Sperm whale

*Physeter macrocephalus [=catodon]*

(Photo courtesy of NMFS Northeast Fisheries Science Center)

**Taxonomic Classification**

**Kingdom:** Animalia  
**Phylum:** Chordata  
**Class:** Mammalia  
**Order:** Cetacea  
**Family:** Odontoceti  
**Genus/Species:** *Physeter macrocephalus [=catodon]*  
**Common Name:** Sperm whale

**Listing Status**

**Federal Status:** Endangered  
**FL Status:** Federally-designated Endangered  
**FNAI Ranks:** Not ranked  
**IUCN Status:** VU (Vulnerable)

**Physical Description**

Sperm whales are the largest member of the toothed whale Family, Odontoceti. This species is sexually dimorphic by size and weight. Females can reach a length of 36 feet (11 meters) and a weight of 15 tons (13,607 kilograms), while males grow up to 52 feet (15.9 meters) and 45 tons (40,823 kilograms). Sperm whales can be distinguished from other whale species by their
enormous head, which can take up to 35% of their body. Their brain is the largest of any animal. Sperm whales have 20-26 cone-shaped teeth on each side of the lower jaw; however, their teeth are not needed for feeding. Their blowhole is located on the left side of the head. Sperm whales uniquely shoot water forward from their blowholes, which is unlike other whales that shoot water straight up. Sperm whales are mainly dark grey with a white-colored interior mouth, triangle-shaped fluke (tail), and thick rounded pectoral fins (National Oceanic & Atmospheric Administration, n.d.).

**Life History**

The diet of the sperm whale primarily consists of large squids and fish including sharks (National Oceanic & Atmospheric Administration, n.d.).

Sperm whales are polygamous breeder – they breed with more than one partner. Breeding season peaks in the spring in both the Southern and Northern Hemisphere, and calves are born during the fall. During the breeding season, males join groups of females temporarily. The males become very aggressive towards each other when looking for a female to mate with. Sperm whales reach sexual maturity at a slow rate. Females reach sexual maturity at eight to eleven years old. Males do not begin mating until around 25-27 years old because they are not experienced enough. The gestation period for sperm whales is 14-16 months with the female giving birth to one calf every two to five years (NMFS 2010, Ballenger 2003). Adult female sperm whales and subadults form cohesive ‘social units’ (pods) that can remain together over a number of years. Adult male sperm whales typically travel in bachelor groups or alone.

**Habitat & Distribution**

Sperm whales can be found in all major oceans on Earth in waters 600 feet (182.9 meters) over the continental slope. (National Oceanic & Atmospheric Administration, n.d.). Females and subadults inhabit tropical and temperate waters. Adult males live in high-latitude regions and travel to lower latitudes in search of females for mating.

**Threats**

Historically, sperm whales have faced catastrophic population declines due to harvesting. From 1800 to 1987, humans captured and harvested around one million sperm whales (National Oceanic & Atmospheric Administration, n.d.). In 1988, the International Whaling Commission put a halt on all whaling; however, poaching still continues today. Poaching caused an extreme variation in the ratio of females to males, which affected
reproduction of the species (American Cetacean Society, n.d.). Some countries (i.e. Japan) still harvest whales for research purposes. Sperm whales are also threatened by boat and ship hits. Human made noises, such as from oil drilling, can disturb a population’s ability to communicate due to the noise interfering with their vocalizations. Other threats include pollution from PCBs (polycholorobiphenyls), and PAHs (polycyclic aromatic hydrocarbons) (National Oceanic & Atmospheric Administration, n.d.).

**Conservation & Management**

The sperm whale is protected as an Endangered species by the Federal Endangered Species Act and as a Federally-designated Endangered species by Florida’s Endangered and Threatened Species Rule. It is also protected Federally protected as a Depleted species by the Marine Mammal Protection Act.

- Federal Recovery Plan

**Other Informative Links**

Animal Diversity Web  
American Cetacean Society  
Aquarium of the Pacific  
International Union for Conservation of Nature  
National Geographic  
National Oceanic & Atmospheric Administration

**References**


[http://animaldiversity.ummz.umich.edu/site/accounts/information/Physeter_catodon.html](http://animaldiversity.ummz.umich.edu/site/accounts/information/Physeter_catodon.html)
