Center for Coastal Studies: Massachusetts Bay - Aerial Surveys 2022-2024

Type   Enterprise Geodatabase Feature Class

Tags   RWSC, CCS, Massachusetts Bay, Aerial Surveys, Marine Mammals, whale

Summary

This layer represents transects from the Center for Coastal Studies' aerial surveys conducted from 2021-2024 in Massachusetts 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 CCS's aerial surveys conducted from 2022-2024 in Massachusetts 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 quickly 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 surveys are conducted from January through May and are typically done twice a month during that period. They used a line-transect methodology flying a series of east-west track lines that are spaced 3 nm apart.

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

For more information on the aerial survey realized routes visit: https://whalemap.org/WhaleMap/

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   -70.833330   East   -70.000000
North   42.833170   South   42.133640

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: Massachusetts Bay - Aerial Surveys 2022-2024
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
      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_MAB_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 2022 - 2024

   Geographic extent
      Bounding rectangle
         Extent type
         Extent used for searching
            West longitude   -70.833330
            East longitude   -70.000000
            North latitude   42.833170
            South latitude   42.133640
            Extent contains the resource   Yes

   Temporal extent
      Beginning date   2022-01-01   00:00:00
      Ending date   2024-12-31   00:00:00

Extent in the item's coordinate system
   westBL   ⇔ -70.833330
   eastBL   ⇔ -70.000000
   southBL   ⇔ 42.133640
   northBL   ⇔ 42.833170
   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_MAB_AerialSurveys
    Object type   ⇔ composite
    Object count   ⇔ 0

  ArcGIS Feature Class Properties ▶
    Feature class name   rpt.rpt.CenterforCoastalStudies_MAB_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
        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
                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
                City   NA
                Administrative area   NA
                Postal code   NA
                e-mail address   Deborah.brill@duke.edu

Distribution ▶

Distribution format
    Name   ⇔ Enterprise Geodatabase Feature Class

Transfer options
    Transfer size   ⇔ 0.000

Fields ▶

Details for object rpt.rpt.CenterforCoastalStudies_MAB_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
    RWCS

    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   15:51:58

    Automatic updates
        Have been performed   Yes
        Last update   2024-07-12   14:43:01
    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
            City   NA
            Administrative area   NA
            Postal code   NA
            e-mail address   Deborah.brill@duke.edu