Species Status Assessment

Class: **Mammalia**
Family: **Balaenopteridae**
Scientific Name: ***Balaenoptera physalus***
Common Name: **Fin whale**

Species synopsis:

The fin, or finback, whale is the second largest of all of the great whales. A sleek and stream-lined rorqual, the fin whale is found in all of the world's oceans. It is similar in appearance to the blue, sei, and Bryde's whale. There are currently two recognized subspecies of fin whales: *Balaenoptera physalus physalus* of the Northern Hemisphere; and *B. p. quoyi* of the Southern Hemisphere. The International Whaling Commission (IWC) has designated different stock boundaries for North Atlantic fin whales. Under the IWC, fin whales of the eastern United States, Nova Scotia, and southeastern Newfoundland comprise a single stock. However, recent genetic work suggests the presence of several subpopulations of fin whales with limited gene flow throughout the North Atlantic (Berube et al. 1998). Such a structure was originally proposed by Kellogg (1929), who also proposed that these subpopulations utilize the same feeding grounds. Genetic work conducted by Berube et al. (1998) provides evidence for this hypothesis.

Surveys by NOAA, Fisheries have frequently encountered fin whales in the waters from Cape Hatteras north to Canada (NMFS 2013). In the New York Bight fin whales are the most abundant baleen whales and can be found year-round (Sadove and Cardinale 1993, BRP 2010). Surveys done by Okeanos Ocean Research Foundation found fin whales concentrated in five feeding grounds within 30 miles of shore during the summer, over the continental shelf during the fall and early winter, and feeding very close to Long Island during late winter to spring (Sadove and Cardinale 1993). Fin whales exhibit a high degree of site fidelity, and the same whales are often seen throughout the year and from year to year (Sadove and Cardinale 1993). It should also be noted that Hain et al 1992 found that, based on neonate stranding data, there is some possibility that during Oct-Jan calving may take place in the mid-Atlantic. However, the exact location of calving has not been confirmed.

Like the other species of great whales, fin whales were heavily exploited by the whaling industry. The IWC declared a moratorium for the North Atlantic population in 1987. Currently, Fin whales remain fairly common in U.S. waters (NMFS 2013). Trend data is not available; however, recent abundance estimates range from 1,925-3,628 (NMFS 2013).

a. Current and Legal Protected Status

i. Federal Endangered **Candidate?** _____

ii. New York Endangered; SGCN

b. Natural Heritage Program Rank

i. Global G3G4

ii. New York S1 **Tracked by NYNHP?** Yes

Other Rank:

Depleted under the Marine Mammal Protection Act of 1972

CITES Appendix I

Species of Special Concern under the Species at Risk Act (Canada)

Status Discussion:

Fin whales have been listed as endangered under the Endangered Species Act (ESA) since it was first passed in 1973. The North Pacific fin whale is listed as threatened under the Canadian Species at Risk Act (SARA), while the North Atlantic population is listed as a species of special concern. Fin whale populations worldwide suffered from heavy whaling pressure throughout the 20th century. They were finally protected from commercial whaling in the North Atlantic in 1987, although Greenland is allowed a small aboriginal subsistence hunt each year. Additionally, Iceland killed over 280 fin whales from 2006 – 2010, before suspending its fin whale hunt for the 2011 and 2012 season. Whether this hunt will be resumed is unknown. Although pre-whaling numbers are unknown, most populations of fin whales are considered relatively stable (NMFS 2010).

Trend data is not available for the western North Atlantic populations; however, recent abundance estimates range from 1,925-3,628 (NMFS 2013). The best abundance estimate for the western North Atlantic is considered to be 3,522, based on the Canadian Trans-North Atlantic Sighting Survey (TNASS) conducted in 2007 (NMFS 2013). Fin whales are the most commonly sighted whales in the New York Bight and have been observed at all times of year; trends and abundance for this area are unknown (Sadove and Cardinale 1993, BRP 2010).

II. Abundance and Distribution Trends

a. North America

i. Abundance

____ declining ____increasing _____stable __X__ unknown

ii. Distribution:

____ declining ____increasing _____stable __X__ unknown

Time frame considered: __Heavily hunted throughout 1900s, but no pre-exploitation numbers to compare with current abundance. Post-whaling trends have not been analyzed. Tentatively considered somewhat stable.

b. Regional

i. Abundance

____ declining ____increasing ____stable __X__ unknown

ii. Distribution:

____ declining ____increasing ____stable __X__ unknown

Regional Unit Considered:_____Northeast_____

Time Frame Considered:__Heavily hunted throughout 1900s, but no pre-exploitation numbers to compare with current abundance. Post-whaling trends have not been analyzed.

c. Adjacent States and Provinces

CONNECTICUT **Not Present _____** **No data _____**

i. Abundance

____ declining ____increasing ____stable __X__ unknown

ii. Distribution:

____ declining ____increasing ____stable __X__ unknown

Time frame considered: Rare visitor. Trends never analyzed.

Listing Status: Not listed SGCN? No

MASSACHUSETTS **Not Present _____** **No data _____**

i. Abundance

____ declining ____increasing ____stable __X__ unknown

ii. Distribution:

____ declining ____increasing ____stable __X__ unknown

Time frame considered: Trends never analyzed.

Listing Status: Endangered SGCN? Yes

NEW JERSEY **Not Present _____** **No data _____**

i. Abundance

____ declining ____increasing ____stable __X__ unknown

ii. Distribution:

____ declining ____increasing ____stable __X__ unknown

Time frame considered: Trends never analyzed.

Listing Status: Endangered SGCN? Yes

ONTARIO **Not Present __X__** **No data _____**

i. **Abundance**

____ declining ____increasing _____stable ____unknown

ii. **Distribution:**

____ declining ____increasing _____stable ____unknown

Time frame considered: _____

Listing Status: _____

PENNSYLVANIA **Not Present __X__** **No data _____**

i. **Abundance**

____ declining ____increasing ____stable ____unknown

ii. **Distribution:**

____ declining ____increasing ____stable ____unknown

Time frame considered: _____

Listing Status: _____ SGCN? _____

QUEBEC **Not Present _____** **No data _____**

i. **Abundance**

____ declining ____increasing _____stable __X__ unknown

ii. **Distribution:**

____ declining ____increasing _____stable __X__ unknown

Time frame considered: ___Trends not analyzed._____

Listing Status: ___Special Concern_____

RHODE ISLAND **Not Present _____ No data _____**

i. Abundance

____ declining ____increasing ____stable __X__ unknown

ii. Distribution:

____ declining ____increasing ____stable __X__ unknown

Time frame considered: ___Trends never analyzed.____

Listing Status: ___Endangered_____ SGCN? __Yes____

VERMONT **Not Present __X__** **No data _____**

i. Abundance

____ declining ____increasing ____stable ____unknown

ii. Distribution:

____ declining ____increasing ____stable ____unknown

Time frame considered: _____

Listing Status: _____ _____ SGCN? _____

d. NEW YORK **No data _____**

i. Abundance

____ declining ____increasing ____stable __X__ unknown

ii. Distribution:

____ declining ____increasing ____stable __X__ unknown

Time frame considered: ___Trends never analyzed.____

Listing Status: ___Endangered_____ _____ SGCN? __Yes____

Monitoring in New York.
From February 2008 – March 2009 Cornell University partnered with DEC and conducted passive acoustic monitoring for cetaceans in New York coastal waters (BRP 2010).

NOAA, NEFSC, Protected Species Branch conducts regular aerial and ship board surveys to determine the abundance and distribution of protected species in the North East. However, sampling, including scale of sampling, is not specific either to large whales in the New York Bight, nor is sampling year round. There are no current monitoring activities or regular surveys conducted by the State of New York or specific to large whales in the New York Bight. However, DEC, Marine Resources and Natural Heritage Program are currently in the planning stages to establish a regular monitoring program for large whales. The monitoring techniques and protocols have not yet been determined. There is currently funding for three years of monitoring.

Trends Discussion:

Trends have not been analyzed for the western North Atlantic population of fin whales. Overall, most studies agree that there was a decline in the population during the period of exploitation, but it is not known how much. Chapman (1976) estimated that the population of fin whales using American waters (both the Atlantic and Pacific) declined by more than 50% between 1958 and 1970. Breiwick (1993) estimated that the "exploitable" population (adults over fifty ft) in the Nova Scotia stock numbered around 1,500 in 1964, and were reduced to about 325 in 1973.

Although pre-whaling numbers are unknown, most populations of fin whales are considered relatively stable currently (NMFS 2010). Recent abundance estimates range from 1,925-3,628 (NMFS 2013). The best abundance estimate for the western North Atlantic is considered to be 3,522, based on the Canadian Trans-North Atlantic Sighting Survey (TNASS) conducted in 2007 (NMFS 2013). Fin whales are the most commonly sighted whales in the New York Bight and have been observed at all times of year; trends and abundances for this area are unknown (Sadove and Cardinale 1993, BRP 2010).

While trends are not available for the North Atlantic, some other areas have conducted trend analyses of fin whale populations. A "substantial increase" in fin whales has been suggested by seabird surveys in the Pribilof Islands, Alaska between 1975 – 1978 and 1987 – 1989 (Baretta and Hunt 1994). An annual increase of 4.8% has been estimated for a population of fin whales in the coastal waters south of the Alaska Peninsula from 1987 – 2003 (Zerbini et al. 2006). A slight increase was also suggested for the California/Oregon/Washington stock of fin whales from 1979 – 1993; however, this increase was not statistically significant (Barlow et al. 1997). While these trends are encouraging, it is important to note that it is not possible to extrapolate the results to other areas. These trend analyses took place over limited areas and dealt with a specific population of fin whales.

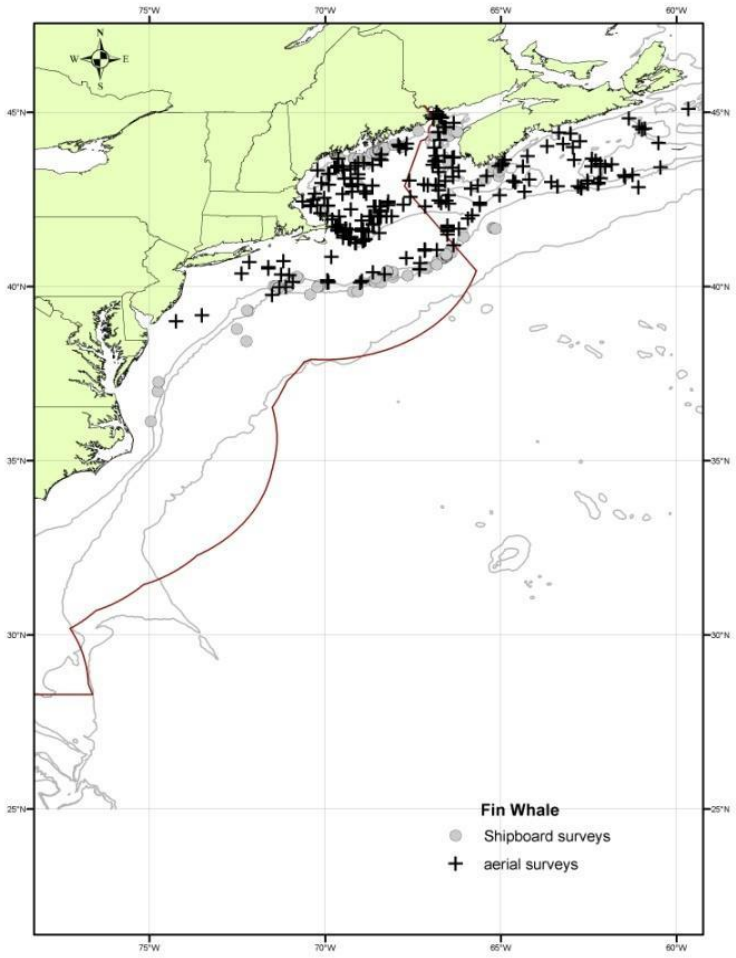


Figure 1. Distribution of fin whale sightings from NEFSC and SEFSC shipboard and aerial surveys during the summers of 1995, 1998, 1999, 2002, 2004, 2006, 2007, 2008, 2010 and 2011. Isobaths are the 100 m, 1000 m, and 4000 m depth contours. Figure and caption from NMFS 2013.

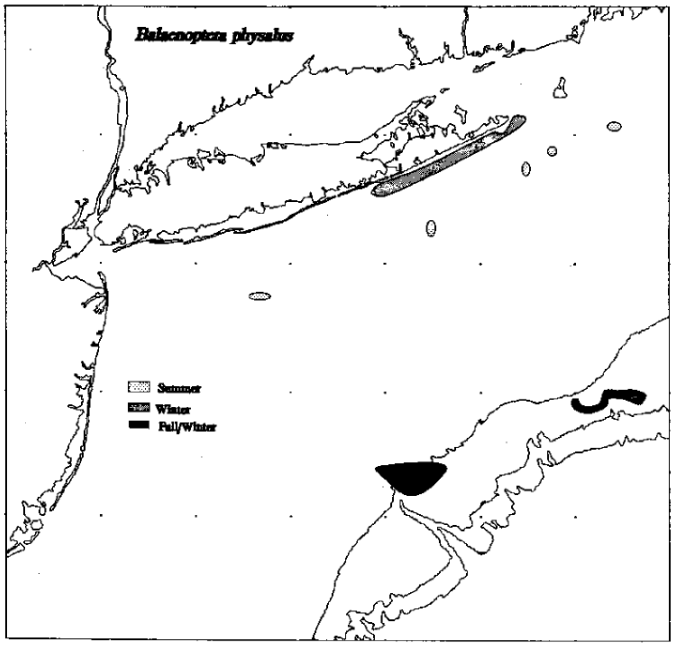
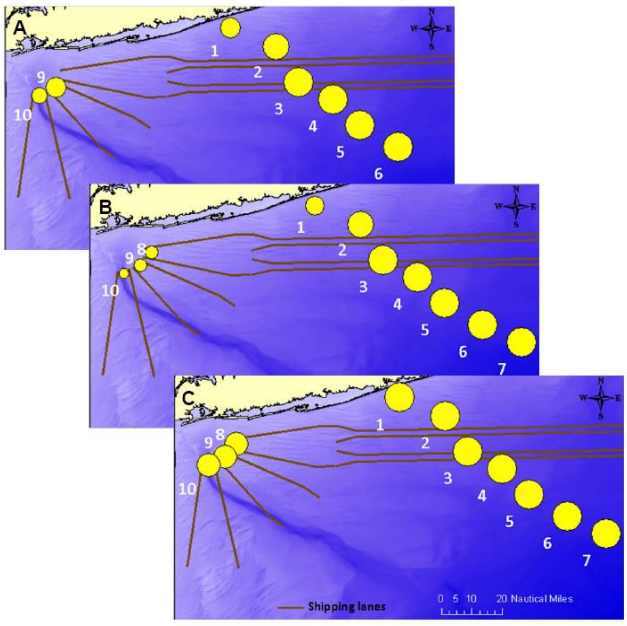


Figure 2. Locations of sightings of fin whales by surveys conducted by the Okeanos Ocean Research Foundation from 15 years of research from the 1970s – early 1990s. Figure from Sadove & Cardinale 1993.



SPRING 2008			
1	33%	9	29%
2	64%	10	15%
3	100%		
4	100%		
5	100%		
6	100%		

AUTUMN 2008			
1	21%	8	11%
2	62%	9	10%
3	94%	10	7%
4	100%		
5	100%		
6	100%		
7	100%		

WINTER 2008-09			
1	86%	8	47%
2	84%	9	46%
3	98%	10	46%
4	100%		
5	100%		
6	100%		
7	100%		

Figure 3. Seasonal presence of fin whales in the New York Bight region. A) fin whale presence during spring (1 March – 14 May 2008), B) presence during autumn (31 August – 2 Dec 2008), and C) presence during winter (5 December 2008 – 3 March 2009). Tables to the right of each plot show

the actual percentages of days with fin whale song during each season. Figure and caption from BRP 2010.

III. New York Rarity, if known:

Historic	# of Animals	# of Locations	% of State
prior to 1970	_____	_____	_____
prior to 1980	_____	_____	_____
prior to 1990	_____	_____	_____

Details of historic occurrence:

Unknown for New York. The fin whale is the most abundant large whale in waters of the New York Bight. The only population estimates come from 15 years of surveys conducted by the Okeanos Ocean Research Foundation (from the 1970s – 1993). These estimated the population using New York waters to be around 400 animals (Sadove and Cardinale 1993).

Current # of Animals

3,522 for western North Atlantic. # in NY Bight is unknown, but studies conducted in the 1990s produced estimates of between 400-800.

Details of current occurrence:

Unknown for New York. Passive acoustic monitoring by Cornell University's Bioacoustic Research Program (2010) documented fin whales on all 269 days of monitoring during the spring, autumn, and winter 2008 – 2009. They were recorded on both the New York harbor devices and also the devices placed offshore of Long Island.

New York's Contribution to Species North American Range:

% of NA Range in New York	Classification of New York Range
____ 100 (endemic)	**__X__ Core**
____ 76-99	**__ __ Peripheral**
____ 51-75	**____ Disjunct**
____ 26-50	**Distance to core population:**
__X__ 1-25	**they are in NY at all times of year, so may be a larger percentage**

III. Primary Habitat or Community Type:

1. Pelagic

2. Marine, Deep Subtidal

3. Estuarine, Deep Subtidal

Habitat or Community Type Trend in New York:

____ Declining ____Stable ____ Increasing __X__ Unknown

Time frame of decline/increase: _____

Habitat Specialist? _____ Yes __X__ No

Indicator Species? __X__ Yes _____ No

Habitat Discussion:

In the western North Atlantic, fin whales are very widely distributed. They can be found from the Gulf of Mexico north to the edge of the pack ice in the Arctic (NMFS 2010). However, their distribution is concentrated between North of Cape Hatteras and Canada (NMFS 2013.) It is widely believed that fin whale distribution in primarily driven by prey abundance (NMFS 2010). In Iceland, fin whales feed primarily upon krill; whaling data indicates that fin whale catches were correlated with known krill spawning areas (Rørvik et al. 1976). Throughout the eastern United States, fin whales sightings are centered along the 100 m isobath, well spread out between shallower and deeper water. Fin whales are often found along submarine canyons on the shelf break and other areas where upwelling events concentrate prey.

Fifteen years of surveys by Okeanos Foundation in the New York Bight area resulted in good knowledge of the distribution of fin whales in state waters throughout the year. Okeanos Foundation researchers Sadove and Cardinale (1993) reported that fin whales could typically be found within five feeding areas in the New York Bight area from April through August. The feeding areas were located within thirty miles of land, and there were often large groups of 20 or more whales feeding together in these areas (Sadove and Cardinale 1993). From September until December fin whales could usually be found on the continental shelf farther offshore, near the 200m isobath. From January until March fin whales could be found feeding within one mile of the eastern shores of Long Island (Sadove and Cardinale 1993).

The Okeanos Foundation surveys were conducted from the 1970s – early 1990s, and it is currently unknown if fin whales exhibit these same distribution patterns today. The passive acoustic monitoring done by Cornell University in 2008 – 2009 provided some evidence that they may. The program detected fin whales on all 258 days of monitoring (BRP 2010). Ten different recording units were set up: three just outside of New York Harbor, and seven starting 10 miles south of Southampton, Long Island and spreading 70 miles to the edge of the continental shelf (BRP 2010).

The four units farthest offshore detected fin whales on all days. If the fin whales were still following the same distribution patterns seen by Okeanos Foundation, then one would expect the fewest near-shore detections from September until December. That pattern was observed in the acoustic monitoring project. Fin whales were detected on ≤ 11% of the days during this period on all of the New York Harbor recording units, and only on 21% of the days on the buoy 10 nautical miles from Southampton (BRP 2010; see figure 3 in Trends Discussion). In contrast, fin whales were detected nearly 50% of the days from December – March on the New York Harbor units, and on ≥ 84% of days on the three units closest to shore in the Southampton string (BRP 2010). This would correspond with the time period where fin whales were observed close to shore off of Long Island by Okeanos Foundation (Sadove and Cardinale 1993).

IV. New York Species Demographics and Life History

__possibly during the fall to winter__ Breeder in New York

____ Summer Resident

____ Winter Resident

_____ Anadromous

_____ Non-breeder in New York

_____ Summer Resident

_____ Winter Resident

_____ Catadromous

__X__ Migratory only: some portion of the population may be migratory only. Some may be using the area as feeding grounds as well and staying for longer periods of time.

_____Unknown

Species Demographics and Life History Discussion:

Fin whales are believed to have a lifespan of 80 – 90 years (NMFS 2010). In populations that were heavily harvested, both male and female fin whales tend to reach sexual maturity between six or seven years of age, compared to populations that are near carrying capacity, which typically reach sexual maturity around ten years of age (Gambell 1985). Females are believed to give birth in the winter after a gestation period of about one year (Haug 1981, Gambell 1985). While most calves are born during December and January, fin whales can give birth year-round (Hain et al. 1992). Calves are nursed for 6 – 7 months. Females typically give birth every two to three years (NMFS 2010).

The fin whale migration is poorly understood. Acoustic monitoring suggests a migratory pattern like that of other large whales: summers spent in high-latitude feeding grounds and winters in low-latitude feeding grounds (Clark 1995). Fin whales were detected moving south into the West Indies (Clark 1995). However, fin whales are known to persist in some areas, such as the New York Bight, year-round. It has been suggested that fin whales may move offshore during the winter (Jonsgård 1966, Clark 1995). In New York, at least some faction of the population actually moves closer to shore during the winter period (Sadove and Cardinale 1993). Whether that faction represents all age groups or perhaps only juvenile or non-reproductive individuals is unknown. Sadove and Cardinale (1993) suggest that fin whales may calve in New York waters, but this has never been confirmed.

Fin whales often exhibit strong site fidelity, returning to the same feeding grounds year after year. This site fidelity appears to be maternally driven, with calves returning to the same feeding grounds they traveled to with their mothers as calves (NMFS 2013). Even though site fidelity is exhibited by many individuals, long-distance travels by many fin whales shows that this is not always the case (NMFS 2010).

Little is known about natural mortality in fin whales. There have been some reports of predation on fin whales by killer whales in the western North Atlantic (Mitchell and Reeves 1988). It is believed that disease probably plays a role in mortality as well, although the extent of which is unknown. There has been a suggestion that crassicaudiosis in the urinary tract of North Atlantic fin whales is the primary cause of natural mortality (Lambertsen 1986). It is believed that natural mortality rates are between 0.04 and 0.06 in fin whales (Aguilar and Lockyer 1987). Vessel collision and entanglement in fishing gear are considered the two major human-caused sources of mortality and serious injury (NMFS 2013).

V. Threats:

Two of the best known anthropogenic threats to large whale populations include vessel strikes and fishery interactions, specifically entanglement in fishing gear. Both of these threats are believed to be more problematic than observational studies suggest, as many events are most likely not reported, and affected whales may die at sea and not be recovered (Heyning and Lewis 1990). Unfortunately, it is extremely difficult to track a specific event to a geographic location, so it is nearly impossible to know whether an event occurred in New York waters. Jensen and Silber (2004) compiled information on reported ship strikes from 1975 – 2002. They found that fin whales were the most commonly affected species of whale, with 75 records (Jensen and Silber 2004). From 2005 – 2010, there were nine confirmed deaths of fin whales caused by vessel collisions (NMFS 2013). One of these was reported off of Southampton, NY (NMFS 2013). It is unknown if the animal was struck in New York waters, or if the whale was killed outside of state waters and was brought in on the bow of a ship or drifted in.

Entanglement in fishing gear is another major threat to many species of cetaceans throughout the North Atlantic. There have been four reported fin whale entanglement events in the North Atlantic since 2006. Two of these resulted in mortality, while the other two were classified as “serious injures” (NMFS 2013). The fate of both of the live whales is unknown. Whales that survive entanglement but are injured may suffer from reduced survival and fecundity, as has been documented in North Atlantic right whales (Knowlton et al 2012).

Stranding and entanglement response and outreach in New York are currently provided by Riverhead Foundation. They respond to all marine mammal strandings; however, they are not authorized to disentangle large whales. The nearest group authorized by NOAA to perform such entanglements is the Rhode Island Division of Fish and Wildlife. In an attempt to reduce large whale entanglements, Cornell Cooperative Extension has begun a "ghost" gear removal project. Working with the DEC's Crustacean Unit and commercial fishermen, the project has removed 4,881 abandoned lobster traps from Long Island Sound as of June 21, 2012.

Climate change has led to temperature and current shifts throughout the North Atlantic Ocean. These changes could lead to shifts in distribution of fin whales as occupied habitats may become unsuitable and previously unsuitable habitats may become occupied. Certain studies have shown that the productivity of ocean basins may be altered by shifts in the climate (Quinn and Neibauer 1995, Mackas et al. 1989). Prey species may be affected; copepods already exhibited signs of a shift in distribution as a result of climate change (Hays et al. 2005). Fin whales are generalist feeders, so there is a good chance that they may be more resilient to the affects of climate change than other species who specialize on one prey item (NMFS 2010). The effects of climate change on both fin whales and their prey need to be further researched, but the potential effects are large, which is why the severity was listed as "unknown, potentially high" and the irreversibility was listed as "high/very high."

The effects of other anthropogenic activities, such as offshore energy development are also largely unknown. Oil spills threaten marine mammals including the fin whale. The other major threat of development and other human activities is noise pollution. Cetaceans, including fin whales, rely heavily on sound to communicate. Increasing levels of anthropogenic noise in the ocean could hamper this ability. Ross (1987, 1993) estimated that the ambient noise level in the oceans rose 10 dB from 1950 – 1975 because of shipping; background noise has been estimated to be increasing by 1.5 dB per decade at the 100 Hz level since propeller-driven ships were invented (National Research Council 2003). The oceans are getting progressively louder, and the waters off of New York are no exception (BRP 2010). Acoustic monitoring in the New York Bight region in 2008 and 2009 found elevated levels of background noise (due in large part to shipping traffic) (BRP 2010).

Several species of large whales have been found to increase the amplitude of their calls in response to large levels of noise, which could lead to increased energy consumption (See Holt et al. 2008, Parks et al. 2011). Above a certain level of noise, some whale species are known to stop vocalizing (See Melcón et al. 2012), and there is also the potential for masking of calls if background noise occurs within the frequencies used by calling whales (BRP 2010). In a large, solitary species, this could lead to difficulty finding other whales, including potential mates.

In some instances, exceptionally loud noises, usually active military sonar, have led to temporary and permanent threshold shifts and even death by acoustic trauma in certain species of cetaceans (NMFS 2010). While this has not been documented in fin whales, there is the potential for such deleterious effects to occur.

Recreational vessel activity, such as whale-watching has been known to affect some species of cetaceans. Fin whales are often targeted by whale-watching activities in New York and other areas, so there is the potential that some of these negative effects may be seen. Fin whales in the Gulf of St. Lawrence were documented as altering their dive behavior when approached by vessels (Michaud and Giard 1998, Edds and Macfarlane 1987). In Maine, fin whales approached by vessels decreased their dive times, surface times, and number of breaths per surfacing (Stone et al. 1992). In the

Mediterranean, fin whales altered their behavior when approached by ships, and did not return to their normal behaviors (which included foraging) when vessels left (Jahoda et al. 2003).

It is currently believed that contaminants such as organochlorines, organotins, and heavy metals do not negatively impact fin whales and other baleen as much as other marine mammals (O'Shea and Brownell 1994). Fin whales feed at a low trophic level, and so there is little chance for the bioaccumulation of toxins that occurs in many of the odontocetes (toothed whales). While no significant effects of contaminants has yet been documented, it is possible that exposure has long-term effects such as reduced reproductive success and/or long-term survival. It is also possible that ingestion of solid pollutants (garbage) may occur, which could lead to potential blockage of the stomach. Such ingestion has been documented in several species of cetaceans, including sperm and minke whales, but never in a fin whale (NMFS 2011).

Are there regulatory mechanisms that protect the species or its habitat in New York?

_____ No **____ Unknown**

__X__ Yes

The fin whale is protected in the United States by its status as a federally Endangered species. In addition, the fin whale (along with all other marine mammals) receives federal protection under the Marine Mammal Protection Act of 1972 (MMPA). The fin whale is protected internationally from commercial hunting under the International Whaling Commission's (IWC) global moratorium on whaling.

Fin whales are also protected under the Environmental Conservation Law (ECL) of New York. The fin whale is listed as a state endangered species in New York. Section 11 – 0535 protects all state-listed endangered and threatened species and makes it illegal to take, import, transport, possess or sell any listed species or part of a listed species. In addition, Article 17 of the ECL works to limit water pollution, and Article 14 presents the New York Ocean and Great Lakes Ecosystem Conservation Act. This act is responsible for the conservation and restoration of coastal ecosystems "so that they are healthy, productive and resilient and able to deliver the resources people want and need." Both of these help to protect the habitat of the fin whale. Whether they are adequate to protect the habitat is currently unknown.

The North Atlantic Large Whale Take Reduction Plan identified floating groundline used in the trap and pot fisheries as an entanglement threat for large whales. The National Marine Fisheries Service subsequently passed a new law making it mandatory for all pot and trap fisheries to switch over to sinking groundline by 2008. To encourage compliance by fishermen, DEC's Marine Endangered Species and Crustacean Unit partnered with the Cornell Cooperative Extension of Suffolk County and initiated gear buyback programs, which removed 16.9 tons of floating rope from New York's commercial lobster fishery. Further analysis is required before it is known if any real reduction in large whale entanglement has occurred as a result of the switch from floating to sinking groundline. Because species trends can not be determined and threats exist in the form of ship strike, entanglement and other threats, it is unknown if current mechanisms are adequate to protect the species.

Describe knowledge of management/conservation actions that are needed for recovery/conservation, or to eliminate, minimize, or compensate for the identified threats:

It is still largely unknown how fin whales utilize New York coastal waters. What information we do have comes from surveys done in the 1970s – early 1990s, and it is very possible that fin whales have shifted their distribution and habitat use patterns since then. Long-term surveys and monitoring strategies should be developed.

If it is known where and when fin whales are occurring in New York waters, more effective management and conservation strategies can be employed. Seasonal speed restrictions on vessels in high use areas could be put into effect. In addition, seasonal and/or area closures on certain fisheries where the gear poses the largest threat to large whales may help minimize entanglement in gear.

Near real-time acoustic monitoring of large whales, specifically right whales, is currently being used off of the coast of Massachusetts in an effort to reduce vessel collisions with large whales. When a right whale is detected, an alert goes out to all large shipping vessels in the area, and a speed restriction goes into place. Similar monitoring in New York could help reduce the threat of vessel collisions with large whales in coastal waters. Even if a speed restriction only goes into place for the critically endangered right whale, knowledge that there are large whales in the area could lead to increased awareness and alertness and possibly reduce the potential of a collision.

The fin whale would benefit greatly from further research. Even though it is the most common baleen whale in New York waters, little is known about general life history and demography of this species, and the real effects of the threats in New York waters are unknown. Information about whether or not calving and feeding is taking place in the New York Bight would be very valuable. Further research into the actual effects that threats such as climate change are having on fin whales is warranted. In addition, education on this species and the importance of reporting ship strikes and entanglements is encouraged.

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