



Natural Heritage & Endangered Species Program

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Humpback Whale *Megaptera novaeangliae*

State Status: **Endangered**
Federal Status: **Endangered**

DESCRIPTION

The Humpback Whale is a medium-sized baleen whale. Instead of teeth, baleen whales have a single row of baleen plates in their upper jaw which is used much like a strainer. Humpbacks have 270 to 440 baleen plates on each side of their jaw. After taking in large mouthfuls of water, these baleen plates allow for water to pass back out while keeping fish and zooplankton trapped inside. The baleen plates are grayish black in color and are 60 to 70 cm in length.

The humpback is a rather bulky and stout whale with lengths ranging from 30 to 60 ft and weights of 23 to 30 tons. Females tend to be larger than males. The whale's flippers are white in color (possibly to scare fish) and very long, almost 1/3rd of its body length. "Knob-like" protuberances containing vestigial hair follicles on their head, snout, and flippers are one of the characteristics that distinguish the humpback.

Another defining characteristic of the humpback is its pear-shaped, double blow-hole. Sighting the blow or spout is usually the first indication that a whale is in the area. For humpbacks, this blow or spout is about 10 feet high and rather bushy-looking.

The humpback's body is mainly black with varying amounts of white underneath. The flukes or tails of these animals have scalloped or serrated trailing edges. The underside of the fluke can vary in color from all white to all black. Distinctive patches of white and black are formed on each individual and can usually be seen just before the whale goes down for a deep dive. These patterns are so unique to each whale that they can be used like fingerprints to identify different animals. Their dorsal fins are relatively small, varying in size and shape. The shape of this fin, along with any scars, is also used to help identify individual whales.



Photo by Bill Byrne, MassWildlife

RANGE

The Humpback Whale is found worldwide but is less common in arctic waters. The species is divided into three reproductively and geographically isolated populations: North Pacific, North Atlantic, and Southern Ocean. Northern and southern hemisphere stocks mate six months apart which serves to prevent interbreeding between the populations. The humpbacks that are seen off the Massachusetts coast are part of the Western North Atlantic Humpback population. They all migrate annually between feeding and breeding grounds. Winters are spent in warmer waters where they mate and give birth; little or no feeding goes on there. Summers are spent on traditional feeding grounds.

DISTRIBUTION IN NEW ENGLAND WATERS

Humpbacks can be found feeding in the Massachusetts area from spring through fall. Common feeding grounds for these whales include Jeffery's Ledge, Stellwagon Bank, and waters off the coasts of Maine, New Hampshire, Cape Ann, and Cape Cod in the months of April through October. Northern whales bring their calves here to feed and 6% of these are accompanied by an escort. During the winter months, these whales can be found in more shallow waters, where they mate and give birth, along the Antillean Chain in the West Indies, on the Silver and Navidad banks, north of the Dominican Republic and Puerto Rico.

LIFE HISTORY AND ECOLOGY

Sexual maturity in humpbacks is reached between 4 and 7 years of age and physical maturity is reached between 12 and 15 years. In the northern hemisphere, births occur between January and March. A humpback gives birth to a single calf after a gestation period of 11 to 12 months. Contributing factors to the mortality of calves include predation, red-tide toxins and ice entrapment. The greatest cause of natural mortality among calves is attacks by killer whales (*Orcinus orca*) and a few sharks. Tooth scars can be seen on the flippers and flukes of humpbacks from encounters with killer whales. Behavior of the humpback includes spyhopping (poking their heads out of the water so their eyes are above the surface and they can see what's going on around them), logging (resting or sleeping just below the surface of water), flipper slapping (slapping long pectoral fins against the surface of the water), and breaching (jumping out of the water). Humpbacks feed on schooling fish and other small marine animals, which include sand lance, herring, capelin, and krill. The whales use various methods when catching their prey which include bubble feeding, lunge feeding, and stunning. These methods are carried out by either individuals or as groups acting together. Humpbacks for the most part fast during the winter months in warmer waters where food is scarcer and continuously feed during the summer, building up their blubber or body fat to get them through the winter.

POPULATION STATUS

The Humpback Whale is classified as an endangered species in Massachusetts and under the Federal Endangered Species Act. About 10,000 Humpback Whales remain today, with 5,700 frequenting the western North Atlantic. The whale, its prey, and its habitat are threatened by human-induced factors such as entanglements with fishing gear, pollution, and collisions with boats.

Partially funded by a grant from the DEM Forest Stewardship Program.

Updated August 2008