

# PALM BEACH DOLPHIN PROJECT FACT SHEET



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## HUMPBACK WHALE

### *Megaptera novaeangliae*

CLASS: Mammalia  
ORDER: Cetacea  
SUBORDER: Odontoceti  
FAMILY: Balaenopteridae  
GENUS: Megaptera  
SPECIES: novaeangliae



The humpback whale is one of the rorquals, a family that also includes the blue whale, fin whale, Bryde's whale, sei whale, and minke whale. Rorquals have two characteristics in common: dorsal fins on their backs, and ventral pleats running from the tip of the lower jaw back to the belly area. Humpback whales live in all major oceans from the equator to sub-polar latitudes.

**PHYSICAL DESCRIPTION:** 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:** Their body coloration is primarily dark gray, but individuals have a variable amount of white on their pectoral fins and belly. This variation is so distinctive that the pigmentation pattern on the undersides of their "flukes" is used to identify individual whales, similar to a human fingerprint.

**FINS AND FLUKES:** About two-third of the way back on the body is an irregularly shaped dorsal (top) fin. Their pectoral fins (flippers), can reach up to 15 feet (4.6 m) in length. These long fins give them increased maneuverability; they can be used to slow down or even go backwards. The flukes (tail), which can be 18 feet (5.5 m) wide, is serrated and pointed at the tips.

**LENGTH AND WEIGHT:** 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).

**FEEDING:** Humpback feeding grounds are in cold, productive coastal waters. Humpback whales feed on krill, small shrimp-like crustaceans, and various kinds of small fish. Each whale eats up to 1 and 1.5 tons 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 inside of 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 (rorqual whale). As the mouth closes water is expelled through the baleen plates, which trap the food on the inside of the baleen, and the tongue guides the food towards the throat to be swallowed. During the summer months, humpbacks spend the majority of their time feeding and building up fat stores (blubber) that they will live off of during the winter. Several hunting methods involve using air bubbles to herd, corral, or disorient fish. One highly complex variant, called "bubble netting," is unique to humpbacks. This technique is often performed in groups with defined roles for distracting, scaring, and herding before whales lunge at prey corralled near the surface.

**MATING AND BREEDING:** 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. Gestation lasts for about 11 months. Newborns are 13-16 feet (4-5 m) long and grow quickly from the highly nutritious milk (35-50% fat content) of their mothers. Weaning occurs between 6-10 months after birth. Mothers are protective and affectionate towards their calves, swimming close and frequently touching them with their flippers. Males do not provide parental support for calves.

**DISTRIBUTION AND MIGRATION:** In the western North Atlantic, humpback whales feed during spring, summer, and fall over a range that encompasses the eastern coast of the United States, the Gulf of St. Lawrence, Newfoundland/Labrador, and western Greenland. In winter, whales mate and calve primarily in the West Indies. However, a significant numbers are found in mid- and high-latitude regions at this time. Humpback whales travel great distances during their seasonal migration, one of the longest known migration of any mammal. The longest recorded migration was 11,706 miles (18,840 km), with a trek from American Samoa to the Antarctic Peninsula. One of the more closely studied routes is between Alaska and Hawaii, where humpbacks have been observed making the 3,000 mile (4,830 km) trip in as few as 36 days.

**NATURAL HISTORY:** During calving, humpbacks are usually found in the warmest waters available at that latitude and prefer shallow waters. Calving grounds are commonly near offshore reef systems, islands, or continental shores. In their wintering grounds, humpback whales congregate and engage in mating activities. Humpbacks are generally “polygynous” with males exhibiting competitive behavior on wintering grounds. Aggressive and antagonistic behaviors include chasing, vocal and bubble displays, horizontal tail thrashing, and rear body thrashing. Males within these groups also make physical contact, striking or surfacing on top of one another. These bouts can cause injuries ranging from bloody scrapes to, in one recorded instance, death. Scientists have discovered that humpback whales sing long, complex “songs”. Whales in the North American Atlantic population sing the same song, and all male 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 are only sung/heard during the mating period.

**THREATS:** Historically, Humpback whales face a series of threats including entanglement in fishing gear (by-catch), ship strikes, whale watch harassment, habitat impacts and harvest. Humpbacks can become entangled in fishing gear, either swimming off with the gear or becoming anchored. Whale watching vessels may stress or even strike whales. Shipping channels, fisheries, and aquaculture may occupy or destroy humpback whale aggregation areas. Recreational use of marine areas, including resort development and increased boat traffic, may displace whales that would normally use that area. In Hawaii, acoustic impacts from vessel operation, oceanographic research using active sonar, and military operations are also of increasing concern.

**BIBLIOGRAPHY:** For further details about common dolphins you may want to consult the following literature:

- The Sierra Club Handbook of Whales and Dolphins. Leatherwood, S.L. and R.R. Reeves. 1983. Sierra Club Books, San Francisco
- The World's Whales. Smithsonian Books. W. W. Norton, New York.
- Wings in the Sea; the Humpback Whale. Winn, L.K. and H.E. Winn. 1985. University Press of New England, Hanover, NH.

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*There is no seam between the doings of wild animals and human affairs.  
We can't go on losing them and not loose part of ourselves.*

Kenneth S. Norris