

## Artificial Reef



### Tags

oceans, biota, artificial, coastal, fish, fisheries, habitat, haven, marine, oysters, reef, reefs, refugia

### Summary

To support coastal and ocean planning and other activities pursuant to the Energy Policy Act, Coastal Zone Management Act, Magnuson-Stevens Fishery Conservation and Management Act, National Environmental Policy Act, Rivers and Harbors Act and the Submerged Lands Act.

### Description

An artificial reef is a human-made underwater structure, typically built to promote marine life in areas with a generally featureless bottom, control erosion, block ship passage, or improve surfing. Many reefs are built using objects that were built for other purposes, for example by sinking oil rigs (through the Rigs-to-Reefs program), scuttling ships, or by deploying rubble or construction debris. Other artificial reefs are purpose built (e.g. the reef balls) from PVC or concrete. Shipwrecks may become artificial reefs when preserved on the sea floor. Regardless of construction method, artificial reefs generally provide hard surfaces where algae and invertebrates such as barnacles, corals, and oysters attach; the accumulation of attached marine life in turn provides intricate structure and food for assemblages of fish. The presence and location of these artificial reefs are not considered to be exact, and have been derived from multiple state websites.

### Credits

There are no credits for this item.

### Use limitations

These data are intended for coastal and ocean use planning. Not for navigation.  
<http://www.marinecadastre.gov/about/disclaimer.html>

### Extent

**West** -158.199433    **East** -66.082735  
**North** 42.344006    **South** 17.952485

### Scale Range

**Maximum (zoomed in)** 1:5,000  
**Minimum (zoomed out)** 1:150,000,000

## ArcGIS Metadata

### Topics and Keywords

\* CONTENT TYPE    Downloadable    Data

### Citation

TITLE    Artificial Reef  
PRESENTATION FORMATS    \* digital map

### Resource Details

DATASET LANGUAGES    \* English (UNITED STATES)  
SPATIAL REPRESENTATION TYPE    \* vector

## Extents

### EXTENT

#### GEOGRAPHIC EXTENT

##### BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

\* WEST LONGITUDE -158.199433

\* EAST LONGITUDE -66.082735

\* NORTH LATITUDE 42.344006

\* SOUTH LATITUDE 17.952485

\* EXTENT CONTAINS THE RESOURCE Yes

#### EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE -17610680.362414

\* EAST LONGITUDE -7356296.410427

\* SOUTH LATITUDE 2031987.746174

\* NORTH LATITUDE 5212649.918753

\* EXTENT CONTAINS THE RESOURCE Yes

## Resource Constraints

### CONSTRAINTS

#### LIMITATIONS OF USE

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## Spatial Reference

### ARCGIS COORDINATE SYSTEM

\* TYPE Projected

\* GEOGRAPHIC COORDINATE REFERENCE GCS\_WGS\_1984

\* PROJECTION WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

#### \* COORDINATE REFERENCE DETAILS

##### PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102100

X ORIGIN -22041545.367140558

Y ORIGIN -33272760.666300893

XY SCALE 135368852.55357128

Z ORIGIN -100000

Z SCALE 10000

M ORIGIN -100000

M SCALE 10000

XY TOLERANCE 0.001

Z TOLERANCE 0.001

M TOLERANCE 0.001

HIGH PRECISION true

LATEST WELL-KNOWN IDENTIFIER 3857

WELL-KNOWN TEXT PROJCS["WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere",GEOGCS

["GCS\_WGS\_1984",DATUM["D\_WGS\_1984",SPHEROID

["WGS\_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT

["Degree",0.0174532925199433]],PROJECTION["Mercator\_Auxiliary\_Sphere"],PARAMETER

["False\_Easting",0.0],PARAMETER["False\_Northing",0.0],PARAMETER

["Central\_Meridian",0.0],PARAMETER["Standard\_Parallel\_1",0.0],PARAMETER

["Auxiliary\_Sphere\_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]

### REFERENCE SYSTEM IDENTIFIER

\* VALUE 3857

\* CODESPACE EPSG

\* VERSION 8.2.6

## Spatial Data Properties

### VECTOR ►

\* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

#### GEOMETRIC OBJECTS

FEATURE CLASS NAME artificial\_reef\_habitat\_site\_noaa\_v3

\* OBJECT TYPE point

\* OBJECT COUNT 7683

### ARCGIS FEATURE CLASS PROPERTIES

FEATURE CLASS NAME artificial\_reef\_habitat\_site\_noaa\_v3

- \* FEATURE TYPE Simple
- \* GEOMETRY TYPE Point
- \* HAS TOPOLOGY FALSE
- \* FEATURE COUNT 7683
- \* SPATIAL INDEX TRUE
- \* LINEAR REFERENCING FALSE

## Distribution

### DISTRIBUTION FORMAT

- \* NAME File Geodatabase Feature Class

## Fields

### DETAILS FOR OBJECT artificial\_reef\_habitat\_site\_noaa\_v3

- \* TYPE Feature Class
- \* ROW COUNT 7683

### DEFINITION

National Artificial Reef Locations

### DEFINITION SOURCE

NOAA Office for Coastal Management

### FIELD OBJECTID

- \* ALIAS OBJECTID
- \* DATA TYPE OID
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

### FIELD DESCRIPTION

Internal feature number.

### DESCRIPTION SOURCE

Esri

### DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

### FIELD Shape

- \* ALIAS Shape
- \* DATA TYPE Geometry
- \* WIDTH 0
- \* PRECISION 0
- \* SCALE 0

### FIELD DESCRIPTION

Feature geometry.

### DESCRIPTION SOURCE

Esri

### DESCRIPTION OF VALUES

Coordinates defining the features.

### FIELD reefName

- \* ALIAS Reef Name
- \* DATA TYPE String
- \* WIDTH 75
- \* PRECISION 0
- \* SCALE 0

### FIELD DESCRIPTION

Name of reef.

### DESCRIPTION SOURCE

NOAA Office for Coastal Management

### DESCRIPTION OF VALUES

Coordinates defining the features.

### FIELD reefID

- \* ALIAS Reef ID
- \* DATA TYPE String
- \* WIDTH 75
- \* PRECISION 0
- \* SCALE 0

### FIELD DESCRIPTION

Identification name, number or code of reef.

DESCRIPTION SOURCE

NOAA Office for Coastal Management

DESCRIPTION OF VALUES

Coordinates defining the features.

FIELD state

- \* ALIAS State
- \* DATA TYPE String
- \* WIDTH 25
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

State in charge of reef.

DESCRIPTION SOURCE

NOAA Office for Coastal Management

DESCRIPTION OF VALUES

Coordinates defining the features.

FIELD description

- \* ALIAS Description
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

General location and description of reef.

DESCRIPTION SOURCE

NOAA Office for Coastal Management

DESCRIPTION OF VALUES

Coordinates defining the features.

FIELD composition

- \* ALIAS Composition
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Materials that make up the reef.

DESCRIPTION SOURCE

NOAA Office for Coastal Management

DESCRIPTION OF VALUES

Coordinates defining the features.

FIELD comments

- \* ALIAS Comments
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Additional information provided about each reef.

DESCRIPTION SOURCE

NOAA Office for Coastal Management

DESCRIPTION OF VALUES

Coordinates defining the features.

FIELD species

- \* ALIAS Species
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Marine species that can be found at reef site.

DESCRIPTION SOURCE

NOAA Office for Coastal Management

DESCRIPTION OF VALUES

Coordinates defining the features.

#### FIELD area

- \* ALIAS Area
- \* DATA TYPE String
- \* WIDTH 50
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Size of reef.

#### DESCRIPTION SOURCE

NOAA Office for Coastal Management

#### DESCRIPTION OF VALUES

Coordinates defining the features.

#### FIELD date

- \* ALIAS Date
- \* DATA TYPE String
- \* WIDTH 25
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Date materials were deployed at reef site.

#### DESCRIPTION SOURCE

NOAA Office for Coastal Management

#### DESCRIPTION OF VALUES

Coordinates defining the features.

#### FIELD depth

- \* ALIAS Depth
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Water depth in feet at reef. If a range was provided, the deeper depth was used.

#### DESCRIPTION SOURCE

NOAA Office for Coastal Management

#### DESCRIPTION OF VALUES

Coordinates defining the features.

#### FIELD relief

- \* ALIAS Relief
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Height of reef in feet.

#### DESCRIPTION SOURCE

NOAA Office for Coastal Management

#### DESCRIPTION OF VALUES

Coordinates defining the features.

#### FIELD clearance

- \* ALIAS Clearance
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Height of water in feet from the top of each reef to the surface.

#### DESCRIPTION SOURCE

NOAA Office for Coastal Management

#### DESCRIPTION OF VALUES

Coordinates defining the features.

#### FIELD x

- \* ALIAS x
- \* DATA TYPE Double

\* WIDTH 8  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

Longitude

DESCRIPTION SOURCE

NOAA Office for Coastal Management

DESCRIPTION OF VALUES

Coordinates defining the features.

FIELD y

\* ALIAS y  
\* DATA TYPE Double  
\* WIDTH 8  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

Latitude

DESCRIPTION SOURCE

NOAA Office for Coastal Management

DESCRIPTION OF VALUES

Coordinates defining the features.

## Metadata Details

\* METADATA LANGUAGE English (UNITED STATES)

SCOPE OF THE DATA DESCRIBED BY THE METADATA \* dataset

SCOPE NAME \* dataset

\* LAST UPDATE 2017-01-03

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

METADATA STYLE FGDC CSDGM Metadata

STANDARD OR PROFILE USED TO EDIT METADATA FGDC

CREATED IN ARCGIS FOR THE ITEM 2016-12-14 09:42:19

LAST MODIFIED IN ARCGIS FOR THE ITEM 2017-01-03 09:21:20

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2017-01-03 09:15:35