

A Guide to Whales of New York

finback whale

By Eileen Stegemann and Bill Fonda
Artwork by Andrea Montalvo

Huge, elusive and highly intelligent, whales are fascinating and mysterious creatures. Anyone who's ever watched a whale on the open ocean can't help but be drawn in by the sheer power and inquisitive nature of these magnificent beasts. As they surface nearby, shooting a water spout into the air, or waving their flipper or slapping their tail, you find yourself mesmerized by these mysterious and seemingly gentle giants of the sea. And surprisingly, a number of whale species can be spotted off New York.

Belonging to the group of mammals called cetaceans—which also include dolphins and porpoises—whales are separated into two groups: toothed and baleen. As the name implies, toothed whales have teeth which they use to catch their slippery marine prey.

Toothed whales also have a single blow hole. Dolphins, porpoises, killer whales and sperm whales are all members of this group.

Most of the whales that visit New York's waters are baleen whales. They are generally larger than toothed whales and have two blowholes. Rather than teeth, they have large plates of keratin that act as a giant sieve or strainer. To feed, they take in a mouthful of sea water that contains huge numbers of small food—krill, plankton and small fish—and then use their tongue to push out all of the water through the baleen, trapping the food inside.

While not an exhaustive list, here is detailed information on a number of whale species found off New York's waters.

Finback Whale

(Balaenoptera physalus)

Finbacks, or fin whales, live in all the world's oceans, but prefer those of higher latitudes and cold currents. They are some of the largest baleen whales to visit New York's waters (second only to blues), and can reach approximately 70 feet in length and weigh up to 70 tons. Finbacks can be recognized by their rather pointed head, prominent back and pronounced dorsal fin. They eat large numbers of krill and small fish. Along with blues, finbacks have the deepest voices on earth.

Finbacks are some of the fastest of the large whales, capable of swimming 35 mph for a short time. In autumn, they migrate several thousand miles to equatorial waters. During winter, they fast almost completely, living off their fat reserves.

Mating takes place during winter, and calves are born a year later, usually between December and April. Newborn calves are 20 feet long.

Finbacks have suffered from decades of hunting. The pre-hunting population has been estimated at 30,000-50,000 in the North Atlantic Ocean. By 1977, those numbers had dropped to only 7,200 in the waters off Newfoundland and Nova Scotia. Along with humpbacks, fin whales are commonly seen on whale watches.

Minke Whale

(Balaenoptera acutorostrata)

(see photo below; not pictured on pages 16 and 17)

Minkes are the smallest baleen whales in North American waters. They have sleek, streamlined bodies that average 30 feet long and weigh approximately 10 tons. Their narrow, triangular upper jaw, and fairly prominent dorsal fin are good identifying features. Outside of the Antarctic, minkes have a noticeable white band on their flippers.

Minke whales live in all the world's oceans, but seem to prefer icy waters. They are generally solitary animals, traveling individually or in small groups. However, they form groups of up to 400 at some of the productive feeding grounds in higher latitudes. Krill, small schooling fish, and to a lesser extent, plankton, make up the bulk of their diet, which they eat by side-lunging or gulping large amounts of water. Minkes breed during the summer months in the northern hemisphere. Calves measure 10 feet at birth and weigh half a ton.

Because of their smaller size, minkes were not hunted regularly until the world stocks of larger whale species became depleted. Since the late 1960s and 1970s, several countries that still whale have turned their focus on minkes. Scientists are studying the effect of this harvest on the population. Currently, minke whales are the most abundant baleen whale in the world; their population is believed to be more than a million animals. Despite this, people rarely see minkes because they spend relatively little time at the surface, and their blow is barely visible.

Sei Whale

(Balaenoptera borealis)

Sei whales are found in the Atlantic, Indian and Pacific Oceans. They resemble blue and finback whales, but have a smaller, more curved dorsal fin. Adult seis commonly reach 30-50 feet in length and 40 tons in weight. Light-colored patches on the upper body are indicative of Pacific and Antarctic populations of seis, whereas the upper bodies of Atlantic seis are more evenly dark.

Sei whales usually travel alone or in small groups. They are thought to be the fastest of the large baleen whales, cruising at 16 mph, but able to go up to 40 mph for a short distance. They feed while swimming in the open ocean, scooping up plankton—their preferred food—as well as krill, shrimp and small fish.

Biologists believe that mating takes place during the winter. Calves are born the following winter and average 15 feet long and weigh half a ton. They are weaned after only 4-6 months.

Historic whaling took its toll on the sei population. In 1982, the Cetacean and

minke whale





Turtle Assessment Program estimated that only a few thousand sei whales were left in U.S. Atlantic waters.

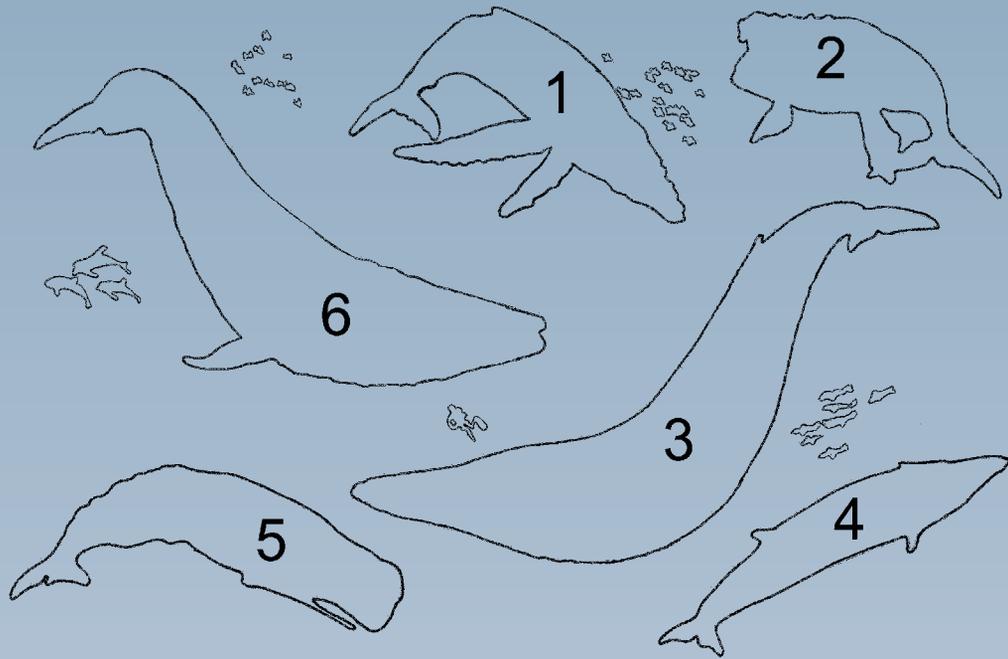
Humpback Whale

(Megaptera novaeangliae)

A favorite of whale-watching groups, humpbacks often entertain people with their acrobatic antics, including breaching, tail slapping and waving the flippers. They are known for their complex courtship songs, which can last up to 40 minutes. Their name derives from their appearance immediately before taking a deep dive.

Humpbacks are large baleen whales, reaching 30-60 feet in length, and weighing 30-40 tons. They have chunky bodies, very long white flippers, and knob-like bumps (each having one stiff hair) on their head and snout. Although they are uncommon in the Arctic, they are found in all the world's oceans. During the summer, humpbacks migrate to higher latitudes to feed. Humpbacks work as a group to capture large schools of herring. Called bubble-net or lunge feeding, some whales blow bubbles around the herring to keep them together, while others vocalize and/or herd the fish to the surface where all the whales then lunge upwards and gulp as many herring as they can.

From January through March, humpbacks in the Atlantic spend their time on breeding grounds in the West Indies. Calves are born a year after breeding and



- 1—Humpback whale
2—Right whale
3—Blue whale
4—Sei whale
5—Sperm whale
6—Fin whale

Note the comparative size of these whales to the scuba diver (center), dolphins (left) and various schools of fish.

North Atlantic Right Whale

(Eubalaena glacialis)

The world's most endangered large whale, the North Atlantic right whale is rarely seen. Its population is estimated to only number approximately 600, which is a far less stable number than the populations of the closely related North Pacific and South Atlantic right whales.

North Atlantic right whales reach approximately 50 feet in length and up to 70 tons in weight. A distinguishing trait among the three kinds of right whales is their unique appearance. They have very large heads with prominent wart-like growths called callosities. Their strongly arching mouths house huge baleen plates—up to seven feet in length—which they use to strain plankton. Unlike other baleen whales, the two blowholes on right whales are widely separated, causing their spouts to be seen as two distinct sprays. Right whales have an unusual habit of holding their flukes above the water to catch the wind and sail along.

Much of the North Atlantic right whale population spends the spring and summer off the coast of New England. They travel



right whale



Did You Know?

- **Whales are the world's largest mammals.** They are warm-blooded, have body hair, give birth to live young and nurse their young with milk. Like all mammals, they breathe air, coming up to the water's surface at regular intervals to take a breath via the blowholes located on the top of their heads.

- **When breathing, whales remain mostly submerged and simply expel excess water from the blowhole before inhaling air into the lungs.** Since the shape of the water spout formed from the exhale differs among species, it can help identify the species of whale.

- **Whales have large flippers and enormous tails called flukes.** They use their flukes to propel their bodies through the water. Other than the tail vertebrae, the flukes do not contain bones, but are made up of muscles and dense fibrous tissue.

- **Whales communicate with each other via sound.** Some, like the humpback, use melodic sounds called songs. These can be extremely loud, and heard for miles. Other species, such as the sperm whale, only make clicks.

- **No one knows for sure how long whales live, but lifespans vary with species.** Humpbacks are thought to live as long as 75 years.

- **Large-scale whaling practiced during the nineteenth and twentieth centuries caused most species of large whales to be endangered.** Of New York's whales, all but the minke are state and federally endangered.



James Clayton

south to warmer climates in the winter and calves are generally born between December and March, averaging 15 feet long and nursing for approximately 9 months.

A favorite of whalers, and so named as the "right" whale to catch for their oil and baleen, populations were decimated by the 18th century. Right whales have been protected by the International Whaling Commission since the early 1930s, and the South Atlantic population has shown signs of a slow recovery. The North Atlantic and North Pacific populations, however, have not significantly recovered. Primary threats include collision with and disturbance by ships, habitat degradation, and entanglement in fishing gear. There are currently recovery plans in effect for North Atlantic right whales and North Pacific right whales.

Blue Whale

(Balaenoptera musculus)

Blue whales are the largest animals in the world. They can reach 100 feet in length and weigh 150 tons, although most adults average 70 feet long and weigh 100 tons; the tongue alone weighs approximately 2 tons.

Blues are found in open oceans from the icy waters of the extreme Southern Hemisphere to the Aleutian Islands in the north. Baleen whales, they remain

in polar waters during summer to feed on the abundance of krill found there. Come winter, blues will migrate several thousand miles to tropical and subtropical areas to breed and give birth. During this time, they do not eat. Newborn calves measure 25 feet long, weigh approximately 2 tons, and require more than 100 gallons of milk every day.

Blues get their name from the mottled blue-gray color of their upper bodies. When they come to the surface to breathe, they can shoot water up to 20 feet in the air. Along with finbacks, blues have the deepest voices on earth.

Blue whales are some of the world's most endangered whales. Once estimated to number 300,000 worldwide, hunting brought their numbers to a record low of approximately 1,000 in the mid-1900s. Hunting ceased in 1967, and stocks in the Southern Hemisphere and North Pacific are currently recovering. Today, there are an estimated 15,000 blue whales swimming in our oceans.

Sperm Whale

(Physeter catodon)

One of the most well-known whale species, sperm whales are the largest of the toothed whales. They are dark blue to slate gray, though lighter underneath. Their most distinctive feature is their large, blunt heads, which contains

blue whale

Provincetown Center for Coastal Studies



Keep Your Distance

To minimize human disturbance, don't approach whales too closely. The federal government maintains whale watch approach guidelines and laws regarding approaching right whales (www.nero.noaa.gov/prot_res/mmv/regs.html). Entanglements are of great concern for all whale species, and all mariners are urged to report entanglement sightings immediately to 1-800-900-3622 or 1-866-755-NOAA.

Scott Landry, Marine Animal Entanglement Response, Provincetown Center for Coastal Studies

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spermaceti, a substance once used for ointments and candles. Instead of a dorsal fin, sperm whales have a large hump with a series of bumps behind it. Male sperm whales can grow to 70 feet and weigh as much as 59 tons, and females up to 38 feet and 15 tons.

Sperm whales travel in harems consisting of a bull male and several adult females and their young. In early spring, male sperm whales compete with each other for control of a group of mature females. The successful male mates with these females, and after a 15-month gestation period, calves are born, measuring 12 to 14 feet at birth. The young nurse for about two years. Females reproduce only once every four years.

Squid is a sperm whale's primary food source, but it will also eat other fish and octopi. The whales are found in all the world's oceans except the Arctic region, and tend to prefer deep waters, staying along the edge of continental shelves. An estimated one million sperm whales were killed in the past two centuries. Today hunting is no longer a threat to the species and current studies reveal between 20,000 and 100,000 sperm whales remain.

For more information on all whale species, visit DEC's website, or www.nmfs.noaa.gov/pr/species/mammals.

Denis Glennon

Whale Watching Off Long Island



If you want to see whales in the wild, take a whale watching tour. A number of organizations run tours off Long Island, including:

Coastal Research and Education Society of Long Island at Dowling College

150 Idle Hour Blvd.
Oakdale, NY 11769-1999

www.cresli.org

Viking Fleet

462 West Lake Drive, Montauk, NY 11954
(631) 668-5700

www.vikingfleet.com

Riverhead Foundation for Marine Research and Preservation

428 East Main Street, Riverhead, NY 11901
Phone: 631-369-9840

www.riverheadfoundation.org

Whale Sighting Program

One of New York's leading organizations in the protection of marine mammals and sea turtles is the Riverhead Foundation for Marine Research and Preservation (RFMRP).

In 1980, The New York State Marine Mammal and Sea Turtle Rescue Program was established to respond to any whale, porpoise, dolphin, seal or sea turtle stranding on the beaches and in estuarine waters of New York State. Operated by the RFMRP, the program has handled over 4,000 animals. In addition to assisting distressed animals, the foundation also monitors the presence and distribution of marine mammals and sea turtles in New York's nearshore waters. This information is used to guide important management decisions and to prioritize conservation efforts.

Funding for the foundation's rescue program comes from the New York State Return a Gift to Wildlife Program (a state income tax check-off program), from private donations, and from federal grants.

In conjunction with the Northeast Fisheries Science Center, the foundation received federal funds in 2005 to perform aerial surveys of the New York Bight, an area at the mouth of the Hudson River between Long Island and New Jersey. During this project, approximately 190 hours of flight time were spent surveying nearly 30,000 nautical miles. Scientists observed 94 whales during this survey, including 1 North Atlantic right whale, 38 fin whales, 26 minke whales, 24 humpback whales, 3 sperm whales, and 2 sei whales.

RFMRP maintains a 24-hour hotline for reporting sick or injured marine mammals or sea turtles, (631) 369-9829. Individuals spotting healthy animals can call the dedicated sighting line number, (631) 369-9840 ext. 15, or e-mail RFMRP at: **sightings@riverheadfoundation.org**. Since the aerial project ended in 2005, six sightings of North Atlantic right whales within one mile of New York's shorelines have been confirmed through these media.

More information on RFMRP is available at **www.riverheadfoundation.org**