



Humpback Whale Facts

Taxonomy

Class: Mammalia

Order: Cetacea

Suborder: Mysticeti (which means “moustached” in greek by the way and all are baleen whales)

Family: Balaenidae.

Genus: Megaptera

Species: novaeangliae



Size

- Adult males measure 40-48 feet (12.2-14.6 m)
- Adult females measure 45-50 feet (13.7-15.2 m). They weigh 25 to 40 tons (22,680-36,287 kg)
- Its flippers are very long, between 1/4 and 1/3 the length of its body, and have large knobs on the leading edge
- The flukes (tail), which can be 18 feet (5.5 m) wide, is serrated and pointed at the tips

Shape

- The head of a humpback whale is broad and rounded when viewed from above, but slim in profile
- The body is not as streamlined as other rorquals, but is quite round, narrowing to a slender peduncle (tail stock)
- The top of the head and lower jaw have rounded, bump-like knobs, each containing at least one stiff hair
- The purpose of these hairs is not known, though they may allow the whale to detect movement in nearby waters
- There are between 20-50 ventral grooves which extend slightly beyond the navel



Color

- The body is black on the dorsal (upper) side, and mottled black and white on the ventral (under) side
- This color pattern extends to the flukes
- When the humpback whale "sounds" (goes into a long or deep dive) it usually throws its flukes upward, exposing the black and white patterned underside. This pattern is distinctive to each whale
- The flippers range from all white to all black dorsally, but are usually white ventrally. About 2/3 of the way back on the body is an irregularly shaped dorsal (top) fin

Lifespan

- Humpback whales have a life expectancy of 45-50 years

Habitat

The habitat of humpback whales consists of polar to tropical waters, including the waters of the Arctic, Atlantic, and Pacific Oceans, as well as the waters surrounding Antarctica and the Bering Strait. During migration, they are found in coastal and deep oceanic waters. Generally, they do not come into coastal waters until they reach the latitudes of Long Island, New York, and Cape Cod, Massachusetts.

Humpbacks are divided into several populations. These are for the most part isolated, but with a little interchange in some cases. There are two stocks in the North Atlantic Ocean and two in the North Pacific. There are also seven isolated stocks in the southern hemisphere.

Migration

Found in all of the world's oceans, most populations of humpback whales follow a regular migration route, summering in temperate and polar waters for feeding, and wintering in tropical waters for mating and calving. In the Arabian Sea, a year-round non-migratory population of humpbacks appears not to follow this general rule. Humpbacks migrate at 3-9 mph (4.8-14 kph). They have incredible powers of endurance, traveling over 3,100 miles (5000 km) during each seasonal migration with almost no rest along the way. During migrations, they cover over 1,000 miles per month.

Population Numbers/status

Because their feeding, mating, and calving grounds are close to shore and because they are slow swimmers, humpback whales were an easy target for early whalers. The International Whaling Commission (IWC) gave them worldwide protection status in 1966, but there were large illegal kills by the Soviets until the 1970's. It is believed they number about 30,000-40,000 at present, or about 30-35% of the original population.



Feeding

Humpbacks feed by circling around schools of fish or krill and making a cylindrical net of bubbles. They then lunge into the concentrated cloud of prey with mouths wide open.

They feed on krill, small shrimp-like crustaceans, and various kinds of small fish. Each whale eats up to 1 and 1/2 tons (1,361 kg) of food a day. As a baleen whale, it has a series of 270-400 fringed overlapping plates hanging from each side of the upper jaw, where teeth might otherwise be located. These plates consist of a fingernail-like material called keratin that frays out into fine hairs on the ends inside the mouth near the tongue. The plates are black and measure about 30 inches (76 cm) in length. During feeding, large volumes of water and food can be taken into the mouth because the pleated grooves in the throat expand. As the mouth closes, water is expelled through the baleen plates, which trap the food on the inside near the tongue to be swallowed.

Speed/Depth/Breaching

Humpback whales normally swim 3-9 mph (4.8-14 kph), but can go up to 15-16.5 mph (24-26.5 kph) in bursts when in danger. Feeding speeds are slower, about 1.2-3.5 mph. Humpback whales can dive for up to 30 minutes, but usually last only 15 minutes. They can dive to depths up to 500-700 feet (150-210 m).

Humpbacks are very acrobatic, often breaching high out of the water and then slapping the water as they come back down. Sometimes they twirl around while breaching. Breaching may be purely for play or may be used to loosen skin parasites or have some social meaning.

Spyhopping is another activity in which the whale pokes its head out of the water for up to 30 seconds to take a look around. Humpbacks also stick their tail out of the water into the air, swing it around, and then slap it on the water's surface; this is called lobtailing. It makes a very loud sound. The meaning or purpose of lobtailing is unknown, but may be done as a warning to the rest of the pod. Humpbacks lobtail more when the seas are rough and stormy. Slapping a fin against the surface of the water is another unexplained humpback activity.

Reproduction

Humpback whale breeding occurs mostly in the winter to early spring while near the surface and in warm, tropical waters. Humpback whales reach sexual maturity at 6-10 years of age or when males reach the length of 35 feet (11.6 m) and females reach 40 feet (12 m). Each female typically bears a calf every 2-3 years and the gestation period is 12 months.

A humpback whale calf is between 10-15 feet (3-4.5 m) long at birth, and weighs up to 1 ton (907 kg). It nurses frequently on the mother's rich milk, which has a 45% to 60% fat content. Newborn humpbacks consume about 100 pounds of their mother's milk each day for five to seven months until they are weaned to solid food.



Interesting Facts & History

Humpback whales are well known for breaching and their complex songs. The name "humpback whale" describes the motion it makes as it arches its back out of the water in preparation for a dive. The humpback whale "*Megaptera novaeangliae*" is aptly named from the Greek "megas" meaning great and "pteron," a wing, because of its huge wing-like flippers. The pectoral fins of the humpback whale are up to 5 meters (15 feet) in length, one third of the animals total length.

At least 3 different species of barnacles are commonly found on both the flippers and the body of the humpback whale. It is also home for a species of whale lice, *Cyamus boopis*.

Humpback whales are active, acrobatic whales. They can throw themselves completely out of the water (breaching), and swim on their backs with both flippers in the air. They also engage in "tail lobbing" (raising their huge flukes out of the water and then slapping it on the surface) and "flipper slapping" (using their flippers to slap the water). It is possible that these behaviors are important in communication between humpbacks.

Perhaps the most interesting behavior of humpback whales is their "singing" which can be heard up to 20 miles away. Scientists have discovered that humpback whales sing long, complex "songs." Whales in the North American Atlantic population sing the same song, and all the whales in the North American Pacific population sing the same song. However, the songs of each of these populations and of those in other areas of the world are uniquely different. A typical song lasts from 10-20 minutes, is repeated continuously for hours at a time, and changes gradually from year to year. Singing whales are males, and the songs may be a part of mating behavior.

Researchers still are not sure exactly how humpbacks produce their sounds. They don't have vocal cords, so they probably sing by circulating air through the tubes and chambers of their respiratory system--but no air escapes during the concerts and their mouths don't move.

Humpback Whale Resources

<http://www.nps.gov/glba/naturescience/humpback-whales-in-glacier-bay.htm>

Humpback whales in Glacier Bay.

<http://www.environment.gov.au/system/files/resources/8d15907b-b3bd-4931-9c26-a69735563033/files/teaching-unit-3.pdf>

This unit introduces students to the issues concerned with promoting sustainable wildlife industries such as whale watching by discussing the benefits of non-consumptive use and the rules that apply across a range of whale watching-related scenarios.