Gulf of Mexico 5-Zone Seasonal Dynamic Salinity Digital Geography

Metadata:

Identification_Information:
Citation:
Citation_Information:
Originator:
Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Centers for Coastal Ocean Science (NCCOS), Center for Coastal Monitoring and Assessment (CCMA), Biogeography Program
Publication_Date:
20121001
Title:
Gulf of Mexico 5-Zone Seasonal Dynamic Salinity Digital Geography
Geospatial_Data_Presentation_Form:
vector digital data
Description:
Abstract:
This is an ArcGIS shapefile which depicts the seasonal salinity dynamics of 32 Gulf of Mexico estuaries. To characterize the dynamic nature of estuarine salinity gradients, a multivariate methodology (Bulger et al. 1993) was applied to derive five bio-salinity zones in four salinity seasons for 32 Gulf of Mexico estuaries (Christensen et al. 1997). This seasonal salinity zone spatial framework built upon and refined earlier studies which characterized salinity on an annual-averaged basis (NOAA 1985, Orlando et al. 1993, NOAA 2007). Precipitation, flow gage data, and monthly salinity averages were evaluated to determine which months would be used to represent the high, low, and transitional (increasing and decreasing) salinity periods. A contour modeling procedure was applied to the data to develop seasonal salinity zones for each estuary. The salinities used to define the five seasonal zones were: 1) Salinity Zone I: 0 - 0.5 ppt; 2) Salinity Zone II: 0.5 – 5 ppt; 3) Salinity Zone III: 5-15 ppt; 4) Salinity Zone IV: 15-25ppt; and 5) Salinity Zone IV: >25ppt. These salinity zones are two-dimensional and depth-averaged, and vertical stratification is not explicitly characterized. Therefore, they can be readily represented geographically as two-dimensional areas, which shift seasonally. The monthly periods of high, low, increasing and decreasing “salinity seasons” vary greatly among estuaries, primarily because of different typical periods of high and low freshwater inflow. For example, the low salinity season in Galveston Bay, Texas occurs in April - June, while in Mobile Bay, Alabama, the low salinity season occurs in February – April.
Purpose:
This Gulf of Mexico 5-Zone Seasonal Dynamic Salinity Digital Geography was developed in the late

1990s to provide a spatial framework for organizing information on the relative abundance of fishes and invertebrates, and update NOAA's Estuarine Living Marine Resources (ELMR) data base in the Gulf of Mexico region (Nelson and Monaco 2000, Nelson et al. 1992, Pattillo et al. 1997). These updates to the ELMR information base were initiated in response to the need to designate Essential Fish Habitat (EFH) under the revised Magnuson-Stevens Fishery Management and Conservation Act (NOAA/GMFMC 1998). Results were also provided to the U.S. Minerals Management Service (MMS) to be included in a Gulf-Wide Information System (GWIS) (MMS 1999). More recently, this digital geography was included as a part of a Gulf of Mexico Ecosystem Pilot Project, and is now a component plate in the Gulf of Mexico Data Atlas developed by NOAA NCDDC (National Coastal Data Development Center).

Supplemental_Information:

References cited in Abstract and Purpose: Bulger, A.J., B.P. Hayden, M.E. Monaco, D.M. Nelson, and M.G. McCormick-Ray. 1993. Biologically-based salinity zones derived from a multivariate analysis. Estuaries 16: 311-322. Christensen, J.D., M.E. Monaco, and T.A. Lowery. 1997. An index to assess the sensitivity of Gulf of Mexico species to changes in estuarine salinity regimes. Gulf Res. Rep. 9(4):219-229. MMS. 1999. Gulf-wide Information System (G-WIS). ArcView Shapefiles and DBF Tables. CD-ROM MMS 2000-027. U.S. Minerals Management Service, Gulf of Mexico Region, New Orleans, LA. Nelson, D.M. (editor), M.E. Monaco, C.D. Williams, T.E. Czapla, M.E. Pattillo, L.C. Clements, L.R. Settle, and E.A. Irlandi. 1992. Distribution and abundance of fishes and invertebrates in Gulf of Mexico estuaries, Vol. I: Data summaries. ELMR Rep. No. 10. NOAA/NOS SEA Division, Rockville, MD. 273 p. http://ccma.nos.noaa.gov/publications/biogeography/ELMRGulfMexVol1.pdf Nelson, D.M., and M.E. Monaco. 2000. National overview and evolution of NOAA's Estuarine Living Marine Resources (ELMR) Program. NOAA Tech. Memo. NOS NCCOS CCMA-144. 60 p. http://ccma.nos.noaa.gov/ecosystems/estuaries/elmr.aspx NOAA/NOS. 1985. National Estuarine Inventory - Data Atlas, Vol. I: Physical and Hydrologic Characteristics. NOAA/NOS Strategic Assessment Branch, Rockville MD, 103 p. NOAA. 2007. Coastal Assessment Framework (CAF). NOAA/NOS Special Projects Office - Coastal Geospatial Data Project. Silver Spring, MD. http://coastalgeospatial.noaa.gov/ . Orlando, S.P. Jr., L.P. Rozas, G.H. Ward, and C.J. Klein. 1993. Salinity characteristics of Gulf of Mexico estuaries. NOAA/NOS Office of Ocean Resources Conservation and Assessment, Silver Spring, MD. 209 pp.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date:

1998

Ending_Date:

Present

Currentness_Reference:

ground condition

Status:

Progress:

Complete

Maintenance_and_Update_Frequency:

As needed

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate:

-97.744507

East_Bounding_Coordinate:

-80.124762

North_Bounding_Coordinate:

30.874999
South_Bounding_Coordinate:
24.836125
Keywords:
Theme:
Theme_Keyword_Thesaurus:
None
Theme_Keyword:
estuary
Theme_Keyword:
salinity
Theme_Keyword:
zones
Theme:
Theme_Keyword_Thesaurus:
ISO 19115 Topic Category
Theme_Keyword:
biota
Theme_Keyword:
environment
Theme_Keyword:
oceans
Place:
Place_Keyword_Thesaurus:
None
Place_Keyword:
Apalachee Bay
Place_Keyword:
Apalachicola Bay
Place_Keyword:
Aransas Bay
Place_Keyword:
Atchafalaya Bay
Place_Keyword:
Baffin Bay
Place_Keyword:
Barataria Bay
Place_Keyword:
Biscayne Bay
Place_Keyword:
Brazos River
Place_Keyword:
Breton Sound
Place_Keyword:
Calcasieu Lake
Place_Keyword:
Caloosahatchee River
Place_Keyword:
Chandeleur Sound
Place_Keyword:
Charlotte Harbor

Place_Keyword:
Choctawhatchee Bay
Place_Keyword:
Corpus Christi Bay
Place_Keyword:
Florida Bay
Place_Keyword:
Galveston Bay
Place_Keyword:
Laguna Madre
Place_Keyword:
Lake Pontchartrain
Place_Keyword:
Matagorda Bay
Place_Keyword:
Mermentau River
Place_Keyword:
Mississippi River
Place_Keyword:
Mississippi Sound
Place_Keyword:
Mobile Bay
Place_Keyword:
North Ten Thousand Islands
Place_Keyword:
Pensacola Bay
Place_Keyword:
Perdido Bay
Place_Keyword:
Sabine Lake
Place_Keyword:
San Antonio Bay
Place_Keyword:
South Ten Thousand Islands
Place_Keyword:
St. Andrew Bay
Place_Keyword:
Suwannee River
Place_Keyword:
Tampa Bay
Place_Keyword:
Terrebonne Bay
Place_Keyword:
Timbalier Bay
Place_Keyword:
Vermillion Bay
Temporal:
Temporal_Keyword_Thesaurus:
None
Temporal_Keyword:
Spring

Temporal_Keyword:
Summer
Temporal_Keyword:
Fall
Temporal_Keyword:
Winter
Temporal_Keyword:
High salinity season
Temporal_Keyword:
Low salinity season
Temporal_Keyword:
Decreasing salinity season
Temporal_Keyword:
Increasing salinity season
Access_Constraints:
None
Use_Constraints:
None
Point_of_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Centers for Coastal Ocean Science (NCCOS), Center for Coastal Monitoring and Assessment (CCMA), Biogeography Branch
Contact_Person:
David Moe Nelson
Contact_Position:
Project Manager / Marine Biologist
Contact_Address:
Address_Type:
mailing and physical
Address:
1305 East West Highway, N/SCI-1
City:
Silver Spring
State_or_Province:
MD
Postal_Code:
20910
Contact_Voice_Telephone:
301-713-3028
Contact_Facsimile_Telephone:
301-713-4384
Contact_Electronic_Mail_Address:
david.moe.nelson@noaa.gov
Hours_of_Service:
0800-1700, Monday to Friday, EST
Data_Set_Credit:
National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Fisheries Science Center, Galveston Laboratory; National Oceanic and Atmospheric Administration,

National Ocean Service, Biogeography Program; National Oceanic and Atmospheric Administration, National Centers for Coastal Ocean Science, Center for Coastal Monitoring and Assessment.

Native_Data_Set_Environment:

Original data were in ArcView 3.2 shapefile format. These data were loaded into NCDDC's spatial data model as ArcSDE layers. Output format will be ESRI shapefiles.

Cross_Reference:

Citation_Information:

Originator:

NOAA, National Ocean Service, Office of Ocean Resources Conservation and Assessment

Publication_Date:

199307

Title:

Salinity Characteristics of Gulf of Mexico Estuaries

Geospatial_Data_Presentation_Form:

paper maps

Series_Information:

Series_Name:

NOAA National Estuarine Inventory Series

Issue_Identification:

none

Publication_Information:

Publication_Place:

Silver Spring, MD

Publisher:

NOAA, Office of Ocean Resources Conservation and Assessment

Other_Citation_Details:

Orlando, S.P. Jr, L.P. Rozas, G.H. Ward, C.J. Klein.

Cross_Reference:

Citation_Information:

Originator:

Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Centers for Coastal Ocean Science (NCCOS), Center for Coastal Monitoring and Assessment (CCMA), Biogeography Program

Publication_Date:

1999

Publication_Time:

Unknown

Title:

Gulf of Mexico 3-Zone Average Annual Salinity Digital Geography

Geospatial_Data_Presentation_Form:

vector digital data

Series_Information:

Series_Name:

CAF - Coastal Assessment Framework - Land and Water

Issue_Identification:

1999

Publication_Information:

Publication_Place:

Silver Spring, Maryland, USA

Publisher:

NOAA's National Ocean Service, Special Projects Office (SPO)

Other_Citation_Details:
Estuarine Salinity Zones are one of the types of GIS shapefiles available for download as part of the Coastal Assessment Framework. Shapefiles are available either as regional data sets, or as a single data set for the contiguous United States.
Larger_Work_Citation:
Citation_Information:
Originator:
Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Special Projects Office (SPO), Integrated Planning and Technical Services Branch
Publication_Date:
1999
Title:
CAF - Coastal Assessment Framework - Land and Water
Geospatial_Data_Presentation_Form:
vector digital data
Series_Information:
Series_Name:
CAF - Coastal Assessment Framework - Land and Water
Issue_Identification:
1999
Publication_Information:
Publication_Place:
Silver Spring, Maryland, USA
Publisher:
NOAA's National Ocean Service, Special Projects Office (SPO)
Other_Citation_Details:
Abstract - The Coastal Assessment Framework (CAF) is a digital spatial framework developed using geographic information system technology, which allows resource managers and analysts to organize and present information on the nation's coastal and marine resources. The CAF provides a comprehensive national framework of coastal watersheds that facilitates characterization of entire watersheds in the U.S., both coastal and upstream portions, with a nested hierarchy of spatial units for the small and large coastal resource data analyses needed to effectively manage our nation's diverse coastal areas. For Alaska and Hawaii, it includes coastal USGS-8-digit Cataloging Units. The Framework is composed of 150 Estuarine (and sub-estuarine) Drainage Areas (EDAs), 54 Fluvial Drainage Areas (FDAs), 324 Coastal Drainage Areas (CDAs), 12 Fluvial components of Coastal Drainage Areas (FCDAs), 11 interior watershed areas (self-contained, groundwater-contributing only, or watersheds draining to outside the U.S.). This digital geography contains the complete Coastal Assessment Framework (Coastal, Upstream, Interior, and portions of U.S. Watersheds located outside the U.S.), including both land and water components at the hydrologic cataloging unit level. It is the CAF in its more elemental form. Purpose: The Coastal Assessment Framework (CAF) provides a consistently derived, watershed-based digital spatial framework developed using geographic information system (GIS) technology, which allows resource managers and analysts to organize and present information on the nation's coastal and marine resources.
Cross_Reference:
Citation_Information:
Originator:
Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Centers for Coastal Ocean Science (NCCOS), Center for Coastal Monitoring and Assessment (CCMA), Biogeography Program
Publication_Date:

2000
Publication_Time:
Unknown
Title:
NOAA's Estuarine Living Marine Resources (ELMR) Data Base
Geospatial_Data_Presentation_Form:
online database
Publication_Information:
Publication_Place:
Silver Spring, MD
Publisher:
NOAA's Ocean Service, National Centers for Coastal Ocean Science (NCCOS)
Online_Linkage:
http://coastalscience.noaa.gov/projects/detail?key=107

Back To Index

Data_Quality_Information:
Attribute_Accuracy:
Attribute_Accuracy_Report:
The Gulf of Mexico 5-Zone Annual Average Salinity Digital Geography was developed using documented methods to process data from existing sources, and is as accurate as the original data sources cited in the National Estuarine Inventory Data Atlas (NOAA 1985).
Logical_Consistency_Report:
This geographic representation of estuarine seasonal salinity zones is based on analysis of long-term salinity data for 33 Gulf of Mexico estuaries. Each estuary was subdivided into five zones between the head(s) of tide, and the seaward boundaries based on seasonal and depth-averaged salinities.
Completeness_Report:
This 5-zone scheme is considered dynamic, because it takes into account the seasonal variations in salinity patterns and stratification that occur in most estuaries. 32 Gulf of Mexico estuaries are identified, including most of the major ones, but many smaller coastal embayments are not included. Note that not all estuaries contain all five zones.
Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report:
The geographic near-ocean extent of the zones, the shoreline and international boundaries in the geography come from NOAA's Coastal Assessment Framework
Lineage:
Source_Information:
Source_Citation:
Citation_Information:
Originator:
NOAA/NOS Strategic Environmental Assessments Division
Publication_Date:
1998
Title:
Products and Services for the Identification of Essential Fish Habitat in the Gulf of Mexico
Geospatial_Data_Presentation_Form:
vector digital data
Other_Citation_Details:
NOAA/NMFS/Southeast Fisheries Science Center, and Gulf of Mexico Fisheries Management Council

Source_Scale_Denominator:
24000
Type_of_Source_Media:
CD-ROM
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
1998
Source_Currentness_Reference:
ground condition
Source_Citation_Abbreviation:
salinity maps
Source_Contribution:
created digital maps
Process_Step:
Process_Description:
Calendar months for the high and low salinity seasons as defined by "Salinity Characteristics of Gulf of Mexico Estuaries" (see cross-referenced citation) were added to the original seasonal salinity digital data (in ESRI shapefile format) by entering the months into new fields (hi_season, low_season) in the ESRI shapefile attribute table. The resulting digital data (in ESRI shapefile format) representing the salinity zones and seasons in various estuaries in the Gulf of Mexico has been loaded into the National Coastal Data Development Center's spatial data model. This model uses ESRI's ArcSDE software to help manage geospatial data. All original information was retained in the newly created ArcSDE layer.
Source_Used_Citation_Abbreviation:
salinity maps
Process_Date:
20040310
Process_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization:
NOAA/NESDIS/NODC/NCDDC-National Coastal Data Development Center
Contact_Address:
Address_Type:
mailing and physical
Address:
1021 Balch Blvd., Suite 1003
City:
Stennis Space Center
State_or_Province:
MS
Postal_Code:
39529
Country:
USA
Contact_Voice_Telephone:
866-732-2382
Contact_Facsimile_Telephone:
228-688-2968
Contact_Electronic_Mail_Address:

ncddcmetadata@noaa.gov
Hours_of_Service:
Monday - Friday, 8am - 5pm, Central Standard Time

Back To Index

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method:
Vector
Point_and_Vector_Object_Information:
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type:
G-polygon
Point_and_Vector_Object_Count:
1462

Back To Index

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Geographic:
Latitude_Resolution:
0.000001
Longitude_Resolution:
0.000001
Geographic_Coordinate_Units:
Decimal degrees
Geodetic_Model:
Horizontal_Datum_Name:
North American Datum of 1983
Ellipsoid_Name:
Geodetic Reference System 80
Semi-major_Axis:
6378137.0
Denominator_of_Flattening_Ratio:
298.257222

Back To Index

Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label:
state_sal
Entity_Type_Definition:
ArcGIS shapefiles containing the five salinity zones and calendar seasons for estuaries in the Northern Gulf of Mexico
Entity_Type_Definition_Source:
NOAA/NESDIS/NODC/NCDDC-National Coastal Data Development Center
Attribute:

Attribute_Label:
FID
Attribute_Definition:
Internal feature number
Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Unrepresentable_Domain:
Sequential unique whole numbers generated automatically
Attribute:
Attribute_Label:
Shape
Attribute_Definition:
Feature geometry
Attribute_Definition_Source:
ESRI
Attribute_Domain_Values:
Unrepresentable_Domain:
Coordinates defining the features
Attribute:
Attribute_Label:
LOWER
Attribute_Definition:
Lowest 3-month, depth averaged salinity value in the estuary
Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum:
0
Range_Domain_Maximum:
35
Attribute_Units_of_Measure:
parts per thousand (ppt)
Attribute:
Attribute_Label:
MIDDLE
Attribute_Definition:
Middle 3-month, depth averaged salinity value in the estuary
Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum:
0
Range_Domain_Maximum:
37.5
Attribute_Units_of_Measure:
parts per thousand
Attribute:
Attribute_Label:

UPPER
Attribute_Definition:
Highest 3-month, depth averaged salinity value in the estuary
Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum:
0
Range_Domain_Maximum:
35
Attribute_Units_of_Measure:
parts per thousand (ppt)
Attribute:
Attribute_Label:
ESTUARY
Attribute_Definition:
Name of the estuary in the Gulf of Mexico
Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Unrepresentable_Domain:
Free text
Attribute:
Attribute_Label:
WATER_CODE
Attribute_Definition:
Code to designate whether the polygon is water or land
Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
W
Enumerated_Domain_Value_Definition:
water
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
L
Enumerated_Domain_Value_Definition:
land
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute:
Attribute_Label:
SAL_HIGH
Attribute_Definition:
Salinity range during the high-salinity season

Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
0-0.5
Enumerated_Domain_Value_Definition:
First seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
0.5-5
Enumerated_Domain_Value_Definition:
Second seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
5-15
Enumerated_Domain_Value_Definition:
Third seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
15-25
Enumerated_Domain_Value_Definition:
Fourth seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
>25
Enumerated_Domain_Value_Definition:
Fifth seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute:
Attribute_Label:
SAL_INC
Attribute_Definition:
Salinity range during the increasing-salinity season
Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
0-0.5
Enumerated_Domain_Value_Definition:
First seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
0.5-5
Enumerated_Domain_Value_Definition:
Second seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
5-15
Enumerated_Domain_Value_Definition:
Third seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
15-25
Enumerated_Domain_Value_Definition:
Fourth seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
>25
Enumerated_Domain_Value_Definition:
Fifth seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute:
Attribute_Label:
SAL_LOW
Attribute_Definition:
Salinity range during the low salinity season
Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
0-0.5
Enumerated_Domain_Value_Definition:
First seasonal salinity zone

Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
0.5-5
Enumerated_Domain_Value_Definition:
Second seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
5-15
Enumerated_Domain_Value_Definition:
Third seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
15-25
Enumerated_Domain_Value_Definition:
Fourth seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
>25
Enumerated_Domain_Value_Definition:
Fifth seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute:
Attribute_Label:
SAL_DEC
Attribute_Definition:
Salinity range during the decreasing salinity season
Attribute_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
0-0.5
Enumerated_Domain_Value_Definition:
First seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:

Enumerated_Domain_Value:
0.5-5
Enumerated_Domain_Value_Definition:
Second seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
5-15
Enumerated_Domain_Value_Definition:
Third seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
15-25
Enumerated_Domain_Value_Definition:
Fourth seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value:
>25
Enumerated_Domain_Value_Definition:
Fifth seasonal salinity zone
Enumerated_Domain_Value_Definition_Source:
Estuarine Living Marine Resources database
Attribute:
Attribute_Label:
HI_SEASON
Attribute_Definition:
Calendar months for the high salinity season
Attribute_Definition_Source:
NOAA National Estuarine Inventory Service
Attribute_Domain_Values:
Unrepresentable_Domain:
Jan = January Feb = February Mar = March Apr = April May = May Jun = June Jul = July Aug = August Sep = September Oct = October Nov = November Dec = December
Attribute:
Attribute_Label:
LOW_SEASON
Attribute_Definition:
Calendar months for the low salinity season
Attribute_Definition_Source:
NOAA National Estuarine Inventory Service
Attribute_Domain_Values:
Unrepresentable_Domain:
Jan = January Feb = February Mar = March Apr = April May = May Jun = June Jul = July Aug =

August Sep = September Oct = October Nov = November Dec = December

Back To Index

Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization:
DOC/NOAA/NESDIS/NCEI > National Centers for Environmental Information, NESDIS, NOAA, U.S. Department of Commerce
Contact_Address:
Address_Type:
mailing and physical
Address:
1021 Balch Blvd., Suite 1003
City:
Stennis Space Center
State_or_Province:
MS
Postal_Code:
39529
Country:
USA
Contact_Voice_Telephone:
866-732-2382
Contact_Facsimile_Telephone:
228-688-2968
Contact_Electronic_Mail_Address:
ncddcmetadata@noaa.gov
Hours_of_Service:
Monday - Friday, 8am - 5pm, Central Standard Time
Distribution_Liability:
NOAA makes no warranty regarding these data, expressed or implied, nor does the fact of distribution constitute such a warranty. NOAA, NESDIS, NODC, and NCDDC cannot assume liability for any damages caused by any errors or omissions in these data, nor as a result of the failure of these data to function on a particular system.
Technical_Prerequisites:
Customer must have software that can read ESRI shapefiles such as ArcGIS or ArcExplorer

Back To Index

Metadata_Reference_Information:
Metadata_Date:
20121026
Metadata_Review_Date:
20121026
Metadata_Future_Review_Date:
20121231
Metadata_Contact:
Contact_Information:

Contact_Organization_Primary:
Contact_Organization:
National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Centers for Coastal Ocean Science (NCCOS), Center for Coastal Monitoring and Assessment (CCMA), Biogeography Branch
Contact_Person:
David Moe Nelson
Contact_Position:
Project Manager / Marine Biologist
Contact_Address:
Address_Type:
mailing and physical
Address:
1305 East West Highway, N/SCI-1
City:
Silver Spring
State_or_Province:
MD
Postal_Code:
20910
Contact_Voice_Telephone:
301-713-3028
Contact_Facsimile_Telephone:
301-713-4384
Contact_Electronic_Mail_Address:
david.moe.nelson@noaa.gov
Hours_of_Service:
0800-1700, Monday to Friday, EST
Metadata_Standard_Name:
FGDC Content Standard for Digital Geospatial Metadata
Metadata_Standard_Version:
Version 2, 1998
Metadata_Time_Convention:
local time
Metadata_Access_Constraints:
none
Metadata_Use_Constraints:
none
Metadata_Security_Information:
Metadata_Security_Classification_System:
unclassified - no restrictions on access or use
Metadata_Security_Classification:
Unclassified
Metadata_Security_Handling_Description:
unclassified - no restrictions on access or use

Back To Index