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

Type File Geodatabase Feature Class

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

Summary

This layer represents transects from CCS's 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.

For more information visit: https://coastalstudies.org/our-work/right-whale-research/population-monitoring/

Description

This layer shows the route CCS runs their coastal CCB aerial surveys. For more information visit: https://coastalstudies.org/our-work/right-whale-research/population-monitoring/

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.

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 ⇔ CCS_CCB_Surveys
Size ⇔ 0.000
Location ⇔ file://\\DESKTOP-CUHUDPJ\D$\Contracting\RWSC\GIS_Work\MM_Aerial_Surveys\MM_Aerial_Surveys\Default.gdb
Access protocol ⇔ Local Area Network

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 1111948722.2222221
ZOrigin -100000
ZScale 10000
MOrigin -100000
MScale 10000
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 CCS_CCB_Surveys
Object type ⇔ composite
Object count ⇔ 1

ArcGIS Feature Class Properties ►
Feature class name CCS_CCB_Surveys
Feature type ⇔ Simple
Geometry type ⇔ Polyline
Has topology ⇔ FALSE
Feature count ⇔ 1
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 ⇔ File Geodatabase Feature Class

Transfer options
Transfer size ⇔ 0.000

Fields ►

Details for object CCS_CCB_Surveys ►
Type ⇔ Feature Class
Row count ⇔ 1
Definition
Attribute table prepared by RWSC

Definition source
RWSC

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 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 ⇔ 0
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 ⇔ 0
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.

Field Shape_Length ►
Alias ⇔Shape_Length
Data type ⇔Double
Width ⇔8
Precision ⇔0
Scale ⇔0

Field description ⇔
Length of feature in internal units.

Description source ⇔
Esri

Description of values ⇔
Positive real numbers that are automatically generated.

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 ⇔ 2024-07-12

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 2024-07-12 09:49:33

Automatic updates
Have been performed Yes
Last update 2024-07-12 09:49:33
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