About Humpback Whales

The watery world is unknown to us. For centuries it has served as the underlining fear in myths and legends. "If the sea serpents don't get you first, you'll sail off the end of the world." Those tales were enough to thwart even the bravest of sailors into risking their lives by traveling in unknown territory. So it is understandable that so little is known about the sea, now that we want to learn. One of the sea's inhabitants that has aroused the curiosity of humans everywhere is the whale Herman Melville described in Moby Dick as "the most gamesome and light-hearted of all whales, making more gay foam and white water than any other of them," the humpback whale.

Humpback whales are marine mammals. They have hair, breathe oxygen, and nurse their young with milk just as land dwelling mammals (humans, dogs, and elephants). They are part of the mysticete group, which are made up of whales that have baleen. Baleen is made up of the same protein as human fingernails (keratin). They hang down in the whales mouth (at lengths of up to 1.5m) and trap the whales food, which consists of small fish, krill, and plankton. As the whale engulfs food and water by techniques I'll explain later, they use their tongues to push out the water, which can easily flow through the baleen, but the food cannot escape through it, and becomes trapped within the whale's mouth.

The humpback's scientific name, Megaptera novaeangliae, means "big wing of New England," which is a very accurate description of this gentle giant. The characteristic that distinguishes them the most from other whales is their white pectoral fins (flippers) that can be almost a third of the length of their body. In general, female humpbacks are about 1/2 -1 meter longer than males, reaching an average length of 13 meters. On this frame they carry about 25-30 tons of weight. Much of this weight is from their blubber, which protects them from frigid polar waters and is used as a food supply during the winter. It can grow to be15 cm thick! Very helpful to researchers is the fact that humpbacks can be recognized by the pattern on the underside of their flukes (tails). Each whale has a different coloration and markings, much like how every human has a different fingerprint. Scientists are also beginning to realize that humpbacks have different patterns on their dorsal sides as well. No one can know for sure how long these gentle giants roam the seas, but they are thought to live between 40-50 years.

The humpback whales life is spent in a cycling migration pattern. They spend the spring, summer, and autumn in the feeding ground of the polar oceans where there is high productivity and therefore an abundant food source. It is important that they spend this time building up their reserves of blubber for their winter migrations, when they rarely, if ever, eat. Humpbacks have developed a couple of "tools" to assist them in capturing their meals. Their first method is a bubble net, where the whale circles in an upward spiral, releasing bubbles as it goes, effectively trapping the prey inside, so that the whale can lunge mouth first into its meal. Although it does not physically stop the prey from escaping, the bubbles seem to confuse the fish. They generally cannot see through the bubbles, and they draw towards each other in a mass of fear and confusion. In this way, bubbles, strategically placed, serve as a tool in facilitating the humpbacks meal. The other method also uses bubbles as a tool, but instead of a net, they are in the form of a cloud. In a single burst of bubbles, the whale can make them form a huge cloud that serves the same purpose as the bubble net, to confuse and concentrate their prey. Sometimes groups of whales will conjugate at a food source and assist each other in feeding, but there does not seem to be a stable group with which whales stay for long periods of time.

During the winter, whales migrate to warmer tropical waters, such as Australia, Hawaii, and the West Indies, to mate and give birth to their calves. It is not known exactly how humpback whales associate to mate. Females are normally seen being escorted by a male, whom may or may not remain at her side depending upon whether or not he can defend his position from challenging males. It is also during the winter months that males sing their haunting and complex songs. Females tend to have a calf every 2-3 years, although having one after one year is possible. The gestation period is 11 1/2 months, after which the calf remains with its mother for a year, possibly learning by imitation valuable skills like bubble netting.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| [Home](http://docs.google.com/home.html) | [Introduction](http://docs.google.com/intro.html) | [Hypothesis/ Perdiction](http://docs.google.com/hypoth.html) | [Experiment](http://docs.google.com/exper.html) | [Data](http://docs.google.com/data.html) |
|  |  |  |  |  |
| [Conclusion](http://docs.google.com/conclus.html) | [Recommendations](http://docs.google.com/recom.html) | [Bibliography](http://docs.google.com/biblio.html) | [Special Thanks](http://docs.google.com/spthank.html) | [Links](http://docs.google.com/links.html) |