Fin Whale

Balaenoptera physalus

Federal Listing	E
State Listing	not tracked
Global Rank	G3G4TNR State
Rank	
Regional Status	Very High

Photo by Christin Khan, NOAA/NEFSC

Justification (Reason for Concern in NH)

The fin whale is of high regional conservation concern. However state regulatory responsibility is low as this species is managed by the NOAA's Office of Protected Resources who has authored, and regularly updates, a species specific recovery plan. New Hampshire supports the implementation of recommended practices in these plans in state waters and the Fish and Game Department has a joint agreement with NOAA to help enforce Federal regulations. Warming ocean temperatures may result in reduction in biomass of prey species on which the arrival and reproductive success of this species is dependent. Changes in the magnitude and timing of the peak abundance of prey species may significantly alter whale migration, behavior, and population abundance (Kenney et al. 1997).

Distribution

Fin whales are found worldwide. Those in the North Atlantic are currently considered an independent subspecies *B. physalus physalus* (Bérubé et al., 1998). The large scale migratory nature of this species means the importance of an individual state's jurisdictional waters are challenging to evaluate. Their main summer range in the Northwest Atlantic extends from Cape Hatteras northward. One individual has been documented within state jurisdictional waters via vessel-based observation during the period 2009 - 2013 (Blue Ocean Society, personnel communication).
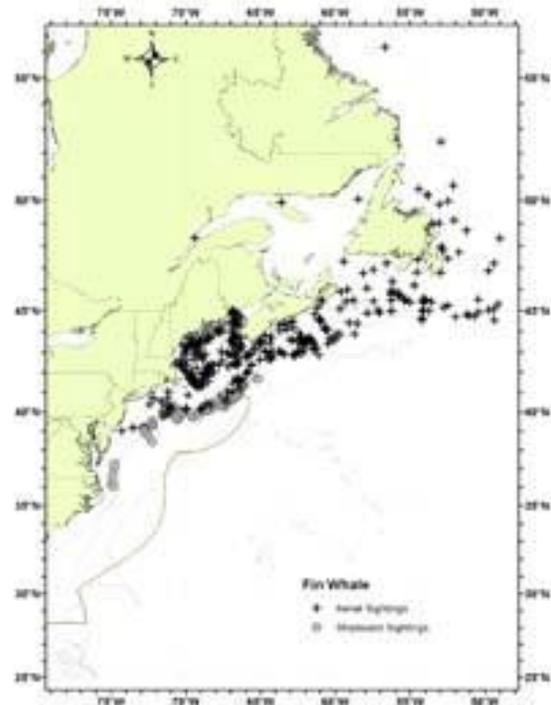
Habitat

Fin whales are pelagic and found in deep waters of all major oceans, predominately in temperate to polar latitudes. Although primarily an offshore species, fin whales have been documented in NH state jurisdictional waters. New England waters represent a major feeding ground for fin whales.

Based on neonate stranding data, it is suggested calving takes place during October to January in latitudes of the U.S. mid-Atlantic region Hain et al. (1992). However, it is unknown where calving, mating, and wintering occurs for most of the population.

NH Wildlife Action Plan Habitats

● Marine

Distribution Map

Current Species and Habitat Condition in New Hampshire

Key populations of this species are located outside state jurisdictional waters. However, this species is endangered globally so conservation prioritization of individuals that enter NH waters is extremely important. Little is known about the social and mating systems of fin whales.

Population Management Status

Population management primarily takes place outside state waters. The NOAA Fisheries Service established the Atlantic Large Whale Take Reduction Plan to reduce injuries and deaths of large whales due to incidental entanglement in fishing gear. This is an evolving plan that changes as more is learnt about why whales become entangled and how fishing practices might be modified to reduce the risk of entanglement. It has several components including restrictions on where and how gear can be set; research into whale populations and whale behavior, as well as fishing gear interactions and modifications; outreach to inform and collaborate with fishermen and other stakeholders; and a large whale disentanglement program.

Regulatory Protection (for explanations, see Appendix I)

● CITES - Convention on International Trade of Endangered Species of Wild Fauna and Flora
● Endangered Species Conservation Act (RSA 212-A)
● Marine Mammal Protection Act (1972)

Quality of Habitat

Key habitat units are located outside state jurisdictional waters.

Habitat Protection Status

Key habitat units are located outside state jurisdictional waters.

Habitat Management Status

Key habitat units are located outside state jurisdictional waters.

Threats to this Species or Habitat in NH

Threat rankings were calculated by groups of taxonomic or habitat experts using a multistep process (details in Chapter 4). Each threat was ranked for these factors: Spatial Extent, Severity, Immediacy, Certainty, and Reversibility (ability to address the threat). These combined scores produced one overall threat score. Only threats that received a "medium" or "high" score have accompanying text in this profile. Threats that have a low spatial extent, are unlikely to occur in the next ten years, or there is uncertainty in the data will be ranked lower due to these factors.

Mortality from collisions with ships (Threat Rank: Medium)

Direct impact of ships with individuals causing injury or mortality (Laist et al., 2001). Of all species of large whales, fin whales are most often reported as hit by vessels (Jensen and Silber, 2004).

NOAA regularly publishes reports documenting ship strikes and consequences to individual whales. The northeast has a regional stranding coordinator in Gloucester MA who these strikes are reported to.

List of Lower Ranking Threats:

Disturbance from increasing anthropogenic ocean noise

Species impacts from over-fishing that reduces prey abundance (herring)

Mortality from entanglement in fishing gear

Species impacts from reduced prey abundance

Actions to benefit this Species or Habitat in NH

Assess population status of prey species that are not commercially harvested.

Primary Threat Addressed: Species impacts from reduced prey abundance

Specific Threat (IUCN Threat Levels): Climate change & severe weather

Objective:
Assess changes in abundance of prey species due to non-commercial harvest pressures.

General Strategy:
Enhance knowledge of causes of alteration in whale presence or behavior. Very little can be done to mitigate large scale effects of climate change in the marine environment, but understanding impacts of these changes can help inform management decisions to support whale conservation.

Political Location: **Watershed Location:**

Support regulations within the "Endangered Fish and Wildlife; Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with North Atlantic Right Whales" and its amendments.

Primary Threat Addressed: Mortality from collisions with ships

Specific Threat (IUCN Threat Levels): Transportation & service corridors

Objective:
Reduce ship strikes with whales.

General Strategy:
Enforce vessel speed restrictions within specified areas at certain times and encourage ship strike reporting. It is hoped actions within this federal rule will also reduce impacts to other whale species.

Political Location: **Watershed Location:**

Support the Atlantic Large Whale Take Reduction Plan (National Marine Fisheries Service, 1997) regulations and amendments. This plan applies to both state and federal waters.

Primary Threat Addressed: Mortality from entanglement in fishing gear

Specific Threat (IUCN Threat Levels): Biological resource use

Objective:
Reduce the number of fishing gear-related injuries and mortalities of North Atlantic large whale species that occur from Maine through Florida.

General Strategy:
The plan consists of regulatory and non-regulatory components, including broad gear modification, gear and whale research, seasonal area closures and disentanglement and outreach efforts.

Political Location: **Watershed Location:**

Conduct prey species stock assessments.

Primary Threat Addressed: Species impacts from over-fishing that reduces prey abundance (herring)

Specific Threat (IUCN Threat Levels): Biological resource use / Fishing & harvesting aquatic resources / Unintentional effects: large scale (species being assessed is not the target) [harvest]

Objective:
Maintain prey species abundance by setting harvest limits based on scientifically accurate stock assessments.

General Strategy:
Conduct fish stock assessments in order to set harvest limits and maintain whale prey species abundance.

Political Location: **Watershed Location:**

Increase awareness of impacts of anthropogenic ocean noise on whales to encourage voluntary reduction when possible.

Primary Threat Addressed: Disturbance from increasing anthropogenic ocean noise

Specific Threat (IUCN Threat Levels): Human intrusions & disturbance / Recreational activities / Noise

Objective:
Enhance awareness of simple changes in timing, or site selection, of causes of ocean noise that may mitigate impacts on whale behavior.

General Strategy:
Multiple sources of anthropogenic ocean noise include vessels, oil refineries, seismic survey and military sonar. Since whale presence is seasonally, and somewhat spatially, predicable, encouraging voluntary changes in timing or location of these activities should be encouraged.

Political Location: **Watershed Location:**

References, Data Sources and Authors

Data Sources
Literature review.

Data Quality
NOAA's Office of Protected Resources has regularly published Marine Mammal Stock Assessment Reports for four management areas within US waters. New Hampshire is located within the Western Atlantic stock assessment unit which has been assessed for population status since 1995. Although reliable and recent estimates of fin whale abundance are available for large portions of the North Atlantic Ocean, these assessments do not cover the entire species range and there are insufficient data to determine the global or state population trend for fin whales. The Blue Ocean Society includes documentation of this species in its vessel-based sightings database.

2015 Authors:
Rachel Stevens, NHFG, Hal Weeks, Shoals Marine Lab

2005 Authors:

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