Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: HYDRO (Hydrography Lines and Polygons)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains vector lines and polygons representing coastal hydrography used in the creation of the Environmental Sensitivity Index (ESI) for Central California. The HYDRO data layer contains all annotation used in producing the atlas. The annotation features are categorized into three subclasses in order to simplify the mapping and quality control procedures: GEOG, for geographic features; SOC, for socioeconomic features; and HYDRO, for water features.

This data set comprises a portion of the ESI data for Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2001

Ending_Date: 2006

Currentness_Reference:

The data were compiled during 2005-2006. The currentness dates for the data ranges from 2001 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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: Hydrography

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Central California

Access_Constraints: None

Use_Constraints:

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

Browse_Graphic:

> *Browse_Graphic_File_Name:* datafig.jpg
>
> *Browse_Graphic_File_Description:*
>
> > Depicts the relationships between spatial data layers and attribute data tables for the Central California ESI data.
>
> *Browse_Graphic_File_Type:* JPEG

Data_Set_Credit:

> This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

> The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).
>
> The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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 Central California.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

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

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: KENNETH AND GABRIELLE ADELMAN

Publication_Date: 2005

Title: COASTAL OBLIQUE PHOTOGRAPHY DATABASE

Geospatial_Data_Presentation_Form: PHOTOGRAPH

Other_Citation_Details: CALIFORNIA COASTAL RECORDS PROJECT

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2004

Ending_Date: 2005

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE

Source_Contribution: HYDRO INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: RESEARCH PLANNING, INC. (RPI)

Publication_Date: 2001

Title: DIGITAL SHORELINE

Geospatial_Data_Presentation_Form: DIGITAL VECTOR DATA

Other_Citation_Details:

CENTRAL CALIFORNIA ESI ATLAS, MAPS AND GIS DATA, NOAA, SEATTLE, WASH.

Source_Scale_Denominator: 24,000

Type_of_Source_Media: CD-ROM
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: HYDRO INFORMATION
Source_Information:
 Source_Citation:
  Citation_Information:
   Originator: RESEARCH PLANNING, INC. (RPI)
   Publication_Date: 2006
   Title: GENERATED INDEX ARCS
   Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
   Other_Citation_Details: UNPUBLISHED
 Source_Scale_Denominator: 24,000
 Type_of_Source_Media: DISC
 Source_Time_Period_of_Content:
  Time_Period_Information:
   Single_Date/Time:
    Calendar_Date: 2006
  Source_Currentness_Reference: DATE OF PUBLICATION
 Source_Citation_Abbreviation: NONE
 Source_Contribution: HYDRO INFORMATION
Process_Step:
 Process_Description:

The shoreline was derived primarily from the original ESI maps, published in 1994. Where appropriate, revisions to the existing shoreline were made by a coastal geologist using two methods: interpretation of contiguous oblique digital aerial photography acquired in 2004 (www.californiacoastline.org) and verification via overflights and ground surveys conducted in April 2005.

The above digital and/or hardcopy sources were compiled to create the HYDRO data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: (1) hardcopy maps are digitized at their source scale; (2) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources; and (3) overflight changes are digitized from the scanned and registered hardcopy field maps or aerial photography. After the initial shoreline classification, these data are edgematched and checked for logical consistency errors. Review maps are plotted at 1:24,000 scale for verification of polygonal and linear attributes. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews is conducted to review the maps. If necessary, edits to the HYDRO data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 200605
Process_Contact:

Contact_Information:
    Contact_Organization_Primary:
        Contact_Organization: NOAA, Office of Response and Restoration
        Contact_Person: Jill Petersen
    Contact_Address:
        Address_Type: Physical address
        Address: 7600 Sand Point Way N.E.
        City: Seattle
        State_or_Province: Washington
        Postal_Code: 98115-6349
    Contact_Voice_Telephone: (206) 526-6944
    Contact_Facsimile_Telephone: (206) 526-6329
    Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector
    Point_and_Vector_Object_Information:
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
            Point_and_Vector_Object_Count: 5626
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Area point
            Point_and_Vector_Object_Count: 5627
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Complete chain
            Point_and_Vector_Object_Count: 9389
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Link
            Point_and_Vector_Object_Count: 265294
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Label Point
            Point_and_Vector_Object_Count: 529
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Node, planar graph
            Point_and_Vector_Object_Count: 9191

Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
        Geographic:
            Latitude_Resolution: 0.0000001
            Longitude_Resolution: 0.0000001
            Geographic_Coordinate_Units: Decimal degrees
        Geodetic_Model:
            Horizontal_Datum_Name: North American Datum of 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, one relational attribute or data table, SOURCES, is used to store the source data information in the ESI data structure. The geographic data layer containing resource information (in this case, HYDRO) is linked to the SOURCES table using the SOURCE_ID. The entity-relationship diagram describes the relationships between the attribute tables in the ESI data structure.
    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: 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: P
                    Enumerated_Domain_Value_Definition: Pier
                    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:
                Spatial data source for the data layer lines that link 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: HYDRO.PAT
            Entity_Type_Definition:
                The HYDRO.PAT table contains attribute information for the vector polygons

representing polygonal hydrography features in the HYDRO data layer.

Entity_Type_Definition_Source: 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.

Detailed_Description:

Entity_Type:

Entity_Type_Label: ANNO.GEOG

Entity_Type_Definition:

The spatial data layer HYDRO contains label points representing annotation for geographic features.

Entity_Type_Definition_Source: Research Planning, Inc.

Detailed_Description:

Entity_Type:

Entity_Type_Label: ANNO.HYDRO

Entity_Type_Definition:

The spatial data layer HYDRO contains label points representing annotation for water features.

Entity_Type_Definition_Source: Research Planning, Inc.

Detailed_Description:

Entity_Type:

Entity_Type_Label: ANNO.SOC

Entity_Type_Definition:

The spatial data layer HYDRO contains label points representing annotation for socioeconomic features.

Entity_Type_Definition_Source: 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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data

layers.

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:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION

Attribute_Definition: Additional citation information.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE

Attribute_Definition: Description of the source scale.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD

Attribute_Definition:

Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:
    Distributor:
        Contact_Information:
            Contact_Person_Primary:
                Contact_Person: John Kaperick
                Contact_Organization: NOAA, Office of Response and Restoration
            Contact_Address:
                Address_Type: Physical Address
                Address: 7600 Sand Point Way N.E.
                City: Seattle
                State_or_Province: Washington
                Postal_Code: 98115-6349
            Contact_Voice_Telephone: (206) 526-6400
            Contact_Facsimile_Telephone: (206) 526-6329
    Resource_Description: ESI Atlas for Central California
    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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An
        ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
    Metadata_Review_Date: 200606
    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 2.8.21 on Tue Jul 04 21:35:30 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: ESI (Environmental Sensitivity Index Shoreline Types - 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:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: ESI (Environmental Sensitivity Index Shoreline Types - Lines and Polygons)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay

National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN),
Monterey, California; Department of Fish and Game, Office of Spill Prevention and
Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey,
California; and the National Oceanic and Atmospheric Administration (NOAA),
National Ocean Service, Office of Response and Restoration, Hazardous Materials
Response Division, Seattle, Washington.

Description:

    Abstract:

        This data set contains vector lines and polygons representing the shoreline and coastal
habitats of Central California classified according to the Environmental Sensitivity Index
(ESI) classification system. This data set comprises a portion of the ESI data for Central
California. ESI data characterize the marine and coastal environments and wildlife by their
sensitivity to spilled oil. The ESI data include information for three main components:
shoreline habitats, sensitive biological resources, and human-use resources.

    Purpose:

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

Time_Period_of_Content:

    Time_Period_Information:

        Range_of_Dates/Times:

            Beginning_Date: 2001

            Ending_Date: 2006

    Currentness_Reference:

        The data were compiled during 2005-2006. The currentness dates for the data range from
2001 to 2006 and are documented in the Lineage section.

Status:

    Progress: Complete

    Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

    Bounding_Coordinates:

        West_Bounding_Coordinate: -123.50000

        East_Bounding_Coordinate: -120.37500

        North_Bounding_Coordinate: 38.12500

        South_Bounding_Coordinate: 34.21700

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: Shoreline habitats

    Place:

        Place_Keyword_Thesaurus: None

        Place_Keyword: Central California

Access_Constraints: None

Use_Constraints:

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

Browse_Graphic:

Browse_Graphic_File_Name: datafig.jpg

Browse_Graphic_File_Description:

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

Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

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Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

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

Logical_Consistency_Report:

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

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

Completeness_Report:

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

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

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: KENNETH AND GABRIELLE ADELMAN

Publication_Date: 2005

Title: COASTAL OBLIQUE PHOTOGRAPHY DATABASE

Geospatial_Data_Presentation_Form: PHOTOGRAPH

Other_Citation_Details: CALIFORNIA COASTAL RECORDS PROJECT

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2004

Ending_Date: 2005

Source_Currentness_Reference: DATE OF SURVEY

Source_Citation_Abbreviation: NONE

Source_Contribution: ESI INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: RESEARCH PLANNING, INC. (RPI)

Publication_Date: 2001

Title: DIGITAL SHORELINE

Geospatial_Data_Presentation_Form: DIGITAL VECTOR DATA

Other_Citation_Details:

CENTRAL CALIFORNIA ESI ATLAS, MAPS AND GIS DATA, NOAA, SEATTLE, WASH.

Source_Scale_Denominator: 24,000
Type_of_Source_Media: CD-ROM
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: ESI INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: RESEARCH PLANNING, INC. (RPI)
            Publication_Date: 2006
            Title: GENERATED INDEX ARCS
            Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
            Other_Citation_Details: UNPUBLISHED
    Source_Scale_Denominator: 24,000
    Type_of_Source_Media: DISC
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2006
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: ESI INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: U.S. FISH & WILDLIFE SERVICE (USFWS)
            Publication_Date: 2006
            Title: NATIONAL WETLANDS INVENTORY (NWI)
            Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
            Other_Citation_Details: NWI VECTOR WETLANDS POLYGONS
    Source_Scale_Denominator: UNKNOWN
    Type_of_Source_Media: DISC
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2006
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: ESI INFORMATION
Process_Step:
    Process_Description:
        The shoreline habitats on the original ESI maps, published in 1994, were
        re-examined and updated by a coastal geologist using two methods: interpretation of
        contiguous oblique digital aerial photography acquired in 2004
        (www.californiacoastline.org) and verification via overflights and ground surveys
        conducted in April 2005. The overflights were conducted at elevations of 400-600
        feet and slow air speed. During these overflights, the ESI shoreline classification

was verified and changes were denoted on hardcopy 1:24,000-scale U.S. Geological Survey (USGS) topographic maps. Where appropriate, revisions to the existing shoreline were made. Where necessary, multiple types were described for each shoreline segment.

The above digital and/or hardcopy sources were compiled to create the ESI data layer. Depending on the type of source data, three general approaches are used for compiling the data layer: (1) hardcopy maps are digitized at their source scale; (2) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources; and (3) overflight classifications are digitized from the scanned and registered hardcopy field maps. After the initial shoreline classification, these data are edgematched and checked for logical consistency errors. Review maps are plotted at 1:24,000 scale for verification of polygonal and linear attributes. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews is conducted to review the maps. If necessary, edits to the ESI data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 200605
Process_Contact:
    Contact_Information:
        Contact_Organization_Primary:
            Contact_Organization: NOAA, Office of Response and Restoration
            Contact_Person: Jill Petersen
        Contact_Address:
            Address_Type: Physical address
            Address: 7600 Sand Point Way N.E.
            City: Seattle
            State_or_Province: Washington
            Postal_Code: 98115-6349
        Contact_Voice_Telephone: (206) 526-6944
        Contact_Facsimile_Telephone: (206) 526-6329
        Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

---

Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector
    Point_and_Vector_Object_Information:
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
            Point_and_Vector_Object_Count: 452
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Area point
            Point_and_Vector_Object_Count: 453
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Complete chain
            Point_and_Vector_Object_Count: 3365
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Link

Point_and_Vector_Object_Count: 129869
    SDTS_Terms_Description:
       SDTS_Point_and_Vector_Object_Type: Node, planar graph
       Point_and_Vector_Object_Count: 3236

Spatial_Reference_Information:
  Horizontal_Coordinate_System_Definition:
    Geographic:
      Latitude_Resolution: 0.0000001
      Longitude_Resolution: 0.0000001
      Geographic_Coordinate_Units: Decimal degrees
    Geodetic_Model:
      Horizontal_Datum_Name: North American Datum of 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, one relational attribute or data table, SOURCES, is used to store the source data information in the ESI data structure. The geographic data layer containing resource information (in this case, ESI) is linked to the SOURCES table using the SOURCE_ID. The entity-relationship diagram describes the relationships between the attribute tables in the ESI data structure.
  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
        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
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Enumerated_Domain:
        Enumerated_Domain_Value: 6B
        Enumerated_Domain_Value_Definition: Riprap
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Enumerated_Domain:
        Enumerated_Domain_Value: 6D
        Enumerated_Domain_Value_Definition: Boulder Rubble
        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
    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 marshes
    Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Enumerated_Domain:
    Enumerated_Domain_Value: 10B
    Enumerated_Domain_Value_Definition: Freshwater Marshes
    Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Enumerated_Domain:
    Enumerated_Domain_Value: 10D
    Enumerated_Domain_Value_Definition: Scrub-shrub Wetlands
    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: F
            Enumerated_Domain_Value_Definition: Flat
            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: P
Enumerated_Domain_Value_Definition: Pier
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:
Spatial data source for the data layer lines that link 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: 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.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: 2A
Enumerated_Domain_Value_Definition: Exposed Wave-cut Platforms
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: 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 marshes
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Enumerated_Domain:
Enumerated_Domain_Value: 10B
Enumerated_Domain_Value_Definition: Freshwater Marshes
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Enumerated_Domain:
Enumerated_Domain_Value: 10C
Enumerated_Domain_Value_Definition: Swamps
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Enumerated_Domain:
Enumerated_Domain_Value: 10D
Enumerated_Domain_Value_Definition: Scrub-shrub Wetlands
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: 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.
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: 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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data layers.

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:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:
  Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
  Attribute_Label: PUBLICATION
  Attribute_Definition: Additional citation information.
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
  Attribute_Label: SCALE
  Attribute_Definition: Description of the source scale.
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
  Attribute_Label: TIME_PERIOD
  Attribute_Definition:
    Date(s) of data collection that the source material is based upon.
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:
  Distributor:
    Contact_Information:
      Contact_Person_Primary:
        Contact_Person: John Kaperick
        Contact_Organization: NOAA, Office of Response and Restoration
      Contact_Address:
        Address_Type: Physical Address
        Address: 7600 Sand Point Way N.E.
        City: Seattle
        State_or_Province: Washington
        Postal_Code: 98115-6349
      Contact_Voice_Telephone: (206) 526-6400
      Contact_Facsimile_Telephone: (206) 526-6329
  Resource_Description: ESI Atlas for Central California
  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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An
    ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
    Metadata_Review_Date: 200606
    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 2.8.21 on Tue Jul 04 20:46:53 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: INDEX (Index Polygons)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

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

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2006

Currentness_Reference:

The INDEX data were compiled during 2005-2006. The currentness date for the data is 2006 and is documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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: Central California

Access_Constraints: None

Use_Constraints:

DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of

consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse_Graphic:

    Browse_Graphic_File_Name: datafig.jpg

    Browse_Graphic_File_Description:

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

    Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

    This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

    The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

    The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is

made by the GIS manager, where the data are written to CD-ROM and the metadata are written. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks.

Completeness_Report:
These data represent the boundaries of all hardcopy cartographic products produced as part of the ESI for Central California, as well as the digital data extents.

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

Lineage:
Source_Information:
Source_Citation:
Citation_Information:
Originator: RESEARCH PLANNING, INC. (RPI)
Publication_Date: 2006
Title: GENERATED INDEX ARCS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED
Source_Scale_Denominator: 24,000
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2006
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: HYDRO INFORMATION
Process_Step:
Process_Description:
Primarily, 1:24,000 U.S. Geological Survey (USGS) topographic maps were used to provide boundaries for cartographic products. In some cases the polygons represent USGS topographic maps that were re-tiled, moved, or extended to provide better cartographic coverage of the study area.
Process_Date: 200605
Process_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen
Contact_Address:
Address_Type: Physical address
Address: 7600 Sand Point Way N.E.
City: Seattle

State_or_Province: Washington
Postal_Code: 98115-6349
Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:
   Direct_Spatial_Reference_Method: Vector
   Point_and_Vector_Object_Information:
       SDTS_Terms_Description:
           SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
           Point_and_Vector_Object_Count: 42
       SDTS_Terms_Description:
           SDTS_Point_and_Vector_Object_Type: Area point
           Point_and_Vector_Object_Count: 43
       SDTS_Terms_Description:
           SDTS_Point_and_Vector_Object_Type: Complete chain
           Point_and_Vector_Object_Count: 193
       SDTS_Terms_Description:
           SDTS_Point_and_Vector_Object_Type: Link
           Point_and_Vector_Object_Count: 212
       SDTS_Terms_Description:
           SDTS_Point_and_Vector_Object_Type: Node, planar graph
           Point_and_Vector_Object_Count: 153

Spatial_Reference_Information:
   Horizontal_Coordinate_System_Definition:
       Geographic:
           Latitude_Resolution: 0.0000001
           Longitude_Resolution: 0.0000001
           Geographic_Coordinate_Units: Decimal degrees
       Geodetic_Model:
           Horizontal_Datum_Name: North American Datum of 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 maps and digital data used in the creation of the
               ESI.
           Entity_Type_Definition_Source: Research Planning, Inc.
       Attribute:
           Attribute_Label: TILE-NAME

Attribute_Definition: The map number according to the specified layout of the atlas.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Range_Domain:
        Range_Domain_Minimum: 1
        Range_Domain_Maximum: 40
Attribute:
    Attribute_Label: TOPO-NAME
    Attribute_Definition:
        USGS Topographic map name, short description of location, or atlas name.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
    Attribute_Label: SCALE
    Attribute_Definition:
        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:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
    Attribute_Label: MAPANGLE
    Attribute_Definition:
        The 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: -1.4690
            Range_Domain_Maximum: 0.0310
            Attribute_Units_of_Measure: Degree
Attribute:
    Attribute_Label: PAGESIZE
    Attribute_Definition:
        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: 11,17
            Enumerated_Domain_Value_Definition: Page size= 11" 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 Central California

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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606

Metadata_Review_Date: 200606

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 2.8.21 on Tue Jul 04 21:39:09 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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:*
>>>   Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
>>>   *Publication_Date:* 200606
>>>   *Title:*
>>>   Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: BIRDS (Bird Polygons)
>>>   *Edition:* Second
>>>   *Geospatial_Data_Presentation_Form:* Vector digital data
>>>   *Series_Information:*
>>>   *Series_Name:* None
>>>   *Issue_Identification:* Central California
>>>   *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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains sensitive biological resource data for alcids, diving birds, gulls, terns, passerine birds, pelagic birds, raptors, shorebirds, wading birds, and waterfowl in Central California. Vector polygons in this data set represent nesting and roosting sites, rare species occurrences, and concentration areas. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer.

This data set comprises a portion of the Environmental Sensitivity Index (ESI) data for Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the NESTS (Nest Points) data layer, part of the larger Central California ESI database, for additional bird information.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1994

Ending_Date: 2006

Currentness_Reference:

The biological data were compiled during 2005-2006. The currentness dates for the data range from 1994 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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: Birds
    Place:
        Place_Keyword_Thesaurus: None
        Place_Keyword: Central California
Access_Constraints: None
Use_Constraints:

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

Browse_Graphic:

    Browse_Graphic_File_Name: datafig.jpg
    Browse_Graphic_File_Description:

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

    Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

    This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

    The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

    The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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, available hardcopy documents (published and gray literature), survey data, maps, and digital data on nesting and roosting sites, rare species occurrences, and concentration areas. See also the NESTS (Nest Points) data layer, part of the larger Central California ESI database, for additional bird information. These data do not necessarily represent all bird occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 5, Horned grebe, Podiceps auritus; 6, Eared grebe, Podiceps nigricollis; 7, Western grebe, Aechmophorus occidentalis; 8, Double-crested cormorant, Phalacrocorax auritus; 9, Brandt's cormorant, Phalacrocorax penicillatus; 10, Pelagic cormorant, Phalacrocorax pelagicus; 13, Brant, Branta bernicla; 16, Mallard, Anas platyrhynchos; 29, White-winged scoter, Melanitta fusca; 30, Surf scoter, Melanitta perspicillata; 31, Pacific loon, Gavia pacifica; 37, Western gull, Larus occidentalis; 46, Common murre, Uria aalge; 47, Pigeon guillemot, Cepphus columba; 48, Marbled murrelet, Brachyramphus marmoratus; 49, Cassin's auklet, Ptychoramphus aleuticus; 50, Rhinoceros auklet, Cerorhinca monocerata; 68, Black oystercatcher, Haematopus bachmani; 70, Killdeer, Charadrius vociferus; 77, Osprey, Pandion haliaetus; 79, Cormorants, Phalacrocorax sp.; 85, California least tern, Sterna antillarum browni; 118, Brown pelican, Pelecanus occidentalis; 136, Caspian tern, Sterna caspia; 141, American avocet, Recurvirostra americana; 142, Black-necked stilt, Himantopus mexicanus; 143, Xantus' murrelet, Synthliboramphus hypoleucus; 144, Ashy storm-petrel, Oceanodroma homochroa; 162, Gadwall, Anas strepera; 173, American white pelican, Pelecanus erythrorhynchos; 177, Bank swallow, Riparia riparia; 185, American bittern, Botaurus lentiginosus; 200, Sooty shearwater, Puffinus griseus; 206, California black rail, Laterallus jamaicensis coturniculus; 239, Clark's grebe, Aechmophorus clarkii; 255, Black-footed albatross, Phoebastria nigripes; 270, Western snowy plover, Charadrius alexandrinus nivosus; 273, Geese, n/a; 302, Scoters, Melanitta spp.; 345, Storm-petrels, Oceanodroma spp.; 396, Phalaropes, Phalaropus spp.; 462, Loons, Gavia spp.; 626, American peregrine falcon, Falco peregrinus anatum; 722, Common yellowthroat, Geothlypis trichas; 847,

California condor, Gymnogyps californianus; 1001, Gulls, n/a; 1002, Shorebirds, n/a; 1003, Waterfowl, n/a; 1004, Wading birds, n/a; 1005, Raptors, n/a; 1006, Diving birds, n/a; 1008, Terns, n/a; 1009, Shearwaters, n/a; 1013, Dabbling ducks, n/a; 1014, Diving ducks, n/a; 1021, Ducks, n/a; 1022, Seabirds, n/a; 1026, Grebes, n/a; 1035, Pelicans, Pelecanus spp.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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: ADAMS, J. (U.S. GEOLOGICAL SURVEY [USGS], MOSS LANDING)

Publication_Date: 2005

Title:

DISTRIBUTION OF SEABIRDS AND MARINE MAMMALS IN CENTRAL CALIFORNIA

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: BIRDS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: ALLEN, S. (NATIONAL PARK SERVICE [NPS], POINT REYES)

Publication_Date: 2005

Title: DISTRIBUTION AND SEASONALITY OF SPECIES ON NPS LANDS

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:
    Single_Date/Time:
        Calendar_Date: 2005
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                BENSON, S. (NATIONAL OCEANIC AND ATMOSPHERIC
                ADMINISTRATION [NOAA])
            Publication_Date: 2005
            Title: DISTRIBUTION AND SEASONALITY OF MARINE RESOURCES
            IN CALIFORNIA
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                BOGGS-BLALACK, M. (CALIFORNIA DEPARTMENT OF FISH
                AND GAME [CDF&G], MORRO BAY)
            Publication_Date: 2006
            Title: SLO COUNTY SPECIES DISTRIBUTION
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2006
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: BUFFA, J. (U.S. FISH & WILDLIFE SERVICE [USFWS])
            Publication_Date: 2006
            Title: NATIONAL WILDLIFE REFUGE SPECIES DISTRIBUTION AND
            SEASONALITY
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
 Time_Period_Information:
  Single_Date/Time:
   Calendar_Date: 2006
 Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION
Source_Information:
 Source_Citation:
  Citation_Information:
   Originator: CALIFORNIA DEPARTMENT OF FISH AND GAME
   (CDF&G)
   Publication_Date: 1999
   Title:
    4612 SITE SUMMARY & STRATEGY SHEETS - SANTA
    BARBARA COUNTY, VENTURA COUNTY
   Geospatial_Data_Presentation_Form: HARDCOPY TEXT
   Other_Citation_Details: LA-LB 200
 Type_of_Source_Media: ONLINE
 Source_Time_Period_of_Content:
  Time_Period_Information:
   Single_Date/Time:
    Calendar_Date: 1999
  Source_Currentness_Reference: DATE OF PUBLICATION
 Source_Citation_Abbreviation: NONE
 Source_Contribution: BIRDS INFORMATION
Source_Information:
 Source_Citation:
  Citation_Information:
   Originator:
    CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),
    U.S. COAST GUARD (USCG)
   Publication_Date: 2005
   Title:
    SAN FRANCISCO GEOGRAPHIC RESPONSE AREA 1 SONOMA
    AND NORTH MARIN COAST
   Geospatial_Data_Presentation_Form: HARDCOPY TEXT
   Other_Citation_Details: ACP 2 SF BAY & DELTA - GRA 1
 Type_of_Source_Media: DISC
 Source_Time_Period_of_Content:
  Time_Period_Information:
   Single_Date/Time:
    Calendar_Date: 2005
  Source_Currentness_Reference: DATE OF PUBLICATION
 Source_Citation_Abbreviation: NONE
 Source_Contribution: BIRDS INFORMATION
Source_Information:
 Source_Citation:
  Citation_Information:

Originator: CENTRAL COAST AREA COMMITTEE (AC)
Publication_Date: 2005
Title:
    9870 CENTRAL COAST AREA COMMITTEE - SANTA CRUZ AND
    MONTEREY COUNTIES
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: CENTRAL COAST AC
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: ELKHORN SLOUGH NATIONAL ESTUARINE RESEARCH
            RESERVE (ESNERR)
            Publication_Date: 2005
            Title: ELKHORN SLOUGH NATIONAL ESTUARINE RESEARCH
            RESERVE BIRD LIST
            Geospatial_Data_Presentation_Form: SPREADSHEET
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: DISC
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
            FONG, D. (NATIONAL PARK SERVICE, GOLDEN GATE
            NATIONAL RECREATION AREA [NPS-GGNRA], SAN
            FRANCISCO)
            Publication_Date: 2005
            Title: DISTRIBUTION OF GGNRA SPECIES
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE

Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: GOLDEN GATE NATIONAL RECREATION AREA (GGNRA)
            Publication_Date: 1998
            Title:
                GGNRA SNOWY PLOVER MANAGEMENT PLAN: OCEAN
                BEACH, SAN FRANCISCO-DRAFT
            Geospatial_Data_Presentation_Form: HARDCOPY TEXT
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PAPER
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 1998
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: HENKEL, L.
            Publication_Date: 2005
            Title: DISTRIBUTION OF MARINE BIRDS IN CALIFORNIA
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                MERKLE, B. (NATIONAL PARK SERVICE [NPS], GOLDEN GATE
                NATIONAL RECREATION AREA [GGNRA])
            Publication_Date: 2005
            Title: DISTRIBUTION OF GGNRA SPECIES
            Geospatial_Data_Presentation_Form: HARDCOPY TEXT
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: EMAIL
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF PUBLICATION

        Source_Citation_Abbreviation: NONE
        Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: PAGE, G. (POINT REYES BIRD OBSERVATORY [PRBO])
            Publication_Date: 2005
            Title: BIRD DISTRIBUTION AND SEASONALITY
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: PAGEL, J. (SANTA CRUZ PREDATORY BIRD RESEARCH
            GROUP [SCPBRG])
            Publication_Date: 2005
            Title: PEREGRINE FALCON SEASONALITY
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
            PATTISON, C. (CALIFORNIA DEPARTMENT OF FISH AND
            GAME [CDF&G], MORRO BAY)
            Publication_Date: 2006
            Title: SLO COUNTY SPECIES DISTRIBUTION AND SEASONALITY
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2006
        Source_Currentness_Reference: DATE OF COMMUNICATION

    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
  Source_Information:
    Source_Citation:
      Citation_Information:
        Originator: ROBESON, D.
        Publication_Date: 2002
        Title: MONTEREY BIRDS
        Geospatial_Data_Presentation_Form: HARDCOPY TEXT
        Other_Citation_Details: MONTEREY PENINSULA AUDUBON SOCIETY,
        CARMEL, CA, 536 PP.
    Type_of_Source_Media: PAPER
    Source_Time_Period_of_Content:
      Time_Period_Information:
        Single_Date/Time:
          Calendar_Date: 2002
      Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
  Source_Information:
    Source_Citation:
      Citation_Information:
        Originator:
          ROLETTO, J. (NATIONAL OCEANIC AND ATMOSPHERIC
          ADMINISTRATION [NOAA], GULF OF THE FARALLONES
          NATIONAL MARINE SANCTUARY [GFNMS])
        Publication_Date: 2005
        Title: DISTRIBUTION AND SEASONALITY OF GFNMS SPECIES
        Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
        Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
      Time_Period_Information:
        Single_Date/Time:
          Calendar_Date: 2005
      Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
  Source_Information:
    Source_Citation:
      Citation_Information:
        Originator: RESEARCH PLANNING, INC. (RPI)
        Publication_Date: 1994
        Title:
          SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE
          TO SPILLED OIL: CENTRAL CA
        Geospatial_Data_Presentation_Form: ATLAS
        Other_Citation_Details:
          BY RESEARCH PLANNING INC., COLUMBIA, SC, FOR
          CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G)
          OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR) AND

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
(NOAA), 41 MAPS
Source_Scale_Denominator: 46,500
Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:
 Time_Period_Information:
  Single_Date/Time:
   Calendar_Date: 1994
 Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION
Source_Information:
 Source_Citation:
  Citation_Information:
   Originator: SORENSON, K. (VENTANA WILDLIFE SOCIETY)
   Publication_Date: 2005
   Title: CONDOR SEASONALITY
   Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
   Other_Citation_Details: UNPUBLISHED
 Type_of_Source_Media: PERSONAL COMMUNICATION
 Source_Time_Period_of_Content:
  Time_Period_Information:
   Single_Date/Time:
    Calendar_Date: 2005
  Source_Currentness_Reference: DATE OF COMMUNICATION
 Source_Citation_Abbreviation: NONE
 Source_Contribution: BIRDS INFORMATION
Source_Information:
 Source_Citation:
  Citation_Information:
   Originator: STRONG, C.S. AND JAQUES, D.L.
   Publication_Date: 2000
   Title:
    AERIAL SURVEYS OF BROWN PELICANS AT ROOST SITES
    WITHIN MBNMS/GFNMS, 1998-2000
   Geospatial_Data_Presentation_Form: HARDCOPY TEXT
   Other_Citation_Details:
    A REPORT TO MONTEREY BAY NATIONAL MARINE
    SANCTUARY (MBNMS) AND GULF OF THE FARALLONES
    NATIONAL MARINE SANCTUARY (GFNMS), THE AMERICAN
    TRADER OIL SPILL RESTORATION TRUSTEE COUNCIL, AND
    CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G)
 Type_of_Source_Media: DISC
 Source_Time_Period_of_Content:
  Time_Period_Information:
   Range_of_Dates/Times:
    Beginning_Date: 1998
    Ending_Date: 2000
  Source_Currentness_Reference: DATE OF SURVEY
 Source_Citation_Abbreviation: NONE
 Source_Contribution: BIRDS INFORMATION

Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                U.S. FISH & WILDLIFE SERVICE (USFWS) (SALINAS NATIONAL WILDLIFE REFUGE [NWR])
            Publication_Date: 2006
            Title: SALINAS NWR SPECIES
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2006
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                U.S. GEOLOGICAL SURVEY (USGS), NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), MOSS LANDING MARINE LABORATORIES (MLML)
            Publication_Date: 2006
            Title: MARINE MAMMAL, SEABIRD, AND SEA TURTLE 'ZONES' AND HOT SPOTS
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2006
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: BIRDS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: VANDENBERG AIR FORCE BASE
            Publication_Date: 2005
            Title: LEAST TERN
            Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
            Other_Citation_Details: U.S. AIR FORCE, VANDENBERG AIR FORCE BASE
    Type_of_Source_Media: CD-ROM
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:

Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: VENTANA WILDLIFE SOCIETY
Publication_Date: 2005
Title: LOCATIONS OF GPS MARKED CALIFORNIA CONDORS
Geospatial_Data_Presentation_Form: MAP
Other_Citation_Details: VENTANA WILDERNESS SOCIETY, 2005
Source_Scale_Denominator: 1900000
Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: BIRDS INFORMATION
Process_Step:
Process_Description:
Three main sources of data were used to depict bird distribution and seasonality for this data layer: (1) personal interviews with resource experts from: U.S. Geological Survey (USGS), Point Reyes Bird Observatory (PRBO), Moss Landing Marine Laboratories (MLML), National Park Service (NPS), Gulf of the Farallones National Marine Sanctuary (GFNMS), Golden Gate National Recreation Area (GGNRA), National Oceanic and Atmospheric Administration (NOAA), U.S. Fish & Wildlife Service (USFWS), California Department of Fish and Game (CDF&G), H.T. Harvey and Associates, and Ventana Wildlife Society; (2) numerous published and unpublished documents and maps provided by Monterey Peninsula Audubon Society, Pacific Eco Logic, GGNRA, Elkhorn Slough National Estuarine Research Reserve (ESNERR), Ventana Wildlife Society, CDF&G, and Research Planning, Inc. (RPI); and (3) vector digital data sets provided by Vandenberg Air Force Base. See the Lineage section for details.

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

Process_Date: 200605
Process_Contact:
    Contact_Information:
        Contact_Organization_Primary:
            Contact_Organization: NOAA, Office of Response and Restoration
            Contact_Person: Jill Petersen
        Contact_Address:
            Address_Type: Physical address
            Address: 7600 Sand Point Way N.E.
            City: Seattle
            State_or_Province: Washington
            Postal_Code: 98115-6349
        Contact_Voice_Telephone: (206) 526-6944
        Contact_Facsimile_Telephone: (206) 526-6329
        Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector
    Point_and_Vector_Object_Information:
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
            Point_and_Vector_Object_Count: 5942
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Area point
            Point_and_Vector_Object_Count: 5943
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Complete chain
            Point_and_Vector_Object_Count: 6979
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Link
            Point_and_Vector_Object_Count: 364225
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Node, planar graph
            Point_and_Vector_Object_Count: 6505

Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
        Geographic:
            Latitude_Resolution: 0.0000001
            Longitude_Resolution: 0.0000001
            Geographic_Coordinate_Units: Decimal degrees
        Geodetic_Model:
            Horizontal_Datum_Name: North American Datum of 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 the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Detailed_Description:

    Entity_Type:

        Entity_Type_Label: BIRDS.PAT

        Entity_Type_Definition:

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

Entity_Type_Definition_Source: 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 (8), 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: 080100002
   Range_Domain_Maximum: 080105943
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: 08000001
   Range_Domain_Maximum: 08000617
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
   polygons and do not contain information.
  Attribute_Definition_Source: NOAA
  Attribute_Domain_Values:
   Range_Domain:
    Range_Domain_Minimum: 08000001
    Range_Domain_Maximum: 08001257
 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 (8), 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: 080100002
        Range_Domain_Maximum: 082600053

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: 008000001
        Range_Domain_Maximum: 008001257
  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 may contain counts or ranges of individuals (XX INDIV. or XX-XXXX INDIV.) or in cases where no quantitative count data were available, the field may contain descriptive terms, such as "HIGH" or "COMMON". Descriptive terms were provided by resource experts and are considered relative to the individual species (e.g. a 'high' concentration of one species is not necessarily relative to a 'high' concentration of another). If no concentration information was available from any source, the CONC field is populated with "-". Counts were derived from a variety of surveys, and may range in date (see Lineage).
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
      Unrepresentable_Domain: Acceptable values change from atlas to atlas.
  Attribute:

Attribute_Label: SEASON_ID
Attribute_Definition:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
Attribute_Definition_Source: 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 (e.g. 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 (e.g.
      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 for the entire ESI data set

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC

Attribute_Definition: Species scientific name for the entire ESI data set

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ELEMENT

Attribute_Definition: Major categories of biological data.

Attribute_Definition_Source: 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: amphibian
  Enumerated_Domain_Value_Definition: Amphibian
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: bivalve
  Enumerated_Domain_Value_Definition: Bivalve
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: cephalopod
  Enumerated_Domain_Value_Definition: Cephalopod
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: crab
  Enumerated_Domain_Value_Definition: Crab
  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: diving
Enumerated_Domain_Value_Definition: Diving bird
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: 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: e_resident
Enumerated_Domain_Value_Definition: Estuarine resident
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
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: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: kelp
Enumerated_Domain_Value_Definition: Kelp
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: passerine

Enumerated_Domain_Value_Definition: Passerine bird
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: pinniped
        Enumerated_Domain_Value_Definition: Pinniped
        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: sav
        Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: sea otter
        Enumerated_Domain_Value_Definition: Sea otter
        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: sm_mammal
        Enumerated_Domain_Value_Definition: Small mammal
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: snake
        Enumerated_Domain_Value_Definition: Snake
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: turtle
        Enumerated_Domain_Value_Definition: Turtle
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: wading
        Enumerated_Domain_Value_Definition: Wading bird

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: whale
        Enumerated_Domain_Value_Definition: Whale
        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: YYYYMM
        Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
        for month
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: 0
        Enumerated_Domain_Value_Definition: Date unspecified
        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 (e.g. 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 (e.g. 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 (e.g.
        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; 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 or not reported
            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 =
        migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is
        "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 =
        hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute

is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

　　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 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

　Attribute_Definition_Source: 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 or not reported

　　　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 "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then

> BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.
>
> *Attribute_Definition_Source:* 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 or not reported
>>> *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 or not reported
>>> *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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data layers.

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:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION

Attribute_Definition: Additional citation information.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
> *Attribute_Label:* SCALE
> *Attribute_Definition:* Description of the source scale.
> *Attribute_Definition_Source:* Research Planning, Inc.
> *Attribute_Domain_Values:*
>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:
> *Attribute_Label:* TIME_PERIOD
> *Attribute_Definition:*
>> Date(s) of data collection that the source material is based upon.
> *Attribute_Definition_Source:* Research Planning, Inc.
> *Attribute_Domain_Values:*
>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Detailed_Description:
> *Entity_Type:*
>> *Entity_Type_Label:* STATUS
>> *Entity_Type_Definition:*
>>> The data table STATUS identifies the species that are listed as threatened or endangered by a state, federal, or international authority. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
>> *Entity_Type_Definition_Source:* 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:*
>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:
> *Attribute_Label:* COUNTRY
> *Attribute_Definition:* Three-letter country abbreviation.
> *Attribute_Definition_Source:* Research Planning, Inc.
> *Attribute_Domain_Values:*
>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:
> *Attribute_Label:* S
> *Attribute_Definition:* State threatened or endangered status.
> *Attribute_Definition_Source:* Research Planning, Inc.
> *Attribute_Domain_Values:*
>> *Enumerated_Domain:*
>>> *Enumerated_Domain_Value:* E
>>> *Enumerated_Domain_Value_Definition:* Endangered on state list
>>> *Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines
> *Attribute_Domain_Values:*
>> *Enumerated_Domain:*
>>> *Enumerated_Domain_Value:* T
>>> *Enumerated_Domain_Value_Definition:* Threatened on state list
>>> *Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines
> *Attribute_Domain_Values:*
>> *Enumerated_Domain:*
>>> *Enumerated_Domain_Value:* C
>>> *Enumerated_Domain_Value_Definition:* Species of Special Concern
>>> *Enumerated_Domain_Value_Definition_Source:* NOAA ESI Guidelines

Attribute:
    Attribute_Label: F
    Attribute_Definition: Federal threatened or endangered status.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: E
            Enumerated_Domain_Value_Definition: Endangered on federal list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: T
            Enumerated_Domain_Value_Definition: Threatened on federal list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: C
            Enumerated_Domain_Value_Definition: Species of Special Concern
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute:
    Attribute_Label: I
    Attribute_Definition: International threatened or endangered status.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: E
            Enumerated_Domain_Value_Definition: Endangered on international list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: T
            Enumerated_Domain_Value_Definition: Threatened on international list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: C
            Enumerated_Domain_Value_Definition: Species of Special Concern
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute:
    Attribute_Label: S_DATE
    Attribute_Definition:
        Publication date of source material used to assign state status values for each species,
        if used.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: YYYYMM
            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
            for month
            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
  Publication date of source material used to assign federal status values for each species, if used.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: YYYYMM
    Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
    Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute:
  Attribute_Label: I_DATE
  Attribute_Definition:
    Publication date of source material used to assign international status values for each species, if used.
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: YYYYMM
      Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
      Enumerated_Domain_Value_Definition_Source: 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 (e.g. 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 Central California
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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
Metadata_Review_Date: 200606
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 2.8.21 on Tue Jul 04 13:38:28 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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:
    Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
   Publication_Date: 200606
   Title:
    Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: NESTS (Nest Points)
   Edition: Second
   Geospatial_Data_Presentation_Form: Vector digital data
   Series_Information:
    Series_Name: None
    Issue_Identification: Central California
   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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains sensitive biological resource data for alcids, diving birds, gulls, terns, pelagic birds, and shorebirds in Central California. Vector points in this data set represent bird nesting and roosting sites. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer.

This data set comprises a portion of the Environmental Sensitivity Index (ESI) data for Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the BIRDS (Bird Polygons) data layer, part of the larger Central California ESI database, for additional bird information.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1989

Ending_Date: 2006

Currentness_Reference:

The biological data were compiled during 2005-2006. The currentness dates for the data range from 1989 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.47000

North_Bounding_Coordinate: 39.45000

South_Bounding_Coordinate: 34.21700

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: Birds

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Central California

Access_Constraints: None

Use_Constraints:

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

Browse_Graphic:

Browse_Graphic_File_Name: datafig.jpg

Browse_Graphic_File_Description:

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

Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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 digital data, hardcopy documents, and expert knowledge on bird nesting and roosting sites. See also the BIRDS (Bird Polygons) data layer, part of the larger Central California ESI database, for additional bird information. These data do not necessarily represent all nest occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 8, Double-crested cormorant, Phalacrocorax auritus; 9, Brandt's cormorant, Phalacrocorax penicillatus; 10, Pelagic cormorant, Phalacrocorax pelagicus; 37, Western gull, Larus occidentalis; 39, California gull, Larus californicus; 46, Common murre, Uria aalge; 47, Pigeon guillemot, Cepphus columba; 48, Marbled murrelet, Brachyramphus marmoratus; 49, Cassin's auklet, Ptychoramphus aleuticus; 50, Rhinoceros auklet, Cerorhinca monocerata; 51, Tufted puffin, Fratercula cirrhata; 68, Black oystercatcher, Haematopus bachmani; 85, California least tern, Sterna antillarum browni; 96, Leach's storm-petrel, Oceanodroma leucorhoa; 118, Brown pelican, Pelecanus occidentalis; 136, Caspian tern, Sterna caspia; 144, Ashy storm-petrel, Oceanodroma homochroa; 1022, Seabirds, n/a.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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: ADAMS, J. (U.S. GEOLOGICAL SURVEY [USGS], MOSS LANDING)

             Publication_Date: 2005

             Title:

                DISTRIBUTION OF SEABIRDS AND MARINE MAMMALS IN CENTRAL CALIFORNIA

             Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

             Other_Citation_Details: UNPUBLISHED

       Type_of_Source_Media: PERSONAL COMMUNICATION

       Source_Time_Period_of_Content:

          Time_Period_Information:

             Single_Date/Time:

                Calendar_Date: 2005

          Source_Currentness_Reference: DATE OF COMMUNICATION

       Source_Citation_Abbreviation: NONE

       Source_Contribution: NESTS INFORMATION

    Source_Information:

       Source_Citation:

          Citation_Information:

             Originator:

                BOGGS-BLALACK, M. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], MORRO BAY)

             Publication_Date: 2006

             Title: SLO COUNTY SPECIES DISTRIBUTION

             Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

             Other_Citation_Details: UNPUBLISHED

       Type_of_Source_Media: PERSONAL COMMUNICATION

       Source_Time_Period_of_Content:

          Time_Period_Information:

             Single_Date/Time:

                Calendar_Date: 2006

          Source_Currentness_Reference: DATE OF COMMUNICATION

       Source_Citation_Abbreviation: NONE

       Source_Contribution: NESTS INFORMATION

    Source_Information:

       Source_Citation:

          Citation_Information:

             Originator: BUFFA, J. (U.S. FISH & WILDLIFE SERVICE [USFWS])

             Publication_Date: 2006

             Title: NATIONAL WILDLIFE REFUGE SPECIES DISTRIBUTION AND SEASONALITY

             Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

             Other_Citation_Details: UNPUBLISHED

       Type_of_Source_Media: PERSONAL COMMUNICATION

       Source_Time_Period_of_Content:

          Time_Period_Information:

Single_Date/Time:
Calendar_Date: 2006
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),
U.S. COAST GUARD (USCG)
Publication_Date: 2005
Title:
SAN FRANCISCO GEOGRAPHIC RESPONSE AREA 1 SONOMA
AND NORTH MARIN COAST
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: ACP 2 SF BAY & DELTA - GRA 1
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: CENTRAL COAST AREA COMMITTEE (AC)
Publication_Date: 2005
Title:
9870 CENTRAL COAST AREA COMMITTEE - SANTA CRUZ AND
MONTEREY COUNTIES
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: CENTRAL COAST AC
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
(NOAA) NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE
(NCCOS) AND NATIONAL MARINE FISHERIES SERVICE
(NMFS)

Publication_Date: 2003
Title: COLONIES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details:
A BIOGEOGRAPHIC ASSESSMENT OFF NORTH/CENTRAL
CALIFORNIA: PHASE 1. SILVER SPRING, MD, CD-ROM.
Type_of_Source_Media: CD-ROM
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 1989
Ending_Date: 1991
Source_Currentness_Reference: DATE OF SURVEY
Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
(NOAA) NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE
(NCCOS) AND NATIONAL MARINE FISHERIES SERVICE
(NMFS)
Publication_Date: 2003
Title: MAJOR COLONIES
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details:
A BIOGEOGRAPHIC ASSESSMENT OFF NORTH/CENTRAL
CALIFORNIA: PHASE 1. SILVER SPRING, MD, CD-ROM.
Type_of_Source_Media: CD-ROM
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 1989
Ending_Date: 1991
Source_Currentness_Reference: DATE OF SURVEY
Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: PAGE, G. (POINT REYES BIRD OBSERVATORY [PRBO])
Publication_Date: 2005
Title: BIRD DISTRIBUTION AND SEASONALITY
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005

        Source_Currentness_Reference: DATE OF COMMUNICATION
     Source_Citation_Abbreviation: NONE
     Source_Contribution: NESTS INFORMATION
Source_Information:
     Source_Citation:
         Citation_Information:
             Originator: ROBESON, D.
             Publication_Date: 2002
             Title: MONTEREY BIRDS
             Geospatial_Data_Presentation_Form: HARDCOPY TEXT
             Other_Citation_Details: MONTEREY PENINSULA AUDUBON SOCIETY,
             CARMEL, CA, 536 PP.
     Type_of_Source_Media: PAPER
     Source_Time_Period_of_Content:
         Time_Period_Information:
             Single_Date/Time:
                Calendar_Date: 2002
         Source_Currentness_Reference: DATE OF PUBLICATION
     Source_Citation_Abbreviation: NONE
     Source_Contribution: NESTS INFORMATION
Source_Information:
     Source_Citation:
         Citation_Information:
             Originator:
                ROLETTO, J. (NOAA, GULF OF THE FARALLONES NATIONAL
                MARINE SANCTUARY [GFNMS])
             Publication_Date: 2005
             Title: DISTRIBUTION AND SEASONALITY OF GFNMS SPECIES
             Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
             Other_Citation_Details: UNPUBLISHED
     Type_of_Source_Media: PERSONAL COMMUNICATION
     Source_Time_Period_of_Content:
         Time_Period_Information:
             Single_Date/Time:
                Calendar_Date: 2005
         Source_Currentness_Reference: DATE OF COMMUNICATION
     Source_Citation_Abbreviation: NONE
     Source_Contribution: NESTS INFORMATION
Source_Information:
     Source_Citation:
         Citation_Information:
             Originator:
                U.S. FISH & WILDLIFE SERVICE (SALINAS NATIONAL
                WILDLIFE REFUGE [NWR])
             Publication_Date: 2006
             Title: SALINAS NWR SPECIES
             Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
             Other_Citation_Details: UNPUBLISHED
     Type_of_Source_Media: PERSONAL COMMUNICATION
     Source_Time_Period_of_Content:
         Time_Period_Information:

Single_Date/Time:
Calendar_Date: 2006
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: VANDENBERG AIR FORCE BASE
Publication_Date: 2005
Title: BROWN PELICAN
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: U.S. AIR FORCE, VANDENBERG AIR FORCE
BASE
Type_of_Source_Media: CD-ROM
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: VANDENBERG AIR FORCE BASE
Publication_Date: 2005
Title: SEABIRDS
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: U.S. AIR FORCE, VANDENBERG AIR FORCE
BASE
Type_of_Source_Media: CD-ROM
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: NESTS INFORMATION
Process_Step:
Process_Description:
Three main sources of data were used to depict bird nesting and roosting sites and
seasonality for this data layer: (1) personal interviews with resource experts from:
U.S. Geological Survey (USGS), California Department of Fish and Game
(CDF&G), Point Reyes Bird Observatory (PRBO), National Oceanic and
Atmospheric Administration (NOAA), and U.S. Fish & Wildlife Service (USFWS);
(2) published and unpublished documents provided by CDF&G and Monterey
Peninsula Audubon Society; and (3) vector digital data sets provided by NOAA
National Centers for Coastal Ocean Science (NCCOS) and Vandenberg Air Force
Base.

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

Process_Date: 200605
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: 278

Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
        Geographic:
            Latitude_Resolution: 0.0000001
            Longitude_Resolution: 0.0000001
            Geographic_Coordinate_Units: Decimal degrees
        Geodetic_Model:
            Horizontal_Datum_Name: North American Datum of 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, NESTS) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

    Detailed_Description:

        Entity_Type:

            Entity_Type_Label: NESTS.PAT

            Entity_Type_Definition:

The NESTS.PAT table contains attribute information for the vector points in this data set representing bird nesting and roosting 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 (8), element number (5), and record number.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 080500001

Range_Domain_Maximum: 080500278

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: 08000014

Range_Domain_Maximum: 08000352

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: 08000001

Range_Domain_Maximum: 08001257

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 (8), 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:* 080100002
>> *Range_Domain_Maximum:* 082600053

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:* 008000001
>>>> *Range_Domain_Maximum:* 008001257
> *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 may contain counts of individuals (XX INDIV.) or, if no concentration information was available, will contain "-". Counts were derived from a variety of surveys, and may range in date (see Lineage).
>> *Attribute_Definition_Source:* Research Planning, Inc.
>> *Attribute_Domain_Values:*
>>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.
> *Attribute:*
>> *Attribute_Label:* SEASON_ID
>> *Attribute_Definition:*
>>> Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
>> *Attribute_Definition_Source:* 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 (e.g. 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 (e.g.
    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 for the entire ESI data set.
> *Attribute_Definition_Source:* Research Planning, Inc.
> *Attribute_Domain_Values:*
>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:
> *Attribute_Label:* GEN_SPEC
> *Attribute_Definition:* Species scientific name for the entire ESI data set.
> *Attribute_Definition_Source:* Research Planning, Inc.
> *Attribute_Domain_Values:*
>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:
> *Attribute_Label:* ELEMENT
> *Attribute_Definition:* Major categories of biological data.
> *Attribute_Definition_Source:* 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: amphibian
            Enumerated_Domain_Value_Definition: Amphibian
            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: bivalve
            Enumerated_Domain_Value_Definition: Bivalve
            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: cephalopod
            Enumerated_Domain_Value_Definition: Cephalopod
            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: crab
            Enumerated_Domain_Value_Definition: Crab
            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: diving
            Enumerated_Domain_Value_Definition: Diving bird
            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: 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: e_resident
Enumerated_Domain_Value_Definition: Estuarine resident
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: gastropod
Enumerated_Domain_Value_Definition: Gastropod
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: insect
Enumerated_Domain_Value_Definition: Insect
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: kelp
Enumerated_Domain_Value_Definition: Kelp
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: passerine
Enumerated_Domain_Value_Definition: Passerine bird
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: pinniped

Enumerated_Domain_Value_Definition: Pinniped

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: sav

Enumerated_Domain_Value_Definition: Submerged aquatic vegetation

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: sea otter

Enumerated_Domain_Value_Definition: Sea otter

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: sm_mammal

Enumerated_Domain_Value_Definition: Small mammal

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: snake

Enumerated_Domain_Value_Definition: Snake

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: turtle

Enumerated_Domain_Value_Definition: Turtle

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: wading

Enumerated_Domain_Value_Definition: Wading bird

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: whale
                        Enumerated_Domain_Value_Definition: Whale
                        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: YYYYMM
                    Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
                    for month
                    Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
            Attribute_Domain_Values:
                Enumerated_Domain:
                    Enumerated_Domain_Value: 0
                    Enumerated_Domain_Value_Definition: Date unspecified
                    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 (e.g. 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 (e.g.
                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 (e.g.

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; 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 or not reported

            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 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

    Attribute_Definition_Source: 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 or not reported

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 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

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 "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported
           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 or not reported
           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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data layers.

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:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION

Attribute_Definition: Additional citation information.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE

Attribute_Definition: Description of the source scale.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Detailed_Description:

Entity_Type:

Entity_Type_Label: STATUS

Entity_Type_Definition:

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

Entity_Type_Definition_Source: 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:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: COUNTRY
  Attribute_Definition: Three-letter country abbreviation.
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
  Attribute_Label: S
  Attribute_Definition: State threatened or endangered status.
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: E
        Enumerated_Domain_Value_Definition: Endangered on state list
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: T
        Enumerated_Domain_Value_Definition: Threatened on state list
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
  Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: C
        Enumerated_Domain_Value_Definition: Species of Special Concern
        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
  Attribute_Label: F
  Attribute_Definition: Federal threatened or endangered status.
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:

Enumerated_Domain:
　　Enumerated_Domain_Value: E
　　Enumerated_Domain_Value_Definition: Endangered on federal list
　　Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
　Enumerated_Domain:
　　Enumerated_Domain_Value: T
　　Enumerated_Domain_Value_Definition: Threatened on federal list
　　Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
　Enumerated_Domain:
　　Enumerated_Domain_Value: C
　　Enumerated_Domain_Value_Definition: Species of Special Concern
　　Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
　Attribute_Label: I
　Attribute_Definition: International threatened or endangered status.
　Attribute_Definition_Source: Research Planning, Inc.
　Attribute_Domain_Values:
　　Enumerated_Domain:
　　　Enumerated_Domain_Value: E
　　　Enumerated_Domain_Value_Definition: Endangered on international list
　　　Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
　Attribute_Domain_Values:
　　Enumerated_Domain:
　　　Enumerated_Domain_Value: T
　　　Enumerated_Domain_Value_Definition: Threatened on international list
　　　Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
　Attribute_Domain_Values:
　　Enumerated_Domain:
　　　Enumerated_Domain_Value: C
　　　Enumerated_Domain_Value_Definition: Species of Special Concern
　　　Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
　Attribute_Label: S_DATE
　Attribute_Definition:
　　Publication date of source material used to assign state status values for each species,
　　if used.
　Attribute_Definition_Source: Research Planning, Inc.
　Attribute_Domain_Values:
　　Enumerated_Domain:
　　　Enumerated_Domain_Value: YYYYMM
　　　Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
　　　for month
　　　Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:
　Attribute_Label: F_DATE
　Attribute_Definition:
　　Publication date of source material used to assign federal status values for each
　　species, if used.
　Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: YYYYMM
        Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:
    Attribute_Label: I_DATE
    Attribute_Definition:
        Publication date of source material used to assign international status values for each species, if used.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: YYYYMM
            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
            Enumerated_Domain_Value_Definition_Source: 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 (e.g. 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 Central California
    Distribution_Liability:
    Although these data have been processed successfully on a computer system at the National

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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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
    Metadata_Review_Date: 200606
    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 2.8.21 on Tue Jul 04 20:07:11 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring
                Network (SIMoN), Monterey, California; Department of Fish and Game, Office of
                Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary
                Foundation, Monterey, California; and the National Oceanic and Atmospheric
                Administration (NOAA), National Ocean Service, Office of Response and
                Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California:
                FISH (Fish Polygons)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay
                National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN),
                Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains sensitive biological resource data for marine, estuarine, and anadromous fish species in Central California. Vector polygons in this data set represent general distribution, nearshore concentration areas, spawning areas, and rare species occurrences. 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 Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the FISHL (Fish Lines) data layer, part of the larger Central California ESI database, for additional fish information.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1990

Ending_Date: 2006

Currentness_Reference:

The biological data were compiled during 2005-2006. The currentness dates for the data range from 1990 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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: Central California
Access_Constraints: None
Use_Constraints:

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

Browse_Graphic:
Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:

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

Browse_Graphic_File_Type: JPEG
Data_Set_Credit:

This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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, published and unpublished reports and documents, and hardcopy maps on general distribution, nearshore concentration areas, spawning areas, and rare species occurrences for fish. See also the FISHL (Fish Lines) data layer, part of the larger Central California ESI database, for additional fish information. These data do not necessarily represent all fish occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 2, Lingcod, Ophiodon elongatus; 3, Pacific sanddab, Citharichthys sordidus; 11, English sole, Parophrys vetulus; 12, Starry flounder, Platichthys stellatus; 26, Copper rockfish, Sebastes caurinus; 28, Yellowtail rockfish, Sebastes flavidus; 29, Black rockfish, Sebastes melanops; 30, Bocaccio, Sebastes paucispinis; 32, Canary rockfish (orange), Sebastes pinniger; 51, Pacific staghorn sculpin, Leptocottus armatus; 53, Cabezon, Scorpaenichthys marmoratus; 54, Redtail surfperch, Amphistichus rhodoterus; 56, Shiner surfperch, Cymatogaster aggregata; 57, Striped seaperch, Embiotoca lateralis; 58, Walleye surfperch, Hyperprosopon argenteum; 60, White seaperch, Phanerodon furcatus; 66, Pacific herring, Clupea pallasii pallasii; 67, Northern anchovy, Engraulis mordax; 69, Coho salmon, Oncorhynchus kisutch; 74, Steelhead, Oncorhynchus mykiss; 75, Surf smelt, Hypomesus pretiosus; 79, White seabass, Atractoscion nobilis; 83, Salmon, n/a; 104, Striped bass, Morone saxatilis; 106, California grunion, Leuresthes tenuis; 177, Leopard shark, Triakis semifasciata; 192, Topsmelt, Atherinops affinis; 193, Jacksmelt, Atherinopsis californiensis; 196, Blue rockfish, Sebastes mystinus; 197, Grass rockfish, Sebastes rastrelliger; 219, Pacific lamprey, Lampetra tridentata; 223, Rockfish, Sebastes spp.; 224, Surfperch, n/a; 225, California halibut, Paralichthys californicus; 226, Tidewater goby, Eucyclogobius newberryi; 228, Night smelt, Spirinchus starksi; 473, Bat ray, Myliobatis californica; 494, White croaker, Genyonemus lineatus; 894, Barred surfperch, Amphistichus argenteus; 899, Rubberlip seaperch, Rhacochilus toxotes; 1004, Nursery fish, n/a; 1014, Speckled sanddab, Citharichthys stigmaeus; 1029, Gobies, n/a; 1072, Vermilion rockfish, Sebastes miniatus; 1075, Black-and-yellow rockfish, Sebastes chrysomelas; 1076, Olive

rockfish, Sebastes serranoides; 1077, China rockfish, Sebastes nebulosus; 1078, Gopher rockfish, Sebastes carnatus; 1079, Kelp rockfish, Sebastes atrovirens; 1082, Widow rockfish, Sebastes entomelas; 1083, Calico surfperch, Amphistichus koelzi; 1084, Monkeyface prickleback, Cebidichthys violaceus; 1085, Pacific chub mackerel, Scomber japonicus; 1086, Pacific sardine, Sardinops sagax; 1087, White shark, Carcharodon carcharias.

Positional_Accuracy:

    Horizontal_Positional_Accuracy:

        Horizontal_Positional_Accuracy_Report:

            Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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: ALLEN, S. (NATIONAL PARK SERVICE [NPS], POINT REYES)

                Publication_Date: 2005

                Title: DISTRIBUTION AND SEASONALITY OF SPECIES ON NPS LANDS

                Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

                Other_Citation_Details: UNPUBLISHED

        Type_of_Source_Media: PERSONAL COMMUNICATION

        Source_Time_Period_of_Content:

            Time_Period_Information:

                Single_Date/Time:

                    Calendar_Date: 2005

            Source_Currentness_Reference: DATE OF COMMUNICATION

        Source_Citation_Abbreviation: NONE

        Source_Contribution: FISH INFORMATION

    Source_Information:

        Source_Citation:

            Citation_Information:

                Originator: BROWN, J.

                Publication_Date: 2002

                Title: A PLAN FOR MONITORING THE FISH ASSEMBLAGE IN ELKHORN SLOUGH

                Geospatial_Data_Presentation_Form: HARDCOPY TEXT

                Other_Citation_Details: ELKHORN SLOUGH TECHNICAL REPORT SERIES 2002: 1

        Type_of_Source_Media: DISC

        Source_Time_Period_of_Content:

Time_Period_Information:
 Single_Date/Time:
  Calendar_Date: 2002
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION
Source_Information:
 Source_Citation:
  Citation_Information:
   Originator: CDF&G
   Publication_Date: 1999
   Title:
    4612 SITE SUMMARY & STRATEGY SHEETS - SANTA
    BARBARA COUNTY, VENTURA COUNTY
   Geospatial_Data_Presentation_Form: HARDCOPY TEXT
   Other_Citation_Details: LA-LB 200
 Type_of_Source_Media: ONLINE
 Source_Time_Period_of_Content:
  Time_Period_Information:
   Single_Date/Time:
    Calendar_Date: 1999
  Source_Currentness_Reference: DATE OF PUBLICATION
 Source_Citation_Abbreviation: NONE
 Source_Contribution: FISH INFORMATION
Source_Information:
 Source_Citation:
  Citation_Information:
   Originator:
    CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),
    U.S. COAST GUARD (USCG)
   Publication_Date: 2005
   Title:
    SAN FRANCISCO GEOGRAPHIC RESPONSE AREA 1 SONOMA
    AND NORTH MARIN COAST
   Geospatial_Data_Presentation_Form: HARDCOPY TEXT
   Other_Citation_Details: ACP 2 SF BAY & DELTA - GRA 1
 Type_of_Source_Media: DISC
 Source_Time_Period_of_Content:
  Time_Period_Information:
   Single_Date/Time:
    Calendar_Date: 2005
  Source_Currentness_Reference: DATE OF PUBLICATION
 Source_Citation_Abbreviation: NONE
 Source_Contribution: FISH INFORMATION
Source_Information:
 Source_Citation:
  Citation_Information:
   Originator:
    FONG, D. (NATIONAL PARK SERVICE, GOLDEN GATE
    NATIONAL RECREATION AREA [NPS-GGNRA], SAN
    FRANCISCO)

Publication_Date: 2005
Title: DISTRIBUTION OF GGNRA SPECIES
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: LEA, B. (RETIRED)
Publication_Date: 2005
Title: DISTRIBUTION OF FISH IN MONTEREY BAY AND ENVIRONS
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: LOVE, M.
Publication_Date: 1996
Title:
PROBABLY MORE THAN YOU WANT TO KNOW ABOUT THE
FISHES OF THE PACIFIC COAST
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: REALLY BIG PRESS, SANTA BARBARA, CA
Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 1996
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: MARTIN, K. (PEPPERDINE UNIVERSITY)
Publication_Date: 2006

Title: GRUNION DISTRIBUTION AND SEASONALITY

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: EMAIL

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2006

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: MONACO, EMMETT, NELSON, HINTON

Publication_Date: 1990

Title:

DISTRIBUTION AND ABUNDANCE OF FISHES AND
INVERTEBRATES IN WEST COAST ESTUARIES

Geospatial_Data_Presentation_Form: HARDCOPY TEXT

Other_Citation_Details:

VOLUME 1: DATA SUMMARIES. ELMR REP. NO. 4. NOAA/NOS
STRATEGIC ENVIRONMENTAL ASSESSMENT DIVISION,
SILVER SPRING, MD, 232P

Type_of_Source_Media: PAPER

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1990

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: FISH INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

NELSON, J. (CALIFORNIA DEPARTMENT OF FISH AND GAME
[CDF&G], APTOS)

Publication_Date: 2005

Title:

DISTRIBUTION OF STEELHEAD, SALMON, AND T/E REPTILES
AND AMPHIBIANS IN STREAMS

Geospatial_Data_Presentation_Form: HARDCOPY TEXT

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PAPER

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: FISH INFORMATION

Source_Information:

    Source_Citation:

        Citation_Information:

            Originator:

                ODA, K. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], BELMONT)

            Publication_Date: 2005

            Title: DISTRIBUTION AND SEASONALITY OF FISH AND INVERTEBRATES

            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

            Other_Citation_Details: UNPUBLISHED

    Type_of_Source_Media: PERSONAL COMMUNICATION

    Source_Time_Period_of_Content:

        Time_Period_Information:

            Single_Date/Time:

                Calendar_Date: 2005

        Source_Currentness_Reference: DATE OF COMMUNICATION

    Source_Citation_Abbreviation: NONE

    Source_Contribution: FISH INFORMATION

Source_Information:

    Source_Citation:

        Citation_Information:

            Originator:

                PATTISON, C. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], MORRO BAY)

            Publication_Date: 2006

            Title: SLO COUNTY SPECIES DISTRIBUTION AND SEASONALITY

            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

            Other_Citation_Details: UNPUBLISHED

    Type_of_Source_Media: PERSONAL COMMUNICATION

    Source_Time_Period_of_Content:

        Time_Period_Information:

            Single_Date/Time:

                Calendar_Date: 2006

        Source_Currentness_Reference: DATE OF COMMUNICATION

    Source_Citation_Abbreviation: NONE

    Source_Contribution: FISH INFORMATION

Source_Information:

    Source_Citation:

        Citation_Information:

            Originator:

                REILLY, P. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], MONTEREY)

            Publication_Date: 2005

            Title: DISTRIBUTION OF SPECIES IN MONTEREY BAY AND ENVIRONS

            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

            Other_Citation_Details: UNPUBLISHED

    Type_of_Source_Media: PERSONAL COMMUNICATION

    Source_Time_Period_of_Content:

Time_Period_Information:
    Single_Date/Time:
        Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                ROLETTO, J. (NOAA, GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY [GFNMS])
            Publication_Date: 2005
            Title: DISTRIBUTION AND SEASONALITY OF GFNMS SPECIES
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: FISH INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: RESEARCH PLANNING, INC. (RPI)
            Publication_Date: 1994
            Title:
                SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE TO SPILLED OIL: CENTRAL CA
            Geospatial_Data_Presentation_Form: ATLAS
            Other_Citation_Details:
                BY RESEARCH PLANNING INC., COLUMBIA, SC FOR CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G) OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR) AND NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), 41 MAPS
    Source_Scale_Denominator: 46,500
    Type_of_Source_Media: PAPER
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
               Calendar_Date: 1994
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: FISH INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:

Originator: U.S. FISH AND WILDLIFE SERVICE
Publication_Date: 2005
Title: RECOVERY PLAN FOR THE TIDEWATER GOBY
(EUCYCLOGOBIUS NEWBERRYI)
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: U.S. FISH AND WILDLIFE SERVICE,
PORTLAND, OREGON. VI + 199 PP.
Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: FISH INFORMATION
Process_Step:
Process_Description:
Two main sources of data were used to depict fish distribution and seasonality for
this data layer: (1) personal interviews with resource experts from: California
Department of Fish and Game (CDF&G), Pepperdine University, National Park
Service (NPS), and the National Oceanic and Atmospheric Administration (NOAA),
and (2) numerous reports, documents, and books provided by the University of
California Santa Barbara (UCSB), CDF&G, Elkhorn Slough National Estuarine
Research Reserve (ESNERR), Research Planning, Inc. (RPI), NOAA, and the U.S.
Fish & Wildlife Service (USFWS). See the Lineage section for details.

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

Process_Date: 200605
Process_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen
Contact_Address:
Address_Type: Physical address
Address: 7600 Sand Point Way, N.E.
City: Seattle
State_or_Province: Washington

Postal_Code: 98115-6349
Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector
    Point_and_Vector_Object_Information:
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
            Point_and_Vector_Object_Count: 6995
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Area point
            Point_and_Vector_Object_Count: 6996
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Complete chain
            Point_and_Vector_Object_Count: 9505
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Link
            Point_and_Vector_Object_Count: 375309
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Node, planar graph
            Point_and_Vector_Object_Count: 8301

Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
        Geographic:
            Latitude_Resolution: 0.0000001
            Longitude_Resolution: 0.0000001
            Geographic_Coordinate_Units: Decimal degrees
        Geodetic_Model:
            Horizontal_Datum_Name: North American Datum of 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, FISH) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For

each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Detailed_Description:
    Entity_Type:
        Entity_Type_Label: FISH.PAT
        Entity_Type_Definition:
            The FISH.PAT table contains attribute information for the vector polygons in this data set representing general distribution, nearshore concentration areas, spawning areas, and rare species occurrences. 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 (8), 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: 080200002

        Range_Domain_Maximum: 080206996

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: 08000618

            Range_Domain_Maximum: 08000693

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
            polygons and do not contain information.

        Attribute_Definition_Source: NOAA

        Attribute_Domain_Values:

            Range_Domain:

                Range_Domain_Minimum: 08000001

                Range_Domain_Maximum: 08001257

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 (8), 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: 080100002

            Range_Domain_Maximum: 082600053

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: 008000001

Range_Domain_Maximum: 008001257

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 of a species at a particular location. No quantitative data were available for fish, so the concentration field may contain a descriptive term, such as "HIGH" or "COMMON". If no concentration information was available from any source, the CONC field is populated with "-".

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: 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 (e.g. 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 (e.g. 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 for the entire ESI data set.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC
Attribute_Definition: Species scientific name for the entire ESI data set.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ELEMENT
Attribute_Definition: Major categories of biological data.
Attribute_Definition_Source: 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: amphibian
        Enumerated_Domain_Value_Definition: Amphibian
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: bivalve
        Enumerated_Domain_Value_Definition: Bivalve
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: cephalopod
        Enumerated_Domain_Value_Definition: Cephalopod
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: crab
        Enumerated_Domain_Value_Definition: Crab
        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: diving
        Enumerated_Domain_Value_Definition: Diving bird
        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: 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: e_resident
        Enumerated_Domain_Value_Definition: Estuarine resident
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: gastropod
        Enumerated_Domain_Value_Definition: Gastropod
        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: insect
        Enumerated_Domain_Value_Definition: Insect
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: kelp
        Enumerated_Domain_Value_Definition: Kelp
        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: passerine
        Enumerated_Domain_Value_Definition: Passerine bird
        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: pinniped
        Enumerated_Domain_Value_Definition: Pinniped
        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: sav
        Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: sea otter
        Enumerated_Domain_Value_Definition: Sea otter
        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: sm_mammal
        Enumerated_Domain_Value_Definition: Small mammal
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: snake
        Enumerated_Domain_Value_Definition: Snake
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: turtle
        Enumerated_Domain_Value_Definition: Turtle
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: wading
        Enumerated_Domain_Value_Definition: Wading bird
        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: whale
        Enumerated_Domain_Value_Definition: Whale
        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: YYYYMM
            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: 0
            Enumerated_Domain_Value_Definition: Date unspecified
            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 (e.g. 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 (e.g. 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 (e.g. 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; 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 or not reported
            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 =
        migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is
        "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 =
        hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute
        is not used for HABITAT or T_MAMMAL elements.
    Attribute_Definition_Source: 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 or not reported
            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 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.
> *Attribute_Definition_Source:* 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 or not reported
>>> *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 "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.
> *Attribute_Definition_Source:* 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 or not reported

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 or not reported

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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data layers.

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:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Enumerated_Domain:*
>
> > *Enumerated_Domain_Value:* YYYYMM
> > *Enumerated_Domain_Value_Definition:* YYYY for year and optionally MM for month
> > *Enumerated_Domain_Value_Definition_Source:* Research Planning, Inc.

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION

Attribute_Definition: Additional citation information.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE

Attribute_Definition: Description of the source scale.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Detailed_Description:

    Entity_Type:

        Entity_Type_Label: STATUS

        Entity_Type_Definition:

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

        Entity_Type_Definition_Source: 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:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY

Attribute_Definition: Three-letter country abbreviation.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S

Attribute_Definition: State threatened or endangered status.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E

Enumerated_Domain_Value_Definition: Endangered on state list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T

Enumerated_Domain_Value_Definition: Threatened on state list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C

Enumerated_Domain_Value_Definition: Species of Special Concern

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F

Attribute_Definition: Federal threatened or endangered status.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E

Enumerated_Domain_Value_Definition: Endangered on federal list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T

Enumerated_Domain_Value_Definition: Threatened on federal list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

    Enumerated_Domain:

        Enumerated_Domain_Value: C

        Enumerated_Domain_Value_Definition: Species of Special Concern

        Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

    Attribute_Label: I

    Attribute_Definition: International threatened or endangered status.

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: E

            Enumerated_Domain_Value_Definition: Endangered on international list

            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: T

            Enumerated_Domain_Value_Definition: Threatened on international list

            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: C

            Enumerated_Domain_Value_Definition: Species of Special Concern

            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

    Attribute_Label: S_DATE

    Attribute_Definition:

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

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: YYYYMM

            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

    Attribute_Label: F_DATE

    Attribute_Definition:

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

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: YYYYMM

            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

    Attribute_Label: I_DATE

Attribute_Definition:
　　Publication date of source material used to assign international status values for each species, if used.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
　　Enumerated_Domain:
　　　　Enumerated_Domain_Value: YYYYMM
　　　　Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
　　　　Enumerated_Domain_Value_Definition_Source: 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 (e.g. 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 Central California
　　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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
    Metadata_Review_Date: 200606
    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 2.8.21 on Tue Jul 04 20:08:58 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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:

Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

            Publication_Date: 200606
            Title:

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

            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA),

National Ocean Service, Office of Response and Restoration, Hazardous Materials
Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains sensitive biological resource data for anadromous fish and rare fish
species occurrences in Central California. Vector lines in this data set represent the
beginning points for coastal anadromous runs, juvenile rearing and adult congregation
areas for anadromous species, and sensitive habitat for rare species (tidewater goby).
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
Central California. ESI data characterize the marine and coastal environments and wildlife
by their sensitivity to spilled oil. The ESI data include information for three main
components: shoreline habitats, sensitive biological resources, and human-use resources.
See also the FISH (Fish Polygons) data layer, part of the larger Central California ESI
database, for additional fish information.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1999

Ending_Date: 2006

Currentness_Reference:

The biological data were compiled during 2005-2006. The currentness dates for the data
range from 1999 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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:* Central California

Access_Constraints: None

Use_Constraints:

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

Browse_Graphic:

> *Browse_Graphic_File_Name:* datafig.jpg
> *Browse_Graphic_File_Description:*
>> Depicts the relationships between spatial data layers and attribute data tables for the Central California ESI data.
> *Browse_Graphic_File_Type:* JPEG

Data_Set_Credit:

> This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

> The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

> The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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 hardcopy reports on anadromous and rare species occurrences. See also the FISH (Fish Polygons) data layer, part of the larger Central California ESI database, for additional fish information. These data do not necessarily represent all fish occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 69, Coho salmon, Oncorhynchus kisutch; 74, Steelhead, Oncorhynchus mykiss; 219, Pacific lamprey, Lampetra tridentata; 226, Tidewater goby, Eucyclogobius newberryi.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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:

BOGGS-BLALACK, M. (CALIFORNIA DEPARTMENT OF FISH
AND GAME [CDF&G], MORRO BAY)

Publication_Date: 2006

Title: SLO COUNTY SPECIES DISTRIBUTION

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2006

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: FISH LINE INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: CALIFORNIA DEPARTMENT OF FISH AND GAME
(CDF&G)

Publication_Date: 1999

Title:

4612 SITE SUMMARY & STRATEGY SHEETS - SANTA
BARBARA COUNTY, VENTURA COUNTY

Geospatial_Data_Presentation_Form: HARDCOPY TEXT

Other_Citation_Details: LA-LB 200

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1999

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: FISH LINE INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

FONG, D. (NATIONAL PARK SERVICE, GOLDEN GATE
NATIONAL RECREATION AREA [NPS-GGNRA], SAN
FRANCISCO)

Publication_Date: 2005

Title: DISTRIBUTION OF GGNRA SPECIES

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: FISH LINE INFORMATION
Source_Information:
  Source_Citation:
    Citation_Information:
      Originator:
        NELSON, J. (CALIFORNIA DEPARTMENT OF FISH AND GAME
        [CDF&G], APTOS)
      Publication_Date: 2005
      Title:
        DISTRIBUTION OF STEELHEAD, SALMON, AND T/E REPTILES
        AND AMPHIBIANS IN STREAMS
      Geospatial_Data_Presentation_Form: HARDCOPY TEXT
      Other_Citation_Details: UNPUBLISHED
  Type_of_Source_Media: PAPER
  Source_Time_Period_of_Content:
    Time_Period_Information:
      Single_Date/Time:
        Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF COMMUNICATION
  Source_Citation_Abbreviation: NONE
  Source_Contribution: FISH LINE INFORMATION
Source_Information:
  Source_Citation:
    Citation_Information:
      Originator: U.S. FISH AND WILDLIFE SERVICE
      Publication_Date: 2005
      Title: RECOVERY PLAN FOR THE TIDEWATER GOBY
      (EUCYCLOGOBIUS NEWBERRYI)
      Geospatial_Data_Presentation_Form: HARDCOPY TEXT
      Other_Citation_Details: U.S. FISH AND WILDLIFE SERVICE,
      PORTLAND, OREGON. VI + 199 PP.
  Type_of_Source_Media: EMAIL
  Source_Time_Period_of_Content:
    Time_Period_Information:
      Single_Date/Time:
        Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF PUBLICATION
  Source_Citation_Abbreviation: NONE
  Source_Contribution: FISH LINE INFORMATION
Process_Step:
  Process_Description:
    Two main sources of data were used to depict fish distribution and seasonality for
    this data layer: (1) personal interviews with resource experts from California
    Department of Fish and Game (CDF&G) and National Park Service (NPS), and (2)
    U.S. Fish & Wildlife Service (USFWS) and CDF&G reports.

    The above digital and/or hardcopy sources were compiled by the project biologist to
    create the FISHL data layer. Depending on the type of source data, three general
    approaches are used for compiling a biology data layer: (1) information gathered
    during initial interviews and from hardcopy sources are compiled onto U.S.
    Geological Survey 1:24,000 topographic quadrangles and digitized; (2) hardcopy

maps are digitized at their source scale; (3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The compiled ESI, biology, and human-use data are plotted onto hardcopy draft maps. Following the delivery of draft maps to the participating resource experts, a second set of interviews is conducted to review the maps. If necessary, edits to the FISHL data layer are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

Process_Date: 200605
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: 103
  SDTS_Terms_Description:
   SDTS_Point_and_Vector_Object_Type: Link
   Point_and_Vector_Object_Count: 5389
  SDTS_Terms_Description:
   SDTS_Point_and_Vector_Object_Type: Node, planar graph
   Point_and_Vector_Object_Count: 182

Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
  Geographic:
   Latitude_Resolution: 0.0000001
   Longitude_Resolution: 0.0000001
   Geographic_Coordinate_Units: Decimal degrees
  Geodetic_Model:
   Horizontal_Datum_Name: North American Datum of 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 the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

    Detailed_Description:

        Entity_Type:

            Entity_Type_Label: FISHL.AAT

            Entity_Type_Definition:

The FISHL.AAT table contains attribute information for the vector lines in this data set representing the beginning points for coastal anadromous runs, juvenile rearing

and adult congregation areas for anadromous species, and sensitive habitat for rare species (tidewater goby). 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 (8), 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: 082200001

Range_Domain_Maximum: 082200103

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: 08000618

Range_Domain_Maximum: 08000639

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 polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 08000001

Range_Domain_Maximum: 08001257

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 (8), element number (22;
>> 20 because it is a line feature, plus 2, the element value for FISH), 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:* 080100002
>>> *Range_Domain_Maximum:* 082600053

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:* 008000001
>>>> *Range_Domain_Maximum:* 008001257

> *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 of a species
>>> at a particular location. No quantitative data were available for fish, so the CONC
>>> field may contain a descriptive term, such as "HIGH" or "LOW". If no concentration
>>> information was available from any source, the CONC field is populated with "-".
>> *Attribute_Definition_Source:* Research Planning, Inc.
>> *Attribute_Domain_Values:*
>>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

> *Attribute:*

Attribute_Label: SEASON_ID
Attribute_Definition:
    Numeric identifier for the unique monthly presence and life history characteristics
    of each species at a given location.
Attribute_Definition_Source: 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 (e.g. 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 (e.g.
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 for the entire ESI data set

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC

Attribute_Definition: Species scientific name for the entire ESI data set

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ELEMENT

Attribute_Definition: Major categories of biological data.

Attribute_Definition_Source: 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: amphibian
  Enumerated_Domain_Value_Definition: Amphibian
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: bivalve
  Enumerated_Domain_Value_Definition: Bivalve
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: cephalopod
  Enumerated_Domain_Value_Definition: Cephalopod
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: crab
  Enumerated_Domain_Value_Definition: Crab
  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: diving
Enumerated_Domain_Value_Definition: Diving bird
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: 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: e_resident
      Enumerated_Domain_Value_Definition: Estuarine resident
      Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
   Enumerated_Domain:
      Enumerated_Domain_Value: gastropod
      Enumerated_Domain_Value_Definition: Gastropod
      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: insect
      Enumerated_Domain_Value_Definition: Insect
      Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
   Enumerated_Domain:
      Enumerated_Domain_Value: kelp
      Enumerated_Domain_Value_Definition: Kelp
      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: passerine

Enumerated_Domain_Value_Definition: Passerine bird
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: pinniped
Enumerated_Domain_Value_Definition: Pinniped
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: sav
Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: sea otter
Enumerated_Domain_Value_Definition: Sea otter
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: sm_mammal
Enumerated_Domain_Value_Definition: Small mammal
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: wading
Enumerated_Domain_Value_Definition: Wading bird

           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: whale

          Enumerated_Domain_Value_Definition: Whale

          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: YYYYMM

        Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

      Enumerated_Domain:

        Enumerated_Domain_Value: 0

        Enumerated_Domain_Value_Definition: Date unspecified

        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 (e.g. 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 (e.g.
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 (e.g. 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; 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 or not reported
>>> *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 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute

is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

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 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

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 "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then

BREED4 = molting. This attribute is not used for BIRD, HABITAT, or
T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

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 or not reported

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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data layers.

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:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION

Attribute_Definition: Additional citation information.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label: SCALE
    Attribute_Definition: Description of the source scale.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
    Attribute_Label: TIME_PERIOD
    Attribute_Definition:
        Date(s) of data collection that the source material is based upon.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Detailed_Description:
    Entity_Type:
        Entity_Type_Label: STATUS
        Entity_Type_Definition:
            The data table STATUS identifies the species that are listed as threatened or
            endangered by a state, federal, or international authority. See the Browse_Graphic
            section for a link to the entity-relationship diagram, which describes the way this
            table relates to other attribute tables in the ESI data structure.
        Entity_Type_Definition_Source: 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:
       Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label: COUNTRY
   Attribute_Definition: Three-letter country abbreviation.
   Attribute_Definition_Source: Research Planning, Inc.
   Attribute_Domain_Values:
       Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
   Attribute_Label: S
   Attribute_Definition: State threatened or endangered status.
   Attribute_Definition_Source: Research Planning, Inc.
   Attribute_Domain_Values:
       Enumerated_Domain:
           Enumerated_Domain_Value: E
           Enumerated_Domain_Value_Definition: Endangered on state list
           Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
   Attribute_Domain_Values:
       Enumerated_Domain:
           Enumerated_Domain_Value: T
           Enumerated_Domain_Value_Definition: Threatened on state list
           Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
   Attribute_Domain_Values:
       Enumerated_Domain:
           Enumerated_Domain_Value: C
           Enumerated_Domain_Value_Definition: Species of Special Concern
           Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
    Attribute_Label: F
    Attribute_Definition: Federal threatened or endangered status.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: E
            Enumerated_Domain_Value_Definition: Endangered on federal list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: T
            Enumerated_Domain_Value_Definition: Threatened on federal list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: C
            Enumerated_Domain_Value_Definition: Species of Special Concern
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute:
    Attribute_Label: I
    Attribute_Definition: International threatened or endangered status.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: E
            Enumerated_Domain_Value_Definition: Endangered on international list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: T
            Enumerated_Domain_Value_Definition: Threatened on international list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: C
            Enumerated_Domain_Value_Definition: Species of Special Concern
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute:
    Attribute_Label: S_DATE
    Attribute_Definition:
        Publication date of source material used to assign state status values for each
        species, if used.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: YYYYMM
            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
            for month
            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute:

Attribute_Label: F_DATE
Attribute_Definition:
    Publication date of source material used to assign federal status values for each
    species, if used.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: YYYYMM
        Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
        for month
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute:
    Attribute_Label: I_DATE
    Attribute_Definition:
        Publication date of source material used to assign international status values for each
        species, if used.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: YYYYMM
            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
            for month
            Enumerated_Domain_Value_Definition_Source: 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 (e.g. 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 Central California
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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
Metadata_Review_Date: 200606
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 2.8.21 on Tue Jul 04 20:12:15 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: HABITATS (Habitat 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:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: HABITATS (Habitat Polygons)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains sensitive biological resource data for benthic habitats in Central California. Vector polygons in this data set represent kelp and eelgrass distribution. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer.

This data set comprises a portion of the Environmental Sensitivity Index (ESI) data for Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1994

Ending_Date: 2005

Currentness_Reference:

The biological data were compiled during 2005-2006. The currentness dates for the data range from 1994 to 2005 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Central California
Access_Constraints: None
Use_Constraints:

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

Browse_Graphic:

> *Browse_Graphic_File_Name:* datafig.jpg
> *Browse_Graphic_File_Description:*
>> Depicts the relationships between spatial data layers and attribute data tables for the Central California ESI data.
> *Browse_Graphic_File_Type:* JPEG

Data_Set_Credit:

> This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

> The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).
>
> The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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 digital data, expert knowledge, and maps on kelp and eelgrass distribution. These data do not necessarily represent all habitats occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 1, Eelgrass, Zostera marina; 1056, Kelp, n/a.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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: ALLEN, S. (NATIONAL PARK SERVICE [NPS], POINT REYES)

Publication_Date: 2005

Title: DISTRIBUTION AND SEASONALITY OF SPECIES ON NPS LANDS

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: CALIFORNIA DEPT. OF FISH AND GAME (CDF&G)
            Publication_Date: 2003
            Title: CALIFORNIA COASTAL KELP SURVEYS
            Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
            Other_Citation_Details: CDF&G MARINE REGION GIS UNIT
    Type_of_Source_Media: ONLINE
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Range_of_Dates/Times:
                Beginning_Date: 1999
                Ending_Date: 2003
        Source_Currentness_Reference: DATE OF SURVEY
    Source_Citation_Abbreviation: NONE
    Source_Contribution: HABITATS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: MORRO BAY VOLUNTEER MONITORING PROGRAM
            Publication_Date: 2005
            Title: EELGRASS MONITORING UPDATE
            Geospatial_Data_Presentation_Form: MAP
            Other_Citation_Details:
            HTTP://WWW.MBNEP.ORG/FILES/PDFS/EELGRASS SUMMARY 2005-05.PDF
    Type_of_Source_Media: ONLINE
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: HABITATS INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                REILLY, P. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], MONTEREY)
            Publication_Date: 2005

Title: DISTRIBUTION OF SPECIES IN MONTEREY BAY AND ENVIRONS
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
ROLETTO, J. (NOAA, GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY [GFNMS])
Publication_Date: 2005
Title: DISTRIBUTION AND SEASONALITY OF GFNMS SPECIES
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: RESEARCH PLANNING, INC. (RPI)
Publication_Date: 1994
Title:
SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE TO SPILLED OIL: CENTRAL CA
Geospatial_Data_Presentation_Form: ATLAS
Other_Citation_Details:
BY RESEARCH PLANNING INC., COLUMBIA, SC FOR CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G) OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR) AND NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), 41 MAPS
Source_Scale_Denominator: 46,500
Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 1994

Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: HABITATS INFORMATION
Process_Step:
Process_Description:

Three main sources of data were used to depict habitat distribution and seasonality for this data layer: (1) digital data provided by California Department of Fish and Game (CDF&G), (2) hardcopy maps, and (3) personal interviews with resource experts from National Park Service (NPS), National Oceanic and Atmospheric Administration (NOAA), and California Department of Fish and Game (CDF&G).

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

Process_Date: 200605
Process_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen
Contact_Address:
Address_Type: Physical address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349
Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
Point_and_Vector_Object_Count: 2845
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Area point
Point_and_Vector_Object_Count: 2846

SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type: Complete chain
    Point_and_Vector_Object_Count: 3036
SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type: Link
    Point_and_Vector_Object_Count: 196792
SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type: Node, planar graph
    Point_and_Vector_Object_Count: 3030

Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
        Geographic:
            Latitude_Resolution: 0.0000001
            Longitude_Resolution: 0.0000001
            Geographic_Coordinate_Units: Decimal degrees
        Geodetic_Model:
            Horizontal_Datum_Name: North American Datum of 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 the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

            Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly

generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Detailed_Description:
    Entity_Type:
        Entity_Type_Label: HABITATS.PAT
        Entity_Type_Definition:
            The HABITATS.PAT table contains attribute information for the vector polygons in this data set representing kelp and eelgrass 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 (8), 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: 080300002
                Range_Domain_Maximum: 080302846
    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: 08000694
                Range_Domain_Maximum: 08000700

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 polygons and do not contain information.

        Attribute_Definition_Source: NOAA

        Attribute_Domain_Values:

            Range_Domain:

                Range_Domain_Minimum: 08000001

                Range_Domain_Maximum: 08001257

    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 (8), 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: 080100002

                Range_Domain_Maximum: 082600053

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: 008000001
Range_Domain_Maximum: 008001257

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 of a habitat at a particular location. No quantitative or qualitative information on concentrations of kelp were available, so the CONC field is populated with "-". Descriptive terms, such as "PATCHY-DENSE" were used to describe eelgrass concentrations and were based on hardcopy sources.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: 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 (e.g. 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 (e.g. 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 for the entire ESI data set

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC

Attribute_Definition: Species scientific name for the entire ESI data set

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label: ELEMENT
    Attribute_Definition: Major categories of biological data.
    Attribute_Definition_Source: 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: amphibian

Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: bivalve
        Enumerated_Domain_Value_Definition: Bivalve
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: cephalopod
        Enumerated_Domain_Value_Definition: Cephalopod
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: crab
        Enumerated_Domain_Value_Definition: Crab
        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: diving
        Enumerated_Domain_Value_Definition: Diving bird
        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: 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: e_resident
        Enumerated_Domain_Value_Definition: Estuarine resident
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: gastropod
        Enumerated_Domain_Value_Definition: Gastropod
        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: insect
        Enumerated_Domain_Value_Definition: Insect
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: kelp
        Enumerated_Domain_Value_Definition: Kelp
        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: passerine
        Enumerated_Domain_Value_Definition: Passerine bird
        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: pinniped
        Enumerated_Domain_Value_Definition: Pinniped
        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: sav
        Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: sea otter
        Enumerated_Domain_Value_Definition: Sea otter
        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: sm_mammal
        Enumerated_Domain_Value_Definition: Small mammal
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: snake
        Enumerated_Domain_Value_Definition: Snake
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: turtle
        Enumerated_Domain_Value_Definition: Turtle
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: wading
        Enumerated_Domain_Value_Definition: Wading bird
        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: whale
        Enumerated_Domain_Value_Definition: Whale
        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: YYYYMM
        Enumerated_Domain_Value_Definition: YYYY for year and optionally MM

for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0

Enumerated_Domain_Value_Definition: Date unspecified

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 (e.g. 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 (e.g.
            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 (e.g.
                    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; 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 or not reported
> > *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 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported
> > *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 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

        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 "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

    Attribute_Definition_Source: 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 or not reported

            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 or not reported
        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; G_SOURCE and
            S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data
            layers.
        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:
            Unrepresentable_Domain: Acceptable values change from atlas to atlas.
    Attribute:
        Attribute_Label: DATE_PUB
        Attribute_Definition:
            Date of source material, publication, or date of personal communication with expert
            source.
        Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: YYYYMM
        Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
        for month
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:
    Attribute_Label: TITLE
    Attribute_Definition: Title of source material or data.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label: DATA_FORMAT
    Attribute_Definition: The format of the source material.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label: PUBLICATION
    Attribute_Definition: Additional citation information.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label: SCALE
    Attribute_Definition: Description of the source scale.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
    Attribute_Label: TIME_PERIOD
    Attribute_Definition:
        Date(s) of data collection that the source material is based upon.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

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

   Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
 Attribute_Label: S
 Attribute_Definition: State threatened or endangered status.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: E
   Enumerated_Domain_Value_Definition: Endangered on state list
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: T
   Enumerated_Domain_Value_Definition: Threatened on state list
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: C
   Enumerated_Domain_Value_Definition: Species of Special Concern
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute:
 Attribute_Label: F
 Attribute_Definition: Federal threatened or endangered status.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: E
   Enumerated_Domain_Value_Definition: Endangered on federal list
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: T
   Enumerated_Domain_Value_Definition: Threatened on federal list
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: C
   Enumerated_Domain_Value_Definition: Species of Special Concern
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute:
 Attribute_Label: I
 Attribute_Definition: International threatened or endangered status.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: E
   Enumerated_Domain_Value_Definition: Endangered on international list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: T
  Enumerated_Domain_Value_Definition: Threatened on international list
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: C
  Enumerated_Domain_Value_Definition: Species of Special Concern
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
 Attribute_Label: S_DATE
 Attribute_Definition:
  Publication date of source material used to assign state status values for each
  species, if used.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: YYYYMM
   Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
   for month
   Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:
 Attribute_Label: F_DATE
 Attribute_Definition:
  Publication date of source material used to assign federal status values for each
  species, if used.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: YYYYMM
   Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
   for month
   Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:
 Attribute_Label: I_DATE
 Attribute_Definition:
  Publication date of source material used to assign international status values for each
  species, if used.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: YYYYMM
   Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
   for month
   Enumerated_Domain_Value_Definition_Source: 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 (e.g. 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 Central California
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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An
ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
Metadata_Review_Date: 200606
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 2.8.21 on Tue Jul 04 20:28:08 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: INVERT (Invertebrate 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:
    Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
   Publication_Date: 200606
   Title:
    Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: INVERT (Invertebrate Polygons)
   Edition: Second
   Geospatial_Data_Presentation_Form: Vector digital data
   Series_Information:
    Series_Name: None
    Issue_Identification: Central California
   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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

    Abstract:

This data set contains sensitive biological resource data for marine, intertidal/subtidal, and terrestrial invertebrate species in Central California. Vector polygons in this data set represent invertebrate distribution and concentration areas. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer.

This data set comprises a portion of the Environmental Sensitivity Index (ESI) data for Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

    Purpose:

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

Time_Period_of_Content:

    Time_Period_Information:

        Range_of_Dates/Times:

            Beginning_Date: 1994

            Ending_Date: 2006

    Currentness_Reference:

The biological data were compiled during 2005-2006. The currentness dates for the data range from 1994 to 2006 and are documented in the Lineage section.

Status:

    Progress: Complete

    Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

    Bounding_Coordinates:

        West_Bounding_Coordinate: -123.50000

        East_Bounding_Coordinate: -120.37500

        North_Bounding_Coordinate: 38.12500

        South_Bounding_Coordinate: 34.21700

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: Invertebrates

    Place:

        Place_Keyword_Thesaurus: None

Place_Keyword: Central California

Access_Constraints: None

Use_Constraints:

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

Browse_Graphic:

Browse_Graphic_File_Name: datafig.jpg

Browse_Graphic_File_Description:

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

Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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, available hardcopy documents, maps, and digital data on invertebrate distribution and concentration areas. These data do not necessarily represent all invertebrate occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 14, Dungeness crab, Cancer magister; 18, Pismo clam, Tivela stultorum; 29, Pacific littleneck, Protothaca staminea; 62, Black abalone, Haliotis cracherodii; 87, California brackishwater snail, Tryonia imitator; 322, Squid, Loligo spp.; 555, Globose dune beetle, Coelus globosus; 1028, Tidepool invertebrates, n/a; 1043, Invertebrates, n/a; 1048, Clams, n/a.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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: ALLEN, S. (NATIONAL PARK SERVICE [NPS], POINT REYES)

        Publication_Date: 2005
        Title: DISTRIBUTION AND SEASONALITY OF SPECIES ON NPS
        LANDS
        Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
        Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: INVERT INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                BENSON, S. (NATIONAL OCEANIC AND ATMOSPHERIC
                ADMINISTRATION [NOAA])
            Publication_Date: 2005
            Title: DISTRIBUTION AND SEASONALITY OF MARINE RESOURCES
            IN CALIFORNIA
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: INVERT INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                BOGGS-BLALACK, M. (CALIFORNIA DEPARTMENT OF FISH
                AND GAME [CDF&G], MORRO BAY)
            Publication_Date: 2006
            Title: SLO COUNTY SPECIES DISTRIBUTION
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2006
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: INVERT INFORMATION
Source_Information:

Source_Citation:
    Citation_Information:
        Originator: CALIFORNIA DEPARTMENT OF FISH AND GAME
        (CDF&G)
        Publication_Date: 1999
        Title:
            4612 SITE SUMMARY & STRATEGY SHEETS - SANTA
            BARBARA COUNTY, VENTURA COUNTY
        Geospatial_Data_Presentation_Form: HARDCOPY TEXT
        Other_Citation_Details: LA-LB 200
Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 1999
    Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION
Source_Information:
Source_Citation:
    Citation_Information:
        Originator:
            CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),
            U.S. COAST GUARD (USCG)
        Publication_Date: 2005
        Title:
            SAN FRANCISCO GEOGRAPHIC RESPONSE AREA 1 SONOMA
            AND NORTH MARIN COAST
        Geospatial_Data_Presentation_Form: HARDCOPY TEXT
        Other_Citation_Details: ACP 2 SF BAY & DELTA - GRA 1
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: INVERT INFORMATION
Source_Information:
Source_Citation:
    Citation_Information:
        Originator: FRIENDS OF FITZGERALD MARINE RESERVE
        Publication_Date: 2005
        Title: DISTRIBUTION OF SPECIES IN FITZGERALD MARINE
        RESERVE
        Geospatial_Data_Presentation_Form: ONLINE TEXT
        Other_Citation_Details: <http://www.fitzgeraldreserve.org/>
Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:

            Calendar_Date: 2004
        Source_Currentness_Reference: DATE OF PUBLICATION
      Source_Citation_Abbreviation: NONE
      Source_Contribution: INVERT INFORMATION
Source_Information:
    Source_Citation:
      Citation_Information:
        Originator:
          LONHART, S. (NOAA, MONTEREY BAY NATIONAL MARINE
          SANCTUARY [MBNMS], MONTEREY)
        Publication_Date: 2005
        Title: DISTRIBUTION OF TIDEPOOL AND NEARSHORE
        INVERTEBRATES
        Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
        Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
      Time_Period_Information:
        Single_Date/Time:
          Calendar_Date: 2005
      Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: INVERT INFORMATION
Source_Information:
    Source_Citation:
      Citation_Information:
        Originator:
          ODA, K. (CALIFORNIA DEPARTMENT OF FISH AND GAME
          [CDF&G], BELMONT)
        Publication_Date: 2005
        Title: DISTRIBUTION AND SEASONALITY OF FISH AND
        INVERTEBRATES
        Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
        Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
      Time_Period_Information:
        Single_Date/Time:
          Calendar_Date: 2005
      Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: INVERT INFORMATION
Source_Information:
    Source_Citation:
      Citation_Information:
        Originator:
          REILLY, P. (CALIFORNIA DEPARTMENT OF FISH AND GAME
          [CDF&G], MONTEREY)
        Publication_Date: 2005
        Title: DISTRIBUTION OF SPECIES IN MONTEREY BAY AND
        ENVIRONS

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

ROLETTO, J. (NOAA, GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY [GFNMS])

Publication_Date: 2005

Title: DISTRIBUTION AND SEASONALITY OF GFNMS SPECIES

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: INVERT INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: RESEARCH PLANNING, INC. (RPI)

Publication_Date: 1994

Title:

SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE TO SPILLED OIL: CENTRAL CA

Geospatial_Data_Presentation_Form: ATLAS

Other_Citation_Details:

BY RESEARCH PLANNING INC., COLUMBIA, SC FOR CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G) OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR) AND NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), 41 MAPS

Source_Scale_Denominator: 46,500

Type_of_Source_Media: PAPER

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1994

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: INVERT INFORMATION
Process_Step:
    Process_Description:

Two main sources of data were used to depict invertebrate distribution and seasonality for this data layer: (1) personal interviews with resource experts from California Department of Fish and Game (CDF&G), National Park Service (NPS), and National Oceanic and Atmospheric Administration (NOAA), and (2) hardcopy and online documents provided by CDF&G, Research Planning, Inc. (RPI), and Fitzgerald Marine Reserve.

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

Process_Date: 200605
Process_Contact:
    Contact_Information:
        Contact_Organization_Primary:
            Contact_Organization: NOAA, Office of Response and Restoration
            Contact_Person: Jill Petersen
        Contact_Address:
            Address_Type: Physical address
            Address: 7600 Sand Point Way N.E.
            City: Seattle
            State_or_Province: Washington
            Postal_Code: 98115-6349
        Contact_Voice_Telephone: (206) 526-6944
        Contact_Facsimile_Telephone: (206) 526-6329
        Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector
    Point_and_Vector_Object_Information:
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
            Point_and_Vector_Object_Count: 3047
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Area point
            Point_and_Vector_Object_Count: 3048
        SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain
Point_and_Vector_Object_Count: 3325
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Link
Point_and_Vector_Object_Count: 166107
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Node, planar graph
Point_and_Vector_Object_Count: 3264

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Geographic:
Latitude_Resolution: 0.0000001
Longitude_Resolution: 0.0000001
Geographic_Coordinate_Units: Decimal degrees
Geodetic_Model:
Horizontal_Datum_Name: North American Datum of 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, INVERT) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact

version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Detailed_Description:
- *Entity_Type:*
  - *Entity_Type_Label:* INVERT.PAT
  - *Entity_Type_Definition:*

    The INVERT.PAT table contains attribute information for the vector polygons in this data set representing invertebrate distribution and concentration areas. Note that all attribute information is stored in a series of relational files, described below. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the relationships between attribute tables in the ESI data structure.
  - *Entity_Type_Definition_Source:* 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 (8), element number (7), and record number. ID values of 9999 are holes in polygons and do not contain information.
  - *Attribute_Definition_Source:* NOAA
  - *Attribute_Domain_Values:*
    - *Range_Domain:*
      - *Range_Domain_Minimum:* 080700002
      - *Range_Domain_Maximum:* 080703051
- *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:* 08000701
      - *Range_Domain_Maximum:* 08000737
- *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 polygons and do not contain information.
>
> *Attribute_Definition_Source:* NOAA
> *Attribute_Domain_Values:*
>> *Range_Domain:*
>>> *Range_Domain_Minimum:* 08000001
>>> *Range_Domain_Maximum:* 08001257

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 (8), element number (7), and record number. ID values of 9999 are holes in polygons and do not contain information.
>
> *Attribute_Definition_Source:* NOAA
> *Attribute_Domain_Values:*
>> *Range_Domain:*
>>> *Range_Domain_Minimum:* 080100002
>>> *Range_Domain_Maximum:* 082600053

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:* 008000001
>>>> *Range_Domain_Maximum:* 008001257

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. Descriptive terms, such as "HIGH" and "LOW" were used to describe the relative abundance of particular invertebrate species at specific locations. In cases where no qualitative concentration information was available, the field contains "-".

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

    Attribute_Label: SEASON_ID

    Attribute_Definition:

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

    Attribute_Definition_Source: 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 (e.g. 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 (e.g. 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 for the entire ESI data set

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: GEN_SPEC

Attribute_Definition: Species scientific name for the entire ESI data set

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ELEMENT

Attribute_Definition: Major categories of biological data.

Attribute_Definition_Source: 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: amphibian
        Enumerated_Domain_Value_Definition: Amphibian
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:

Enumerated_Domain:
  Enumerated_Domain_Value: bivalve
  Enumerated_Domain_Value_Definition: Bivalve
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: cephalopod
  Enumerated_Domain_Value_Definition: Cephalopod
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: crab
  Enumerated_Domain_Value_Definition: Crab
  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: diving
  Enumerated_Domain_Value_Definition: Diving bird
  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: 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: e_resident
  Enumerated_Domain_Value_Definition: Estuarine resident
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: gastropod
  Enumerated_Domain_Value_Definition: Gastropod
  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: insect
       Enumerated_Domain_Value_Definition: Insect
       Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
   Enumerated_Domain:
       Enumerated_Domain_Value: kelp
       Enumerated_Domain_Value_Definition: Kelp
       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: passerine
       Enumerated_Domain_Value_Definition: Passerine bird
       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: pinniped
       Enumerated_Domain_Value_Definition: Pinniped
       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: sav
       Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
       Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
   Enumerated_Domain:
       Enumerated_Domain_Value: sea otter
       Enumerated_Domain_Value_Definition: Sea otter
       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: sm_mammal
Enumerated_Domain_Value_Definition: Small mammal
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: wading
Enumerated_Domain_Value_Definition: Wading bird
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: whale
Enumerated_Domain_Value_Definition: Whale
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: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
for month
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:

Enumerated_Domain:

    Enumerated_Domain_Value: 0

    Enumerated_Domain_Value_Definition: Date unspecified

    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 (e.g. 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 (e.g. 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 (e.g. 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; 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 or not reported

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 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

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 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported
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 "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.
Attribute_Definition_Source: 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 or not reported
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 or not reported
                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; G_SOURCE and
            S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data
            layers.
        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:
            Unrepresentable_Domain: Acceptable values change from atlas to atlas.
    Attribute:
        Attribute_Label: DATE_PUB
        Attribute_Definition:
            Date of source material, publication, or date of personal communication with expert
            source.
        Attribute_Definition_Source: Research Planning, Inc.
        Attribute_Domain_Values:
            Enumerated_Domain:
                Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
for month
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: TITLE
Attribute_Definition: Title of source material or data.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT
Attribute_Definition: The format of the source material.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION
Attribute_Definition: Additional citation information.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE
Attribute_Definition: Description of the source scale.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD
Attribute_Definition:
Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Detailed_Description:

Entity_Type:

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

Attribute:
> *Attribute_Label:* COUNTRY
> *Attribute_Definition:* Three-letter country abbreviation.
> *Attribute_Definition_Source:* Research Planning, Inc.

Attribute_Domain_Values:
 Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
 Attribute_Label: S
 Attribute_Definition: State threatened or endangered status.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: E
   Enumerated_Domain_Value_Definition: Endangered on state list
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: T
   Enumerated_Domain_Value_Definition: Threatened on state list
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: C
   Enumerated_Domain_Value_Definition: Species of Special Concern
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute:
 Attribute_Label: F
 Attribute_Definition: Federal threatened or endangered status.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: E
   Enumerated_Domain_Value_Definition: Endangered on federal list
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: T
   Enumerated_Domain_Value_Definition: Threatened on federal list
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: C
   Enumerated_Domain_Value_Definition: Species of Special Concern
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute:
 Attribute_Label: I
 Attribute_Definition: International threatened or endangered status.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: E
   Enumerated_Domain_Value_Definition: Endangered on international list
   Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
 Attribute_Domain_Values:
  Enumerated_Domain:

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

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

Attribute:
Attribute_Label: S_DATE
Attribute_Definition:
Publication date of source material used to assign state status values for each
species, if used.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
for month
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:
Attribute_Label: F_DATE
Attribute_Definition:
Publication date of source material used to assign federal status values for each
species, if used.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
for month
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:
Attribute_Label: I_DATE
Attribute_Definition:
Publication date of source material used to assign international status values for each
species, if used.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
for month
Enumerated_Domain_Value_Definition_Source: 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 (e.g. 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 Central California
> *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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An
>> ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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:* 200606
> *Metadata_Review_Date:* 200606
> *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 2.8.21 on Tue Jul 04 20:20:42 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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

Identification_Information:
    Citation:
        Citation_Information:
            Originator:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: M_MAMMAL (Marine Mammal Polygons)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains sensitive biological resource data for dolphins, porpoises, whales, seals, sea lions, and sea otters in Central California. Vector polygons in this data set represent marine mammal distribution, migration routes, concentration areas, haul-out sites, and rookeries. Species-specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer.

This data set comprises a portion of the Environmental Sensitivity Index (ESI) data for Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1994

Ending_Date: 2006

Currentness_Reference:

The biological data were compiled during 2005-2006. The currentness dates for the data range from 1994 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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 Mammals

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Central California
Access_Constraints: None
Use_Constraints:

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

Browse_Graphic:

Browse_Graphic_File_Name: datafig.jpg
Browse_Graphic_File_Description:

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

Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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, available hardcopy and online documents, survey data, maps, and digital data on marine mammal distribution, haul-out sites, and rookeries. These data do not necessarily represent all marine mammal occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 1, Steller sea lion, Eumetopias jubatus; 2, Harbor seal, Phoca vitulina; 3, Northern fur seal, Callorhinus ursinus; 4, Killer whale, Orcinus orca; 6, Harbor porpoise, Phocoena phocoena; 7, Sea otter, Enhydra lutris; 11, Fin whale, Balaenoptera physalus; 12, Minke whale, Balaenoptera acutorostrata; 13, Humpback whale, Megaptera novaeangliae; 17, Bottlenose dolphin, Tursiops truncatus; 18, Pygmy sperm whale, Kogia breviceps; 19, Short-finned pilot whale, Globicephala macrorhynchus; 20, Northern right-whale dolphin, Lissodelphis borealis; 22, California sea lion, Zalophus californianus; 23, Guadalupe fur seal, Arctocephalus townsendi; 24, Northern elephant seal, Mirounga angustirostris; 26, Gray whale, Eschrichtius robustus; 27, Sei whale, Balaenoptera borealis; 29, Blue whale, Balaenoptera musculus; 45, Pacific white-sided dolphin, Lagenorhynchus obliquidens; 46, Risso's dolphin, Grampus griseus; 47, Dall's porpoise, Phocoenoides dalli dalli; 48, Sperm whale, Physeter macrocephalus; 60, Short-beaked common dolphin, Delphinus delphis; 81, Northern right whale, Eubalaena glacialis; 82, Dwarf sperm whale, Kogia simus; 96, Cuvier's beaked whale, Ziphius cavirostris; 98, Baird's beaked whale, Berardius bairdii; 106, Long-beaked common dolphin, Delphinus capensis; 1001, Dolphins, n/a; 1002, Seals, n/a; 1003, Pinnipeds, n/a; 1004, Sea lions, n/a; 1005, Mesoplodont beaked whales, Mesoplodon spp.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the

spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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: ALLEN, S. (NATIONAL PARK SERVICE [NPS], POINT REYES)
    Publication_Date: 2005
    Title: DISTRIBUTION AND SEASONALITY OF SPECIES ON NPS LANDS
    Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
    Other_Citation_Details: UNPUBLISHED
  Type_of_Source_Media: PERSONAL COMMUNICATION
  Source_Time_Period_of_Content:
   Time_Period_Information:
    Single_Date/Time:
     Calendar_Date: 2005
   Source_Currentness_Reference: DATE OF COMMUNICATION
  Source_Citation_Abbreviation: NONE
  Source_Contribution: M_MAMMAL INFORMATION
 Source_Information:
  Source_Citation:
   Citation_Information:
    Originator:
     BENSON, S. (NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION [NOAA])
    Publication_Date: 2005
    Title: DISTRIBUTION AND SEASONALITY OF MARINE RESOURCES IN CALIFORNIA
    Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
    Other_Citation_Details: UNPUBLISHED
  Type_of_Source_Media: PERSONAL COMMUNICATION
  Source_Time_Period_of_Content:
   Time_Period_Information:
    Single_Date/Time:
     Calendar_Date: 2005
   Source_Currentness_Reference: DATE OF COMMUNICATION
  Source_Citation_Abbreviation: NONE
  Source_Contribution: M_MAMMAL INFORMATION
 Source_Information:
  Source_Citation:
   Citation_Information:
    Originator:
     BOGGS-BLALACK, M. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], MORRO BAY)

Publication_Date: 2006
Title: SLO COUNTY SPECIES DISTRIBUTION
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2006
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: BROWN, J.
Publication_Date: 2005
Title: SEI WHALE (EASTERN NORTH PACIFIC STOCK)
BALAENOPTERA BOREALIS
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: BROWN, J.
Publication_Date: 2005
Title:
HUMPBACK WHALE (EASTERN NORTH PACIFIC STOCK)
MEGAPTERA NOVAEANGLIAE
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: BROWN, J.

Publication_Date: 2005
Title: BLUE WHALE (EASTERN NORTH PACIFIC STOCK)
BALAENOPTERA MUSCULUS
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: BROWN, J.
Publication_Date: 2005
Title: GUADALUPE FUR SEAL (ARCTOCEPHALUS TOWNSENDI)
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: BROWN, J.
Publication_Date: 2005
Title: NORTHERN ELEPHANT SEAL MIROUNGA ANGUSTIROSTRIS
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: BROWN, J.
Publication_Date: 2005
Title: STELLER SEA LION (EASTERN U.S. STOCK) EUMETOPIAS

JUBATUS
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: BROWN, J.
            Publication_Date: 2005
            Title:
                SPERM WHALE (CALIFORNIA/OREGON/WASHINGTON
                STOCK) PHYSETER MACROCEPHALUS
            Geospatial_Data_Presentation_Form: HARDCOPY TEXT
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: DISC
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: BROWN, J.
            Publication_Date: 2005
            Title:
                GRAY WHALE (EASTERN NORTHERN PACIFIC STOCK)
                ESCHRICHTIUS ROBUSTUS
            Geospatial_Data_Presentation_Form: HARDCOPY TEXT
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: DISC
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: BROWN, J. (NOAA)

Publication_Date: 2005

Title:

HARBOR PORPOISE: SAN FRANCISCO-RUSSIAN RIVER,
MONTEREY BAY, AND MORRO BAY STOCKS

Geospatial_Data_Presentation_Form: HARDCOPY TEXT

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: DISC

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: M_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: BUFFA, J. (U.S. FISH & WILDLIFE SERVICE [USFWS])

Publication_Date: 2006

Title: NATIONAL WILDLIFE REFUGE SPECIES DISTRIBUTION AND
SEASONALITY

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2006

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: M_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: CARETTA, FORNEY, MUTO, ET AL

Publication_Date: 2005

Title: U.S. PACIFIC MARINE MAMMAL STOCK ASSESSMENTS: 2005

Geospatial_Data_Presentation_Form: HARDCOPY TEXT

Other_Citation_Details:

U.S. DOC, NOAA, NATIONAL MARINE FISHERIES SERVICE
(NMFS), NOAA-TM-NMFS-SWFSC-375, 323 PP.

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: M_MAMMAL INFORMATION

Source_Information:

Source_Citation:

Citation_Information:
    Originator: CALIFORNIA DEPARTMENT OF FISH AND GAME
    (CDF&G)
    Publication_Date: 1999
    Title:
        4612 SITE SUMMARY & STRATEGY SHEETS - SANTA
        BARBARA COUNTY, VENTURA COUNTY
    Geospatial_Data_Presentation_Form: HARDCOPY TEXT
    Other_Citation_Details: LA-LB 200
Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 1999
    Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),
                U.S. COAST GUARD (USCG)
            Publication_Date: 2005
            Title:
                SAN FRANCISCO GEOGRAPHIC RESPONSE AREA 1 SONOMA
                AND NORTH MARIN COAST
            Geospatial_Data_Presentation_Form: HARDCOPY TEXT
            Other_Citation_Details: ACP 2 SF BAY & DELTA - GRA 1
    Type_of_Source_Media: DISC
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: CENTRAL COAST AREA COMMITTEE (AC)
            Publication_Date: 2005
            Title:
                9870 CENTRAL COAST AREA COMMITTEE - SANTA CRUZ
                AND MONTEREY COUNTIES
            Geospatial_Data_Presentation_Form: HARDCOPY TEXT
            Other_Citation_Details: CENTRAL COAST AC
    Type_of_Source_Media: DISC
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:

Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: FRIENDS OF THE ELEPHANT SEAL
Publication_Date: 2006
Title: ELEPHANT SEAL SEASONALITY INFORMATION
Geospatial_Data_Presentation_Form: WEBSITE
Other_Citation_Details: WWW.ELEPHANTSEAL.ORG
Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2006
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: HARVEY, J. (MOSS LANDING MARINE LABORATORIES)
Publication_Date: 2005
Title: DISTRIBUTION OF MARINE MAMMALS IN CALIFORNIA
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: LOWRY, M. (NATIONAL MARINE FISHERIES SERVICE
[NMFS])
Publication_Date: 2005
Title: PINNIPED SEASONALITY
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF COMMUNICATION

          Source_Citation_Abbreviation: NONE
          Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: LOWRY, M. (NATIONAL MARINE FISHERIES SERVICE
            [NMFS], LA JOLLA)
            Publication_Date: 2005
            Title:
                CALIFORNIA AND STELLER SEA LION AND HARBOR SEAL
                HAUL-OUT LOCATIONS
            Geospatial_Data_Presentation_Form: TABULAR DIGITAL DATA
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: EMAIL
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Range_of_Dates/Times:
                Beginning_Date: 1998
                Ending_Date: 2004
        Source_Currentness_Reference: DATE OF SURVEY
    Source_Citation_Abbreviation: NONE
    Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                MERKLE, B. (NATIONAL PARK SERVICE [NPS], GOLDEN GATE
                NATIONAL RECREATION AREA [GGNRA])
            Publication_Date: 2005
            Title: DISTRIBUTION OF GGNRA SPECIES
            Geospatial_Data_Presentation_Form: HARDCOPY TEXT
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: EMAIL
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                PATTISON, C. (CALIFORNIA DEPARTMENT OF FISH AND
                GAME [CDF&G], MORRO BAY)
            Publication_Date: 2006
            Title: SLO COUNTY SPECIES DISTRIBUTION AND SEASONALITY
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2006
    Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                REILLY, P. (CALIFORNIA DEPARTMENT OF FISH AND GAME
                [CDF&G], MONTEREY)
            Publication_Date: 2005
            Title: DISTRIBUTION OF SPECIES IN MONTEREY BAY AND
        ENVIRONS
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                ROLETTO, J. (NOAA, GULF OF THE FARALLONES NATIONAL
                MARINE SANCTUARY [GFNMS])
            Publication_Date: 2005
            Title: DISTRIBUTION AND SEASONALITY OF GFNMS SPECIES
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: RESEARCH PLANNING, INC. (RPI)
            Publication_Date: 1994
            Title:
                SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE

TO SPILLED OIL: CENTRAL CA
Geospatial_Data_Presentation_Form: ATLAS
Other_Citation_Details:
BY RESEARCH PLANNING INC., COLUMBIA, SC FOR
CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G)
OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR) AND
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
(NOAA), 41 MAPS
Source_Scale_Denominator: 46,500
Type_of_Source_Media: PAPER
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 1994
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
TINKER, T. (UNIVERSITY OF CALIFORNIA, SANTA CRUZ
[UCSC], LONG MARINE LAB)
Publication_Date: 2005
Title: SEA OTTER SPRING CENSUSES (2003, 2004, AND 2005)
Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: EMAIL
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 2003
Ending_Date: 2005
Source_Currentness_Reference: DATE OF SURVEY
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
U.S. GEOLOGICAL SURVEY (USGS), NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION (NOAA), MOSS LANDING
MARINE LABORATORIES (MLML)
Publication_Date: 2006
Title: MARINE MAMMAL, SEABIRD, AND SEA TURTLE 'ZONES' AND
HOT SPOTS
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
Time_Period_Information:

Single_Date/Time:
Calendar_Date: 2006
Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: M_MAMMAL INFORMATION
Process_Step:
Process_Description:

Three main sources of data were used to depict marine mammal distribution and seasonality for this data layer: (1) personal interviews with resource experts from: National Park Service (NPS), National Oceanic and Atmospheric Administration (NOAA), California Department of Fish and Game (CDF&G), National Marine Fisheries Service (NMFS), U.S. Fish & Wildlife Service (USFWS), Moss Landing Marine Laboratories (MLML), and U.S. Geological Survey (USGS); (2) numerous published and unpublished hardcopy and digital reports; and (3) digital survey data provided by University of California Santa Cruz (UCSC) and NMFS.

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

Process_Date: 200605
Process_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: NOAA, Office of Response and Restoration
Contact_Person: Jill Petersen
Contact_Address:
Address_Type: Physical address
Address: 7600 Sand Point Way N.E.
City: Seattle
State_or_Province: Washington
Postal_Code: 98115-6349
Contact_Voice_Telephone: (206) 526-6944
Contact_Facsimile_Telephone: (206) 526-6329
Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:
SDTS_Terms_Description:

    SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
    Point_and_Vector_Object_Count: 5764
  SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type: Area point
    Point_and_Vector_Object_Count: 5765
  SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type: Complete chain
    Point_and_Vector_Object_Count: 6551
  SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type: Link
    Point_and_Vector_Object_Count: 260070
  SDTS_Terms_Description:
    SDTS_Point_and_Vector_Object_Type: Node, planar graph
    Point_and_Vector_Object_Count: 6146

Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
  Geographic:
   Latitude_Resolution: 0.0000001
   Longitude_Resolution: 0.0000001
   Geographic_Coordinate_Units: Decimal degrees
  Geodetic_Model:
   Horizontal_Datum_Name: North American Datum of 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 the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

   Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file

are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Detailed_Description:

    Entity_Type:

        Entity_Type_Label: M_MAMMAL.PAT

        Entity_Type_Definition:

            The M_MAMMAL.PAT table contains attribute information for the vector polygons in this data set representing marine mammal distribution, migration routes, concentration areas, haul-out sites, and rookeries. 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 (8), 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: 080400002

                Range_Domain_Maximum: 080405765

    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: 08000738
    Range_Domain_Maximum: 08001227
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
      polygons and do not contain information.
    Attribute_Definition_Source: NOAA
    Attribute_Domain_Values:
      Range_Domain:
        Range_Domain_Minimum: 08000001
        Range_Domain_Maximum: 08001257
  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 (8), 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: 080100002
        Range_Domain_Maximum: 082600053
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: 008000001

Range_Domain_Maximum: 008001257

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
may contain counts of individuals (XX INDIV.) or a range of peak counts of
individuals (XX-XX INDIV.). For sea otters, counts are by independents (juveniles
over 6 months and adults) and pups (juveniles under 6 months). Sea otter abundance
is displayed as follows: "XX INDEP/X PUPS". If no quantitative count data were
available, the field may contain a descriptive term, such as "HIGH" or
"MODERATE". If no concentration information was available from any source, the
CONC field contains "-". Counts were derived from a variety of surveys and range
in date. See the Lineage section for survey dates.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: 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 (e.g. 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 (e.g.
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 for the entire ESI data set

Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
    Attribute_Label: GEN_SPEC
    Attribute_Definition: Species scientific name for the entire ESI data set
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
    Attribute_Label: ELEMENT
    Attribute_Definition: Major categories of biological data.
    Attribute_Definition_Source: 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: amphibian
        Enumerated_Domain_Value_Definition: Amphibian
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: bivalve
        Enumerated_Domain_Value_Definition: Bivalve
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: cephalopod
        Enumerated_Domain_Value_Definition: Cephalopod
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: crab
        Enumerated_Domain_Value_Definition: Crab
        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: diving
        Enumerated_Domain_Value_Definition: Diving bird
        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: 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: e_resident
        Enumerated_Domain_Value_Definition: Estuarine resident
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: gastropod
        Enumerated_Domain_Value_Definition: Gastropod
        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: insect
        Enumerated_Domain_Value_Definition: Insect
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: kelp
        Enumerated_Domain_Value_Definition: Kelp
        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: passerine
        Enumerated_Domain_Value_Definition: Passerine bird
        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: pinniped
        Enumerated_Domain_Value_Definition: Pinniped
        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: sav
    Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
    Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: sea otter
        Enumerated_Domain_Value_Definition: Sea otter
        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: sm_mammal
        Enumerated_Domain_Value_Definition: Small mammal
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: snake
        Enumerated_Domain_Value_Definition: Snake
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: turtle
        Enumerated_Domain_Value_Definition: Turtle
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: wading
        Enumerated_Domain_Value_Definition: Wading bird
        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: whale
        Enumerated_Domain_Value_Definition: Whale
        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: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0

Enumerated_Domain_Value_Definition: Date unspecified

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 (e.g. 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 (e.g. 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 (e.g. 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; 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 or not reported
>>>
>>> *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 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
>
> *Attribute_Definition_Source:* 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 or not reported
>>>
>>> *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 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

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 "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

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 or not reported
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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data layers.
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:

 Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

 Enumerated_Domain:

  Enumerated_Domain_Value: YYYYMM

  Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

 Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

 Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION

Attribute_Definition: Additional citation information.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

 Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE

Attribute_Definition: Description of the source scale.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

 Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

 Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Detailed_Description:

Entity_Type:

Entity_Type_Label: STATUS

Entity_Type_Definition:

 The data table STATUS identifies the species that are listed as threatened or

endangered by a state, federal, or international authority. See the Browse_Graphic
section for a link to the entity-relationship diagram, which describes the way this
table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source: 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:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: COUNTRY
Attribute_Definition: Three-letter country abbreviation.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
Attribute_Label: S
Attribute_Definition: State threatened or endangered status.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on state list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
Attribute_Label: F
Attribute_Definition: Federal threatened or endangered status.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: E
Enumerated_Domain_Value_Definition: Endangered on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: T
Enumerated_Domain_Value_Definition: Threatened on federal list
Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Species of Special Concern

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: I

Attribute_Definition: International threatened or endangered status.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E

Enumerated_Domain_Value_Definition: Endangered on international list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T

Enumerated_Domain_Value_Definition: Threatened on international list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C

Enumerated_Domain_Value_Definition: Species of Special Concern

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: S_DATE

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: F_DATE

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: I_DATE

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:
    Enumerated_Domain_Value: YYYYMM
    Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
    Enumerated_Domain_Value_Definition_Source: 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 (e.g. 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 Central California
    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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
      Metadata_Review_Date: 200606
      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 2.8.21 on Tue Jul 04 20:24:14 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: REPTILES (Reptile and Amphibian 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:*
>>>> Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
>>> *Publication_Date:* 200606
>>> *Title:*
>>>> Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: REPTILES (Reptile and Amphibian Polygons)
>>> *Edition:* Second
>>> *Geospatial_Data_Presentation_Form:* Vector digital data
>>> *Series_Information:*
>>>> *Series_Name:* None
>>>> *Issue_Identification:* Central California
>>> *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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:
  Abstract:
    This data set contains sensitive biological resource data for amphibians and reptiles in Central California. Vector polygons in this data set represent sea turtle distribution and rare reptile and amphibian species occurrences. 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 Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the REPTILEL (Reptile and Amphibian Lines) data layer, part of the larger Central California ESI database, for additional amphibian and reptile 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: 2006
  Currentness_Reference:
    The biological data were compiled during 2005- 2006. The currentness dates for the data range from 1999 to 2006 and are documented in the Lineage section.

Status:
  Progress: Complete
  Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:
  Bounding_Coordinates:
    West_Bounding_Coordinate: -123.50000
    East_Bounding_Coordinate: -120.37500
    North_Bounding_Coordinate: 38.12500
    South_Bounding_Coordinate: 34.21700

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: Reptiles

Theme_Keyword: Amphibians
Place:
    Place_Keyword_Thesaurus: None
    Place_Keyword: Central California
Access_Constraints: None
Use_Constraints:
DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.
Browse_Graphic:
    Browse_Graphic_File_Name: datafig.jpg
    Browse_Graphic_File_Description:
        Depicts the relationships between spatial data layers and attribute data tables for the Central California ESI data.
    Browse_Graphic_File_Type: JPEG
Data_Set_Credit:
This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
Native_Data_Set_Environment:
The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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, available hardcopy documents, and digital data on reptile and amphibian distribution and rare species occurrences. See also the REPTILEL (Reptile and Amphibian Lines) data layer, part of the larger Central California ESI database, for additional amphibian and reptile information. These data do not necessarily represent all amphibian and reptile occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 5, Leatherback sea turtle, Dermochelys coriacea; 54, California red-legged frog, Rana aurora draytonii; 57, San Francisco garter snake, Thamnophis sirtalis tetrataenia; 58, Western pond turtle, Clemmys marmorata; 174, Santa Cruz long-toed salamander, Ambystoma macrodactylum croceum.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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: ALLEN, S. (NATIONAL PARK SERVICE [NPS], POINT REYES)
            Publication_Date: 2005
            Title: DISTRIBUTION AND SEASONALITY OF SPECIES ON NPS LANDS
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: REPTILES INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                BENSON, S. (NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION [NOAA])
            Publication_Date: 2005
            Title: DISTRIBUTION AND SEASONALITY OF MARINE RESOURCES IN CALIFORNIA
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: REPTILES INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                BOGGS-BLALACK, M. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], MORRO BAY)
            Publication_Date: 2006
            Title: SLO COUNTY SPECIES DISTRIBUTION
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:

Calendar_Date: 2006

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G)

Publication_Date: 2001

Title:

THE CALIFORNIA RED-LEGGED FROG INFORMATION PAGE AND PHOTOGRAPHS, USFWS, 2001.

Geospatial_Data_Presentation_Form: ONLINE TEXT

Other_Citation_Details:

<http://www.dfg.ca.gov/hcpb/cgi-bin/more_info.asp?idKey=ssc_tespp&s aurora draytonii>

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2001

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G) HAB. CONS. DIV., WHDAB

Publication_Date: 2005

Title: CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB)

Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA

Other_Citation_Details:

CDF&G'S HABITAT CONSERVATION DIVISION, WILDLIFE AND HABITAT DATA ANALYSIS BRANCH (WHDAB), SACRAMENTO, CA

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),

U.S. COAST GUARD (USCG)

Publication_Date: 2005

Title:

SAN FRANCISCO GEOGRAPHIC RESPONSE AREA 1 SONOMA
AND NORTH MARIN COAST

Geospatial_Data_Presentation_Form: HARDCOPY TEXT

Other_Citation_Details: ACP 2 SF BAY & DELTA - GRA 1

Type_of_Source_Media: DISC

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator: CENTRAL COAST AREA COMMITTEE (AC)

Publication_Date: 2005

Title:

9870 CENTRAL COAST AREA COMMITTEE - SANTA CRUZ
AND MONTEREY COUNTIES

Geospatial_Data_Presentation_Form: HARDCOPY TEXT

Other_Citation_Details: CENTRAL COAST AC

Type_of_Source_Media: DISC

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: REPTILES INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

ELLICOTT SLOUGH NATIONAL WILDLIFE REFUGE (NWR),
U.S. FISH & WILDLIFE SERVICE (USFWS)

Publication_Date: 2006

Title: ELLICOTT SLOUGH NWR SPECIES

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2006

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: REPTILES INFORMATION

Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                FONG, D. (NATIONAL PARK SERVICE, GOLDEN GATE NATIONAL RECREATION AREA [NPS-GGNRA], SAN FRANCISCO)
            Publication_Date: 2005
            Title: DISTRIBUTION OF GGNRA SPECIES
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: REPTILES INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                NELSON, J. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], APTOS)
            Publication_Date: 2005
            Title:
                DISTRIBUTION OF STEELHEAD, SALMON, AND T/E REPTILES AND AMPHIBIANS IN STREAMS
            Geospatial_Data_Presentation_Form: HARDCOPY TEXT
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PAPER
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: REPTILES INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                U.S. GEOLOGICAL SURVEY (USGS), NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), MOSS LANDING MARINE LABORATORIES (MLML)
            Publication_Date: 2006
            Title: MARINE MAMMAL, SEABIRD, AND SEA TURTLE 'ZONES' AND HOT SPOTS
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2006
    Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: REPTILES INFORMATION

Process_Step:
    Process_Description:

Three main sources of data were used to depict reptile and amphibian distribution and seasonality for this data layer: (1) personal interviews with resource experts from: National Park Service (NPS), California Department of Fish and Game (CDF&G), National Oceanic and Atmospheric Administration (NOAA), U.S. Geological Survey (USGS), Moss Landing Marine Laboratories (MLML), and U.S. Fish & Wildlife Service (USFWS), (2) reports and maps provided by CDF&G and USFWS, and (3) digital data provided by CDF&G.

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

Process_Date: 200605
Process_Contact:
    Contact_Information:
        Contact_Organization_Primary:
            Contact_Organization: NOAA, Office of Response and Restoration
            Contact_Person: Jill Petersen
        Contact_Address:
            Address_Type: Physical address
            Address: 7600 Sand Point Way N.E.
            City: Seattle
            State_or_Province: Washington
            Postal_Code: 98115-6349
        Contact_Voice_Telephone: (206) 526-6944
        Contact_Facsimile_Telephone: (206) 526-6329
        Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

 SDTS_Terms_Description:

  SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains

  Point_and_Vector_Object_Count: 5382

 SDTS_Terms_Description:

  SDTS_Point_and_Vector_Object_Type: Area point

  Point_and_Vector_Object_Count: 5383

 SDTS_Terms_Description:

  SDTS_Point_and_Vector_Object_Type: Complete chain

  Point_and_Vector_Object_Count: 5671

 SDTS_Terms_Description:

  SDTS_Point_and_Vector_Object_Type: Link

  Point_and_Vector_Object_Count: 192396

 SDTS_Terms_Description:

  SDTS_Point_and_Vector_Object_Type: Node, planar graph

  Point_and_Vector_Object_Count: 5648

Spatial_Reference_Information:

 Horizontal_Coordinate_System_Definition:

  Geographic:

   Latitude_Resolution: 0.0000001

   Longitude_Resolution: 0.0000001

   Geographic_Coordinate_Units: Decimal degrees

  Geodetic_Model:

   Horizontal_Datum_Name: North American Datum of 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, REPTILES) is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

   Due to the complexity of the relational database model, the data items are also

post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Detailed_Description:
    Entity_Type:
        Entity_Type_Label: REPTILES.PAT
        Entity_Type_Definition:
            The REPTILES.PAT table contains attribute information for the vector polygons in this data set representing sea turtle distribution and rare reptile and amphibian species occurrences. 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 (8), element number (6), and record number. ID values of 9999 are holes in polygons and do not contain information.
        Attribute_Definition_Source: NOAA
        Attribute_Domain_Values:
            Range_Domain:
                Range_Domain_Minimum: 080600003
                Range_Domain_Maximum: 080605126
    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: 08001228

Range_Domain_Maximum: 08001253

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 polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 08000001

Range_Domain_Maximum: 08001257

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 (8), element number (6), and record number. ID values of 9999 are holes in polygons and do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 080100002

Range_Domain_Maximum: 082600053

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: 008000001

            Range_Domain_Maximum: 008001257

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. No quantitative data were available for reptiles and amphibians, so the concentration field may contain a descriptive term, such as "HIGH" or "MODERATE". If no concentration information was available from any source, the CONC field is populated with "-".

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

    Attribute_Label: SEASON_ID

    Attribute_Definition:

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

    Attribute_Definition_Source: 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 (e.g. 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 (e.g.
>>>> 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 for the entire ESI data set.
>>
>> *Attribute_Definition_Source:* Research Planning, Inc.

Attribute_Domain_Values:
 Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
 Attribute_Label: GEN_SPEC
 Attribute_Definition: Species scientific name for the entire ESI data set.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
 Attribute_Label: ELEMENT
 Attribute_Definition: Major categories of biological data.
 Attribute_Definition_Source: 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: amphibian
  Enumerated_Domain_Value_Definition: Amphibian
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: bivalve
  Enumerated_Domain_Value_Definition: Bivalve
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: cephalopod
  Enumerated_Domain_Value_Definition: Cephalopod
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: crab
  Enumerated_Domain_Value_Definition: Crab
  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: diving
  Enumerated_Domain_Value_Definition: Diving bird
  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: 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: e_resident
  Enumerated_Domain_Value_Definition: Estuarine resident
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:

Enumerated_Domain:
    Enumerated_Domain_Value: gastropod
    Enumerated_Domain_Value_Definition: Gastropod
    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: insect
        Enumerated_Domain_Value_Definition: Insect
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: kelp
        Enumerated_Domain_Value_Definition: Kelp
        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: passerine
        Enumerated_Domain_Value_Definition: Passerine bird
        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: pinniped
        Enumerated_Domain_Value_Definition: Pinniped
        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: sav
Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: sea otter
        Enumerated_Domain_Value_Definition: Sea otter
        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: sm_mammal
        Enumerated_Domain_Value_Definition: Small mammal
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: snake
        Enumerated_Domain_Value_Definition: Snake
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: turtle
        Enumerated_Domain_Value_Definition: Turtle
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: wading
        Enumerated_Domain_Value_Definition: Wading bird
        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: whale
        Enumerated_Domain_Value_Definition: Whale
        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: YYYYMM

            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: 0

            Enumerated_Domain_Value_Definition: Date unspecified

            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 (e.g. 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 (e.g.
    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 (e.g.
     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; 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 or not reported

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 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

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 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

    Attribute_Definition_Source: 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 or not reported

            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 "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

    Attribute_Definition_Source: 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 or not reported

            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 or not reported

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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data layers.

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:

    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATE_PUB

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

    Enumerated_Domain:

        Enumerated_Domain_Value: YYYYMM

        Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION

Attribute_Definition: Additional citation information.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE

Attribute_Definition: Description of the source scale.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Detailed_Description:

Entity_Type:

Entity_Type_Label: STATUS

Entity_Type_Definition:

    The data table STATUS identifies the species that are listed as threatened or endangered by a state, federal, or international authority. See the Browse_Graphic

section for a link to the entity-relationship diagram, which describes the way this
table relates to other attribute tables in the ESI data structure.

Entity_Type_Definition_Source: 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:

        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

    Attribute_Label: COUNTRY

    Attribute_Definition: Three-letter country abbreviation.

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

    Attribute_Label: S

    Attribute_Definition: State threatened or endangered status.

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: E

            Enumerated_Domain_Value_Definition: Endangered on state list

            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: T

            Enumerated_Domain_Value_Definition: Threatened on state list

            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: C

            Enumerated_Domain_Value_Definition: Species of Special Concern

            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

    Attribute_Label: F

    Attribute_Definition: Federal threatened or endangered status.

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: E

            Enumerated_Domain_Value_Definition: Endangered on federal list

            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: T

            Enumerated_Domain_Value_Definition: Threatened on federal list

            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: C

            Enumerated_Domain_Value_Definition: Species of Special Concern

            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
    Attribute_Label: I
    Attribute_Definition: International threatened or endangered status.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: E
            Enumerated_Domain_Value_Definition: Endangered on international list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: T
            Enumerated_Domain_Value_Definition: Threatened on international list
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: C
            Enumerated_Domain_Value_Definition: Species of Special Concern
            Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute:
    Attribute_Label: S_DATE
    Attribute_Definition:
        Publication date of source material used to assign state status values for each
        species, if used.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: YYYYMM
            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
            for month
            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute:
    Attribute_Label: F_DATE
    Attribute_Definition:
        Publication date of source material used to assign federal status values for each
        species, if used.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: YYYYMM
            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
            for month
            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute:
    Attribute_Label: I_DATE
    Attribute_Definition:
        Publication date of source material used to assign international status values for each
        species, if used.
    Attribute_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:

Enumerated_Domain_Value: YYYYMM
Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
Enumerated_Domain_Value_Definition_Source: 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 (e.g. 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 Central California

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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
      Metadata_Review_Date: 200606
      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 2.8.21 on Tue Jul 04 20:15:07 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: REPTILEL (Reptile and Amphibian 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:*
>>>> Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
>>>
>>> *Publication_Date:* 200606
>>> *Title:*
>>>> Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: REPTILEL (Reptile and Amphibian Lines)
>>>
>>> *Edition:* Second
>>> *Geospatial_Data_Presentation_Form:* Vector digital data
>>> *Series_Information:*
>>>> *Series_Name:* None
>>>> *Issue_Identification:* Central California
>>>
>>> *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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains sensitive biological resource data for amphibians and reptiles in Central California. Vector lines in this data set represent general stream locations and sensitive habitats for the California red-legged frog, Western pond turtle, and San Francisco garter snake. 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 Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the REPTILES (Reptile and Amphibian Polygons) data layer, part of the larger Central California ESI database, for additional amphibian and reptile 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: 2006

Currentness_Reference:

The biological data were compiled during 2005-2006. The currentness dates for the data range from 1999 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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: Reptiles
        Theme_Keyword: Amphibians
    Place:
        Place_Keyword_Thesaurus: None
        Place_Keyword: Central California
Access_Constraints: None
Use_Constraints:

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

Browse_Graphic:
    Browse_Graphic_File_Name: datafig.jpg
    Browse_Graphic_File_Description:
        Depicts the relationships between spatial data layers and attribute data tables for the Central California ESI data.
    Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

    This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

    The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

    The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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 expert knowledge and available hardcopy documents on reptile and amphibian rare species occurrences. See also the REPTILES (Reptile and Amphibian Polygons) data layer, part of the larger Central California ESI database, for additional amphibian and reptile information. These data do not necessarily represent all amphibian and reptile occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 5, Leatherback sea turtle, Dermochelys coriacea; 54, California red-legged frog, Rana aurora draytonii; 57, San Francisco garter snake, Thamnophis sirtalis tetrataenia; 58, Western pond turtle, Clemmys marmorata; 174, Santa Cruz long-toed salamander, Ambystoma macrodactylum croceum.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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:* ALLEN, S. (NATIONAL PARK SERVICE [NPS], POINT REYES)
>>> *Publication_Date:* 2005
>>> *Title:* DISTRIBUTION AND SEASONALITY OF SPECIES ON NPS LANDS
>>> *Geospatial_Data_Presentation_Form:* EXPERT KNOWLEDGE
>>> *Other_Citation_Details:* UNPUBLISHED
> *Type_of_Source_Media:* PERSONAL COMMUNICATION
> *Source_Time_Period_of_Content:*
>> *Time_Period_Information:*
>>> *Single_Date/Time:*
>>>> *Calendar_Date:* 2005
>> *Source_Currentness_Reference:* DATE OF COMMUNICATION
> *Source_Citation_Abbreviation:* NONE
> *Source_Contribution:* REPTILE LINE INFORMATION

Source_Information:
> *Source_Citation:*
>> *Citation_Information:*
>>> *Originator:*
>>>> BOGGS-BLALACK, M. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], MORRO BAY)
>>> *Publication_Date:* 2006
>>> *Title:* SLO COUNTY SPECIES DISTRIBUTION
>>> *Geospatial_Data_Presentation_Form:* EXPERT KNOWLEDGE
>>> *Other_Citation_Details:* UNPUBLISHED
> *Type_of_Source_Media:* PERSONAL COMMUNICATION
> *Source_Time_Period_of_Content:*
>> *Time_Period_Information:*
>>> *Single_Date/Time:*
>>>> *Calendar_Date:* 2006
>> *Source_Currentness_Reference:* DATE OF COMMUNICATION
> *Source_Citation_Abbreviation:* NONE
> *Source_Contribution:* REPTILE LINE INFORMATION

Source_Information:
> *Source_Citation:*
>> *Citation_Information:*
>>> *Originator:* CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G)
>>> *Publication_Date:* 1999
>>> *Title:*
>>>> 4612 SITE SUMMARY & STRATEGY SHEETS - SANTA BARBARA COUNTY, VENTURA COUNTY
>>> *Geospatial_Data_Presentation_Form:* HARDCOPY TEXT
>>> *Other_Citation_Details:* LA-LB 200
> *Type_of_Source_Media:* ONLINE
> *Source_Time_Period_of_Content:*
>> *Time_Period_Information:*
>>> *Single_Date/Time:*

      Calendar_Date: 1999
     Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: REPTILE LINE INFORMATION
  Source_Information:
   Source_Citation:
    Citation_Information:
     Originator:
      CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),
      U.S. COAST GUARD (USCG)
     Publication_Date: 2005
     Title:
      SAN FRANCISCO GEOGRAPHIC RESPONSE AREA 1 SONOMA
      AND NORTH MARIN COAST
     Geospatial_Data_Presentation_Form: HARDCOPY TEXT
     Other_Citation_Details: ACP 2 SF BAY & DELTA - GRA 1
   Type_of_Source_Media: DISC
   Source_Time_Period_of_Content:
    Time_Period_Information:
     Single_Date/Time:
      Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF PUBLICATION
   Source_Citation_Abbreviation: NONE
   Source_Contribution: REPTILE LINE INFORMATION
  Source_Information:
   Source_Citation:
    Citation_Information:
     Originator: CENTRAL COAST AREA COMMITTEE (AC)
     Publication_Date: 2005
     Title:
      9870 CENTRAL COAST AREA COMMITTEE - SANTA CRUZ
      AND MONTEREY COUNTIES
     Geospatial_Data_Presentation_Form: HARDCOPY TEXT
     Other_Citation_Details: CENTRAL COAST AC
   Type_of_Source_Media: DISC
   Source_Time_Period_of_Content:
    Time_Period_Information:
     Single_Date/Time:
      Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF PUBLICATION
   Source_Citation_Abbreviation: NONE
   Source_Contribution: REPTILE LINE INFORMATION
  Source_Information:
   Source_Citation:
    Citation_Information:
     Originator:
      FONG, D. (NATIONAL PARK SERVICE, GOLDEN GATE
      NATIONAL RECREATION AREA [NPS-GGNRA], SAN
      FRANCISCO)
     Publication_Date: 2005
     Title: DISTRIBUTION OF GGNRA SPECIES

        Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
        Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
      Time_Period_Information:
        Single_Date/Time:
          Calendar_Date: 2005
      Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: REPTILE LINE INFORMATION
Source_Information:
    Source_Citation:
      Citation_Information:
        Originator:
          NELSON, J. (CALIFORNIA DEPARTMENT OF FISH AND GAME
          [CDF&G], APTOS)
        Publication_Date: 2005
        Title:
          DISTRIBUTION OF STEELHEAD, SALMON, AND T/E REPTILES
          AND AMPHIBIANS IN STREAMS
        Geospatial_Data_Presentation_Form: HARDCOPY TEXT
        Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PAPER
    Source_Time_Period_of_Content:
      Time_Period_Information:
        Single_Date/Time:
          Calendar_Date: 2005
      Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: REPTILE LINE INFORMATION
Process_Step:
    Process_Description:
      Two main sources of data were used to depict reptile and amphibian distribution and
      seasonality for this data layer: (1) personal interviews with resource experts from
      National Park Service (NPS) and California Department of Fish and Game
      (CDF&G), and (2) reports provided by CDF&G.

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

Process_Date: 200605
Process_Contact:
    Contact_Information:
        Contact_Organization_Primary:
            Contact_Organization: NOAA, Office of Response and Restoration
            Contact_Person: Jill Petersen
        Contact_Address:
            Address_Type: Physical address
            Address: 7600 Sand Point Way N.E.
            City: Seattle
            State_or_Province: Washington
            Postal_Code: 98115-6349
        Contact_Voice_Telephone: (206) 526-6944
        Contact_Facsimile_Telephone: (206) 526-6329
        Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

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Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector
    Point_and_Vector_Object_Information:
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Complete chain
            Point_and_Vector_Object_Count: 53
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Link
            Point_and_Vector_Object_Count: 2424
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Node, planar graph
            Point_and_Vector_Object_Count: 94

Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
        Geographic:
            Latitude_Resolution: 0.0000001
            Longitude_Resolution: 0.0000001
            Geographic_Coordinate_Units: Decimal degrees
        Geodetic_Model:
            Horizontal_Datum_Name: North American Datum of 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, REPTILEL) is linked to the Biological

Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. The ID is a unique combination of the atlas number (for the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Detailed_Description:
  Entity_Type:
    Entity_Type_Label: REPTILEL.AAT
    Entity_Type_Definition:
      The REPTILEL.AAT table contains attribute information for the vector lines in this data set representing general stream locations and sensitive habitats for the California red-legged frog, Western pond turtle, and San Francisco garter snake. 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 (8), element number (26; 20 because it is a line feature, plus 6, the element value for REPTILES), and record number.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 082600001

Range_Domain_Maximum: 082600053

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: 08001228

Range_Domain_Maximum: 08001240

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 polygonsand do not contain information.

Attribute_Definition_Source: NOAA

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 08000001

Range_Domain_Maximum: 08001257

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 (8), element number (26; 20 because it is a line feature, plus 6, the element value for REPTILES), 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: 080100002
Range_Domain_Maximum: 082600053

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: 008000001
Range_Domain_Maximum: 008001257

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. No concentration data were available for REPTILEL, so the CONC field is populated with "-".

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID

Attribute_Definition:

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

Attribute_Definition_Source: 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 (e.g. 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 (e.g.
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 for the entire ESI data set
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
  Attribute_Label: GEN_SPEC
  Attribute_Definition: Species scientific name for the entire ESI data set
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
  Attribute_Label: ELEMENT
  Attribute_Definition: Major categories of biological data.
  Attribute_Definition_Source: 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: amphibian
  Enumerated_Domain_Value_Definition: Amphibian
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: bivalve
  Enumerated_Domain_Value_Definition: Bivalve
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: cephalopod
  Enumerated_Domain_Value_Definition: Cephalopod
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: crab
  Enumerated_Domain_Value_Definition: Crab
  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: diving
  Enumerated_Domain_Value_Definition: Diving bird
  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: 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: e_resident
      Enumerated_Domain_Value_Definition: Estuarine resident
      Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: gastropod
      Enumerated_Domain_Value_Definition: Gastropod
      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: insect
      Enumerated_Domain_Value_Definition: Insect
      Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
      Enumerated_Domain_Value: kelp
      Enumerated_Domain_Value_Definition: Kelp
      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: passerine
      Enumerated_Domain_Value_Definition: Passerine bird
      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: pinniped
Enumerated_Domain_Value_Definition: Pinniped
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: sav
Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: sea otter
Enumerated_Domain_Value_Definition: Sea otter
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: sm_mammal
Enumerated_Domain_Value_Definition: Small mammal
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: snake
Enumerated_Domain_Value_Definition: Snake
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: turtle
Enumerated_Domain_Value_Definition: Turtle
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: wading
Enumerated_Domain_Value_Definition: Wading bird
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: whale

Enumerated_Domain_Value_Definition: Whale

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: YYYYMM

Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: 0

Enumerated_Domain_Value_Definition: Date unspecified

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 (e.g. 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 (e.g. 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 (e.g. 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; 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 or not reported
　　　　　　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 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.
　　Attribute_Definition_Source: 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 or not reported

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 =
molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is
"INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 =
internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This
attribute is not used for HABITAT or T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

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 "FISH" then BREED4 =
juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is
"REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then
BREED4 = molting. This attribute is not used for BIRD, HABITAT, or
T_MAMMAL elements.

Attribute_Definition_Source: 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 or not reported

 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 or not reported

   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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data

          layers.

          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:

              Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

          Attribute_Label: DATE_PUB

          Attribute_Definition:

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

          Attribute_Definition_Source: Research Planning, Inc.

          Attribute_Domain_Values:

              Enumerated_Domain:

                    Enumerated_Domain_Value: YYYYMM

                    Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month

                    Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

          Attribute_Label: TITLE

          Attribute_Definition: Title of source material or data.

          Attribute_Definition_Source: Research Planning, Inc.

          Attribute_Domain_Values:

              Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

          Attribute_Label: DATA_FORMAT

          Attribute_Definition: The format of the source material.

          Attribute_Definition_Source: Research Planning, Inc.

          Attribute_Domain_Values:

              Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

          Attribute_Label: PUBLICATION

          Attribute_Definition: Additional citation information.

          Attribute_Definition_Source: Research Planning, Inc.

          Attribute_Domain_Values:

              Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

          Attribute_Label: SCALE

          Attribute_Definition: Description of the source scale.

          Attribute_Definition_Source: Research Planning, Inc.

          Attribute_Domain_Values:

              Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

          Attribute_Label: TIME_PERIOD

          Attribute_Definition:

Date(s) of data collection that the source material is based upon.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Detailed_Description:
 Entity_Type:
  Entity_Type_Label: STATUS
  Entity_Type_Definition:
   The data table STATUS identifies the species that are listed as threatened or endangered by a state, federal, or international authority. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way this table relates to other attribute tables in the ESI data structure.
  Entity_Type_Definition_Source: 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:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: COUNTRY

Attribute_Definition: Three-letter country abbreviation.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: S

Attribute_Definition: State threatened or endangered status.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E

Enumerated_Domain_Value_Definition: Endangered on state list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: T

Enumerated_Domain_Value_Definition: Threatened on state list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: C

Enumerated_Domain_Value_Definition: Species of Special Concern

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

Attribute_Label: F

Attribute_Definition: Federal threatened or endangered status.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: E

Enumerated_Domain_Value_Definition: Endangered on federal list

Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: T
  Enumerated_Domain_Value_Definition: Threatened on federal list
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: C
  Enumerated_Domain_Value_Definition: Species of Special Concern
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
Attribute_Label: I
Attribute_Definition: International threatened or endangered status.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: E
  Enumerated_Domain_Value_Definition: Endangered on international list
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: T
  Enumerated_Domain_Value_Definition: Threatened on international list
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: C
  Enumerated_Domain_Value_Definition: Species of Special Concern
  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:
Attribute_Label: S_DATE
Attribute_Definition:
 Publication date of source material used to assign state status values for each
 species, if used.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: YYYYMM
  Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
  for month
  Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:
Attribute_Label: F_DATE
Attribute_Definition:
 Publication date of source material used to assign federal status values for each
 species, if used.
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
  Enumerated_Domain_Value: YYYYMM
  Enumerated_Domain_Value_Definition: YYYY for year and optionally MM

>>> *for month*
>>> *Enumerated_Domain_Value_Definition_Source:* Research Planning, Inc.
> *Attribute:*
>> *Attribute_Label:* I_DATE
>> *Attribute_Definition:*
>>> Publication date of source material used to assign international status values for each species, if used.
>> *Attribute_Definition_Source:* Research Planning, Inc.
>> *Attribute_Domain_Values:*
>>> *Enumerated_Domain:*
>>>> *Enumerated_Domain_Value:* YYYYMM
>>>> *Enumerated_Domain_Value_Definition:* YYYY for year and optionally MM for month
>>>> *Enumerated_Domain_Value_Definition_Source:* 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 (e.g. 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 Central California
> *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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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:* 200606
> *Metadata_Review_Date:* 200606
> *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 2.8.21 on Tue Jul 04 20:17:56 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: T_MAMMAL (Terrestrial Mammal Polygons)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains sensitive biological resource data for rare/sensitive species occurrences of terrestrial mammals in Central California. Vector polygons in this data set represent rare/sensitive terrestrial mammal occurrences. 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 Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Currentness_Reference:

The biological data were compiled during 2005-2006. The currentness date for the data is 2005 and is documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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: Central California

Access_Constraints: None

Use_Constraints:

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

Browse_Graphic:

Browse_Graphic_File_Name: datafig.jpg

Browse_Graphic_File_Description:

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

Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in that data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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 digital data on rare/sensitive terrestrial mammal occurrences. The data do not necessarily represent all terrestrial mammal occurrences in Central California. The following species are included in this data set: (Species_ID, Common Name, Scientific Name [n/a if not applicable]): 8, Northern river otter, Lontra canadensis; 41, Salt-marsh harvest mouse, Reithrodontomys raviventris.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the biological data layers can come from expert interviews, hardcopy, or digital sources. Some of the spatial components of the biological data layers may have been developed using regional experts who estimate concentration areas. It is difficult to estimate the positional accuracy of such data, except to state that they are compiled on hardcopy base maps with a scale of 1:24,000. Some of the spatial components of the biological data sets are developed from pre-existing digital or hardcopy sources and reflect the positional accuracy of these original data. 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: ALLEN, S. (NATIONAL PARK SERVICE [NPS], POINT REYES)
Publication_Date: 2005
Title: DISTRIBUTION AND SEASONALITY OF SPECIES ON NPS LANDS
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

    Time_Period_Information:

        Single_Date/Time:

            Calendar_Date: 2005

    Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: T_MAMMAL INFORMATION

Source_Information:

    Source_Citation:

        Citation_Information:

            Originator:

                FONG, D. (NATIONAL PARK SERVICE, GOLDEN GATE NATIONAL RECREATION AREA [NPS-GGNRA], SAN FRANCISCO)

            Publication_Date: 2005

            Title: DISTRIBUTION OF GGNRA SPECIES

            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

            Other_Citation_Details: UNPUBLISHED

    Type_of_Source_Media: PERSONAL COMMUNICATION

    Source_Time_Period_of_Content:

        Time_Period_Information:

            Single_Date/Time:

                Calendar_Date: 2005

        Source_Currentness_Reference: DATE OF COMMUNICATION

    Source_Citation_Abbreviation: NONE

    Source_Contribution: T_MAMMAL INFORMATION

Source_Information:

    Source_Citation:

        Citation_Information:

            Originator:

                ROLETTO, J. (NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION [NOAA], GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY [GFNMS])

            Publication_Date: 2005

            Title: DISTRIBUTION AND SEASONALITY OF GFNMS SPECIES

            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

            Other_Citation_Details: UNPUBLISHED

    Type_of_Source_Media: PERSONAL COMMUNICATION

    Source_Time_Period_of_Content:

        Time_Period_Information:

            Single_Date/Time:

                Calendar_Date: 2005

        Source_Currentness_Reference: DATE OF COMMUNICATION

    Source_Citation_Abbreviation: NONE

    Source_Contribution: T_MAMMAL INFORMATION

Process_Step:

    Process_Description:

        The main source of data used to depict terrestrial mammal distribution and seasonality for this data layer was personal interviews with resource experts from

the National Park Service (NPS) and the National Oceanic and Atmospheric Administration (NOAA).

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

Process_Date: 200605
Process_Contact:
    Contact_Information:
        Contact_Organization_Primary:
            Contact_Organization: NOAA, Office of Response and Restoration
            Contact_Person: Jill Petersen
        Contact_Address:
            Address_Type: Physical address
            Address: 7600 Sand Point Way N.E.
            City: Seattle
            State_or_Province: Washington
            Postal_Code: 98115-6349
        Contact_Voice_Telephone: (206) 526-6944
        Contact_Facsimile_Telephone: (206) 526-6329
        Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

---

Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector
    Point_and_Vector_Object_Information:
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
            Point_and_Vector_Object_Count: 14
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Area point
            Point_and_Vector_Object_Count: 15
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Complete chain
            Point_and_Vector_Object_Count: 20
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Link
            Point_and_Vector_Object_Count: 4260
        SDTS_Terms_Description:
            SDTS_Point_and_Vector_Object_Type: Node, planar graph

Point_and_Vector_Object_Count: 19

Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
        Geographic:
            Latitude_Resolution: 0.0000001
            Longitude_Resolution: 0.0000001
            Geographic_Coordinate_Units: Decimal degrees
        Geodetic_Model:
            Horizontal_Datum_Name: North American Datum of 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 the Central California atlas, the number is 8), an element/layer specific number (BIRDS are layer 1, FISH are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases. BIORES and the other relational data tables are described below in detail. See the Browse_Graphic section for a link to the entity-relationship diagram, which describes the way these tables relate to the geographic data layers and other attribute tables in the ESI data structure.

Due to the complexity of the relational database model, the data items are also post-processed into a flat file format. This table, called BIOFILE, may be used in place of the relational files described below to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S, F, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, BREED5, RARNUM, G_SOURCE, S_SOURCE, and BREED. All of these items are the same as their counterparts in the individual data tables described below, except the BREED1-BREED5 and BREED items. BREED is a newly generated variable used to link to the BREED_DT data table, a modified, more compact version of the relational BREED data table. BREED1-BREED5 give a text summary of when each life stage occurs within the associated map object. The life stages referred to are the same as those listed in the Detailed_Description of the BREED data table. The link to the BIOFILE may be made through the BIO_LUT, using ID to link to RARNUM, or BIOFILE may be linked directly to the RARNUM in each of the geographic layer's attribute data tables. As mentioned, BREED_DT is an auxiliary support data table to the flat file structure, which allows the user to do searches based on month for seasonal

breeding activities. The link from the flat file to BREED_DT is the BREED item.

A second supporting data table is SOURCES. This is the same as the source file described above, and the link from the flat file is both G_SOURCE and S_SOURCE. It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational data tables. The entity-relationship diagram, describing relationships between attribute tables in the ESI data structure, does NOT include the BIOFILE data table, and this data table is NOT described in detail below.

Detailed_Description:
> *Entity_Type:*
>> *Entity_Type_Label:* T_MAMMAL.PAT
>> *Entity_Type_Definition:*
>>> The T_MAMMAL.PAT table contains attribute information for the vector polygons in this data set representing rare/sensitive terrestrial mammal occurrences. 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 (8), 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:* 080900002
>>>> *Range_Domain_Maximum:* 080900014
> *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:* 08000254
>>>> *Range_Domain_Maximum:* 08000257

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: 08000001

Range_Domain_Maximum: 08001257

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 (8), 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: 080100002

Range_Domain_Maximum: 082600053

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: 008000001

Range_Domain_Maximum: 008001257

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. No concentration information was available for terrestrial mammals, so the CONC field is populated with "-".
Attribute_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SEASON_ID
Attribute_Definition:
    Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.
Attribute_Definition_Source: 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 (e.g. 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 (e.g. 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 for the entire ESI data set
>>> *Attribute_Definition_Source:* Research Planning, Inc.
>>> *Attribute_Domain_Values:*
>>>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.
>> *Attribute:*
>>> *Attribute_Label:* GEN_SPEC
>>> *Attribute_Definition:* Species scientific name for the entire ESI data set
>>> *Attribute_Definition_Source:* Research Planning, Inc.
>>> *Attribute_Domain_Values:*
>>>> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.
>> *Attribute:*
>>> *Attribute_Label:* ELEMENT
>>> *Attribute_Definition:* Major categories of biological data.
>>> *Attribute_Definition_Source:* 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: amphibian
Enumerated_Domain_Value_Definition: Amphibian
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: bivalve
Enumerated_Domain_Value_Definition: Bivalve
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: cephalopod
Enumerated_Domain_Value_Definition: Cephalopod

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: crab
        Enumerated_Domain_Value_Definition: Crab
        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: diving
        Enumerated_Domain_Value_Definition: Diving bird
        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: 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: e_resident
        Enumerated_Domain_Value_Definition: Estuarine resident
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: gastropod
        Enumerated_Domain_Value_Definition: Gastropod
        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: insect
        Enumerated_Domain_Value_Definition: Insect
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: kelp
        Enumerated_Domain_Value_Definition: Kelp
        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: passerine
        Enumerated_Domain_Value_Definition: Passerine bird
        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: pinniped
        Enumerated_Domain_Value_Definition: Pinniped
        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: sav
        Enumerated_Domain_Value_Definition: Submerged aquatic vegetation
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: sea otter
        Enumerated_Domain_Value_Definition: Sea otter
        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: sm_mammal
        Enumerated_Domain_Value_Definition: Small mammal
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:

Enumerated_Domain:
    Enumerated_Domain_Value: snake
    Enumerated_Domain_Value_Definition: Snake
    Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: turtle
        Enumerated_Domain_Value_Definition: Turtle
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: wading
        Enumerated_Domain_Value_Definition: Wading bird
        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: whale
        Enumerated_Domain_Value_Definition: Whale
        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: YYYYMM
            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM for month
            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
        Enumerated_Domain:
            Enumerated_Domain_Value: 0
            Enumerated_Domain_Value_Definition: Date unspecified
            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 (e.g. 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 (e.g.
                    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 (e.g. 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; 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 or not reported
> >
> > *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 = migrating; if ELEMENT is "FISH" then BREED2 = eggs; if ELEMENT is "INVERT" then BREED2 = eggs; if ELEMENT is "REPTILE" then BREED2 = hatching; if ELEMENT is "M_MAMMAL" then BREED2 = calving. This attribute is not used for HABITAT or T_MAMMAL elements.

    Attribute_Definition_Source: 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 or not reported

            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 = molting; if ELEMENT is "FISH" then BREED3 = larvae; if ELEMENT is "INVERT" then BREED3 = larvae; if ELEMENT is "REPTILE" then BREED3 = internesting; if ELEMENT is "M_MAMMAL" then BREED3 = pupping. This attribute is not used for HABITAT or T_MAMMAL elements.

    Attribute_Definition_Source: 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 or not reported

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 "FISH" then BREED4 = juveniles; if ELEMENT is "INVERT" then BREED4 = juveniles; if ELEMENT is "REPTILE" then BREED4 = juveniles; if ELEMENT is "M_MAMMAL" then BREED4 = molting. This attribute is not used for BIRD, HABITAT, or T_MAMMAL elements.

 Attribute_Definition_Source: 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 or not reported

   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 or not reported

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; G_SOURCE and
   S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data
   layers.
  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:
   Unrepresentable_Domain: Acceptable values change from atlas to atlas.
 Attribute:
  Attribute_Label: DATE_PUB
  Attribute_Definition:
   Date of source material, publication, or date of personal communication with expert
   source.
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:
   Enumerated_Domain:
    Enumerated_Domain_Value: YYYYMM
    Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
    for month
    Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
 Attribute:
  Attribute_Label: TITLE
  Attribute_Definition: Title of source material or data.
  Attribute_Definition_Source: Research Planning, Inc.
  Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

 Attribute_Label: DATA_FORMAT

 Attribute_Definition: The format of the source material.

 Attribute_Definition_Source: Research Planning, Inc.

 Attribute_Domain_Values:

  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

 Attribute_Label: PUBLICATION

 Attribute_Definition: Additional citation information.

 Attribute_Definition_Source: Research Planning, Inc.

 Attribute_Domain_Values:

  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

 Attribute_Label: SCALE

 Attribute_Definition: Description of the source scale.

 Attribute_Definition_Source: Research Planning, Inc.

 Attribute_Domain_Values:

  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

 Attribute_Label: TIME_PERIOD

 Attribute_Definition:

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

 Attribute_Definition_Source: Research Planning, Inc.

 Attribute_Domain_Values:

  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Detailed_Description:

 Entity_Type:

  Entity_Type_Label: STATUS

  Entity_Type_Definition:

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

  Entity_Type_Definition_Source: 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:
  Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
 Attribute_Label: COUNTRY
 Attribute_Definition: Three-letter country abbreviation.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Unrepresentable_Domain: Acceptable values change from atlas to atlas.
Attribute:
 Attribute_Label: S
 Attribute_Definition: State threatened or endangered status.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:

                  Enumerated_Domain_Value: E

                  Enumerated_Domain_Value_Definition: Endangered on state list

                  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

      Attribute_Domain_Values:

            Enumerated_Domain:

                  Enumerated_Domain_Value: T

                  Enumerated_Domain_Value_Definition: Threatened on state list

                  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

      Attribute_Domain_Values:

            Enumerated_Domain:

                  Enumerated_Domain_Value: C

                  Enumerated_Domain_Value_Definition: Species of Special Concern

                  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

      Attribute_Label: F

      Attribute_Definition: Federal threatened or endangered status.

      Attribute_Definition_Source: Research Planning, Inc.

      Attribute_Domain_Values:

            Enumerated_Domain:

                  Enumerated_Domain_Value: E

                  Enumerated_Domain_Value_Definition: Endangered on federal list

                  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

      Attribute_Domain_Values:

            Enumerated_Domain:

                  Enumerated_Domain_Value: T

                  Enumerated_Domain_Value_Definition: Threatened on federal list

                  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

      Attribute_Domain_Values:

            Enumerated_Domain:

                  Enumerated_Domain_Value: C

                  Enumerated_Domain_Value_Definition: Species of Special Concern

                  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

      Attribute_Label: I

      Attribute_Definition: International threatened or endangered status.

      Attribute_Definition_Source: Research Planning, Inc.

      Attribute_Domain_Values:

            Enumerated_Domain:

                  Enumerated_Domain_Value: E

                  Enumerated_Domain_Value_Definition: Endangered on international list

                  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

      Attribute_Domain_Values:

            Enumerated_Domain:

                  Enumerated_Domain_Value: T

                  Enumerated_Domain_Value_Definition: Threatened on international list

                  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

      Attribute_Domain_Values:

            Enumerated_Domain:

                  Enumerated_Domain_Value: C

                  Enumerated_Domain_Value_Definition: Species of Special Concern

                  Enumerated_Domain_Value_Definition_Source: NOAA ESI Guidelines

Attribute:

    Attribute_Label: S_DATE

    Attribute_Definition:

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

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: YYYYMM

            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
            for month

            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

    Attribute_Label: F_DATE

    Attribute_Definition:

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

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: YYYYMM

            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
            for month

            Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:

    Attribute_Label: I_DATE

    Attribute_Definition:

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

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Enumerated_Domain:

            Enumerated_Domain_Value: YYYYMM

            Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
            for month

            Enumerated_Domain_Value_Definition_Source: 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 (e.g. 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 Central California
    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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
    Metadata_Review_Date: 200606
    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 2.8.21 on Tue Jul 04 20:26:07 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: MGT (Management Area Polygons)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains boundaries of Coast Guard facilities; management areas; marinas; marine sanctuaries; national forests; national, regional, and state parks; Nature Conservancy lands; and wildlife refuges in Central California. Vector polygons in this data set represent the management area boundaries. 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 Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the SOCECON (Socioeconomic Resource Points) data layer, part of the larger Central California ESI database, for additional human-use information.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1996

Ending_Date: 2006

Currentness_Reference:

The MGT data were compiled during 2005-2006. The currentness dates for the data range from 1996 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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 areas

Theme_Keyword: Human use resources

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Central California

Access_Constraints: None

Use_Constraints:

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

Browse_Graphic:

Browse_Graphic_File_Name: datafig.jpg

Browse_Graphic_File_Description:

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

Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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 digital boundaries for management areas. See also the SOCECON (Socioeconomic Resource Points) data layer, part of the larger Central California ESI database, for additional human-use information. These data do not necessarily represent all management areas in Central California.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

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

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: CA RESOURCES AGENCY LEGACY PROJECT

Publication_Date: 2005

Title:

PUBLIC, CONSERVATION AND LAND TRUST OWNERSHIP IN THE STATE OF CALIFORNIA

Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA

Other_Citation_Details: CA RESOURCES AGENCY LEGACY PROJECT

Source_Scale_Denominator: 100,000

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF PUBLICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: MGT INFORMATION

Source_Information:

Source_Citation:
    Citation_Information:
        Originator: CDF&G MARINE REGION GIS
        Publication_Date: 2005
        Title: CALIFORNIA MARINE PROTECTED AREAS
        Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
        Other_Citation_Details:
            CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),
            MARINE REGION GIS LAB
Type_of_Source_Media: ONLINE
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2004
    Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: MGT INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: CDF&G OFFICE OF SPILL PREVENTION AND RESPONSE
            (OSPR)
            Publication_Date: 2005
            Title: MONTEREY BAY NATIONAL MARINE SANCTUARY (MBNMS)
            BOUNDARY
            Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: ONLINE
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: MGT INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: NOAA MONTEREY BAY NATIONAL MARINE
            SANCTUARY (MBNMS)
            Publication_Date: 2005
            Title: MARINE ZONES
            Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: EMAIL
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE

> Source_Contribution: MGT INFORMATION
> Source_Information:
>> Source_Citation:
>>> Citation_Information:
>>>> Originator: NOAA, NMSP
>>>> Publication_Date: 2004
>>>> Title: NATIONAL MARINE SANCTUARY PROGRAM DIGITAL BOUNDARY FILES
>>>> Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
>>>> Other_Citation_Details:
>>>>> NOAA, NATIONAL MARINE SANCTUARY PROGRAM (NMSP), SILVER SPRING, MD
>> Source_Scale_Denominator: VARIES
>> Type_of_Source_Media: EMAIL
>> Source_Time_Period_of_Content:
>>> Time_Period_Information:
>>>> Range_of_Dates/Times:
>>>>> Beginning_Date: 1996
>>>>> Ending_Date: 2003
>>> Source_Currentness_Reference: DATE OF COMMUNICATION
>> Source_Citation_Abbreviation: NONE
>> Source_Contribution: MGT INFORMATION
> Source_Information:
>> Source_Citation:
>>> Citation_Information:
>>>> Originator: POINT REYES NATIONAL SEASHORE GIS
>>>> Publication_Date: 2006
>>>> Title: GOGA_TRACTS_LANDS04; PORE_ADMIN46; PHILIP_BURTON_WILDERNESS2
>>>> Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
>>>> Other_Citation_Details: UNPUBLISHED
>> Type_of_Source_Media: EMAIL
>> Source_Time_Period_of_Content:
>>> Time_Period_Information:
>>>> Single_Date/Time:
>>>>> Calendar_Date: 2006
>>> Source_Currentness_Reference: DATE OF PUBLICATION
>> Source_Citation_Abbreviation: NONE
>> Source_Contribution: MGT INFORMATION
> Source_Information:
>> Source_Citation:
>>> Citation_Information:
>>>> Originator: WONG, F.L., EITTREIM, S.E.
>>>> Publication_Date: 2001
>>>> Title:
>>>>> CONTINENTAL SHELF GIS FOR THE MONTEREY BAY NATIONAL MARINE SANCTUARY
>>>> Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
>>>> Other_Citation_Details: U.S. GEOLOGICAL SURVEY (USGS), MENLO PARK, CA
>> Source_Scale_Denominator: UNPUBLISHED

        Type_of_Source_Media: ONLINE
        Source_Time_Period_of_Content:
           Time_Period_Information:
              Single_Date/Time:
                  Calendar_Date: 1998
            Source_Currentness_Reference: DATE OF PUBLICATION
        Source_Citation_Abbreviation: NONE
        Source_Contribution: MGT INFORMATION
    Process_Step:
        Process_Description:

            Digital coverages provided by the following agencies were used to depict management areas for this data layer: California Department of Fish and Game (CDF&G) Marine Resources GIS, CDF&G Office of Spill Prevention and Response (OSPR), California Resources Agency Legacy Project, National Oceanic and Atmospheric Administration (NOAA) Monterey Bay National Marine Sanctuary (MBNMS), Point Reyes National Seashore (NS) GIS, U.S. Geological Survey (USGS), and NOAA National Marine Sanctuary Program (NMSP).

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

        Process_Date: 200605
        Process_Contact:
            Contact_Information:
                Contact_Organization_Primary:
                    Contact_Organization: NOAA, Office of Response and Restoration
                    Contact_Person: Jill Petersen
                Contact_Address:
                    Address_Type: Physical address
                    Address: 7600 Sand Point Way N.E.
                    City: Seattle
                    State_or_Province: Washington
                    Postal_Code: 98115-6349
                Contact_Voice_Telephone: (206) 526-6944
                Contact_Facsimile_Telephone: (206) 526-6329
                Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:
    SDTS_Terms_Description:
        SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
        Point_and_Vector_Object_Count: 517
    SDTS_Terms_Description:
        SDTS_Point_and_Vector_Object_Type: Area point
        Point_and_Vector_Object_Count: 518
    SDTS_Terms_Description:
        SDTS_Point_and_Vector_Object_Type: Complete chain
        Point_and_Vector_Object_Count: 1119
    SDTS_Terms_Description:
        SDTS_Point_and_Vector_Object_Type: Link
        Point_and_Vector_Object_Count: 107070
    SDTS_Terms_Description:
        SDTS_Point_and_Vector_Object_Type: Node, planar graph
        Point_and_Vector_Object_Count: 805

Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
        Geographic:
            Latitude_Resolution: 0.0000001
            Longitude_Resolution: 0.0000001
            Geographic_Coordinate_Units: Decimal degrees
        Geodetic_Model:
            Horizontal_Datum_Name: North American Datum of 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 data resource information (in this case, MGT) is linked to the Socioeconomic Resources table (SOC_DAT) using the unique ID and the lookup table SOC_LUT, or it can be linked directly using HUNUM. HUNUM is a unique reference number concatenated with the atlas number (for Central California, the number is 8). ID is a unique combination of the atlas number (8), 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 boundaries of Coast Guard facilities; management areas; marinas; marine sanctuaries; national forests; national, regional, and state parks; Nature Conservancy lands; and wildlife refuges. 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: CG

Enumerated_Domain_Value_Definition: Coast Guard facility

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: FO

Enumerated_Domain_Value_Definition: National Forest

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: M

Enumerated_Domain_Value_Definition: Marina

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: MA

Enumerated_Domain_Value_Definition: Management Area

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: MS

Enumerated_Domain_Value_Definition: Marine Sanctuary

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: MR

Enumerated_Domain_Value_Definition:

Multiple Records - Signifies that multiple types overlap in the polygon

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: NC

Enumerated_Domain_Value_Definition: Nature Conservancy Lands

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: NP

Enumerated_Domain_Value_Definition: National Park

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: P

Enumerated_Domain_Value_Definition: Regional or State Park

Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

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 (8), 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: 081100002

Range_Domain_Maximum: 081100529

Attribute:

Attribute_Label: HUNUM

Attribute_Definition:

An identifier that links directly to the SOC_DAT 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: 08000087

Range_Domain_Maximum: 08000411

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: 08000001
        Range_Domain_Maximum: 08000411
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 (8), element number (SOCECON=10; MGT=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: 081000001
            Range_Domain_Maximum: 081000529
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: 08000001
                Range_Domain_Maximum: 08000411
    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.
        Attribute_Domain_Values:
            Enumerated_Domain:
                Enumerated_Domain_Value: ACCESS
                Enumerated_Domain_Value_Definition: Access
                Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
        Attribute_Domain_Values:
            Enumerated_Domain:

Enumerated_Domain_Value: AQUACULTURE
Enumerated_Domain_Value_Definition: Aquaculture
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: BEACH
        Enumerated_Domain_Value_Definition: Beach
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: BOAT RAMP
        Enumerated_Domain_Value_Definition: Boat Ramp
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: COMMERCIAL FISHING
        Enumerated_Domain_Value_Definition: Commercial Fishing
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: COAST GUARD
        Enumerated_Domain_Value_Definition: Coast Guard Facility
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: DIVING SITE
        Enumerated_Domain_Value_Definition: Diving Site
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: FIELD STATION
        Enumerated_Domain_Value_Definition: Field Station
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: HOIST
        Enumerated_Domain_Value_Definition: Hoist
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: HISTORICAL SITE
        Enumerated_Domain_Value_Definition: Historical Site
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: MANAGEMENT AREA
        Enumerated_Domain_Value_Definition: Management Area
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: MARINA

        Enumerated_Domain_Value_Definition: Marina
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: MARINE SANCTUARY
        Enumerated_Domain_Value_Definition: Marine Sanctuary
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: NATIONAL FOREST
        Enumerated_Domain_Value_Definition: National Forest
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: NATIONAL PARK
        Enumerated_Domain_Value_Definition: National Park
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: NATURE CONSERVANCY
        Enumerated_Domain_Value_Definition: Nature Conservancy Lands
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: RECREATIONAL FISHING
        Enumerated_Domain_Value_Definition: Recreational Fishing
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: REGIONAL OR STATE PARK
        Enumerated_Domain_Value_Definition: Regional or State Park
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: SURFING
        Enumerated_Domain_Value_Definition: Surfing Location
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: WATER INTAKE
        Enumerated_Domain_Value_Definition: Water Intake
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    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:

    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

    Attribute_Label: CONTACT

    Attribute_Definition: Contact person or entity.

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

    Attribute_Label: PHONE

    Attribute_Definition: Contact telephone number.

    Attribute_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

        Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

    Attribute_Label: G_SOURCE

    Attribute_Definition:

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

    Attribute_Definition_Source: 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 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; G_SOURCE and
            S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data
            layers.

        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:
  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
 Attribute_Label: DATE_PUB
 Attribute_Definition:
  Date of source material, publication, or date of personal communication with expert
  source.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated_Domain_Value: YYYYMM
   Enumerated_Domain_Value_Definition: YYYY for year and optionally MM
   for month
   Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

Attribute:
 Attribute_Label: TITLE
 Attribute_Definition: Title of source material or data.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
 Attribute_Label: DATA_FORMAT
 Attribute_Definition: The format of the source material.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
 Attribute_Label: PUBLICATION
 Attribute_Definition: Additional citation information.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
 Attribute_Label: SCALE
 Attribute_Definition: Description of the source scale.
 Attribute_Definition_Source: Research Planning, Inc.
 Attribute_Domain_Values:
  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:
 Attribute_Label: TIME_PERIOD
 Attribute_Definition:
  Date(s) of data collection that the source material is based upon.
 Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:
    Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:
    Distributor:
        Contact_Information:
            Contact_Person_Primary:
                Contact_Person: John Kaperick
                Contact_Organization: NOAA, Office of Response and Restoration
            Contact_Address:
                Address_Type: Physical Address
                Address: 7600 Sand Point Way N.E.
                City: Seattle
                State_or_Province: Washington
                Postal_Code: 98115-6349
            Contact_Voice_Telephone: (206) 526-6400
            Contact_Facsimile_Telephone: (206) 526-6329
    Resource_Description: ESI Atlas for Central California
    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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
    Metadata_Review_Date: 200606
    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 <u>mp</u> version 2.8.21 on Tue Jul 04 20:30:29 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: 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:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: SOCECON (Socioeconomic Resource Points)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains socioeconomic resource data for the following types of locations in Central California: access, airport, aquaculture, beach, boat ramp, USCG station, commercial fishing, diving, sampling site, historical site, hoist, marina, recreational fishing, surfing, and water intake. Vector points in this data set represent the socioeconomic site locations. Location-specific type and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer.

This data set comprises a portion of the Environmental Sensitivity Index (ESI) data for Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the MGT (Management Area Polygons) data layer, part of the larger Central California ESI database, for additional human-use information.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1994

Ending_Date: 2006

Currentness_Reference:

The SOCECON data were compiled during 2005-2006. The currentness dates for the data range from 1994 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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 resources
> > *Theme_Keyword:* Human use resources
> *Place:*
> > *Place_Keyword_Thesaurus:* None
> > *Place_Keyword:* Central California

Access_Constraints: None

Use_Constraints:

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

Browse_Graphic:

> *Browse_Graphic_File_Name:* datafig.jpg
> *Browse_Graphic_File_Description:*
> > Depicts the relationships between spatial data layers and attribute data tables for the Central California ESI data.
> *Browse_Graphic_File_Type:* JPEG

Data_Set_Credit:

> This project was supported by Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

> The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).
>
> The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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 and available hardcopy reports, maps, and digital data on socioeconomic resources. See also the MGT (Management Area Polygons) data layer, part of the larger Central California ESI database, for additional human-use information. These data do not necessarily represent all human-use sites in Central California.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

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

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: ALLEN, S. (NATIONAL PARK SERVICE [NPS], POINT REYES)

Publication_Date: 2005

Title:

DISTRIBUTION AND SEASONALITY OF SPECIES AND SOC_ECON FEATURES ON NPS LANDS

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2005

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: SOCECON INFORMATION

Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                BOGGS-BLALACK, M. (CALIFORNIA DEPARTMENT OF FISH AND GAME [CDF&G], MORRO BAY)
            Publication_Date: 2006
            Title: SLO COUNTY SPECIES AND SOC_ECON FEATURES DISTRIBUTION
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2006
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: SOCECON INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: CA DEPARTMENT OF TRANSPORTATION (DOT)
            Publication_Date: 1997
            Title: AIRPORTS
            Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
            Other_Citation_Details: CALIFORNIA ENVIRONMENTAL RESOURCES EVALUATION SYSTEM (CERES)
    Source_Scale_Denominator: 100,000
    Type_of_Source_Media: ONLINE
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 1997
        Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: SOCECON INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G) OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR)
            Publication_Date: 2005
            Title: ECON SITES FOR COUNTIES IN STUDY AREA
            Geospatial_Data_Presentation_Form: VECTOR DIGITAL DATA
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: EMAIL
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:

Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),
U.S. COAST GUARD (USCG)
Publication_Date: 2005
Title:
SAN FRANCISCO GEOGRAPHIC RESPONSE AREA 1 SONOMA
AND NORTH MARIN COAST
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: ACP 2 SF BAY & DELTA - GRA 1
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator: CENTRAL COAST AREA COMMITTEE (AC)
Publication_Date: 2005
Title:
9870 CENTRAL COAST AREA COMMITTEE - SANTA CRUZ
AND MONTEREY COUNTIES
Geospatial_Data_Presentation_Form: HARDCOPY TEXT
Other_Citation_Details: CENTRAL COAST AC
Type_of_Source_Media: DISC
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: DATE OF PUBLICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION
Source_Information:
Source_Citation:
Citation_Information:
Originator:
FONG, D. (NATIONAL PARK SERVICE, GOLDEN GATE
NATIONAL RECREATION AREA [NPS-GGNRA], SAN
FRANCISCO)
Publication_Date: 2005
Title: DISTRIBUTION OF GGNRA SPECIES AND SOC_ECON

FEATURES
Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: KOGAN, I. (GOLDEN GATE NATIONAL RECREATION
            AREA [GFNMS])
            Publication_Date: 2005
            Title: LOCATIONS OF SOC_ECON FEATURES IN GFNMS AND
            ENVIRONS
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: SOCECON INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
            LONHART, S. (NOAA, MONTEREY BAY NATIONAL MARINE
            SANCTUARY [MBNMS], MONTEREY)
            Publication_Date: 2005
            Title:
            DISTRIBUTION OF TIDEPOOL AND NEARSHORE
            INVERTEBRATES AND PISCO SITES
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: SOCECON INFORMATION
Source_Information:
    Source_Citation:

Citation_Information:
    Originator:
        ODA, K. (CALIFORNIA DEPARTMENT OF FISH AND GAME
        [CDF&G], BELMONT)
    Publication_Date: 2005
    Title:
        DISTRIBUTION AND SEASONALITY OF FISH AND
        INVERTEBRATES AND SOC_ECON FEATURES
    Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
    Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                PATTISON, C. (CALIFORNIA DEPARTMENT OF FISH AND
                GAME [CDF&G], MORRO BAY)
            Publication_Date: 2006
            Title:
                SLO COUNTY SPECIES AND SOC_ECON FEATURES
                DISTRIBUTION AND SEASONALITY
            Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: PERSONAL COMMUNICATION
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2006
        Source_Currentness_Reference: DATE OF COMMUNICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: SOCECON INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator:
                PARTNERSHIP FOR INTERDISCIPLINARY STUDIES OF
                COASTAL OCEANS (PISCO)
            Publication_Date: 2005
            Title: LOCATIONS OF PISCO SITES
            Geospatial_Data_Presentation_Form: SPREADSHEET
            Other_Citation_Details: UNPUBLISHED
    Type_of_Source_Media: EMAIL
    Source_Time_Period_of_Content:
        Time_Period_Information:

    Single_Date/Time:
      Calendar_Date: 2005
   Source_Currentness_Reference: DATE OF COMMUNICATION
  Source_Citation_Abbreviation: NONE
  Source_Contribution: SOCECON INFORMATION
Source_Information:
  Source_Citation:
   Citation_Information:
    Originator:
      REILLY, P. (CALIFORNIA DEPARTMENT OF FISH AND GAME
      [CDF&G], MONTEREY)
    Publication_Date: 2005
    Title:
      DISTRIBUTION OF SPECIES AND SOC_ECON FEATURES IN
      MONTEREY BAY AND ENVIRONS
    Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
    Other_Citation_Details: UNPUBLISHED
  Type_of_Source_Media: PERSONAL COMMUNICATION
  Source_Time_Period_of_Content:
   Time_Period_Information:
    Single_Date/Time:
      Calendar_Date: 2005
   Source_Currentness_Reference: DATE OF COMMUNICATION
  Source_Citation_Abbreviation: NONE
  Source_Contribution: SOCECON INFORMATION
Source_Information:
  Source_Citation:
   Citation_Information:
    Originator: RESEARCH PLANNING, INC. (RPI)
    Publication_Date: 1994
    Title:
      SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE
      TO SPILLED OIL: CENTRAL CA
    Geospatial_Data_Presentation_Form: ATLAS
    Other_Citation_Details:
      BY RESEARCH PLANNING INC., COLUMBIA, SC FOR
      CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G)
      OFFICE OF SPILL PREVENTION AND RESPONSE (OSPR) AND
      NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
      (NOAA), 41 MAPS
  Source_Scale_Denominator: 46,500
  Type_of_Source_Media: PAPER
  Source_Time_Period_of_Content:
   Time_Period_Information:
    Single_Date/Time:
      Calendar_Date: 1994
   Source_Currentness_Reference: DATE OF PUBLICATION
  Source_Citation_Abbreviation: NONE
  Source_Contribution: SOCECON INFORMATION
Source_Information:
  Source_Citation:

Citation_Information:
    Originator:
        ROLETTO, J. (NOAA, GULF OF THE FARALLONES NATIONAL
        MARINE SANCTUARY [GFNMS])
    Publication_Date: 2005
    Title:
        DISTRIBUTION AND SEASONALITY OF GFNMS SPECIES AND
        SOC_ECON FEATURES
    Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE
    Other_Citation_Details: UNPUBLISHED
Type_of_Source_Media: PERSONAL COMMUNICATION
Source_Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF COMMUNICATION
Source_Citation_Abbreviation: NONE
Source_Contribution: SOCECON INFORMATION
Source_Information:
    Source_Citation:
        Citation_Information:
            Originator: WANNASURF.COM
            Publication_Date: 2005
            Title: SAN LUIS OBISPO COUNTY SURF SPOTS MAP
            Geospatial_Data_Presentation_Form: WEBSITE
            Other_Citation_Details:
                WannaSurf
                <http://www.wannasurf.com/spot/North_America/USA_California/San_I
    Type_of_Source_Media: ONLINE
    Source_Time_Period_of_Content:
        Time_Period_Information:
            Single_Date/Time:
                Calendar_Date: 2005
    Source_Currentness_Reference: DATE OF PUBLICATION
    Source_Citation_Abbreviation: NONE
    Source_Contribution: SOCECON INFORMATION
Process_Step:
    Process_Description:
        Three main sources of data were used to depict human-use resources for this data
        layer: (1) personal interviews with resource experts from: National Park Service
        (NPS), California Department of Fish and Game (CDF&G), and National Oceanic
        and Atmospheric Administration (NOAA); (2) published and unpublished reports
        and online documents provided by CDF&G, Research Planning, Inc. (RPI), and
        wannasurf.com, and (3) digital data provided by CDF&G Office of Spill Prevention
        and Response (OSPR), California Department of Transportation (DOT), California
        Environmental Resources Evaluation System (CERES), and Partnership for
        Interdisciplinary Studies of Coastal Oceans (PISCO).

        The above digital and/or hardcopy sources were compiled by the project biologist to
        create the SOCECON data layer. Depending on the type of source data, three
        general approaches are used for compiling the data layer: (1) information gathered

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

Process_Date: 200605
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: 428

Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
        Geographic:
            Latitude_Resolution: 0.0000001
            Longitude_Resolution: 0.0000001
            Geographic_Coordinate_Units: Decimal degrees
        Geodetic_Model:
            Horizontal_Datum_Name: North American Datum of 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 data resource information (in this case, SOCECON) is linked to the Socioeconomic Resources table (SOC_DAT) using the unique ID and the lookup table SOC_LUT, or it can be linked directly using HUNUM. HUNUM is a unique reference number concatenated with the atlas number (for Central California, the number is 8). ID is a unique combination of the atlas number (8), 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 access, airport, aquaculture, beach, boat ramp, USCG station, commercial fishing, diving, sampling site, historical site, hoist, marina, recreational fishing, surfing, and water intake locations. 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.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: A2
        Enumerated_Domain_Value_Definition: Access
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: AQ
        Enumerated_Domain_Value_Definition: Aquaculture
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: B
        Enumerated_Domain_Value_Definition: Beach
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
      Enumerated_Domain:

Enumerated_Domain_Value: BR
Enumerated_Domain_Value_Definition: Boat Ramp
Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: CF
 Enumerated_Domain_Value_Definition: Commercial Fishing
 Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: CG
 Enumerated_Domain_Value_Definition: Coast Guard
 Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: DV
 Enumerated_Domain_Value_Definition: Diving Site
 Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: FS
 Enumerated_Domain_Value_Definition: Field Station
 Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: H
 Enumerated_Domain_Value_Definition: Hoist
 Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: HS
 Enumerated_Domain_Value_Definition: Historical Site STE
 Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: M
 Enumerated_Domain_Value_Definition: Marina
 Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: RF
 Enumerated_Domain_Value_Definition: Recreational Fishing
 Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: S2
 Enumerated_Domain_Value_Definition: Surfing
 Enumerated_Domain_Value_Defintion_Source: Research Planning, Inc.
Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: WI

    Enumerated_Domain_Value_Definition: Water Intake
    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 (8), element number
   (10), and record number.
 Attribute_Definition_Source: NOAA
 Attribute_Domain_Values:
  Range_Domain:
   Range_Domain_Minimum: 081000001
   Range_Domain_Maximum: 081000428
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: 08000001
   Range_Domain_Maximum: 08000350
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: 08000001
    Range_Domain_Maximum: 08000411
 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 (8), element number
   (SOCECON=10; MGT=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: 081000001
Range_Domain_Maximum: 081000529
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: 08000001
        Range_Domain_Maximum: 08000411
  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.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: ACCESS
        Enumerated_Domain_Value_Definition: Access
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: AQUACULTURE
        Enumerated_Domain_Value_Definition: Aquaculture
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: BEACH
        Enumerated_Domain_Value_Definition: Beach
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: BOAT RAMP
        Enumerated_Domain_Value_Definition: Boat Ramp
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
    Attribute_Domain_Values:

Enumerated_Domain:
    Enumerated_Domain_Value: COMMERCIAL FISHING
    Enumerated_Domain_Value_Definition: Commercial Fishing
    Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: COAST GUARD
        Enumerated_Domain_Value_Definition: Coast Guard Facility
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: DIVING SITE
        Enumerated_Domain_Value_Definition: Diving Site
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: FIELD STATION
        Enumerated_Domain_Value_Definition: Field Station
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: HOIST
        Enumerated_Domain_Value_Definition: Hoist
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: HISTORICAL SITE
        Enumerated_Domain_Value_Definition: Historical Site
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: MANAGEMENT AREA
        Enumerated_Domain_Value_Definition: Management Area
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: MARINA
        Enumerated_Domain_Value_Definition: Marina
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: MARINE SANCTUARY
        Enumerated_Domain_Value_Definition: Marine Sanctuary
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:
        Enumerated_Domain_Value: NATIONAL FOREST
        Enumerated_Domain_Value_Definition: National Forest
        Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.
Attribute_Domain_Values:
    Enumerated_Domain:

      Enumerated_Domain_Value: NATIONAL PARK

       Enumerated_Domain_Value_Definition: National Park

       Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

     Enumerated_Domain:

       Enumerated_Domain_Value: NATURE CONSERVANCY

       Enumerated_Domain_Value_Definition: Nature Conservancy Lands

       Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

     Enumerated_Domain:

       Enumerated_Domain_Value: RECREATIONAL FISHING

       Enumerated_Domain_Value_Definition: Recreational Fishing

       Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

     Enumerated_Domain:

       Enumerated_Domain_Value: REGIONAL OR STATE PARK

       Enumerated_Domain_Value_Definition: Regional or State Park

       Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

     Enumerated_Domain:

       Enumerated_Domain_Value: SURFING

       Enumerated_Domain_Value_Definition: Surfing Location

       Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

     Enumerated_Domain:

       Enumerated_Domain_Value: WATER INTAKE

       Enumerated_Domain_Value_Definition: Water Intake

       Enumerated_Domain_Value_Definition_Source: Research Planning, Inc.

    Attribute_Domain_Values:

     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:

  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

 Attribute_Label: CONTACT

 Attribute_Definition: Contact person or entity.

 Attribute_Definition_Source: Research Planning, Inc.

 Attribute_Domain_Values:

  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

 Attribute_Label: PHONE

 Attribute_Definition: Contact telephone number.

 Attribute_Definition_Source: Research Planning, Inc.

 Attribute_Domain_Values:

  Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

    Attribute_Label: G_SOURCE

    Attribute_Definition:

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

    Attribute_Definition_Source: 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 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; G_SOURCE and S_SOURCE in the BIORES table; and SOURCE_ID in the ESI and HYDRO data layers.

        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:

            Unrepresentable_Domain: Acceptable values change from atlas to atlas.

    Attribute:

        Attribute_Label: DATE_PUB

        Attribute_Definition:

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

source.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Enumerated_Domain:*
>
>> *Enumerated_Domain_Value:* YYYYMM
>>
>> *Enumerated_Domain_Value_Definition:* YYYY for year and optionally MM for month
>>
>> *Enumerated_Domain_Value_Definition_Source:* Research Planning, Inc.

Attribute:

Attribute_Label: TITLE

Attribute_Definition: Title of source material or data.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: DATA_FORMAT

Attribute_Definition: The format of the source material.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PUBLICATION

Attribute_Definition: Additional citation information.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: SCALE

Attribute_Definition: Description of the source scale.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: TIME_PERIOD

Attribute_Definition:

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

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

> *Unrepresentable_Domain:* Acceptable values change from atlas to atlas.

Distribution_Information:

> *Distributor:*
>
>> *Contact_Information:*
>>
>>> *Contact_Person_Primary:*
>>>
>>>> *Contact_Person:* John Kaperick
>>>>
>>>> *Contact_Organization:* NOAA, Office of Response and Restoration
>>>
>>> *Contact_Address:*
>>>
>>>> *Address_Type:* Physical Address
>>>>
>>>> *Address:* 7600 Sand Point Way N.E.
>>>>
>>>> *City:* Seattle

State_or_Province: Washington

Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400

Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: ESI Atlas for Central California

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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606

Metadata_Review_Date: 200606

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 2.8.21 on Tue Jul 04 20:40:58 2006

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: ALERTS (Vulnerable Resource Location 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:
                Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.
            Publication_Date: 200606
            Title:
                Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central California: ALERTS (Vulnerable Resource Location Points)
            Edition: Second
            Geospatial_Data_Presentation_Form: Vector digital data
            Series_Information:
                Series_Name: None
                Issue_Identification: Central California
            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 Monterey Bay National Marine Sanctuary, Sanctuary Integrated Monitoring Network (SIMoN), Monterey, California; Department of Fish and Game, Office of Spill Prevention and

Response, Sacramento, California; Monterey Bay Sanctuary Foundation, Monterey, California; and the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Description:

Abstract:

This data set contains vector points representing locations in Central California that should be highlighted for protection due to the presence of certain highly vulnerable resources. This data set comprises a portion of the ESI data for Central California. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

Purpose:

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

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2000

Ending_Date: 2006

Currentness_Reference:

The data were compiled during 2005-2006. The currentness dates for the data range from 2000 to 2006 and are documented in the Lineage section.

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Scheduled

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -123.50000

East_Bounding_Coordinate: -120.37500

North_Bounding_Coordinate: 38.12500

South_Bounding_Coordinate: 34.21700

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: Central California

Access_Constraints: None

Use_Constraints:

DO NOT USE MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other

organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Browse_Graphic:

   Browse_Graphic_File_Name: datafig.jpg

   Browse_Graphic_File_Description:

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

   Browse_Graphic_File_Type: JPEG

Data_Set_Credit:

   This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington.

Native_Data_Set_Environment:

   The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 9.1) and SQL SERVER(r) (version 2000). The hardware configuration is PC's with Windows Operating System (2000/XP/2003).

   The Spatial_Data_Organization Information section refers only to the source files in the ARC export format. The following files are included in the data set: alerts.e00, birds.e00, esi.e00, fish.e00, fishl.e00, habitats.e00, hydro.e00, index.e00, invert.e00, m_mammal.e00, mgt.e00, nests.e00, reptilel.e00, reptiles.e00, socecon.e00, and t_mammal.e00. Associated relational and desktop data tables provided in Arc export and text format are bio_lut, biofile, biores, breed, breed_dt, seasonal, soc_dat, soc_lut, 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 nodes, etc.), and SQL SERVER(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-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 and available hardcopy maps on ALERT (vulnerable resource) locations.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Spatial components for the ALERTS data layer come from harcopy 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.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G)

Publication_Date: 2000

Title: ALERTS

Geospatial_Data_Presentation_Form: HARDCOPY MAP

Other_Citation_Details: CDF&G

Source_Scale_Denominator: 46,500

Type_of_Source_Media: ONLINE

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2000

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: ALERTS INFORMATION

Source_Information:

Source_Citation:

Citation_Information:

Originator:

CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G), NATIONAL PARK SERVICE (NPS), NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), U.S. GEOLOGICAL SURVEY (USGS)

Publication_Date: 2006

Title: ALERTS

Geospatial_Data_Presentation_Form: EXPERT KNOWLEDGE

Other_Citation_Details: UNPUBLISHED

Type_of_Source_Media: PERSONAL COMMUNICATION

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2006

Source_Currentness_Reference: DATE OF COMMUNICATION

Source_Citation_Abbreviation: NONE

Source_Contribution: ALERTS INFORMATION

Process_Step:

Process_Description:
> Two main sources of data were used to depict ALERT (vulnerable resource) locations for this data layer: (1) hardcopy maps provided by California Department of Fish and Game (CDF&G), and (2) information provided at interviews with CDF&G, National Park Service (NPS), National Oceanic and Atmospheric Administration (NOAA), and U.S. Geological Survey (USGS).

Process_Date: 200605
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:* 83

Spatial_Reference_Information:
> *Horizontal_Coordinate_System_Definition:*
>> *Geographic:*
>>> *Latitude_Resolution:* 0.0000001
>>> *Longitude_Resolution:* 0.0000001
>>> *Geographic_Coordinate_Units:* Decimal degrees
>> *Geodetic_Model:*
>>> *Horizontal_Datum_Name:* North American Datum of 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:* ALERTS.PAT
>>> *Entity_Type_Definition:*
>>>> The ALERTS.PAT table contains attribute information for the vector points representing locations that should be highlighted for protection due to the presence

of certain highly vulnerable resources.

Entity_Type_Definition_Source: Research Planning, Inc.

Attribute:

Attribute_Label: SITE_ID

Attribute_Definition:

Unique identifier for each ALERT description. There may be multiple points with the same SITE_ID, if they have the same ALERT information. This value is formatted as "AL-", followed by the map number, another dash, and then the PLOT_ID number. So for map 24, a SITE_ID may look like "AL-24-2".

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PLOT_ID

Attribute_Definition:

A number that is plotted on the map to reference the appropriate ALERT text on the back of the map. These numbers are unique for each ALERT text on the map, but not unique across the atlas. The numbers range from 1 to 5.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: PLOT_TEXT

Attribute_Definition: The text that is plotted on the ALERT box on the map.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Attribute:

Attribute_Label: ALERT_TEXT

Attribute_Definition:

The detailed description of the ALERT that appears on the back of the map.

Attribute_Definition_Source: Research Planning, Inc.

Attribute_Domain_Values:

Unrepresentable_Domain: Acceptable values change from atlas to atlas.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick

Contact_Organization: NOAA, Office of Response and Restoration

Contact_Address:

Address_Type: Physical Address

Address: 7600 Sand Point Way N.E.

City: Seattle

State_or_Province: Washington

Postal_Code: 98115-6349

Contact_Voice_Telephone: (206) 526-6400

Contact_Facsimile_Telephone: (206) 526-6329

Resource_Description: ESI Atlas for Central California

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 a Geodatabase; ARC export, MOSS, and Shape files; and MARPLOT map folders. An ArcMap .mxd file, an ArcView 3.x ESI project, and an ESI_Viewer product 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: 200606
Metadata_Review_Date: 200606
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 2.8.21 on Wed Jul 05 15:45:25 2006

Central California ESI Entity Relationship Diagram
Relationships between spatial data layers and attribute data tables

Geographic Themes

Lookup Tables

Data Tables

ALERTS (POINTS)
SITE_ID (10, 10, C)
PLOT_ID (2, 2, C)
PLOT_TEXT (10, 10, C)
ALERT_TEXT (151,151,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)
HABITATS (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)
INVERT (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)
M_MAMMAL (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)
NESTS (POINTS)
ID (10, 10, I)
RARNUM (9, 9, I)
REPTILEL (LINES)
ID (10, 10, I)
RARNUM (9, 9, I)
REPTILES (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)
T_MAMMAL (POLYS)
ID (10, 10, I)
RARNUM (9, 9, I)

SOC_LUT
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.)

BIO_LUT
RARNUM (9, 9, I)
ID (10, 10, I)

(The BIO_LUT table can be bypassed by linking the biology tables to BIORES using RARNUM.)

SOC_DAT
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)

BIORES
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)

SOURCES
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)

SPECIES
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)

SEASONAL
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)

STATUS
ELEMENT (10, 10, C)
SPECIES_ID (5, 5, I)
STATE (2, 2, C)
COUNTRY (3, 3, C)
S (1, 1, C)
F (1, 1, C)
I (1, 1, C)
S_DATE (10, 10, I)
F_DATE (10, 10, I)
I_DATE (10, 10, I)
EL_SPE (6, 6, C)

BREED
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)