
NEARC
October 17, 2016
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What is Ocean Planning?

“Strategies that help reduce conflict among ocean users and the environment”
Why Create the Northeast Portal?

• The Northeast Ocean Plan depends on access to wide range of coastal and marine scientific data and products

• Data to support ocean planning were scattered among many different data providers

• Few regionally consistent data products

• Portal offers tools for stakeholder engagement and understanding of a regional baseline
How The Northeast Portal Works

• Brings together key data on ocean uses and environment
• Group effort from a working group, data providers, and the public
• Working group made up of multiple organizations that collaborate and share tools and information
How The Northeast Portal Works

• Users can:
  • View interactive thematic maps
  • Download data
  • Browse a directory of other relevant data products on other websites
Use Statistics – September 2016

- Boat Launches
- Marine Hydrokinetic Projects
- Water Trails
- Multispecies2006To2010
- Squid2014LessThan4knots
- Montauk to Nantucket Shoals Bathymetry
- Scallop2011To2014LessThan5knots
- Herring2006To2010
- Aquaculture
- National Marine Sanctuary

Number of Page Hits:

- 10,000
- 8,000
- 6,000
- 4,000
- 2,000
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**DATA EXPLORER**

<table>
<thead>
<tr>
<th>Human Activities</th>
<th>Marine Life</th>
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**NORTHEAST OCEAN DATA**

Maps and data for ocean planning in the northeastern United States.

Interact with any combination of data in the Data Explorer — Human Activities, Marine Life, and Environment.

[www.northeastoceandata.org](http://www.northeastoceandata.org)

@neoceandata
**NORTHEAST OCEAN DATA**

Maps and data for ocean planning in the northeastern United States

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**RECREATIONAL BOATING DENSITY**

The Recreational Boating Density layer depicts a data product from the 2012 Northeast Recreational Boater Survey, conducted by SeaPlan and the Northeast Regional Ocean Council (NROC). Both a random and a supplemental sample of Northeast boaters plotted their boating routes throughout the 2012 boating season using an online mapping application. The density map is derived using only the random sample of survey participants and is intended to show the relative density of boating activity throughout the region using a scale from high (red) to low (green). Areas showing low or no activity does not necessarily mean they are not used for recreational purposes. According to the results of the survey, these areas are likely less trafficked than others.

- [View data with other layers](#)
- [Metadata](#)
- [Report](#)

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**LEGEND**

- Recreational Boating Density
- Recreational Boater Routes
- Distance Sailing Routes

**Color Key**

- **High**
- **Low**
The Recreational Boating Density layer depicts a data product from the 2012 Northeast Recreational Boater Survey, conducted by SeaAlert and the Northeast Regional Ocean Council (NROC). Both a random and a supplemental sample of Northeast boaters plotted their boating routes throughout the 2012 boating season using an online mapping application. The density map is derived using only the random sample of survey participants and is intended to show the relative density of boating activity throughout the region using a scale from high (red) to low (green). Areas showing low or no activity does not necessarily mean they are not used for recreational purposes. According to the results of the survey, these areas are likely less trafficked than others.
NORTHEAST OCEAN DATA
Maps and data for ocean planning in the northeastern United States

EELGRASS

QUICK LINKS > Eelgrass Home | Regional Map of Eelgrass | Past Eelgrass Surveys | Other Eelgrass Resources

Regional Map of Eelgrass
Interactive map of eelgrass coverage in the Northeast based on available recent data (updated as of Fall 2014) for Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island

Past Eelgrass Surveys
Historic eelgrass coverage in selected parts of the Northeast from studies that document eelgrass beginning in the mid-1800s

Other Eelgrass Resources
Links to selected reports, data sources, and websites
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Links to selected reports, data sources, and websites.
Great Bay Estuary, NH (1986)
Download Dataset: Eelgrass1986
View Metadata: Eelgrass1986
Survey Type: Ground-truthed aerial photos

To use the list and map: Click on a survey to zoom to the survey location on the map and to see download links below the map. A selected survey will remain highlighted until another survey is selected.
Great Bay Estuary, NH (1986)
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<thead>
<tr>
<th>STATE</th>
<th>LOCATION</th>
<th>YEAR(S)</th>
<th>SOURCE</th>
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</thead>
<tbody>
<tr>
<td>ME</td>
<td>Coastline</td>
<td>2010</td>
<td>ME DMR</td>
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<tr>
<td>ME</td>
<td>Coastline</td>
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<td>ME DMR</td>
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<td>NH</td>
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<td>NH</td>
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<td>1986</td>
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www.northeastoceandata.org
@neoceandata
Great Bay Estuary, NH (1989)
Download Dataset: Felgrass1989
View Metadata: Felgrass1989
Survey Type: Ground-truthed aerial photos

To use the list and map: Click on a survey to zoom to the survey location on the map and to see download links below the map. A selected survey will remain highlighted until another survey is selected.
EELGRASS

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Past Eelgrass Surveys
Historic eelgrass coverage in selected parts of the Northeast from studies that document eelgrass beginning in the mid-1800s

Other Eelgrass Resources
Links to selected reports, data sources, and websites
OTHER EELGRASS RESOURCES

QUICK LINKS > Eelgrass Home | Regional Map of Eelgrass | Past Eelgrass Surveys | Other Eelgrass Resources

This page provides a directory of selected sources of eelgrass data and information for the Northeast. Please submit suggestions of additional resources that should be considered for inclusion to eelgrass@northeastoceandata.org.

State Resources

MAINE DMR EELGRASS MAPS
Downloadable maps from eelgrass surveys and studies of changes in eelgrass beds between 1992-98 and 2001-10
http://www.maine.gov/dmr/science-research/species/eelgrass/

MASSACHUSETTS EELGRASS MAPPING PROJECT
Data, maps, and reports from eelgrass surveys by the Massachusetts Department of Environmental Protection
http://www.mass.gov/eea/agencies/massdep/water/watersheds/eelgrass-mapping-project.html
Habitat mapping and classification in the Northeast USA

Each state in the Northeast is using different approaches to map seafloor and ocean habitats. Why is this the case and what can we do to make a regional habitat map?

Habitat classification and mapping produce an inventory of habitat types and locations that provide the context for ocean planning and management as well as the supporting information for mapping other types of marine life.

Mapping projects in the Northeast have greatly advanced our knowledge of marine habitats as well as contributed to the refinement of habitat mapping methods. However, many different methods have been used to classify habitats within the region. Important differences between the methods have so far made it difficult to make a regional map of habitats.
3. Major projects in the Northeast region and their footprints

To start the process of aligning habitat mapping and classification efforts, NROC recently reviewed over 20 active habitat characterization projects in the region. We looked in-depth at 8 major projects led by states, the New England Fishery Management Council (NEFMC) and The Nature Conservancy (TNC).

The spatial domain of each project depended on the research questions or management goals of the individual states or organizations. For example, Rhode Island conducted high resolution mapping to support wind farm siting in the Bureau of Ocean Energy Management Wind Energy Areas. TNC mapped from the Gulf of Maine to Cape Hatteras to conduct the Northwest Atlantic Marine Ecoregional Assessment (NAMERAI).

These spatial data reflect mapping progress as of November 2013.

4. Shape and composition of the seafloor
Predicting Cetacean Density with Geospatial Models

Why do we need cetacean data?

Whales, dolphins, and porpoises are collectively named cetaceans. These marine mammals inhabit many riverine, estuarine, coastal, and marine areas. Many were hunted during the whaling era, and their populations are still recovering. Although commercial whaling has not occurred in U.S. waters in decades, humans continue to increase their use of the ocean and its resources in other ways.

The Marine Mammal Protection Act prohibits activities that would harm or disturb cetaceans, and other marine mammals, and impact their populations. To evaluate possible impacts, managers and stakeholders need to know how cetaceans are distributed geographically, how their distributions change with the seasons, what behaviors they are engaged in, and how many individuals exist in each area. With this knowledge, managers can do their best to avoid causing harm. The National Oceanic and Atmospheric Administration (NOAA) is the federal agency with responsibility for collecting information on where these marine protected species live. Recently, a group of scientists used data collected by NOAA, state agencies, and academic institutions to produce detailed maps of cetacean distributions along the East Coast and Gulf of Mexico by analyzing and modeling how
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Closed Areas

- Spawning Areas
- Environment
- Degradation Closures
- Essential Fish Habitat
- Closure Areas
- Gulf of Maine and Georges Bank Regulated
- Rhode Island Area
- Herring Management Areas
- Lobster Management Areas
- Maine Mackerel

Closed Areas

- Leatherback Sea Turtle, SPIE
- No Settings
- <1
- 1-10
- 10-100
- >100

Description:
This layer shows the five Northeast Multispecies Closed Areas (Closed Area 1, Closed Area 2, the Northeast Lightship Closed Area, the Cod Hole Closed Area, and the Western Gulf of Maine Closed Area), which are closed to fishing in order to protect groundfish stocks. However, there are special programs that allow some fishermen, including groundfish, herring, and several ocean ones, and scallop to access some parts of these closed areas under certain conditions. Vessels may enter the areas that are closed provided that their fishing gear is allowed according to regulations. This dataset is from NMFS and represents areas and regulations mandated in the U.S. Code of Federal Regulations (CFR). This layer does not represent a legal definition of the regulated areas. The description published in the CFR is the only legal definition.

Data: Metadata | Source Data | Web Service | Zoom to Layer
Layer: Closed Areas (ID: 54)

Parent Layer: Surfclam/Ocean Quahog

Name: Closed Areas

Display Field: AREANAME

Type: Feature Layer

Geometry Type: esriGeometryPolygon

Description: This layer shows the five Northeast Multispecies Closed Areas (Closed Area I, Closed Area II, the Nantucket Lightship Closed Area, the Cashes Ledge Closed Area, and the Western Gulf of Maine Closed Area), which are closed to fishing in order to protect groundfish stocks. However, there are special programs that allow some fisheries, including groundfish, herring, surfclam/ocean quahog, and scallop to access some parts of these closed areas under certain conditions. Vessels may transit the areas that are closed provided that their fishing gear is stowed according to regulations. This dataset is from NMFS and represents areas and regulations mandated in the U.S. Code of Federal Regulations (CFR). This layer does not represent a legal definition of the Regulated Area. The description published in the CFR is the only legal definition.

Definition Expression: N/A

Copyright Text: NMFS Greater Atlantic Fisheries Regional Office (GARFO)

Default Visibility: true

MaxRecordCount: 1000

Supported Query Formats: JSON, AMF, geoJSON

Min Scale: 0

Max Scale: 0

Supports Advanced Queries: true

Supports Statistics: true

Has Labels: false
Aquaculture

Commercial Fishing

Data hosted by Northeast Ocean Data

- Download a Northeast Ocean Data database (.zip) containing the following layer:
  - Atlantic States Marine Fisheries Commission (ASMFC) Spawning Area Closures
  - Commercial Fishery Landings 2012

Vessel Monitoring System (VMS) density products are published on ArcGIS tile caches on the Northeast Ocean Data web server. These web services may be accessed using ArcGIS Desktop, ArcGIS Online, or other custom web application.

Sources of externally hosted data

- Federal fishery management areas (GARFO)

What's Next?
Northwest Ocean Data adds data, maps, and website enhancements on a rolling basis. Find out what's currently in development.
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Habitat

Data hosted by Northeast Ocean Data

Download a Northeast Ocean Data database (.zip) containing the following layers:

- Seafloor Habitats
- Soft Sediments by Grain Size (mm)
- Sediment Stability
- usSEABED Data Quality
- Eelgrass Beds
- Coastal Wetlands
- Shellfish Habitat
- Chlorophyll a Median: Winter, Spring, Summer, Fall
- Primary Production
- *Calanus finmarchicus* Abundance: Fall, Spring
- Euphausiids Abundance: Fall, Spring
- Gammarid Amphipods Abundance: Fall, Spring
- Mysid Shrimp Abundance: Fall, Spring
- Other Benthic Fauna (SMAST Average Presence/Abundance Dataset)

Download a Northeast Ocean Data database (.zip) containing the following layers:
Thank you and Questions?

Northeast Ocean Data Portal Working Group:
Jenna Ducharme (RPS ASA)
Ben Fish (RPS ASA)
Jeremey Fontenault (RPS ASA)
Jenn Greene (The Nature Conservancy)
Kelly Knee (RPS ASA)
Kate Longley-Wood (SeaPlan)
Nick Napoli (NROC)
Daniel Martin (NOAA Office of Coastal Management)
Ru Morrison (NERACOOS)
Marta Ribera (The Nature Conservancy)
Emily Shumchenia (NROC/E&C Enviroscape)
Peter Taylor (Waterview Consulting)
John Weber (NROC)

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