Title:* Most Environmentally Sensitive Areas - Vol 2.

*Geospatial\_Data\_Presentation\_Form:* Digital Vector Data

*Publication\_Information:*

*Publication Place:* Anchorage, AK  
*Publisher:* Alaska Department of Fish and Game  
*Source\_Scale\_Denominator:* 250000  
*Type\_of\_Source\_Media:* Paper  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Range\_of\_Dates/Times:*  
*Beginning\_Date:* 1985  
*Ending\_Date:* 1997  
*Source\_Currentness\_Reference:* Date of publication  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Marine Mammal Information  
*Source\_Information:*  
*Source\_Citation:*  
*Citation\_Information:*  
*Originator:* Gabriele, Christine  
*Publication\_Date:* 1998  
*Title:* Humpback Whale Monitoring Program  
*Geospatial\_Data\_Presentation\_Form:* Digital Table  
*Publication\_Information:*  
*Publication Place:* Gustavus, AK  
*Publisher:* Glacier Bay National Park and Preserve  
*Type\_of\_Source\_Media:* CD-ROM  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Range\_of\_Dates/Times:*  
*Beginning\_Date:* 1993  
*Ending\_Date:* 2000  
*Source\_Currentness\_Reference:* Date of publication  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Marine Mammal Information  
*Source\_Information:*  
*Source\_Citation:*  
*Citation\_Information:*  
*Originator:* Rudis, Deborah  
*Publication\_Date:* 2000  
*Title:*  
Sitka Marine Mammal Commission Local Knowledge Survey, SE Sea Otter Dist  
*Geospatial\_Data\_Presentation\_Form:* Digital Vector Data  
*Publication\_Information:*  
*Publication Place:* Anchorage, AK  
*Publisher:* Alaska Department of Fish and Game  
*Source\_Scale\_Denominator:* 250000  
*Type\_of\_Source\_Media:* CD-ROM  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Range\_of\_Dates/Times:*  
*Beginning\_Date:* 1996  
*Ending\_Date:* 1998  
*Source\_Currentness\_Reference:* Date of publication  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Marine Mammal Information  
*Source\_Information:*  
*Source\_Citation:*  
*Citation\_Information:*  
*Originator:* Sharp, Devi  
*Publication\_Date:* Unpublished Material  
*Title:* Wrangell St. Elias National Park Resources  
*Geospatial\_Data\_Presentation\_Form:* Hardcopy Maps

*Source\_Scale\_Denominator*: 250000  
*Type\_of\_Source\_Media*: Paper  
*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*: Marine Mammal Information  
*Source\_Information*:  
    *Source\_Citation*:  
        *Citation\_Information*:  
            *Originator*: Bodkin, James  
            *Publication\_Date*: 2000  
            *Title*: Sea Otter Studies in Glacier Bay National Park and Preserve  
            *Geospatial\_Data\_Presentation\_Form*: Hardcopy Text  
            *Publication\_Information*:  
                *Publication\_Place*: Anchorage, AK  
                *Publisher*: USGS, BRD, Alaska Biological Science Center  
*Type\_of\_Source\_Media*: Paper  
*Source\_Time\_Period\_of\_Content*:  
    *Time\_Period\_Information*:  
        *Range\_of\_Dates/Times*:  
            *Beginning\_Date*: 1993  
            *Ending\_Date*: 1998  
    *Source\_Currentness\_Reference*: Date of publication  
*Source\_Citation\_Abbreviation*: None  
*Source\_Contribution*: Marine Mammal Information  
*Process\_Step*:  
    *Process\_Description*:  
        Data used to depict marine mammal distribution for this data layer came from personal interviews with resource experts from U.S. Fish & Wildlife Service (USFWS) in Anchorage, locals with expert knowledge, and from Alaska Dept. of Fish and Game's Most Environmentally Sensitive Areas maps. Information gathered from the interviews and other maps were compiled onto 1:250,000 scale U.S. Geological Survey (USGS) topographic maps. Following the data compilation phase, several sets of completed maps were sent out to the resource agencies for review, and edits were made based on recommendations by the resource experts. Concentration information varied, and therefore for some species and locations, descriptive terms such as "HIGH", "MEDIUM", or "LOW" were used, while for others, numerical counts were used. In many cases, concentration information was provided by resource experts.  
    *Process\_Date*: 200110  
    *Process\_Contact*:  
        *Contact\_Information*:  
            *Contact\_Organization\_Primary*:  
                *Contact\_Organization*: NOAA, Office of Response and Restoration  
                *Contact\_Person*: Jill Petersen  
            *Contact\_Address*:  
                *Address\_Type*: Physical address  
                *Address*: 7600 Sand Point Way, N.E.  
                *City*: Seattle  
                *State\_or\_Province*: Washington  
                *Postal\_Code*: 98115-6349  
            *Contact\_Voice\_Telephone*: (206) 526-6944  
            *Contact\_Facsimile\_Telephone*: (206) 526-6329  
            *Contact\_Electronic\_Mail\_Address*: Jill.Petersen@noaa.gov

---

*Spatial\_Data\_Organization\_Information*:

*Direct\_Spatial\_Reference\_Method*: Vector

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

*SDTS\_Terms\_Description*:

*SDTS\_Point\_and\_Vector\_Object\_Type*: GT-polygon composed of rings

*Point\_and\_Vector\_Object\_Count*: 400

*SDTS\_Terms\_Description*:

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

*Point\_and\_Vector\_Object\_Count*: 400

*SDTS\_Terms\_Description*:

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

*Point\_and\_Vector\_Object\_Count*: 653

*SDTS\_Terms\_Description*:

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

*Point\_and\_Vector\_Object\_Count*: 114630

*SDTS\_Terms\_Description*:

*SDTS\_Point\_and\_Vector\_Object\_Type*: Node, planar graph

*Point\_and\_Vector\_Object\_Count*: 617

*Spatial\_Reference\_Information*:

*Horizontal\_Coordinate\_System\_Definition*:

*Geographic*:

*Latitude\_Resolution*: 0.00005

*Longitude\_Resolution*: 0.00005

*Geographic\_Coordinate\_Units*: Decimal degrees

*Geodetic\_Model*:

*Horizontal\_Datum\_Name*: North American Datum of 1927

*Ellipsoid\_Name*: Clark 1866

*Semi-major\_Axis*: 6378206.400000

*Denominator\_of\_Flattening\_Ratio*: 294.978698

*Entity\_and\_Attribute\_Information*:

*Overview\_Description*:

*Entity\_and\_Attribute\_Overview*:

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, M\_MAMMAL) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO\_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for Southeast Alaska, it is 10), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN\_SPEC, S\_F, T\_E, NHP, DATE\_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G\_SOURCE, S\_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables.



As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

*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 representing marine mammal concentration areas. Note that all attribute information is stored in a series of relational files, described below. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

*Entity Type Definition Source:* Research Planning, Inc.

*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 (10), 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:* 100400002

*Range Domain Maximum:* 100400339

*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:* 10000237

*Range Domain Maximum:* 10000293

*Detailed Description:*

*Entity Type:*

*Entity Type Label:* BIO\_LUT

*Entity Type Definition:*

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

*Entity Type Definition Source:* Research Planning, Inc.

*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 the polygons and do not contain information.

*Attribute Definition Source:* NOAA

*Attribute Domain Values:*

*Range Domain:*

*Range Domain Minimum:* 10000001

*Range Domain Maximum:* 10000299

*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 (10), 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:* 100100002*Range\_Domain\_Maximum:* 103400054*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:* Research Planning, Inc.*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:* 010000001*Range\_Domain\_Maximum:* 010000299*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:* Research Planning, Inc.*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 contains descriptive terms, such as "HIGH", "MED", or "LOW", and estimated numbers for some sea otter and harbor seal polygons. If no concentration information was available, the field is populated with "-".

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Range\_Domain:*

*Range\_Domain\_Minimum:* 1  
*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* G\_SOURCE

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial mammals  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* NAME

*Attribute\_Definition:* Species common name

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Species common name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* GEN\_SPEC

*Attribute\_Definition*: Species scientific name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species scientific name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SUBELEMENT

*Attribute\_Definition*: Element subgroup delineating a logical grouping of species

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: alcid

*Enumerated\_Domain\_Value\_Definition*: Alcid

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: diving

*Enumerated\_Domain\_Value\_Definition*: Diving bird

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: gull\_tern  
*Enumerated\_Domain\_Value\_Definition*: Gull or Tern  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: pelagic  
*Enumerated\_Domain\_Value\_Definition*: Pelagic bird  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: raptor  
*Enumerated\_Domain\_Value\_Definition*: Raptor  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: shorebird  
*Enumerated\_Domain\_Value\_Definition*: Shorebird  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: diadromous  
*Enumerated\_Domain\_Value\_Definition*: Diadromous fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: e\_resident  
*Enumerated\_Domain\_Value\_Definition*: Estuarine resident fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: e\_nursery  
*Enumerated\_Domain\_Value\_Definition*: Estuarine nursery fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: freshwater  
*Enumerated\_Domain\_Value\_Definition*: Freshwater fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: waterfowl  
*Enumerated\_Domain\_Value\_Definition*: Waterfowl  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: m\_benthic fish  
*Enumerated\_Domain\_Value\_Definition*: Marine benthic fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: m\_pelagic  
*Enumerated\_Domain\_Value\_Definition*: Marine pelagic fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: sav

*Enumerated\_Domain\_Value\_Definition:* Submersed aquatic vegetation

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* dolphin

*Enumerated\_Domain\_Value\_Definition:* Dolphin

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* pinniped

*Enumerated\_Domain\_Value\_Definition:* Pinniped

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* sea\_otter

*Enumerated\_Domain\_Value\_Definition:* Otter

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* whale

*Enumerated\_Domain\_Value\_Definition:* Whale

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* bear

*Enumerated\_Domain\_Value\_Definition:* Bear

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 0

*Enumerated\_Domain\_Value\_Definition:* Not ranked

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:



*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* SEASON\_ID

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* JAN

*Attribute\_Definition:* January

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in January

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* FEB

*Attribute\_Definition:* February

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in February

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* MAR

*Attribute\_Definition:* March

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in March

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* APR

*Attribute\_Definition:* April

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in April

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* MAY

*Attribute\_Definition:* May

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in May

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* JUN  
*Attribute\_Definition:* June  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
    *Enumerated\_Domain:*  
        *Enumerated\_Domain\_Value:* X  
        *Enumerated\_Domain\_Value\_Definition:* Present in June  
        *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* JUL  
*Attribute\_Definition:* July  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
    *Enumerated\_Domain:*  
        *Enumerated\_Domain\_Value:* X  
        *Enumerated\_Domain\_Value\_Definition:* Present in July  
        *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* AUG  
*Attribute\_Definition:* August  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
    *Enumerated\_Domain:*  
        *Enumerated\_Domain\_Value:* X  
        *Enumerated\_Domain\_Value\_Definition:* Present in August  
        *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* SEP  
*Attribute\_Definition:* September  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
    *Enumerated\_Domain:*  
        *Enumerated\_Domain\_Value:* X  
        *Enumerated\_Domain\_Value\_Definition:* Present in September  
        *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* OCT  
*Attribute\_Definition:* October  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
    *Enumerated\_Domain:*  
        *Enumerated\_Domain\_Value:* X  
        *Enumerated\_Domain\_Value\_Definition:* Present in October  
        *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* NOV  
*Attribute\_Definition:* November  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
    *Enumerated\_Domain:*  
        *Enumerated\_Domain\_Value:* X  
        *Enumerated\_Domain\_Value\_Definition:* Present in November  
        *Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* DEC  
*Attribute\_Definition:* December  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
    *Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X  
*Enumerated\_Domain\_Value\_Definition:* Present in December  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.  
*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.  
*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.  
*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/mating; 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 elements.  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* BREED2

*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = laying; 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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* BREED3

*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = hatching; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = interesting; if ELEMENT is "M\_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* BREED4

*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED4 = fledging; if ELEMENT is "FISH" then BREED4 = juvenile; if ELEMENT is "INVERT" then BREED4 = juvenile; if ELEMENT is "REPTILE" then BREED4 = juvenile; if ELEMENT is "M\_MAMMAL" then BREED4 = molting. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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, and to G\_SOURCE and S\_SOURCE in the BIORRES table.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* DATE\_PUB

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* TITLE

*Attribute\_Definition:* Title of source material or data

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* DATA\_FORMAT

*Attribute\_Definition:* The format of the source material

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* PUBLICATION

*Attribute\_Definition:* Additional citation information

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* SCALE

*Attribute\_Definition:* Scale denominator of the source

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* integer

*Enumerated\_Domain\_Value\_Definition:* Any integer

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* TIME\_PERIOD

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* yyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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 or federal 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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* ELEMENT

*Attribute\_Definition:* Major categories of biological data

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and Plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Two-letter state abbreviation

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* S\_F

*Attribute\_Definition:* State and Federal status.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* F

*Enumerated\_Domain\_Value\_Definition:* Federally listed

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* S

*Enumerated\_Domain\_Value\_Definition:* State listed

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* S/F

*Enumerated\_Domain\_Value\_Definition:* State and federally listed

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* T\_E

*Attribute\_Definition:* Threatened and endangered status.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* E

*Enumerated\_Domain\_Value\_Definition:* Endangered on state or federal list

*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T

*Enumerated\_Domain\_Value\_Definition:* Threatened on state or federal list

*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service

*Attribute:*

*Attribute\_Label:* DATE\_PUB

*Attribute\_Definition:*



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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: ESI Atlas for Southeast Alaska

*Distribution\_Liability*:

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

*Custom\_Order\_Process*:

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

*Metadata\_Reference\_Information*:

*Metadata\_Date*: 200206

*Metadata\_Review\_Date*: 200206

*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

# Southeast Alaska ESI: M\_MAMPT (Marine Mammal Points)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication Date:* 200206

*Title:* Southeast Alaska ESI: M\_MAMPT (Marine Mammal Points)

*Edition:* Second

*Geospatial Data Presentation Form:* Digital vector data

##### *Series Information:*

*Series Name:* None

*Issue Identification:* Southeast Alaska

##### *Publication Information:*

*Publication Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains biological resource data for seals and sea lions in Southeast Alaska. Points in this data set represent locations of haulout and rookery 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 Environmental Sensitivity Index (ESI) data for Southeast Alaska. 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 M\_MAMMAL (Marine Mammal Polygons) data layer, part of the larger Southeast Alaska ESI database, for additional marine mammal information.

#### *Purpose:*

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

*Time\_Period\_of\_Content:*

*Time\_Period\_Information:*

*Range\_of\_Dates/Times:*

*Beginning\_Date:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

The biological data were compiled during 1999-2001. The currentness dates for these data range from 2000 to 2001 and are documented in the Source\_Information section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Marine Mammal

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard

workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The Spatial\_Data\_Organization\_Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

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

##### *Attribute\_Accuracy:*

###### *Attribute\_Accuracy\_Report:*

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

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

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

##### *Completeness\_Report:*

These data were obtained from digital data on haulout and rookery sites. Refer to the M\_MAMMAL (Marine Mammal Polygons) data layer for additional distribution information. These data do not necessarily represent all marine mammal occurrences in Southeast Alaska. The following species are included in this data set (Species\_ID, Common Name, Scientific Name, if applicable): 1, Steller (Northern) sea lion, Eumetopias jubatus; 2, Harbor seal, Phoca vitulina.

##### *Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy\_Report:*

This biological data set was developed from pre-existing digital sources and reflect the positional accuracy of these original data. See the Lineage and Process\_Description sections for more information on the original data source and how these data were integrated or manipulated to create the final data set. 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.

##### *Lineage:*

###### *Source\_Information:*

###### *Source\_Citation:*

###### *Citation\_Information:*

*Originator:* Withrow, David

*Publication\_Date:* 2000

*Title:* Harbor seal Haulouts in Southeast Alaska

*Geospatial\_Data\_Presentation\_Form:* Digital Table

*Publication\_Information:*

*Publication Place:* Seattle, WA  
*Publisher:* National Marine Fisheries Service  
*Type\_of\_Source\_Media:* CD-ROM  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Single\_Date/Time:*  
*Calendar\_Date:* 2000  
*Source\_Currentness\_Reference:* Date of publication  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Marine Mammal Information  
*Source\_Information:*  
*Source\_Citation:*  
*Citation\_Information:*  
*Originator:* Sease, John  
*Publication\_Date:* 2000  
*Title:* Stellar sea lion Haulouts in Southeast Alaska  
*Geospatial\_Data\_Presentation\_Form:* Digital Table  
*Publication\_Information:*  
*Publication Place:* Seattle, WA  
*Publisher:* National Marine Fisheries Service  
*Type\_of\_Source\_Media:* CD-ROM  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Single\_Date/Time:*  
*Calendar\_Date:* 2000  
*Source\_Currentness\_Reference:* Date of publication  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Marine Mammal Information  
*Process\_Step:*  
*Process\_Description:*  
 The data sources used to depict marine mammal haulout locations included the National Marine Fisheries Service (NMFS) marine mammal lab in Seattle, Washington, and Glacier Bay National Park Service. Digital positional data were used exactly as provided and the attribute data were converted to a format compatible with the ESI data format. Following the data compilation phase, several sets of completed maps were sent out to the resource agencies for review, and edits were made based on recommendations by the resource experts. Concentration information was numerical counts of individuals, where available, and unknown otherwise. In many cases, concentration information was provided by resource experts.  
*Process\_Date:* 200110  
*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:* 54*Spatial\_Reference\_Information:**Horizontal\_Coordinate\_System\_Definition:**Geographic:**Latitude\_Resolution:* 0.00005*Longitude\_Resolution:* 0.00005*Geographic\_Coordinate\_Units:* Decimal degrees*Geodetic\_Model:**Horizontal\_Datum\_Name:* North American Datum of 1927*Ellipsoid\_Name:* Clark 1866*Semi-major\_Axis:* 6378206.400000*Denominator\_of\_Flattening\_Ratio:* 294.978698*Entity\_and\_Attribute\_Information:**Overview\_Description:**Entity\_and\_Attribute\_Overview:*

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, M\_MAMPT) 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 Southeast Alaska, the number is 10), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN\_SPEC, S\_F, T\_E, NHP, DATE\_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G\_SOURCE, S\_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

*Detailed\_Description:**Entity\_Type:**Entity\_Type\_Label:* M\_MAMPT.PAT*Entity\_Type\_Definition:*

The M\_MAMPT.PAT table contains attribute information for the points representing marine mammal haulout sites. Note that all attribute information is stored in a series of relational files,

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

*Entity\_Type\_Definition\_Source*: Research Planning, Inc.

*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 (10), element number (34; 30 because it is a point feature, plus 4, the element value for M\_MAMMAL), and record number.

*Attribute\_Definition\_Source*: NOAA

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 103400001

*Range\_Domain\_Maximum*: 103400054

*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*: 10000248

*Range\_Domain\_Maximum*: 10000286

*Detailed\_Description*:

*Entity\_Type*:

*Entity\_Type\_Label*: BIO\_LUT

*Entity\_Type\_Definition*:

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

*Entity\_Type\_Definition\_Source*: Research Planning, Inc.

*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 the polygons and do not contain information.

*Attribute\_Definition\_Source*: NOAA

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 10000001

*Range\_Domain\_Maximum*: 10000299

*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 (10), element number (34; 30 because it is a point feature, plus 4, the element value for M\_MAMMAL), 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*: 100100002

*Range\_Domain\_Maximum*: 103400054

*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*: Research Planning, Inc.

*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*: 010000001

*Range\_Domain\_Maximum*: 010000299

*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*: Research Planning, Inc.

*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. In this data layer, the CONC field refers to the number of adult individuals (harbor seals or sea lions) present at a particular haulout site. These values are based on a 5-year average count for the years 1994-1999. If no concentration information was available, the field is populated with "-".

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute*:

*Attribute\_Label*: G\_SOURCE

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE =

'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute*:

*Attribute\_Label*: NAME

*Attribute\_Definition*: Species common name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species common name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: GEN\_SPEC

*Attribute\_Definition*: Species scientific name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species scientific name for the entire ESI data set.

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* SUBELEMENT

*Attribute\_Definition:* Element subgroup delineating a logical grouping of species.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* alcid

*Enumerated\_Domain\_Value\_Definition:* Alcid

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* diving

*Enumerated\_Domain\_Value\_Definition:* Diving bird

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* gull\_tern

*Enumerated\_Domain\_Value\_Definition:* Gull or Tern

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* pelagic

*Enumerated\_Domain\_Value\_Definition:* Pelagic bird

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value*: raptor  
*Enumerated\_Domain\_Value\_Definition*: Raptor  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: shorebird  
*Enumerated\_Domain\_Value\_Definition*: Shorebird  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: diadromous  
*Enumerated\_Domain\_Value\_Definition*: Diadromous fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: e\_resident  
*Enumerated\_Domain\_Value\_Definition*: Estuarine resident fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: e\_nursery  
*Enumerated\_Domain\_Value\_Definition*: Estuarine nursery fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: freshwater  
*Enumerated\_Domain\_Value\_Definition*: Freshwater fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: waterfowl  
*Enumerated\_Domain\_Value\_Definition*: Waterfowl  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: m\_benthic fish  
*Enumerated\_Domain\_Value\_Definition*: Marine benthic fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: m\_pelagic  
*Enumerated\_Domain\_Value\_Definition*: Marine pelagic fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: sav  
*Enumerated\_Domain\_Value\_Definition*: Submersed aquatic vegetation  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: dolphin  
*Enumerated\_Domain\_Value\_Definition*: Dolphin  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: pinniped  
*Enumerated\_Domain\_Value\_Definition*: Pinniped  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* sea\_otter*Enumerated\_Domain\_Value\_Definition:* Otter*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* whale*Enumerated\_Domain\_Value\_Definition:* Whale*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* bear*Enumerated\_Domain\_Value\_Definition:* Bear*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* 0*Enumerated\_Domain\_Value\_Definition:* Not ranked*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* mmyyyy*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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 BIORRES and STATUS data tables.

*Attribute\_Definition\_Source:* Research Planning, Inc.*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.

*Attribute:**Attribute\_Label:* ELEMENT*Attribute\_Definition:* Major categories of biological data*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* BIRD*Enumerated\_Domain\_Value\_Definition:* Birds*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* FISH*Enumerated\_Domain\_Value\_Definition:* Fish*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* HABITAT*Enumerated\_Domain\_Value\_Definition:* Habitats and plants*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* INVERT*Enumerated\_Domain\_Value\_Definition:* Invertebrates*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* M\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Marine Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* REPTILE*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T\_MAMMAL*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Range\_Domain:**Range\_Domain\_Minimum:* 1*Range\_Domain\_Maximum:* N*Attribute:**Attribute\_Label:* SEASON\_ID*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Range\_Domain:**Range\_Domain\_Minimum:* 1*Range\_Domain\_Maximum:* N

*Attribute:**Attribute\_Label: JAN**Attribute\_Definition: January**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in January**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: FEB**Attribute\_Definition: February**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in February**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: MAR**Attribute\_Definition: March**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in March**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: APR**Attribute\_Definition: April**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in April**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: MAY**Attribute\_Definition: May**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in May**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: JUN**Attribute\_Definition: June**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value: X**Enumerated\_Domain\_Value\_Definition: Present in June**Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.**Attribute:**Attribute\_Label: JUL**Attribute\_Definition: July**Attribute\_Definition\_Source: Research Planning, Inc.**Attribute\_Domain\_Values:*



*Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in July*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* AUG*Attribute\_Definition:* August*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in August*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* SEP*Attribute\_Definition:* September*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in September*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* OCT*Attribute\_Definition:* October*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in October*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* NOV*Attribute\_Definition:* November*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in November*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* DEC*Attribute\_Definition:* December*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* X*Enumerated\_Domain\_Value\_Definition:* Present in December*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.*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 BIORRES and SEASONAL data tables.

*Attribute\_Definition\_Source*: Research Planning, Inc.*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.*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*: Research Planning, Inc.*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/mating; 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 elements.

*Attribute\_Definition\_Source*: Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value*: Y*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value*: N*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.*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*: Research Planning, Inc.

*Attribute:**Attribute\_Label:* BREED2*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = laying; 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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* BREED3*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = hatching; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = interesting; if ELEMENT is "M\_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* N*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.*Attribute:**Attribute\_Label:* BREED4*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED4 = fledging; if ELEMENT is "FISH" then BREED4 = juvenile; if ELEMENT is "INVERT" then BREED4 = juvenile; if ELEMENT is "REPTILE" then BREED4 = juvenile; if ELEMENT is "M\_MAMMAL" then BREED4 = molting. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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, and to G\_SOURCE and S\_SOURCE in the BIORRES table.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* DATE\_PUB*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* mmyyyy*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* TITLE*Attribute\_Definition:* Title of source material or data*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* DATA\_FORMAT*Attribute\_Definition:* The format of the source material*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* PUBLICATION*Attribute\_Definition:* Additional citation information*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* SCALE*Attribute\_Definition:* Scale denominator of the source*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* integer*Enumerated\_Domain\_Value\_Definition:* Any integer*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* TIME\_PERIOD*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* yyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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 or federal 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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and Plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Two-letter state abbreviation*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* S\_F*Attribute\_Definition:* State and Federal status.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* F*Enumerated\_Domain\_Value\_Definition:* Federally listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* S*Enumerated\_Domain\_Value\_Definition:* State listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* S/F*Enumerated\_Domain\_Value\_Definition:* State and federally listed*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* T\_E*Attribute\_Definition:* Threatened and endangered status.*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* E*Enumerated\_Domain\_Value\_Definition:* Endangered on state or federal list*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* T*Enumerated\_Domain\_Value\_Definition:* Threatened on state or federal list*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service*Attribute:**Attribute\_Label:* DATE\_PUB*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Numeric*Enumerated\_Domain\_Value\_Definition:* mmyyyy*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*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:* ESI Atlas for Southeast Alaska*Distribution\_Liability:*

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

*Custom\_Order\_Process:*

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

*Metadata\_Reference\_Information:**Metadata\_Date:* 200206*Metadata\_Review\_Date:* 200206*Metadata\_Contact:**Contact\_Information:**Contact\_Person\_Primary:**Contact\_Person:* Jill Petersen*Contact\_Organization:* NOAA, Office of Response and Restoration*Contact\_Position:* GIS Manager*Contact\_Address:**Address\_Type:* Physical Address*Address:* 7600 Sand Point Way, N.E.*City:* Seattle*State\_or\_Province:* Washington*Postal\_Code:* 98115-6349*Contact\_Voice\_Telephone:* (206) 526-6944*Contact\_Facsimile\_Telephone:* (206) 526-6329



*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov  
*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata  
*Metadata\_Standard\_Version:* FGDC-STD-001-1998

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# Southeast Alaska ESI: T\_MAMMAL (Terrestrial Mammal Polygons)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication Date:* 200206

*Title:* Southeast Alaska ESI: T\_MAMMAL (Terrestrial Mammal Polygons)

*Edition:* Second

*Geospatial Data Presentation Form:* Digital vector data

##### *Series Information:*

*Series Name:* None

*Issue Identification:* Southeast Alaska

##### *Publication Information:*

*Publication Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains biological resource data for brown bears in Southeast Alaska. Vector polygons in this data set represent locations of bear concentrations. 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 Environmental Sensitivity Index (ESI) data for Southeast Alaska. 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

The biological data were compiled during 1999-2001. The currentness dates for these data range from 1985 to 2001 and are documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Terrestrial Mammals

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization*

Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

### *Data Quality Information:*

#### *Attribute Accuracy:*

##### *Attribute Accuracy Report:*

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

#### *Logical Consistency Report:*

A multi-stage error checking process, described in the above Attribute Accuracy Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary node, etc.), and ORACLE(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-ROM and the metadata are written. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new ID's and RARNUM's or HUNUM's are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUM's are also modified to include the atlas number, so multiple atlases can be combined and RARNUM's remain unique. RARNUM's are redefined on an element basis, so "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 reports on terrestrial mammal concentration areas. These data do not necessarily represent all terrestrial mammal occurrences in Southeast Alaska. The following species are included in this data set (Species\_ID, Common Name, Scientific Name, if applicable): 5, Brown bear, *Ursus arctos horribilis*.

#### *Positional Accuracy:*

##### *Horizontal Positional Accuracy:*

##### *Horizontal Positional Accuracy Report:*

Most of the spatial components of the biological data sets are 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 basemaps with a scale of 1:250,000. 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.

#### *Lineage:*

##### *Source Information:*

##### *Source Citation:*

##### *Citation Information:*

*Originator:* Alaska Department of Fish and Game

*Publication Date:* 1998

*Title:* Most Environmentally Sensitive Areas - Vol 2.

*Geospatial Data Presentation Form:* Digital Vector Data

##### *Publication Information:*

*Publication Place:* Anchorage, AK

*Publisher:* Alaska Department of Fish and Game

*Source Scale Denominator:* 250000

*Type of Source Media:* Paper

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

*Time\_Period\_Information:*

*Range\_of\_Dates/Times:*

*Beginning\_Date:* 1985

*Ending\_Date:* 1997

*Source\_Currentness\_Reference:* Date of publication

*Source\_Citation\_Abbreviation:* None

*Source\_Contribution:* Terrestrial Mammal Information

*Source\_Information:*

*Source\_Citation:*

*Citation\_Information:*

*Originator:* Yerxa, Rusty

*Publication\_Date:* 2001

*Title:* Bear Concentration/Foraging Areas

*Geospatial\_Data\_Presentation\_Form:* Hardcopy Map

*Publication\_Information:*

*Publication\_Place:* Gustavus, AK

*Publisher:* Glacier Bay National Park

*Source\_Scale\_Denominator:* 250000

*Type\_of\_Source\_Media:* Paper

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

*Time\_Period\_Information:*

*Single\_Date/Time:*

*Calendar\_Date:* 2000

*Source\_Currentness\_Reference:* Date of publication

*Source\_Citation\_Abbreviation:* None

*Source\_Contribution:* Terrestrial Mammal Information

*Process\_Step:*

*Process\_Description:*

Data sources used to depict terrestrial mammal distribution for this data layer included personal interviews with resource experts from Glacier Bay National Park, maps from Glacier Bay National Park, and Alaska Dept. of Fish and Game's Most Environmentally Sensitive Areas maps. Information gathered from the interviews and maps were compiled onto 1:250,000-scale U.S. Geological Survey (USGS) topographic maps. Following the data compilation phase, several sets of completed maps were sent out to the resource agencies for review, and edits were made based on recommendations by the resource experts. In this data layer, only areas of high brown bear concentration were included. In many cases, concentration information was provided by the resource experts.

*Process\_Date:* 200110

*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 rings

*Point\_and\_Vector\_Object\_Count:* 90

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 90

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 304

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 19935

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* Node, planar graph

*Point\_and\_Vector\_Object\_Count:* 276

*Spatial\_Reference\_Information:*

*Horizontal\_Coordinate\_System\_Definition:*

*Geographic:*

*Latitude\_Resolution:* 0.00005

*Longitude\_Resolution:* 0.00005

*Geographic\_Coordinate\_Units:* Decimal degrees

*Geodetic\_Model:*

*Horizontal\_Datum\_Name:* North American Datum of 1927

*Ellipsoid\_Name:* Clark 1866

*Semi-major\_Axis:* 6378206.400000

*Denominator\_of\_Flattening\_Ratio:* 294.978698

*Entity\_and\_Attribute\_Information:*

*Overview\_Description:*

*Entity\_and\_Attribute\_Overview:*

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case T\_MAMMAL) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO\_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for Southeast Alaska, the number is 10), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN\_SPEC, S\_F, T\_E, NHP, DATE\_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G\_SOURCE, S\_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to

BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

*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 representing terrestrial mammal distribution. Note that all attribute information is stored in a series of relational files, described below. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

*Entity Type Definition Source:* Research Planning, Inc.

*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 (10), 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:* 100900002

*Range Domain Maximum:* 100900270

*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:* 10000294

*Range Domain Maximum:* 10000299

*Detailed Description:*

*Entity Type:*

*Entity Type Label:* BIO\_LUT

*Entity Type Definition:*

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

*Entity Type Definition Source:* Research Planning, Inc.

*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 the polygons and do not contain information

*Attribute Definition Source:* NOAA

*Attribute Domain Values:*

*Range Domain:*

*Range Domain Minimum:* 10000001

*Range Domain Maximum:* 10000299

*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 (10), 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:* 100100002

*Range\_Domain\_Maximum:* 103400054

*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:* Research Planning, Inc.

*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:* 010000001

*Range\_Domain\_Maximum:* 010000299

*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:* Research Planning, Inc.

*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. In this data layer, the CONC field contains only the descriptive term "HIGH", because only high concentration areas of bears were mapped.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N



*Attribute:*

*Attribute\_Label:* G\_SOURCE

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* NAME

*Attribute\_Definition:* Species common name

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Species common name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* GEN\_SPEC

*Attribute\_Definition:* Species scientific name

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Species scientific name for the entire ESI data set.

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* ELEMENT

*Attribute\_Definition:* Major categories of biological data

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* SUBELEMENT

*Attribute\_Definition:* Element subgroup delineating a logical grouping of species.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* alcid

*Enumerated\_Domain\_Value\_Definition:* Alcid

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* diving

*Enumerated\_Domain\_Value\_Definition:* Diving bird

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* gull\_tern

*Enumerated\_Domain\_Value\_Definition:* Gull or Tern

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* pelagic

*Enumerated\_Domain\_Value\_Definition:* Pelagic bird

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* raptor

*Enumerated\_Domain\_Value\_Definition:* Raptor

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* shorebird

*Enumerated\_Domain\_Value\_Definition:* Shorebird

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* diadromous

*Enumerated\_Domain\_Value\_Definition:* Diadromous fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* e\_resident

*Enumerated\_Domain\_Value\_Definition:* Estuarine resident fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* e\_nursery

*Enumerated\_Domain\_Value\_Definition:* Estuarine nursery fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* freshwater

*Enumerated\_Domain\_Value\_Definition:* Freshwater fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* waterfowl

*Enumerated\_Domain\_Value\_Definition:* Waterfowl

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* m\_benthic fish

*Enumerated\_Domain\_Value\_Definition:* Marine benthic fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* m\_pelagic

*Enumerated\_Domain\_Value\_Definition:* Marine pelagic fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* sav

*Enumerated\_Domain\_Value\_Definition:* Submersed aquatic vegetation

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* dolphin

*Enumerated\_Domain\_Value\_Definition:* Dolphin

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* pinniped

*Enumerated\_Domain\_Value\_Definition:* Pinniped

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* sea\_otter

*Enumerated\_Domain\_Value\_Definition:* Otter

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* whale

*Enumerated\_Domain\_Value\_Definition:* Whale

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* bear

*Enumerated\_Domain\_Value\_Definition:* Bear

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* 0

*Enumerated\_Domain\_Value\_Definition:* Not ranked

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE =

'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: INVERT

*Enumerated\_Domain\_Value\_Definition*: Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: REPTILE

*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition*: Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum: N*

*Attribute:*

*Attribute\_Label: SEASON\_ID*

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum: 1*

*Range\_Domain\_Maximum: N*

*Attribute:*

*Attribute\_Label: JAN*

*Attribute\_Definition: January*

*Attribute\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: X*

*Enumerated\_Domain\_Value\_Definition: Present in January*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute:*

*Attribute\_Label: FEB*

*Attribute\_Definition: February*

*Attribute\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: X*

*Enumerated\_Domain\_Value\_Definition: Present in February*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute:*

*Attribute\_Label: MAR*

*Attribute\_Definition: March*

*Attribute\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: X*

*Enumerated\_Domain\_Value\_Definition: Present in March*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute:*

*Attribute\_Label: APR*

*Attribute\_Definition: April*

*Attribute\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: X*

*Enumerated\_Domain\_Value\_Definition: Present in April*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute:*

*Attribute\_Label: MAY*

*Attribute\_Definition: May*

*Attribute\_Definition\_Source: Research Planning, Inc.*

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value: X*

*Enumerated\_Domain\_Value\_Definition: Present in May*

*Enumerated\_Domain\_Value\_Definition\_Source: Research Planning, Inc.*

*Attribute:*

*Attribute\_Label: JUN*

*Attribute\_Definition: June*

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in June

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: JUL

*Attribute\_Definition*: July

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in July

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: AUG

*Attribute\_Definition*: August

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in August

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SEP

*Attribute\_Definition*: September

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in September

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: OCT

*Attribute\_Definition*: October

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in October

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: NOV

*Attribute\_Definition*: November

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in November

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DEC

*Attribute\_Definition*: December

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in December



*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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/mating; 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 elements.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* BREED2

*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = laying; 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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* BREED3

*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = hatching; 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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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*: Research Planning, Inc.

Attribute:

*Attribute\_Label*: BREED4

*Attribute\_Definition*:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED4 = fledging; if ELEMENT is "FISH" then BREED4 = juvenile; if ELEMENT is "INVERT" then BREED4 = juvenile; if ELEMENT is "REPTILE" then BREED4 = juvenile; if ELEMENT is "M\_MAMMAL" then BREED4 = molting. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

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*: Research Planning, Inc.

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, and to G\_SOURCE and S\_SOURCE in the BIORES table.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATE\_PUB

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TITLE

*Attribute\_Definition*: Title of source material or data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATA\_FORMAT

*Attribute\_Definition*: The format of the source material

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: PUBLICATION

*Attribute\_Definition*: Additional citation information

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SCALE

*Attribute\_Definition*: Scale denominator of the source

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: integer  
*Enumerated\_Domain\_Value\_Definition*: Any integer  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TIME\_PERIOD  
*Attribute\_Definition*:  
Date(s) of data collection that the source material is based upon.  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: Numeric  
*Enumerated\_Domain\_Value\_Definition*: yyyy  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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 or federal 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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: ELEMENT  
*Attribute\_Definition*: Major categories of biological data  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: BIRD  
*Enumerated\_Domain\_Value\_Definition*: Birds  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: FISH  
*Enumerated\_Domain\_Value\_Definition*: Fish  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: HABITAT  
*Enumerated\_Domain\_Value\_Definition*: Habitats and Plants  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: INVERT  
*Enumerated\_Domain\_Value\_Definition*: Invertebrates  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: M\_MAMMAL  
*Enumerated\_Domain\_Value\_Definition*: Marine Mammals  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: REPTILE  
*Enumerated\_Domain\_Value\_Definition*: Reptiles and Amphibians  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Two-letter state abbreviation

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* S\_F

*Attribute\_Definition:* State and Federal status.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* F

*Enumerated\_Domain\_Value\_Definition:* Federally listed

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* S

*Enumerated\_Domain\_Value\_Definition:* State listed

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* S/F

*Enumerated\_Domain\_Value\_Definition:* State and federally listed

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* T\_E

*Attribute\_Definition:* Threatened and endangered status.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* E

*Enumerated\_Domain\_Value\_Definition:* Endangered on state or federal list

*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T

*Enumerated\_Domain\_Value\_Definition:* Threatened on state or federal list

*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service

*Attribute:*

*Attribute\_Label:* DATE\_PUB

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

---

*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*: ESI Atlas for Southeast Alaska

*Distribution\_Liability*:

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

*Custom\_Order\_Process*:

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

---

*Metadata\_Reference\_Information*:

*Metadata\_Date*: 200206

*Metadata\_Review\_Date*: 200206

*Metadata\_Contact*:

*Contact\_Information*:

*Contact\_Person\_Primary:*

*Contact\_Person:* Jill Petersen

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Position:* GIS Manager

*Contact\_Address:*

*Address\_Type:* Physical Address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata

*Metadata\_Standard\_Version:* FGDC-STD-001-1998

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# Southeast Alaska ESI: HABITATS (Habitat and Plant Polygons)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entity and Attribute Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)

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### *Identification Information:*

#### *Citation:*

##### *Citation Information:*

##### *Originator:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication Date:* 200206

*Title:* Southeast Alaska ESI: HABITATS (Habitat and Plant Polygons)

*Edition:* Second

*Geospatial Data Presentation Form:* Digital vector data

##### *Series Information:*

*Series Name:* None

*Issue Identification:* Southeast Alaska

##### *Publication Information:*

*Publication Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains biological resource data for seagrass habitats in Southeast Alaska. Vector polygons in this data set represent locations of seagrass concentration areas. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the Environmental Sensitivity Index (ESI) data for Southeast Alaska. 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

The biological data were compiled during 1999-2001. The currentness dates for these data range from 1998 to 2001 and are documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*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:* Habitats

*Theme\_Keyword:* Plants

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release

A.10.20), and PC's with Windows Operating System (NT4.0/2000). The Spatial\_Data\_Organization\_Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

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

##### *Attribute\_Accuracy:*

###### *Attribute\_Accuracy\_Report:*

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

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

A multi-stage error checking process, described in the above Attribute\_Accuracy\_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary node, etc.), and ORACLE(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-ROM and the metadata are written. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new ID's and RARNUM's or HUNUM's are also generated. The new ID's are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUM's are also modified to include the atlas number, so multiple atlases can be combined and RARNUM's remain unique. RARNUM's are redefined on an element basis, so "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 reports and digital data on eelgrass concentration areas. These data do not necessarily represent all seagrass occurrences in Southeast Alaska. The following species are included in this data set (Species\_ID, Common Name, Scientific Name, if applicable): 1, Eelgrass, *Zostera marina*.

##### *Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy\_Report:*

The spatial components of the biological data sets are 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 basemaps with a scale of 1:250,000. See the Lineage and Process\_Description sections for more information on the original data source and how these data were integrated or manipulated to create the final data set. 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.

#### *Lineage:*

##### *Source\_Information:*

###### *Source\_Citation:*

###### *Citation\_Information:*

*Originator:* Shaw, Linda

*Publication\_Date:* Unpublished Material

*Title:* Untitled

*Geospatial\_Data\_Presentation\_Form:* Hardcopy Table

*Type\_of\_Source\_Media:* Paper

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

*Time\_Period\_Information:*

*Range\_of\_Dates/Times:*

*Beginning\_Date:* 1998

*Ending\_Date:* 2000

*Source\_Currentness\_Reference:* Date of publication

*Source\_Citation\_Abbreviation:* None

*Source\_Contribution:* Habitat Information

*Process\_Step:*

*Process\_Description:*

Sources of data used to depict habitat distribution for this data layer came from a report on seagrass beds in SE Alaska, provided by Linda Shaw. Following the data compilation phase, several sets of completed maps were sent out to the resource agencies for review, and edits were made based on recommendations by the resource experts. Concentration information was classified as "ABUNDANT".

*Process\_Date:* 200110

*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 rings

*Point\_and\_Vector\_Object\_Count:* 4

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 4

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 4

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 556

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* Node, planar graph

*Point\_and\_Vector\_Object\_Count:* 4

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*Spatial\_Reference\_Information:*

*Horizontal\_Coordinate\_System\_Definition:*

*Geographic:*

*Latitude\_Resolution:* 0.00005

*Longitude\_Resolution:* 0.00005

*Geographic\_Coordinate\_Units:* Decimal degrees

*Geodetic\_Model:**Horizontal\_Datum\_Name:* North American Datum of 1927*Ellipsoid\_Name:* Clark 1866*Semi-major\_Axis:* 6378206.400000*Denominator\_of\_Flattening\_Ratio:* 294.978698*Entity\_and\_Attribute\_Information:**Overview\_Description:**Entity\_and\_Attribute\_Overview:*

In addition to the geographic data layers, six relational attribute or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, are used to store the complex biological data in the ESI data structure. The geographic data layer containing biological resource information (in this case, HABITATS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO\_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for Southeast Alaska, the number is 10), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure. Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN\_SPEC, S\_F, T\_E, NHP, DATE\_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G\_SOURCE, S\_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED\_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed\_Description of the BREED data table. The link to the BIOFILE may be made through the BIO\_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED\_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED\_DT is the BREED item. A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G\_SOURCE and S\_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

*Detailed\_Description:**Entity\_Type:**Entity\_Type\_Label:* HABITATS.PAT*Entity\_Type\_Definition:*

The HABITATS.PAT table contains attribute information for the vector polygons representing seagrass concentration areas. Note that all attribute information is stored in a series of relational files, described below. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.*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 (10), 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:* 100300002  
*Range\_Domain\_Maximum:* 100300005

*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 polygons and do not contain information.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 10000236

*Range\_Domain\_Maximum:* 10000236

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* BIO\_LUT

*Entity\_Type\_Definition:*

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

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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 the polygons and do not contain information.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 10000001

*Range\_Domain\_Maximum:* 10000299

*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 (10), 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:* 100100002

*Range\_Domain\_Maximum:* 103400054

*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:* Research Planning, Inc.

*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:* 010000001

*Range\_Domain\_Maximum:* 010000299

*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:* Research Planning, Inc.

*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 is populated with the term "ABUNDANT", since only abundant habitat concentrations were mapped.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* G\_SOURCE

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute:*

*Attribute\_Label*: NAME

*Attribute\_Definition*: Species common name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species common name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute:*

*Attribute\_Label*: GEN\_SPEC

*Attribute\_Definition*: Species scientific name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Species scientific name for the entire ESI data set

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute:*

*Attribute\_Label*: ELEMENT

*Attribute\_Definition*: Major categories of biological data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BIRD

*Enumerated\_Domain\_Value\_Definition*: Birds

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: FISH

*Enumerated\_Domain\_Value\_Definition*: Fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HABITAT

*Enumerated\_Domain\_Value\_Definition*: Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* SUBELEMENT

*Attribute\_Definition:*

Species Element subgroup delineating a logical grouping of species.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* alcid

*Enumerated\_Domain\_Value\_Definition:* Alcid

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* diving

*Enumerated\_Domain\_Value\_Definition:* Diving bird

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* gull\_tern

*Enumerated\_Domain\_Value\_Definition:* Gull or Tern

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* pelagic

*Enumerated\_Domain\_Value\_Definition:* Pelagic bird

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* raptor

*Enumerated\_Domain\_Value\_Definition:* Raptor

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* shorebird

*Enumerated\_Domain\_Value\_Definition:* Shorebird

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* diadromous

*Enumerated\_Domain\_Value\_Definition:* Diadromous fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: e\_resident

*Enumerated\_Domain\_Value\_Definition*: Estuarine resident fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: e\_nursery

*Enumerated\_Domain\_Value\_Definition*: Estuarine nursery fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: freshwater

*Enumerated\_Domain\_Value\_Definition*: Freshwater fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: waterfowl

*Enumerated\_Domain\_Value\_Definition*: Waterfowl

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: m\_benthic

*Enumerated\_Domain\_Value\_Definition*: Marine benthic fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: m\_pelagic

*Enumerated\_Domain\_Value\_Definition*: Marine pelagic fish

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: sav

*Enumerated\_Domain\_Value\_Definition*: Submersed aquatic vegetation

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: dolphin

*Enumerated\_Domain\_Value\_Definition*: Dolphin

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: pinniped

*Enumerated\_Domain\_Value\_Definition*: Pinniped

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: sea\_otter

*Enumerated\_Domain\_Value\_Definition*: Otter

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: whale

*Enumerated\_Domain\_Value\_Definition*: Whale

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: bear

*Enumerated\_Domain\_Value\_Definition:* Bear  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* 0  
*Enumerated\_Domain\_Value\_Definition:* Not ranked  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* Numeric  
*Enumerated\_Domain\_Value\_Definition:* mmyyyy  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.  
*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* ELEMENT  
*Attribute\_Definition:* Major categories of biological data  
*Attribute\_Definition\_Source:* Research Planning, Inc.  
*Attribute\_Domain\_Values:*  
*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* BIRD  
*Enumerated\_Domain\_Value\_Definition:* Birds  
*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*  
*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* SEASON\_ID

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* JAN

*Attribute\_Definition:* January

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* X

*Enumerated\_Domain\_Value\_Definition:* Present in January

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* FEB

*Attribute\_Definition:* February

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in February

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: MAR

*Attribute\_Definition*: March

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in March

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: APR

*Attribute\_Definition*: April

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in April

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: MAY

*Attribute\_Definition*: May

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in May

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: JUN

*Attribute\_Definition*: June

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in June

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: JUL

*Attribute\_Definition*: July

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in July

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: AUG

*Attribute\_Definition*: August

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in August

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SEP

*Attribute\_Definition*: September

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in September

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: OCT

*Attribute\_Definition*: October

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in October

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: NOV

*Attribute\_Definition*: November

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in November

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DEC

*Attribute\_Definition*: December

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: X

*Enumerated\_Domain\_Value\_Definition*: Present in December

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B000101').

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD', SPECIES\_ID = 1 and SEASON\_ID = 1; EL\_SPE\_SEA = 'B0000101').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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/mating; 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 elements.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* N

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* BREED2

*Attribute\_Definition:*

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED2 = laying; 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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Y

*Enumerated\_Domain\_Value\_Definition:* Life-history stage or activity present



*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: BREED3

*Attribute\_Definition*:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED3 = hatching; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = interesting; if ELEMENT is "M\_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: BREED4

*Attribute\_Definition*:

Life history stage or activity type, where: if ELEMENT is "BIRD" then BREED4 = fledging; if ELEMENT is "FISH" then BREED4 = juvenile; if ELEMENT is "INVERT" then BREED4 = juvenile; if ELEMENT is "REPTILE" then BREED4 = juvenile; if ELEMENT is "M\_MAMMAL" then BREED4 = molting. This attribute is not used for HABITAT or T\_MAMMAL elements.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Y

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: N

*Enumerated\_Domain\_Value\_Definition*: Life-history stage or activity not present

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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*: Research Planning, Inc.

*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, and to G\_SOURCE and S\_SOURCE in the BIORES table.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATE\_PUB

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric  
*Enumerated\_Domain\_Value\_Definition*: mmyyyy  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TITLE  
*Attribute\_Definition*: Title of source material or data  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: Any character  
*Enumerated\_Domain\_Value\_Definition*: Free text  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATA\_FORMAT  
*Attribute\_Definition*: The format of the source material  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: Any character  
*Enumerated\_Domain\_Value\_Definition*: Free text  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: PUBLICATION  
*Attribute\_Definition*: Additional citation information  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: Any character  
*Enumerated\_Domain\_Value\_Definition*: Free text  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SCALE  
*Attribute\_Definition*: Scale denominator of the source  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: integer  
*Enumerated\_Domain\_Value\_Definition*: Any integer  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TIME\_PERIOD  
*Attribute\_Definition*:  
Date(s) of data collection that the source material is based upon.  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
*Enumerated\_Domain*:  
*Enumerated\_Domain\_Value*: Numeric  
*Enumerated\_Domain\_Value\_Definition*: yyyy  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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 or federal 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*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label:* ELEMENT

*Attribute\_Definition:* Major categories of biological data

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* BIRD

*Enumerated\_Domain\_Value\_Definition:* Birds

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* FISH

*Enumerated\_Domain\_Value\_Definition:* Fish

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* HABITAT

*Enumerated\_Domain\_Value\_Definition:* Habitats and Plants

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* INVERT

*Enumerated\_Domain\_Value\_Definition:* Invertebrates

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* M\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Marine Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* REPTILE

*Enumerated\_Domain\_Value\_Definition:* Reptiles and Amphibians

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T\_MAMMAL

*Enumerated\_Domain\_Value\_Definition:* Terrestrial Mammals

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Two-letter state abbreviation

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* S\_F

*Attribute\_Definition:* State and Federal status.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* F

*Enumerated\_Domain\_Value\_Definition:* Federally listed

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* S

*Enumerated\_Domain\_Value\_Definition:* State listed

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* S/F

*Enumerated\_Domain\_Value\_Definition:* State and federally listed

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* T\_E

*Attribute\_Definition:* Threatened and endangered status.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* E

*Enumerated\_Domain\_Value\_Definition:* Endangered on state or federal list

*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* T

*Enumerated\_Domain\_Value\_Definition:* Threatened on state or federal list

*Enumerated\_Domain\_Value\_Definition\_Source:* U.S. Fish and Wildlife Service

*Attribute:*

*Attribute\_Label:* DATE\_PUB

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Numeric

*Enumerated\_Domain\_Value\_Definition:* mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* EL\_SPE

*Attribute\_Definition:*

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

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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 (eg. ELEMENT = 'BIRD' and SPECIES\_ID = 1; EL\_SPE = 'B00001').

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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:* ESI Atlas for Southeast Alaska*Distribution\_Liability:*

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

*Custom\_Order\_Process:*

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

*Metadata\_Reference\_Information:**Metadata\_Date:* 200206*Metadata\_Review\_Date:* 200206*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

# Southeast Alaska ESI: MGT (Management Area Polygons)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Publication\_Date:* 200206

*Title:* Southeast Alaska ESI: MGT (Management Area Polygons)

*Edition:* Second

*Geospatial\_Data\_Presentation\_Form:* Digital vector data

##### *Series\_Information:*

*Series\_Name:* None

*Issue\_Identification:* Southeast Alaska

##### *Publication\_Information:*

*Publication\_Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains management area data for National Parks, Wildlife Refuges, and areas designated as Critical Habitat in Southeast Alaska. 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 Environmental Sensitivity Index (ESI) data for Southeast Alaska. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the SOCECON (Socioeconomic Resource Points) data layer, part of the larger Southeast Alaska 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

These data were compiled during 1999-2001. The currentness dates for these data range from 2000 to 2001 and are documented in the *Source\_Information* section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -135.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.5

*South\_Bounding\_Coordinate:* 58.0

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Management

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The *Spatial\_Data\_Organization*



\_Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

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

##### *Attribute\_Accuracy:*

###### *Attribute\_Accuracy\_Report:*

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

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

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

##### *Completeness\_Report:*

These data represent a synthesis of hardcopy and digital boundaries for management areas. Refer to the SOCECON (Socioeconomic Resource Points) data layer for additional human-use information. These data do not represent all management areas in Southeast Alaska.

##### *Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy\_Report:*

The MGT data set was developed from pre-existing digital sources and reflects the positional accuracy of these original data. See the Lineage and Process\_Description sections for more information on the original data source and how these data were integrated or manipulated to create the final data set.

#### *Lineage:*

##### *Source\_Information:*

###### *Source\_Citation:*

###### *Citation\_Information:*

*Originator:* Alaska DNR

*Publication\_Date:* 2001

*Title:* Administrative Large Parcel Boundaries

*Geospatial\_Data\_Presentation\_Form:* Digital Vector Data

###### *Publication\_Information:*

*Publication\_Place:* Anchorage AK

*Publisher:* Alaska Dept. of Natural Resources

*Source\_Scale\_Denominator:* 63360

*Type\_of\_Source\_Media:* CD-ROM

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

###### *Time\_Period\_Information:*

*Single\_Date/Time:*

*Calendar\_Date:* 2000

*Source\_Currentness\_Reference:* Date of publication

*Source\_Citation\_Abbreviation:* None

*Source\_Contribution:* Management Information

##### *Process\_Step:*

###### *Process\_Description:*

The data source used to depict management areas for this data layer was the Alaska Department of

Natural Resources (DNR) administrative boundary coverage. Resource agencies confirmed the accuracy of the boundaries during review.

*Process\_Date*: 200110

*Process\_Contact*:

*Contact\_Information*:

*Contact\_Organization\_Primary*:

*Contact\_Organization*: NOAA, Office of Response and Restoration

*Contact\_Person*: Jill Petersen

*Contact\_Address*:

*Address\_Type*: Physical address

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

*City*: Seattle

*State\_or\_Province*: Washington

*Postal\_Code*: 98115-6349

*Contact\_Voice\_Telephone*: (206) 526-6944

*Contact\_Facsimile\_Telephone*: (206) 526-6329

*Contact\_Electronic\_Mail\_Address*: Jill.Petersen@noaa.gov

*Spatial\_Data\_Organization\_Information*:

*Direct\_Spatial\_Reference\_Method*: Vector

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

*SDTS\_Terms\_Description*:

*SDTS\_Point\_and\_Vector\_Object\_Type*: GT-polygon composed of rings

*Point\_and\_Vector\_Object\_Count*: 61

*SDTS\_Terms\_Description*:

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

*Point\_and\_Vector\_Object\_Count*: 61

*SDTS\_Terms\_Description*:

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

*Point\_and\_Vector\_Object\_Count*: 185

*SDTS\_Terms\_Description*:

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

*Point\_and\_Vector\_Object\_Count*: 37701

*SDTS\_Terms\_Description*:

*SDTS\_Point\_and\_Vector\_Object\_Type*: Node, planar graph

*Point\_and\_Vector\_Object\_Count*: 167

*Spatial\_Reference\_Information*:

*Horizontal\_Coordinate\_System\_Definition*:

*Geographic*:

*Latitude\_Resolution*: 0.00005

*Longitude\_Resolution*: 0.00005

*Geographic\_Coordinate\_Units*: Decimal degrees

*Geodetic\_Model*:

*Horizontal\_Datum\_Name*: North American Datum of 1927

*Ellipsoid\_Name*: Clark 1866

*Semi-major\_Axis*: 6378206.400000

*Denominator\_of\_Flattening\_Ratio*: 294.978698

*Entity\_and\_Attribute\_Information*:

*Overview\_Description*:

*Entity\_and\_Attribute\_Overview*:

In addition to the geographic data layers, two relational attribute or data tables, SOC\_DAT and

SOURCES, are used to store the complex socioeconomic data in the ESI data structure. The geographic data layer containing socioeconomic 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 (the Southeast Alaska atlas number is 10). ID is a unique combination of the atlas number (10), an element specific number (MGT = 11), and a unique record number. SOC\_DAT and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* MGT.PAT

*Entity\_Type\_Definition:*

The MGT.PAT table contains attribute information for the vector polygons representing National Parks, Wildlife Refuges, and areas designated as Critical Habitat in Southeast Alaska. Note that all attribute information is stored in a series of relational files, described below. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* CH

*Enumerated\_Domain\_Value\_Definition:* DESIGNATED CRITICAL HABITAT

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* NP

*Enumerated\_Domain\_Value\_Definition:* NATIONAL PARK

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* WR

*Enumerated\_Domain\_Value\_Definition:* WILDLIFE REFUGE

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*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 (10), element number (11), and record number. ID values of 9999 are holes in the polygon and do not contain information.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 101100002

*Range\_Domain\_Maximum:* 101100085

*Attribute:*

*Attribute\_Label:* HUNUM

*Attribute\_Definition:*

An identifier that links directly to the SOC\_DAT table. HUNUM values of 0 are holes in the polygon and do not contain information.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 10000009

*Range\_Domain\_Maximum:* 10000016

*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:* Research Planning, Inc.*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 polygons and do not contain information.

*Attribute\_Definition\_Source:* NOAA*Attribute\_Domain\_Values:**Range\_Domain:**Range\_Domain\_Minimum:* 10000001*Range\_Domain\_Maximum:* 10000016*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 (10), 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:* 101000001*Range\_Domain\_Maximum:* 101100085*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:* Research Planning, Inc.*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.

*Attribute\_Definition\_Source:* NOAA*Attribute\_Domain\_Values:**Range\_Domain:**Range\_Domain\_Minimum:* 10000001*Range\_Domain\_Maximum:* 10000016*Attribute:**Attribute\_Label:* TYPE*Attribute\_Definition:* Identifies the feature type*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* AIRPORT*Enumerated\_Domain\_Value\_Definition:* AIRPORT*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Enumerated\_Domain:**Enumerated\_Domain\_Value:* AQUACULTURE*Enumerated\_Domain\_Value\_Definition:* AQUACULTURE*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc

*Enumerated\_Domain:**Enumerated\_Domain\_Value:* BOAT RAMP*Enumerated\_Domain\_Value\_Definition:* BOAT RAMP*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc*Enumerated\_Domain:**Enumerated\_Domain\_Value:* DESIGNATED CRITICAL HABITAT*Enumerated\_Domain\_Value\_Definition:* DESIGNATED CRITICAL HABITAT*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc*Enumerated\_Domain:**Enumerated\_Domain\_Value:* HELIPAD*Enumerated\_Domain\_Value\_Definition:* HELIPAD*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Enumerated\_Domain:**Enumerated\_Domain\_Value:* LOG STORAGE*Enumerated\_Domain\_Value\_Definition:* LOG STORAGE*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc*Enumerated\_Domain:**Enumerated\_Domain\_Value:* MARINA*Enumerated\_Domain\_Value\_Definition:* MARINA*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Enumerated\_Domain:**Enumerated\_Domain\_Value:* NATIONAL PARK*Enumerated\_Domain\_Value\_Definition:* NATIONAL PARK*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Enumerated\_Domain:**Enumerated\_Domain\_Value:* WILDLIFE REFUGE*Enumerated\_Domain\_Value\_Definition:* WILDLIFE REFUGE*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc*Attribute:**Attribute\_Label:* NAME*Attribute\_Definition:* The feature name*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* CONTACT*Attribute\_Definition:* Contact person or entity*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* PHONE*Attribute\_Definition:* Contact telephone number*Attribute\_Definition\_Source:* Research Planning, Inc.*Attribute\_Domain\_Values:**Enumerated\_Domain:**Enumerated\_Domain\_Value:* Any character*Enumerated\_Domain\_Value\_Definition:* Free text*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.*Attribute:**Attribute\_Label:* G\_SOURCE*Attribute\_Definition:*

Geographic source integer identifier that links records in the SOC\_DAT data table to records in

the SOURCES data table.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Attribute*:

*Attribute\_Label*: A\_SOURCE

*Attribute\_Definition*:

Attribute source integer identifier that links records in the SOC\_DAT data table to records in the SOURCES data table.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 1

*Range\_Domain\_Maximum*: N

*Detailed\_Description*:

*Entity\_Type*:

*Entity\_Type\_Label*: SOURCES

*Entity\_Type\_Definition*:

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

*Entity\_Type\_Definition\_Source*: Research Planning, Inc.

*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, and to G\_SOURCE and S\_SOURCE in the BIORES table.

*Attribute\_Definition\_Source*: Research Planning, Inc.

*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*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATE\_PUB

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TITLE

*Attribute\_Definition*: Title of source material or data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character  
*Enumerated\_Domain\_Value\_Definition*: Free text  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATA\_FORMAT  
*Attribute\_Definition*: The format of the source material  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: Any character  
         *Enumerated\_Domain\_Value\_Definition*: Free text  
         *Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: PUBLICATION  
*Attribute\_Definition*: Additional citation information  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: Any character  
         *Enumerated\_Domain\_Value\_Definition*: Free text  
         *Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SCALE  
*Attribute\_Definition*: Scale denominator of the source  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: integer  
         *Enumerated\_Domain\_Value\_Definition*: Any integer  
         *Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TIME\_PERIOD  
*Attribute\_Definition*:  
     Date(s) of data collection that the source material is based upon.  
*Attribute\_Definition\_Source*: Research Planning, Inc.  
*Attribute\_Domain\_Values*:  
     *Enumerated\_Domain*:  
         *Enumerated\_Domain\_Value*: Numeric  
         *Enumerated\_Domain\_Value\_Definition*: yyyy  
         *Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*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*: ESI Atlas for Southeast Alaska

*Distribution\_Liability*:

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

*Custom\_Order\_Process:*

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

---

*Metadata\_Reference\_Information:*

*Metadata\_Date:* 200206

*Metadata\_Review\_Date:* 200206

*Metadata\_Contact:*

*Contact\_Information:*

*Contact\_Person\_Primary:*

*Contact\_Person:* Jill Petersen

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Position:* GIS Manager

*Contact\_Address:*

*Address\_Type:* Physical Address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Metadata\_Standard\_Name:* Content Standards for Digital Geospatial Metadata

*Metadata\_Standard\_Version:* FGDC-STD-001-1998

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Generated by [mp](#) version 2.7.27 on Tue Jul 02 08:30:28 2002



# Southeast Alaska ESI: SOCECON (Socioeconomic Resource Points)

Metadata also available as - [[Parseable text](#)] - [[SGML](#)]

## 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

##### *Publication Date:* 200206

*Title:* Southeast Alaska ESI: SOCECON (Socioeconomic Resource Points)

*Edition:* Second

*Geospatial Data Presentation Form:* Digital vector data

##### *Series Information:*

*Series Name:* None

*Issue Identification:* Southeast Alaska

##### *Publication Information:*

*Publication Place:* Seattle, Washington

##### *Publisher:*

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

##### *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, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

### *Description:*

#### *Abstract:*

This data set contains human-use resource data for airports, aquaculture sites, boat ramps, marinas, heliports, and log storage areas in Southeast Alaska. Vector points in this data set represent the location of human-use sites. 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 Environmental Sensitivity Index (ESI) data for Southeast Alaska. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the MGT (Management Area Polygons) data layer, part of the larger Southeast Alaska 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:* 1999

*Ending\_Date:* 2001

*Currentness\_Reference:*

These data were compiled during 1999-2001. The currentness dates for these data range from 1995 to 2001 and are documented in the Source\_Information section.

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None Scheduled

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -130.667

*East\_Bounding\_Coordinate:* -144.0

*North\_Bounding\_Coordinate:* 60.25

*South\_Bounding\_Coordinate:* 54.5

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

*Theme\_Keyword:* ESI

*Theme\_Keyword:* Sensitivity maps

*Theme\_Keyword:* Coastal resources

*Theme\_Keyword:* Oil spill planning

*Theme\_Keyword:* Coastal Zone Management

*Theme\_Keyword:* Wildlife

*Theme\_Keyword:* Socioeconomic

*Place:*

*Place\_Keyword\_Thesaurus:* None

*Place\_Keyword:* Southeast Alaska

*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:*

Relationships between spatial data layers and attribute data tables for the Southeast Alaska 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, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington; National Park Service, Gustavus, Alaska; U.S. Coast Guard, Juneau, Alaska; U.S. Fish and Wildlife Service, Juneau, Alaska; U.S. Forest Service, Juneau, Alaska; Alaska Department of Fish and Game, Juneau, Alaska; Alaska Department of Environmental Conservation, Juneau, Alaska; Southeast Alaska Petroleum Resource Organization, Ketchikan, Alaska.

*Native\_Data\_Set\_Environment:*

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard

workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000). The Spatial\_Data\_Organization\_Information section refers only to the source files in the ARC export format. The following files are included in that data set: bioindex.e00, birds.e00, bio\_lut.e00, biofile.e00, biores.e00, breed.e00, breed\_dt.e00, esi.e00, fish.e00, fishl.e00, fishpt.e00, habitats.e00, hydro.e00, index.e00, m\_mammal.e00, m\_mampt.e00, mgt.e00, nests.e00, seasonal.e00, soc\_dat.e00, soc\_lut.e00, socecon.e00, sources.e00, species.e00, status.e00, t\_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio\_lut, biofile, biores, breed, breed\_dt, seasonal, soc\_dat, soc\_lut, socecon, sources, species, and status.

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

##### *Attribute\_Accuracy:*

###### *Attribute\_Accuracy\_Report:*

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

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

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

##### *Completeness\_Report:*

These data represent a synthesis of expert knowledge, available hardcopy documents, and digital data on airports, aquaculture sites, boat ramps, heliports, log storage areas, and marinas. Refer to the MGT (Management Area Polygons) data layer for additional human-use information. These data do not represent all human-use sites in Southeast Alaska.

##### *Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy:*

###### *Horizontal\_Positional\_Accuracy\_Report:*

The spatial components of the SOCECON data sets are developed from pre-existing digital and hardcopy sources and overflight observations. It is difficult to estimate the positional accuracy of such data, except to state that hardcopy data were compiled on basemaps with a scale of 1:63,360. See the Lineage and Process\_Description sections for more information on the original data source and how these data were integrated or manipulated to create the final data set.

#### *Lineage:*

##### *Source\_Information:*

###### *Source\_Citation:*

###### *Citation\_Information:*

*Originator:* Alaska DNR

*Publication\_Date:* 1995

*Title:* Airports and Runways

*Geospatial\_Data\_Presentation\_Form:* Digital Vector Data

###### *Publication\_Information:*

*Publication\_Place:* Anchorage AK

*Publisher:* Alaska Dept. of Natural Resources

*Source\_Scale\_Denominator:* 63360

*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:* Management Information  
*Source\_Information:*  
*Source\_Citation:*  
*Citation\_Information:*  
*Originator:* Research Planning, Inc  
*Publication\_Date:* Unpublished Material  
*Title:* Aerial overflights  
*Geospatial\_Data\_Presentation\_Form:* Hardcopy Map  
*Source\_Scale\_Denominator:* 63360  
*Type\_of\_Source\_Media:* Paper  
*Source\_Time\_Period\_of\_Content:*  
*Time\_Period\_Information:*  
*Single\_Date/Time:*  
*Calendar\_Date:* 2000  
*Source\_Currentness\_Reference:* Date of publication  
*Source\_Citation\_Abbreviation:* None  
*Source\_Contribution:* Management Information

*Process\_Step:*

*Process\_Description:*

The data sources used to depict human-use resources for this data layer included the Alaska Department of Natural Resources (DNR) and overflight observations. Digital positional data were used exactly as provided and the attribute data were converted to a format compatible with the ESI data format. Hardcopy data and local knowledge data were digitized off of 1:63,360 scale basemaps. Resource agencies confirmed the accuracy of the boundaries during review.

*Process\_Date:* 200110

*Process\_Contact:*

*Contact\_Information:*

*Contact\_Organization\_Primary:*

*Contact\_Organization:* NOAA, Office of Response and Restoration

*Contact\_Person:* Jill Petersen

*Contact\_Address:*

*Address\_Type:* Physical address

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

*City:* Seattle

*State\_or\_Province:* Washington

*Postal\_Code:* 98115-6349

*Contact\_Voice\_Telephone:* (206) 526-6944

*Contact\_Facsimile\_Telephone:* (206) 526-6329

*Contact\_Electronic\_Mail\_Address:* Jill.Petersen@noaa.gov

*Spatial\_Data\_Organization\_Information:*

*Direct\_Spatial\_Reference\_Method:* Vector

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

*SDTS\_Terms\_Description:*

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

*Point\_and\_Vector\_Object\_Count:* 121

*Spatial\_Reference\_Information:*

*Horizontal\_Coordinate\_System\_Definition:*

*Geographic:*

*Latitude\_Resolution:* 0.00005

*Longitude\_Resolution:* 0.00005

*Geographic\_Coordinate\_Units:* Decimal degrees

*Geodetic\_Model:*

*Horizontal\_Datum\_Name:* North American Datum of 1927

*Ellipsoid\_Name*: Clark 1866  
*Semi-major\_Axis*: 6378206.400000  
*Denominator\_of\_Flattening\_Ratio*: 294.978698

### *Entity\_and\_Attribute\_Information:*

#### *Overview\_Description:*

##### *Entity\_and\_Attribute\_Overview:*

In addition to the geographic data layers, two relational attribute or data tables, SOC\_DAT and SOURCES, are used to store the complex socioeconomic data in the ESI data structure. The geographic data layer containing socioeconomic 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 (the atlas number for Southeast Alaska is 10). ID is a unique combination of the atlas number (10), an element specific number (SOCECON = 10) and a unique record number. SOC\_DAT and the other relational data tables are described below in detail. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

#### *Detailed\_Description:*

##### *Entity\_Type:*

*Entity\_Type\_Label*: SOCECON.PAT

##### *Entity\_Type\_Definition:*

The SOCECON.PAT table contains attribute information for the vector points representing airports, aquaculture sites, boat ramps, marinas, heliports, and log storage areas. Note that all attribute information is stored in a series of relational files, described below. See the Browse\_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure

*Entity\_Type\_Definition\_Source*: Research Planning, Inc.

##### *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*: Research Planning, Inc.

##### *Attribute\_Domain\_Values:*

###### *Enumerated\_Domain:*

*Enumerated\_Domain\_Value*: A

*Enumerated\_Domain\_Value\_Definition*: AIRPORT

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

###### *Enumerated\_Domain:*

*Enumerated\_Domain\_Value*: AQ

*Enumerated\_Domain\_Value\_Definition*: AQUACULTURE

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

###### *Enumerated\_Domain:*

*Enumerated\_Domain\_Value*: BR

*Enumerated\_Domain\_Value\_Definition*: BOATRAMP

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

###### *Enumerated\_Domain:*

*Enumerated\_Domain\_Value*: HP

*Enumerated\_Domain\_Value\_Definition*: HELIPAD

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

###### *Enumerated\_Domain:*

*Enumerated\_Domain\_Value*: LS

*Enumerated\_Domain\_Value\_Definition*: LOG STORAGE

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

###### *Enumerated\_Domain:*

*Enumerated\_Domain\_Value*: M

*Enumerated\_Domain\_Value\_Definition*: MARINA

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

*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 (10), element number (10), and record number.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 101000001

*Range\_Domain\_Maximum:* 101000121

*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:* 10000001

*Range\_Domain\_Maximum:* 10000008

*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:* Research Planning, Inc.

*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 polygons and do not contain information.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 10000001

*Range\_Domain\_Maximum:* 10000016

*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 (10), element number (10), and record number.

ID values of 9999 are holes in polygons and do not contain information.

*Attribute\_Definition\_Source:* NOAA

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 101000001

*Range\_Domain\_Maximum:* 101100085

*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:* Research Planning, Inc.

*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.

*Attribute\_Definition\_Source*: NOAA

*Attribute\_Domain\_Values*:

*Range\_Domain*:

*Range\_Domain\_Minimum*: 10000001

*Range\_Domain\_Maximum*: 10000016

*Attribute*:

*Attribute\_Label*: TYPE

*Attribute\_Definition*: Identifies the feature type

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: AIRPORT

*Enumerated\_Domain\_Value\_Definition*: AIRPORT

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: AQUACULTURE

*Enumerated\_Domain\_Value\_Definition*: AQUACULTURE

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: BOAT RAMP

*Enumerated\_Domain\_Value\_Definition*: BOAT RAMP

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: DESIGNATED CRITICAL HABITAT

*Enumerated\_Domain\_Value\_Definition*: DESIGNATED CRITICAL HABITAT

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: HELIPAD

*Enumerated\_Domain\_Value\_Definition*: HELIPAD

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: LOG STORAGE

*Enumerated\_Domain\_Value\_Definition*: LOG STORAGE

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: MARINA

*Enumerated\_Domain\_Value\_Definition*: MARINA

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: NATIONAL PARK

*Enumerated\_Domain\_Value\_Definition*: NATIONAL PARK

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: WILDLIFE REFUGE

*Enumerated\_Domain\_Value\_Definition*: WILDLIFE REFUGE

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc

*Attribute*:

*Attribute\_Label*: NAME

*Attribute\_Definition*: The feature name

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: CONTACT

*Attribute\_Definition*: Contact person or entity

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* PHONE

*Attribute\_Definition:* Contact telephone number

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*

*Enumerated\_Domain\_Value:* Any character

*Enumerated\_Domain\_Value\_Definition:* Free text

*Enumerated\_Domain\_Value\_Definition\_Source:* Research Planning, Inc.

*Attribute:*

*Attribute\_Label:* G\_SOURCE

*Attribute\_Definition:*

Geographic source integer identifier that links records in the SOC\_DAT data table to records in the SOURCES data table.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Attribute:*

*Attribute\_Label:* A\_SOURCE

*Attribute\_Definition:*

Attribute source integer identifier that links records in the SOC\_DAT data table to records in the SOURCES data table.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Range\_Domain:*

*Range\_Domain\_Minimum:* 1

*Range\_Domain\_Maximum:* N

*Detailed\_Description:*

*Entity\_Type:*

*Entity\_Type\_Label:* SOURCES

*Entity\_Type\_Definition:*

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

*Entity\_Type\_Definition\_Source:* Research Planning, Inc.

*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, and to G\_SOURCE and S\_SOURCE in the BIORES table.

*Attribute\_Definition\_Source:* Research Planning, Inc.

*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:* Research Planning, Inc.

*Attribute\_Domain\_Values:*

*Enumerated\_Domain:*



*Enumerated\_Domain\_Value*: Any character  
*Enumerated\_Domain\_Value\_Definition*: Free text  
*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATE\_PUB

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: mmyyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TITLE

*Attribute\_Definition*: Title of source material or data

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: DATA\_FORMAT

*Attribute\_Definition*: The format of the source material

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: PUBLICATION

*Attribute\_Definition*: Additional citation information

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Any character

*Enumerated\_Domain\_Value\_Definition*: Free text

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: SCALE

*Attribute\_Definition*: Scale denominator of the source

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: integer

*Enumerated\_Domain\_Value\_Definition*: Any integer

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

*Attribute*:

*Attribute\_Label*: TIME\_PERIOD

*Attribute\_Definition*:

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

*Attribute\_Definition\_Source*: Research Planning, Inc.

*Attribute\_Domain\_Values*:

*Enumerated\_Domain*:

*Enumerated\_Domain\_Value*: Numeric

*Enumerated\_Domain\_Value\_Definition*: yyyy

*Enumerated\_Domain\_Value\_Definition\_Source*: Research Planning, Inc.

---

*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:* ESI Atlas for Southeast Alaska

*Distribution\_Liability:*

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

*Custom\_Order\_Process:*

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

---

*Metadata\_Reference\_Information:*

*Metadata\_Date:* 200206

*Metadata\_Review\_Date:* 200206

*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

# Relationships between spatial data layers and attribute data tables

## Geographic Themes

## Lookup Tables

## Data Tables

BIOINDEX (POLYS)
TILE-NAME (32, 32, C)
TOPO-NAME (255, 255, C)
SCALE (7, 7, I)
MAPANGLE (4, 8, F, 3)
PAGESIZE (11, 11, C)
ESI (LINES)
ESI (10, 10, C)
LINE (1, 1, C)
SOURCE_ID (6, 6, I)
ENVIR (1, 1, C)
ESI (POLYS)
ESI (10, 10, C)
WATER_CODE (1, 1, C)
ENVIR (1, 1, C)
HYDRO (LINES)
LINE (1, 1, C)
SOURCE_ID (6, 6, I)
HYDRO (POLYS)
WATER_CODE (1, 1, C)
INDEX (POLYS)
TILE-NAME (32, 32, C)
TOPO-NAME (255, 255, C)
SCALE (7, 7, I)
MAPANGLE (4, 8, F, 3)
PAGESIZE (11, 11, C)

MGT (POLYS)
TYPE (2, 2, C)
ID (10, 10, I)
HUNUM (9, 9, I)
SOCECON (POINTS)
TYPE (2, 2, C)
ID (10, 10, I)
HUNUM (9, 9, I)

BIRDS (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)
FISH (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)
FISHL (LINES)
ID (10, 10, I)
RARNUM (9, 9, I)
FISHPT (POINTS)
ID (10, 10, I)
RARNUM (9, 9, I)
HABITATS (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)
M_MAMMAL (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)
M_MAMPT (POINTS)
ID (10, 10, I)
RARNUM (9, 9, I)
NESTS (POINTS)
ID (10, 10, I)
RARNUM (9, 9, I)
T_MAMMAL (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)

<b>SOC_LUT</b>
HUNUM (9, 9, I)
ID (10, 10, I)

(The SOC\_LUT table can be bypassed by linking the human-use tables to SOC\_DAT using HUNUM.)

<b>BIO_LUT</b>
RARNUM (9, 9, I)
ID (10, 10, I)

(The BIO\_LUT table can be bypassed by linking the biology tables to BIORES using RARNUM.)

<b>SOC_DAT</b>
HUNUM (9, 9, I)
TYPE (20, 20, C)
NAME (40, 40, C)
CONTACT (80, 80, C)
PHONE (20, 20, C)
G_SOURCE (6, 6, I)
A_SOURCE (6, 6, I)

<b>BIORES</b>
RARNUM (9, 9, I)
SPECIES_ID (5, 5, I)
CONC (20, 20, C)
SEASON_ID (2, 2, I)
G_SOURCE (6, 6, I)
S_SOURCE (6, 6, I)
ELEMENT (10, 10, C)
EL_SPE (6, 6, C)
EL_SPE_SEA (8, 8, C)

<b>SOURCES</b>
SOURCE_ID (6, 6, I)
ORIGINATOR (35, 35, C)
DATE_PUB (10, 10, I)
TITLE (80, 80, C)
DATA_FORMAT (80, 80, C)
PUBLICATION (120, 120, C)
SCALE (20, 20, C)
TIME_PERIOD (22, 22, C)

<b>SPECIES</b>
SPECIES_ID (5, 5, I)
NAME (35, 35, C)
GEN_SPEC (45, 45, C)
ELEMENT (10, 10, C)
SUBELEMENT (10, 10, C)
NHP (10, 10, C)
DATE_PUB (10, 10, I)
EL_SPE (6, 6, C)

<b>SEASONAL</b>
ELEMENT (10, 10, C)
SPECIES_ID (5, 5, I)
SEASON_ID (2, 2, I)
JAN (1, 1, C)
FEB (1, 1, C)
MAR (1, 1, C)
APR (1, 1, C)
MAY (1, 1, C)
JUN (1, 1, C)
JUL (1, 1, C)
AUG (1, 1, C)
SEP (1, 1, C)
OCT (1, 1, C)
NOV (1, 1, C)
DEC (1, 1, C)
EL_SPE_SEA (8, 8, C)

<b>STATUS</b>
ELEMENT (10, 10, C)
SPECIES_ID (5, 5, I)
STATE (2, 2, C)
S_F (3, 3, C)
T_E (3, 3, C)
DATE_PUB (10, 10, I)
EL_SPE (6, 6, C)

<b>BREED</b>
EL_SPE_SEA (8, 8, C)
MONTH (2, 2, I)
BREED1 (1, 1, C)
BREED2 (1, 1, C)
BREED3 (1, 1, C)
BREED4 (1, 1, C)
BREED5 (1, 1, C)

