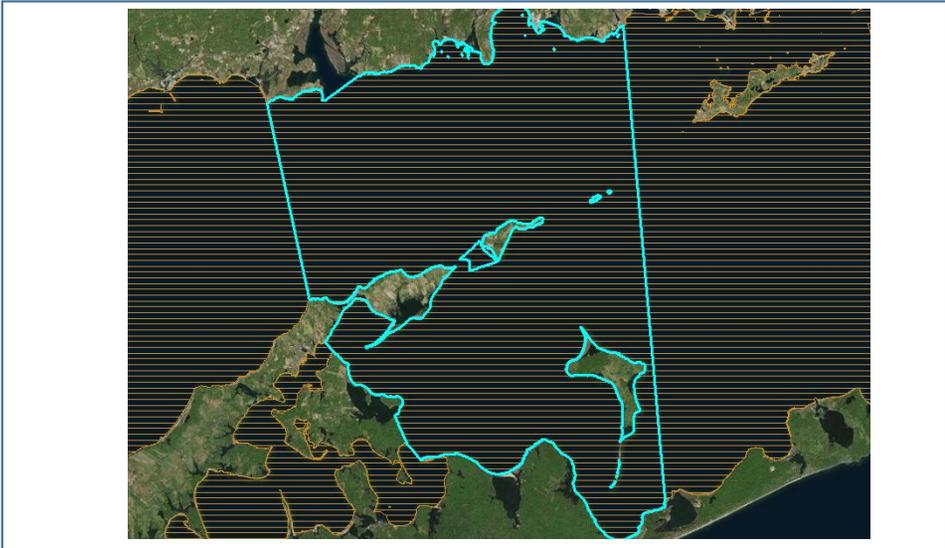


Long Island Sound Blue Plan – Potential Data Products Review
Marine mammals and sea turtles

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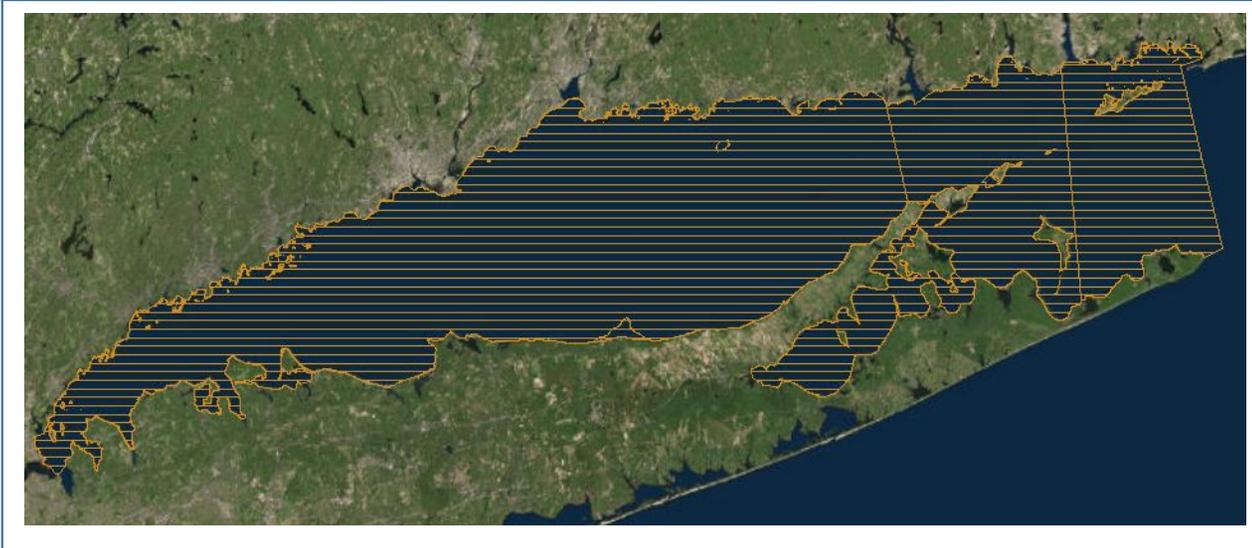
1. NOAA ESI (Environmental Sensitivity Index) Marine Mammals
 - a. Harbor seal
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 - d. Bottlenose dolphin
 - e. North Atlantic right whale
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NOAA ESI Marine Mammals

Data not currently available online

Source: NOAA Office of Response and Restoration



NOAA ESI Marine Mammals



Blue Plan Sector(s): Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: Marine mammals depicted in this atlas include seals, dolphins and whales. The most common seal found in the atlas area is the harbor seal. Harbor seals have established several regular haul out sites in Long Island. Harbor seals generally start showing up in Long Island Sound around late August in small numbers and then in larger numbers later in the fall and will stay through the winter months and into March. By April most will have left the area but a few will still be present. The harbor seal population is noted to have been steadily increasing in recent years. In Long Island Sound, harbor seals typically haul out on the sheltered parts of offshore rocky ledges and boulders during low tide. Gray seals are also common but not nearly as abundant as the harbor seal, except on Little Gull Island where they have established a year round haul out. Gray seals may be expected to be sighted in low numbers wherever harbor seals haul out and may be present year round. Other seal species that may occasionally show up in Long Island but not mapped here are harp and hooded seals. When they are sighted, it is usually among the many harbor seals at seal haul out sites. Small numbers of bottlenose dolphin sightings are possible throughout Long Island Sound from May through September. Large pods of dolphins (75 – 150 individuals) enter the sound on occasion, most likely attracted by large schools of bait fish. These larger occurrences are unpredictable and usually occur many years apart (2015 and 2009 most recently). Although harbor porpoises are known to frequent the waters of Long Island Sound, there are no existing surveys and very little is known about their actual numbers or distribution. The common dolphin, saddle-backed dolphin and Atlantic white sided dolphin are not considered common in Long Island Sound, although they may be occasionally sighted. The only regular sightings of whales occur in the far eastern part of Long Island Sound, where humpback and right whales are known to occur with some frequency. For the most part whale occurrences are uncommon and unpredictable in rest of the sound. Humpback, beluga, minke, long finned pilot and finback whales all have been occasionally spotted, separated by many years at a time, and there is no predictability for when they might enter the sound.

Though the data will be useful for many shoreline applications, the goal of the ESI data is to present a concise summary of resources that may be particularly vulnerable to spilled oil. The intent of the data should caveat other uses. As an example, the ESI is not intended to present a catalog or comprehensive listing of species present in an area, rather the focus is on species particularly sensitive to oiling and life stages where vulnerability may increase.

Full Description: not available as individual file; can be accessed as part of larger data download located here: <http://response.restoration.noaa.gov/maps-and-spatial-data/download-esi-maps-and-gis-data.html#Connecticut>

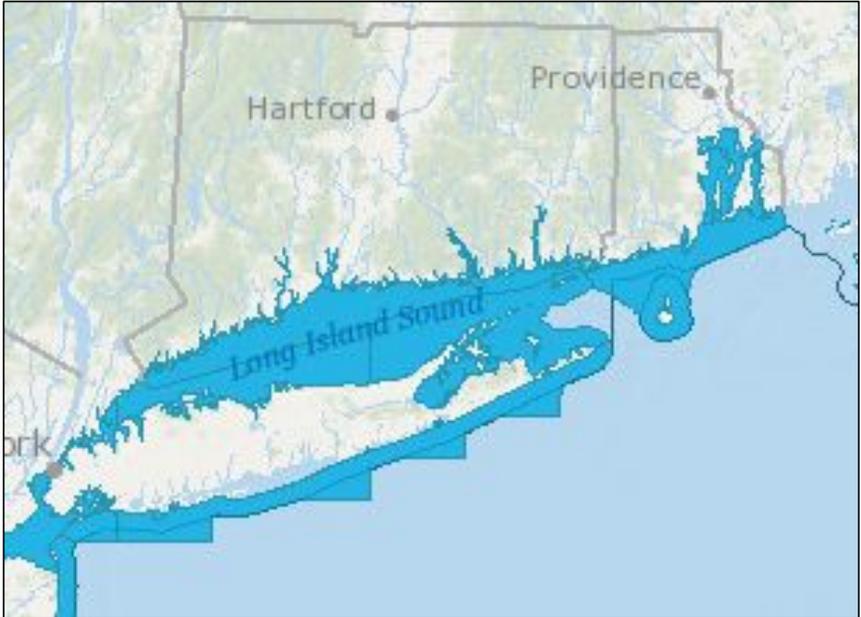
Access Instructions: data not currently available via online viewer; can be accessed as part of larger data download located here: <http://response.restoration.noaa.gov/maps-and-spatial-data/download-esi-maps-and-gis-data.html#Connecticut>

NOAA ESI Marine Mammals



Biofile data example: ESI uses a relational database structure to link many species records to a single area. The multiple records below correspond to the single selected area in the zoomed in map sample.

ELEMENT	SUBLELEMENT	NAME	GEN_SPEC	S	F	STATE	S_DATE	F_DATE	GRANKDATE	MAPPING_QUALIFIER	CONC	SEAS_SUM	BREED1	BREED2	BREED3	BREED4	BREED5	RARNUM *	G_SOURCE	S_SOURCE	BREED
M_MAMMA	pinniped	Harbor seal	Phoca vitulina			CT/NY	201511	0	19961118	GENERAL DISTRIBUTION	PRESENT	Aug-Mar	-	-	-	-	-	283000520	28300502	28300502	185
M_MAMMA	dolphin	Harbor porpoise	Phocoena phocoena	C/		CT/NY	201511	0	19961115	GENERAL DISTRIBUTION	PRESENT	Jan-May	-	-	-	-	-	283000520	28300502	28300509	187
M_MAMMA	pinniped	Gray seal	Halichoerus grypus				0	0	19961119	GENERAL DISTRIBUTION	PRESENT	Jan-Dec	-	-	-	-	-	283000520	28300502	28300502	189
M_MAMMA	dolphin	Bottlenose dolphin	Tursiops truncatus				0	0	19961115	GENERAL DISTRIBUTION	PRESENT	Jun-Aug	-	-	-	-	-	283000520	28300502	28300502	190
M_MAMMA	whale	North Atlantic right whale	Eubalaena glacialis	-/E	E	CT/NY	201511	201511	11961115	GENERAL DISTRIBUTION	PRESENT	Jun-Oct	-	-	-	-	-	283000520	28300502	28300502	188



Marine Mammals Habitat

Northeast Ocean Data (NEODP)

Source: NOAA Environmental Sensitivity Index (ESI)

Marine Mammals Habitat



Marine Mammals Habitat

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sensitive habitat for marine mammal species in Connecticut, Massachusetts, New Hampshire, New York and Rhode Island. Multiple records may be available at the same feature location. The data were created from NOAA's Environmental Sensitivity Index, which was developed to characterize shorelines based on their sensitivity to spilled oil in order to understand the potential risk to these species.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/MarineMammalsHabitat.pdf>

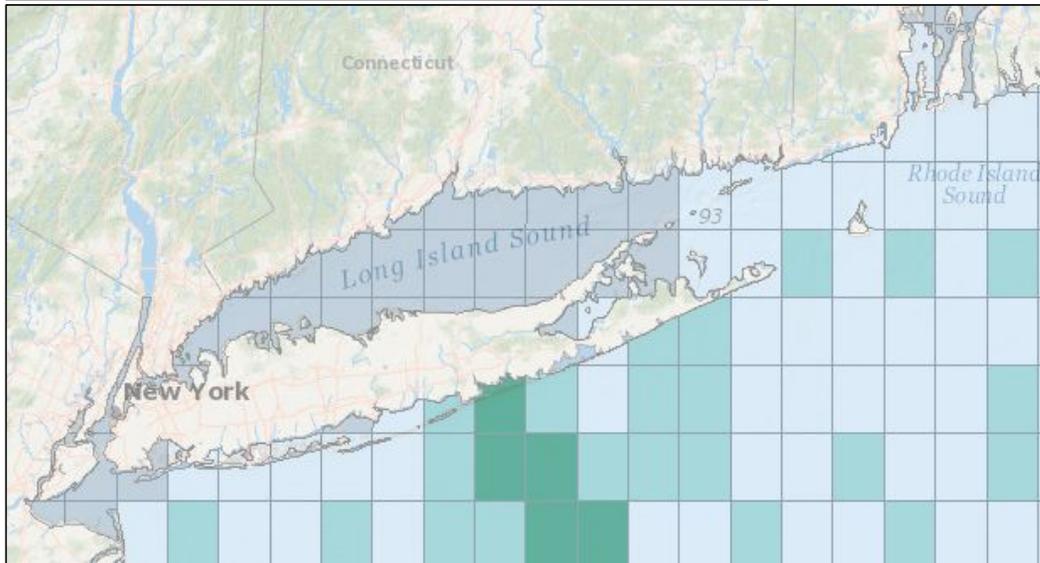
Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals and Sea Turtles > Marine Mammals and select the layer “Marine Mammals Habitat”

Sea Turtles

Mid-Atlantic Ocean Data Portal

Source: NOAA, The Nature Conservancy: Northwest Atlantic Marine Ecoregional Assessment



Sea Turtles

of species above avg.



Sea Turtles



Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: Areas where sightings of loggerhead, leatherback, or green sea turtles are common. Areas where sightings per unit effort for loggerhead, leatherback and green sea turtles were two or more standard deviations higher than the regional average. For these species, 'regional' includes the Mid-Atlantic, Southern New England and the Gulf of Maine.

Full Description:

http://portal.midatlanticocean.org/static/data_manager/metadata/html/MigratoryPortfolio.html

Access Instructions: Go to:

<http://portal.midatlanticocean.org/visualize/#x=-72.13&y=41.23&z=10&logo=true&controls=true&dls%5B%5D=true&dls%5B%5D=0.5&dls%5B%5D=60&dls%5B%5D=false&dls%5B%5D=0.5&dls%5B%5D=484&basemap=Ocean&themes%5Bids%5D%5B%5D=2&tab=data&legends=false&layers=true>

And search “Sea Turtles” under the Data tab



Green Sea Turtle Spring, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy

Green Sea Turtle Spring, SPUE

■ No Sightings



Green Sea Turtle Spring, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for green sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during spring. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEspring.pdf>

Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Green Sea Turtle Spring, SPUE”

Green Sea Turtle Summer, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Green Sea Turtle Summer, SPUE



Green Sea Turtle Summer, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for green sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during summer. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEsummer.pdf>

Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Green Sea Turtle Summer, SPUE”



Green Sea Turtle Fall, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy

Green Sea Turtle Fall, SPUE



Green Sea Turtle Fall, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for green sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during fall. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEfall.pdf>

Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Green Sea Turtle Fall, SPUE”

Green Sea Turtle Winter, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Green Sea Turtle Winter, SPUE

 No Sightings

Green Sea Turtle Winter, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for green sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during winter. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEwinter.pdf>

Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Green Sea Turtle Winter, SPUE”

Leatherback Sea Turtle Spring, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Leatherback Sea Turtle Spring, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for leatherback sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during spring. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEspring.pdf>

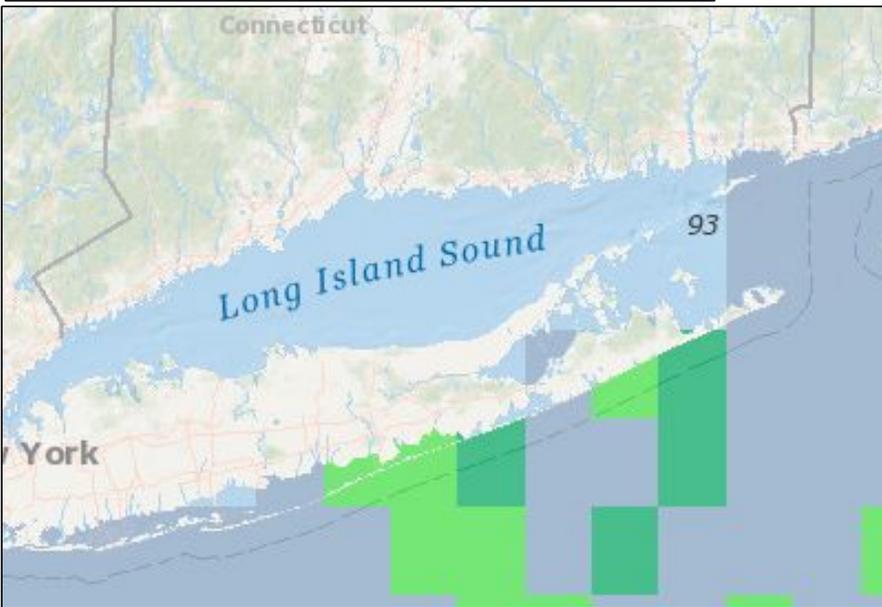
Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Leatherback Sea Turtle Spring, SPUE”

Leatherback Sea Turtle Summer, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Leatherback Sea Turtle Summer, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for leatherback sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during summer. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEsummer.pdf>

Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Leatherback Sea Turtle Summer, SPUE”

Leatherback Sea Turtle Fall, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Leatherback Sea Turtle Fall, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for leatherback sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during fall. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database . Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEfall.pdf>

Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Leatherback Sea Turtle Fall, SPUE”

Leatherback Sea Turtle Winter, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Leatherback Sea Turtle Winter, SPUE

- No Sightings
- <1
- 1-10
- 10-100
- >100



Leatherback Sea Turtle Winter, SPUE



Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for leatherback sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during winter. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEwinter.pdf>

Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Leatherback Sea Turtle Winter, SPUE”

Loggerhead Sea Turtle Spring, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Loggerhead Sea Turtle Spring, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for loggerhead sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during spring. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEspring.pdf>

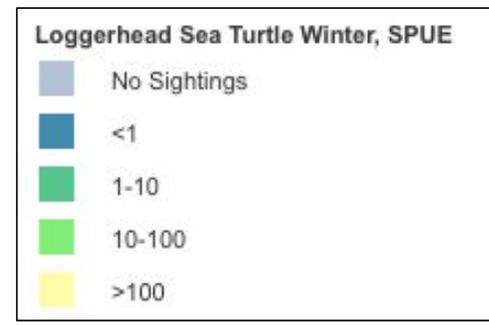
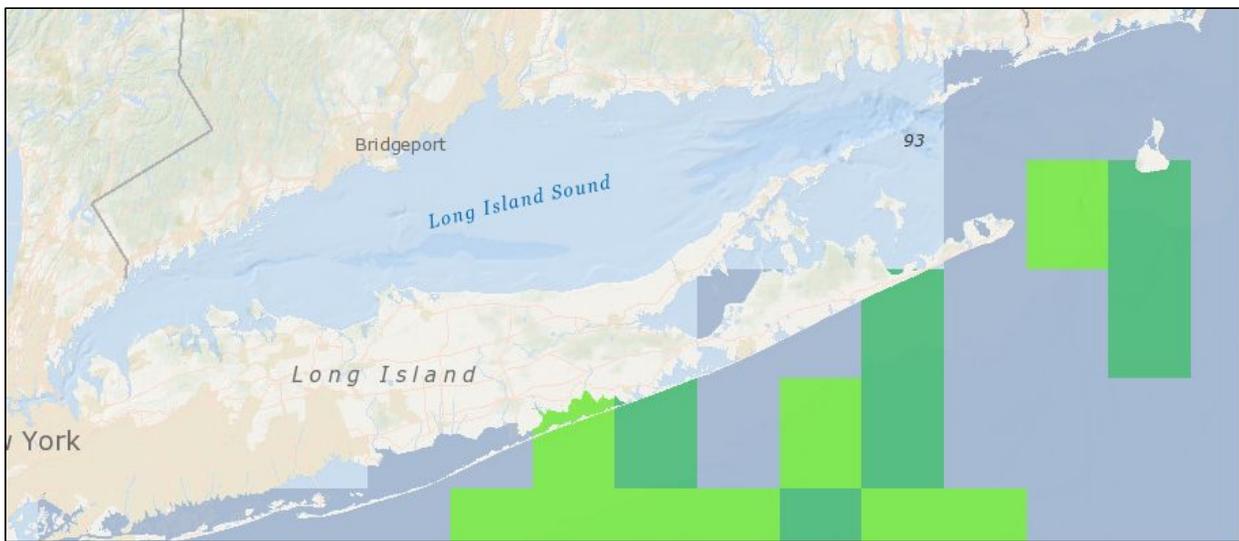
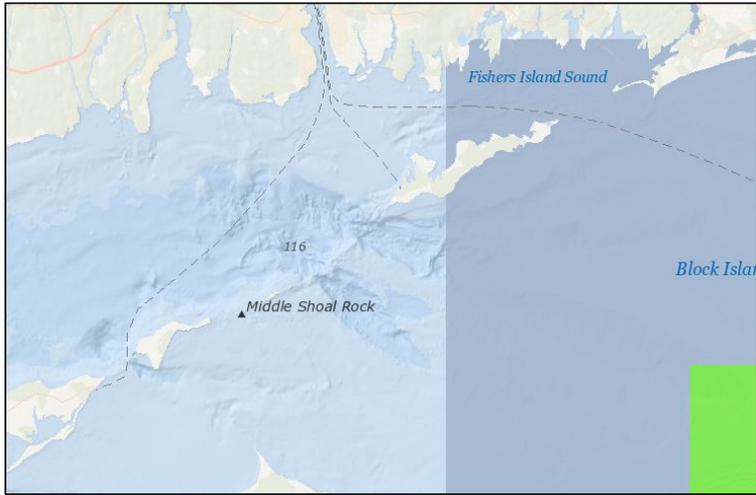
Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Loggerhead Sea Turtle Spring, SPUE”

Loggerhead Sea Turtle Summer, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Loggerhead Sea Turtle Summer, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for loggerhead sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during summer. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEsummer.pdf>

Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Loggerhead Sea Turtle Summer, SPUE”

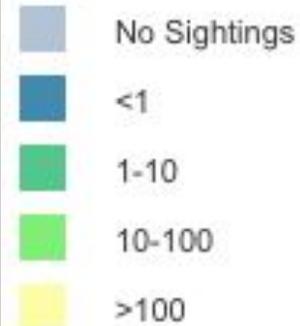
Loggerhead Sea Turtle Fall, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Loggerhead Sea Turtle Fall, SPUE



Loggerhead Sea Turtle Fall, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for loggerhead sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during fall. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEfall.pdf>

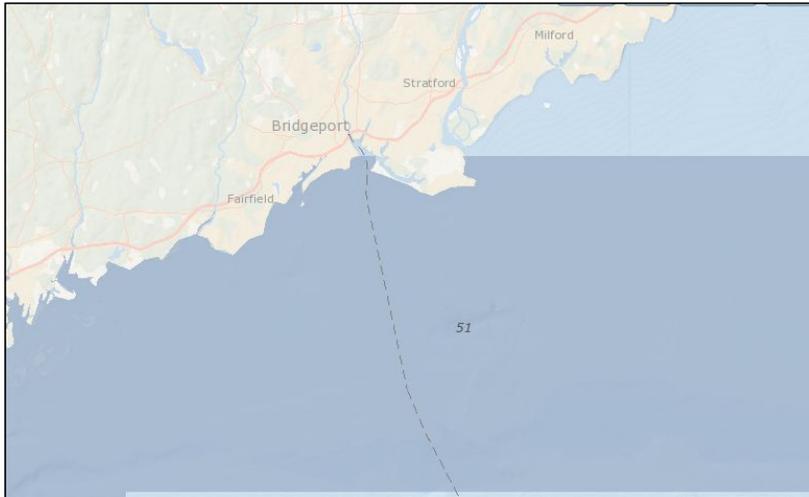
Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Loggerhead Sea Turtle Fall, SPUE”

Loggerhead Sea Turtle Winter, SPUE

Northeast Ocean Data (NEODP)

Source: The Nature Conservancy 2010, U.S. Navy



Loggerhead Sea Turtle Winter, SPUE

Blue Plan Sector(s): Ecological Characterization > Living Resources > Animals > Marine Mammals & Sea Turtles

Summary Description: This map layer shows sightings per unit effort (SPUE) for loggerhead sea turtles from the Gulf of Maine to Cape Hatteras, North Carolina, during winter. The data cover the period from 1979 to 2007 and are shown on the map in ten-minute squares. The Nature Conservancy generated this map layer using a geospatial dataset compiled by the U.S. Navy, including sightings data from NMFS-NEFSC Aerial Surveys, NMFS-NEFSC Shipboard Surveys, and the North Atlantic Right Whale Consortium Database. Navy contractors screened and verified the validity of sightings.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineMammalsAndSeaTurtles/SeaTurtleSPUEwinter.pdf>

Access Instructions: Go to: <http://www.northeastoceandata.org/data-explorer/>

In the layers box, expand Marine Mammals & Sea Turtles > Sea Turtles and select the layer “Loggerhead Sea Turtle Winter, SPUE”