

Center for Coastal Studies: Cape Cod Bay - Aerial Surveys 2021-2024

Type Enterprise Geodatabase Feature Class

Tags RWSC, CCS, Cape Cod Bay, Aerial Surveys, Marine Mammals, whale

Summary

This layer represents transects from the Center for Coastal Studies' aerial surveys conducted from 2021-2024 in Cape Cod Bay. These lines show only the planned routes for the aerial surveys and are displayed for planning and research coordination purposes.

Description

This layer represents transects from Center for Coastal Studies' aerial surveys conducted from 2021-2024 in Cape Cod Bay. CCS conducts aerial surveys each winter in support of research on North Atlantic right whale population, ecology and human impacts. Aerial platforms allow researchers to survey the bay more extensively in less time than vessel surveys would allow. Feeding right whales can swim slowly, mere feet below the surface for over twenty minutes. From the air, observers can see into the water and can track a subsurface whale until it emerges for a breath.

The main objective of the observers on board is to locate and document right whales. When a right whale is sighted, the plane breaks from its current track line to circle over the whale. The observers record the position, how many whales are present, dive times and behaviors. Whales are also checked for signs of entanglement. One of the observers is responsible for obtaining identifying photographs of the whale. Right whales are identified by the patterns of callosities found on the top of the head. From the bird's eye perspective of the airplane, the top of the whale's head and a dorsal view of the body is easily photographed. Photographing the body is important as scars along the body and flukes can assist in identifying the individual whale.

The Cape Cod Bay surveys are conducted from January through May and are typically conducted once a week during that period. The survey plane flies a series of east-west track lines that are spaced 1.5 nm apart. The waters off the eastern shore of the Cape are surveyed with a single track that runs north to south along the shoreline. The entire survey covers approximately 300 nm of track line. Surveys are conducted at an altitude of 750 feet and a speed of 100 knots.

For more information visit: <https://coastalstudies.org/our-work/right-whale-research/population-monitoring/> ; and RWSC database project page: <https://database.rwsc.org/details?recordId=rec8uYmbwmSLZaQOb>

These shapefiles display just the planned routes, to view the realized routes from all completed surveys visit: <https://whalemap.org/#map>

Credits

Daniel Palacios - CCS, dpalacios@coastalstudies.org

Use limitations

These data will be used by RWSC and its expert Subcommittees, partners, and other participants to implement the [Science Plan](#), including to understand the extent of ongoing and planned data collection activities, and to coordinate and plan future data collection and research activities with respect to offshore wind. The data will be displayed via online mapping platforms.

Extent

West -70.631670 East -69.861819
North 42.112887 South 41.663397

Scale Range

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

Topics and Keywords ►

Themes or categories of the resource Biota, Oceans

Content type ⇔ Downloadable Data
Export to FGDC CSDGM XML format as Resource Description No

Citation ►

Title Center for Coastal Studies: Cape Cod Bay - Aerial Surveys 2021-2024
Publication date 2024-07-12 00:00:00

Presentation formats ⇔ digital map

Citation Contacts ►

Responsible party - point of contact
Individual's name Daniel Palacios
Organization's name Center for Coastal Studies

Contact information ►
Phone
Voice NA
Address
Type postal
City NA
Administrative area NA

Postal code NA
e-mail address dpalacios@coastalstudies.org
Responsible party - originator
Individual's name Debbie Brill
Organization's name Regional Wildlife Science Collaborative for Offshore Wind
Contact's position Marine Mammals Subcommittee Lead

Contact information ►

Phone

Voice NA

Address

Type postal

Delivery point NA

City NA

Administrative area NA

Postal code NA

e-mail address deborah.brill@duke.edu

Resource Details ►

Dataset languages ⇌ English (UNITED STATES)
Dataset character set utf8 - 8 bit UCS Transfer Format

Status on-going
Spatial representation type ⇌ vector

Processing environment ⇌ Microsoft Windows 10 Version 10.0 (Build 22631) ; Esri ArcGIS 13.2.2.49743

Credits
Daniel Palacios - CCS, dpalacios@coastalstudies.org

ArcGIS item properties

Name ⇌ rpt.rpt.CenterforCoastalStudies_CCB_AerialSurveys

Size ⇌ 0.000

Location ⇌ Server=rwsc-db-pg15.env.duke.edu; Service=sde:postgresql:rwsc-db-pg15.env.duke.edu; Database=rpt; User=rpt; Version=sde.DEFAULT

Access protocol ⇌ ArcSDE Connection

Extents ►

Extent

Description

Aerial Surveys conducted from 2021 - 2024

Geographic extent

Bounding rectangle

Extent type

Extent used for searching

West longitude -70.631670

East longitude -69.861819

North latitude 42.112887

South latitude 41.663397

Extent contains the resource No

Temporal extent

Beginning date 2021-01-01 00:00:00

Ending date 2024-12-31 00:00:00

Extent in the item's coordinate system

westBL ⇌ -70.631670

eastBL ⇌ -69.861819

southBL ⇌ 41.663397

northBL ⇌ 42.112887

exTypeCode ⇌ Yes

Resource Points of Contact ►

Point of contact - point of contact

Individual's name Daniel Palacios

Organization's name Center for Coastal Studies

Contact information ►

Phone

Voice NA

Address

Type postal

City NA

Administrative area NA

Postal code NA

e-mail address dpalacios@coastalstudies.org

Resource Maintenance ►

Resource maintenance

Update frequency as needed

Resource Constraints ▶

Constraints

Limitations of use
These data will be used by RWSC and its expert Subcommittees, partners, and other participants to implement the [Science Plan](#), including to understand the extent of ongoing and planned data collection activities, and to coordinate and plan future data collection and research activities with respect to offshore wind. The data will be displayed via online mapping platforms.

Spatial Reference ▶

ArcGIS coordinate system

Type ↔ Geographic

Geographic coordinate reference ↔ GCS_WGS_1984

Coordinate reference details ↔

GeographicCoordinateSystem

WKID 4326

XOrigin -400

YOrigin -400

XYScale 1111948722.2222219

ZOrigin 0

ZScale 1

MOrigin 0

MScale 1

XYTolerance 8.983152841195215e-09

ZTolerance 0.001

MTolerance 0.001

HighPrecision true

LeftLongitude -180

LatestWKID 4326

WKT

GEOGCS["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],AUTHORIT

Reference system identifier

Value ↔ 4326

Codespace ↔ EPSG

Version ↔ 6.2(3.0.1)

Spatial Data Properties ▶

Vector ▶

Level of topology for this dataset ↔ geometry only

Geometric objects

Feature class name rpt.rpt.CenterforCoastalStudies_CCB_AerialSurveys

Object type ↔ composite

Object count ↔ 0

ArcGIS Feature Class Properties ▶

Feature class name rpt.rpt.CenterforCoastalStudies_CCB_AerialSurveys

Feature type ↔ Simple

Geometry type ↔ Polyline

Has topology ↔ FALSE

Feature count ↔ 0

Spatial index ↔ TRUE

Linear referencing ↔ FALSE

Data Quality ▶

Data quality report - Conceptual consistency ▶

Data quality measure reference

Measure description

Polyline shapefiles depicting aerial survey transect positions

Data quality report - Completeness omission ▶

Data quality measure reference

Measure description

This dataset reflects ongoing aerial survey paths, and is complete as of 7/12/24. May be updated as needed.

Lineage ▶

Lineage statement

Received shapefiles directly from contacts

Process step ▶

When the process occurred 2024-07-10 00:00:00

Description

1. Data imported into GIS

Process contact - originator
Individual's name Debbie Brill
Organization's name Regional Wildlife Science Collaborative for Offshore Wind
Contact's position Marine Mammals Subcommittee Lead

Contact information ►
Phone
Voice NA
Address
Type postal
Delivery point NA
City NA
Administrative area NA
Postal code NA
e-mail address deborah.brill@duke.edu

Process step ►
When the process occurred 2024-07-10 00:00:00
Description
2. All features merged into single feature

Process contact - originator
Individual's name Debbie Brill
Organization's name Regional Wildlife Science Collaborative for Offshore Wind
Contact's position Marine Mammals Subcommittee Lead

Contact information ►
Phone
Voice NA
Address
Type postal
Delivery point NA
City NA
Administrative area NA
Postal code NA
e-mail address deborah.brill@duke.edu

Process step ►
When the process occurred 2024-07-10 00:00:00
Description
3. Field names added and filled in

Process contact - originator
Individual's name Debbie Brill
Organization's name Regional Wildlife Science Collaborative for Offshore Wind
Contact's position Marine Mammals Subcommittee Lead

Contact information ►
Phone
Voice NA
Address
Type postal
Delivery point NA
City NA
Administrative area NA
Postal code NA
e-mail address deborah.brill@duke.edu

Source data ►
Description
Received shapefiles directly from contacts

Distribution ►
Distribution format
Name ↔ Enterprise Geodatabase Feature Class

Transfer options
Transfer size ↔ 0.000

Fields ►
Details for object rpt.rpt.CenterforCoastalStudies_CCB_AerialSurveys ►
Type ↔ Feature Class
Row count ↔ 0
Definition
Attribute table prepared by RWSC

Definition source
RWSC

Field OBJECTID ►
Alias ↔ OBJECTID

Data type ⇔ OID

Width ⇔ 4

Precision ⇔ 10

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 ⇔ 8

Precision ⇔ 0

Scale ⇔ 0

Field description ⇔

Feature geometry.

Description source ⇔

Esri

Description of values ⇔

Coordinates defining the features.

Field OPERATOR ►

Alias ⇔ OPERATOR

Data type ⇔ String

Width ⇔ 254

Precision ⇔ 0

Scale ⇔ 0

Field description

The primary affiliation for the operator of the device

Description source

RWSC

Description of values

Unique name affiliation.

Field POC_EMAIL ►

Alias ⇔ POC_EMAIL

Data type ⇔ String

Width ⇔ 254

Precision ⇔ 0

Scale ⇔ 0

Field description

Email for the primary point of contact

Description source

RWSC

Description of values

Unique email addresses.

Field PROJECT_NAME ►

Alias PROJECT_NAME

Data type ⇔ String

Width ⇔ 254

Precision ⇔ 0

Scale ⇔ 0

Field description

Name of the project

Description source

RWSC

Description of values

Unique project name.

Field PATH_NAME ►

Alias ⇔ PATH_NAME
Data type ⇔ String
Width ⇔ 254
Precision ⇔ 0
Scale ⇔ 0

Field description
The route ID

Description source
RWSC

Description of values
Unique path identification.

Field START_YEAR ►

Alias ⇔ START_YEAR
Data type ⇔ Integer
Width ⇔ 4
Precision ⇔ 10
Scale ⇔ 0

Field description
The start year in the YYYY format for the start of usable data for that path (i.e. the surveys are conducted in structured survey form).

Description source
RWSC

Description of values
Year in YYYY format.

Field END_YEAR ►

Alias ⇔ END_YEAR
Data type ⇔ Integer
Width ⇔ 4
Precision ⇔ 10
Scale ⇔ 0

Field description
The end year in the YYYY format for the end of usable data for that path (i.e. the surveys are conducted in structured survey form). (*Default set to 2050 if no available end year)

Description source
RWSC

Description of values
Year in YYYY format.

Field START_DATE ►

Alias ⇔ START_DATE
Data type ⇔ String
Width ⇔ 254
Precision ⇔ 0
Scale ⇔ 0

Field description
The start date in the D-Month format for the start of the typical survey season. (*NOT an actual date field, keeping it as text so that it doesn't add a default year)

Description source
RWSC

Description of values
Text start date for season.

Field END_DATE ►

Alias ⇔ END_DATE
Data type ⇔ String
Width ⇔ 254
Precision ⇔ 0
Scale ⇔ 0

Field description
The end date in the D-Month format for the end of the typical survey season. (*NOT an actual date field, keeping it as text so that it doesn't add a default year)

Description source
RWSC

Description of values
Text end date for season.

Field FREQUENCY ►

Alias ⇔ FREQUENCY
Data type ⇔ String
Width ⇔ 254
Precision ⇔ 0
Scale ⇔ 0

Field description
Proposed/approximate frequency of surveys throughout the survey season

Description source
RWSC

Description of values
Unique frequency measure.

Field PROJECT_LINK ►

Alias PROJECT_LINK
Data type ⇔ String
Width ⇔ 254
Precision ⇔ 0
Scale ⇔ 0

Field description
Link to the project entry in the RWSC database if applicable

Description source
RWSC

Description of values
Unique link address.

Field DATE_SUBMITTED ►

Alias DATE_SUBMITTED
Data type ⇔ Date
Width ⇔ 8
Precision ⇔ 0
Scale ⇔ 0

Field description
The date the shapefiles were sent to the RWSC

Description source
RWSC

Description of values
Date field.

Field DATE_ADDED ►

Alias ⇔ DATE_ADDED
Data type ⇔ Date
Width ⇔ 8
Precision ⇔ 0
Scale ⇔ 0

Field description
The date the entries were added to map

Description source
RWSC

Description of values
Date field.

Field LABEL ►

Alias LABEL
Data type ⇔ String
Width ⇔ 254
Precision ⇔ 0
Scale ⇔ 0

Field description
The proposed layer name to appear in the table of contents

Description source
RWSC

Description of values
Unique label for use in symbology.

Metadata Details ▶

Metadata language ⇔ English (UNITED STATES)
Metadata character set ⇔ utf8 - 8 bit UCS Transfer Format

Scope of the data described by the metadata ⇔ dataset
Scope name ⇔ dataset

Last update ⇔ 2024-09-24

ArcGIS metadata properties

Metadata format ArcGIS 1.0
Standard or profile used to edit metadata FGDC

Created in ArcGIS for the item 2024-01-24 12:31:40
Last modified in ArcGIS for the item 2024-09-24 15:36:39

Automatic updates

Have been performed Yes
Last update 2024-07-12 11:30:49

Item location history

Item copied or moved 2024-01-24 12:31:40
From C:\Users\jozog\OneDrive - HDR, Inc\GIS\HDR_NARW_Aerial_Tracklines
To \\DZ7YXT3\C\$\Users\jozog\OneDrive - HDR, Inc\GIS\Aerial_for_Jackie\HDR_NARW_Aerial_Tracklines

Metadata Contacts ▶

Metadata contact - originator

Individual's name Debbie Brill
Organization's name Regional Wildlife Science Collaborative for Offshore Wind
Contact's position Marine Mammals Subcommittee Lead

Contact information ▶

Phone

Voice NA

Address

Type postal
Delivery point NA
City NA
Administrative area NA
Postal code NA
e-mail address deborah.brill@duke.edu

Metadata Maintenance ▶

Maintenance

Update frequency as needed

Maintenance contact - originator

Individual's name Debbie Brill
Organization's name Regional Wildlife Science Collaborative for Offshore Wind
Contact's position Marine Mammals Subcommittee Lead

Contact information ▶

Phone

Voice NA

Address

Type postal
Delivery point NA
City NA
Administrative area NA
Postal code NA
e-mail address deborah.brill@duke.edu