### 2.4.2 FAO Species Identification Sheets

***Physeter catodon*** Linnaeus, 1758

**PHYS Phys 1** **SPW**

**Other scientific names still in use:** ***Physeter macrocephalus*** Linnaeus, 1758.

**FAO Names: En -** Sperm whale; **Fr** - Cachalot; **Sp -** Cachalote.

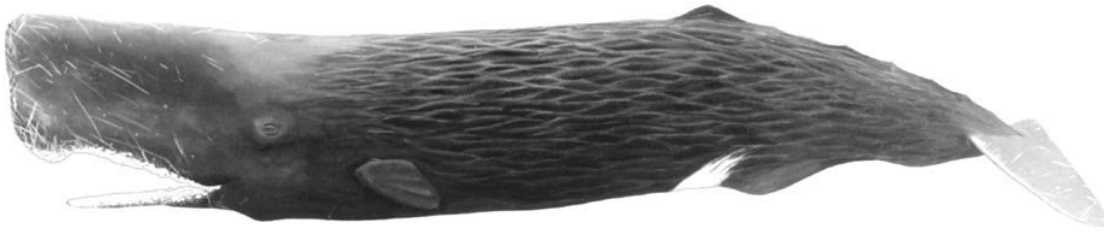


**Fig. 195** ***Physeter catodon***

**Distinctive Characteristics:** The largest toothed cetacean, the sperm whale, is unlikely to be confused with any other species. The body is somewhat laterally compressed and the head is huge (one-quarter to one-third of the total head is huge an even greater proportion of the total bulk) and squarish when viewed from the side. The lower jaw is narrow and underslung. The single S-shaped blowhole is set at the front of the head and is offset to the left. The flippers are wide and spatulate, and the flukes are broad and triangular with a nearly straight trailing edge, rounded tips, and a deep notch. There is a low rounded dorsal hump and a series of bumps, or crenulations, on the dorsal ridge of the tail stock. The body surface tends to be wrinkled behind the head.

Sperm whales are predominantly black to brownish grey, with white areas around the mouth and often on the belly. Functional teeth (18 to 25 pairs that fit into sockets in the upper jaw) are present in the lower jaw only. The bushy blow projects up to 5 m and, because of the position of the blowhole, is directed forward and to the left. On windless days, such an angled blow is diagnostic.

Adult males and females can be distinguished not only by size differences, but also by the presence or absence of calluses on the dorsal hump. A large percentage of females (about 85%) have calluses, whereas males almost never have theam

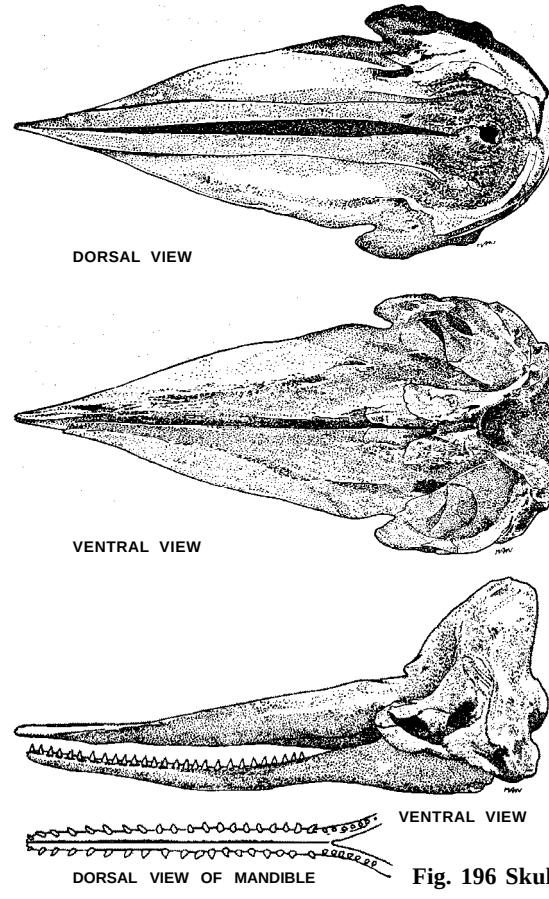



**Fig. 196 Skull**

**Fig. 197 Surface - blow - dive profile**

**Can be confused with:** Sperm whales are generally easy to distinguish from other large whales at sea, even at a great distance. The uniquely angled blow is diagnostic, but one must be careful to take into account the effects of wind on a whale's blow. Only humpbacks (p. 60), and possibly gray whales (p. 62), would likely confused with sperm whales, and this only at a great distance.

**Size:** Newborn sperm whales are 3.5 to 4.5 m long. Adult females are up to 12 m and adult males are up to 18 m in length. Weights of up to 57 t have been recorded.

**Geographical Distribution:** Sperm whales are distributed from the tropics to the pack-ice edges in both hemispheres, although generally only large males venture to the extreme northern and southern portions of the range (poleward of 40º latitude). Deep divers, sperm whales tend to inhabit oceanic waters, but they do come close to shore where submarine canyons or other physical features bring deep water near the coast.

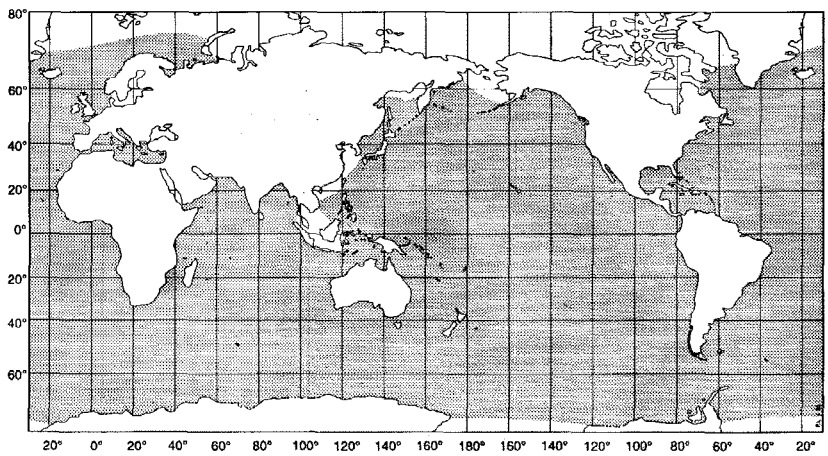



**Fig. 198**

**Biology and Behaviour:** Although bulls are sometimes seen singly (especially above 40" latitude), sperm whales are more often found in medium to large groups of up to fifty whales. Recently, the social system of sperm whales has been relatively well-studied. Apparently they are polygynous: adult males seem to employ a "searching" strategy for mating, associating with nursery groups of adult females and their offspring for only short periods of time. Sexually mature but non-breeding males that have been displaced from their maternal pods form bachelor herds. Most births occur in summer and autumn. Sperm whales are deep divers, apparently capable of reaching depths of 3 200 m or more. Some dives of bulls, which are longer than those of the smaller cows, last at least 2 hours. Fluking-up is common before a long dive. Low-frequency, stereotyped, clicked vocalizations, some of which are termed "codas," are apparently distinct to individual sperm whales and may act as acoustic signatures. Some clicks are also probably used in echolocation. An amazing variety of fish, cephalopods, and non-food items has been found in the stomachs of sperm whales from around the world. Cephalopods (squid and octopuses), however, are considered to be the major prey items.

**Exploitation:** Sperm whaling has a long history. The most intense periods were the "Yankee whaling" era of the 1800s and the factory ship whaling of the 20th century. Recent findings of studies on social behaviour and breeding undermine assumptions in the models on which exploitation and management have long been based. Certain populations have been depleted, but the sperm whale remains the most abundant of all the great whales (Great whales generally include the sperm whale and all baleen whales, except the pygmy right whale).

**IUCN Status:** Insufficiently known.

***Kogia breviceps*** (de Blainville, 1838) **KOGI Kog 1** **PYW**

**FAO Names: En -** Pygmy sperm whale**: Fr -** Cachalot pygmée**; Sp -** Cachalote pigmeo.

**Fig. 199** ***Kogia breviceps***

**Distinctive Characteristics:** Pygmy and dwarf sperm whales are very difficult to detect, except in extremely calm seas. Pygmy sperm whales have a shark-like head with a narrow underslung lower jaw. The flippers are set high on the sides near the head. The small falcate dorsal fin (< 5% of the body length) is usually set well behind the midpoint of the back.

Pygmy sperm whales are countershaded, ranging from dark grty on the back to white below. Often the belly has a pinkish tone. There is a light coloured bracket mark, dubbed the "false gill," along the side between the eye and the flipper. The lower jaw contains 12 to 16 (sometimes 10 or 11) pairs of long, fang-like teeth that fit into sockets in the upper jaw. There are usually no teeth in the upper jaw.

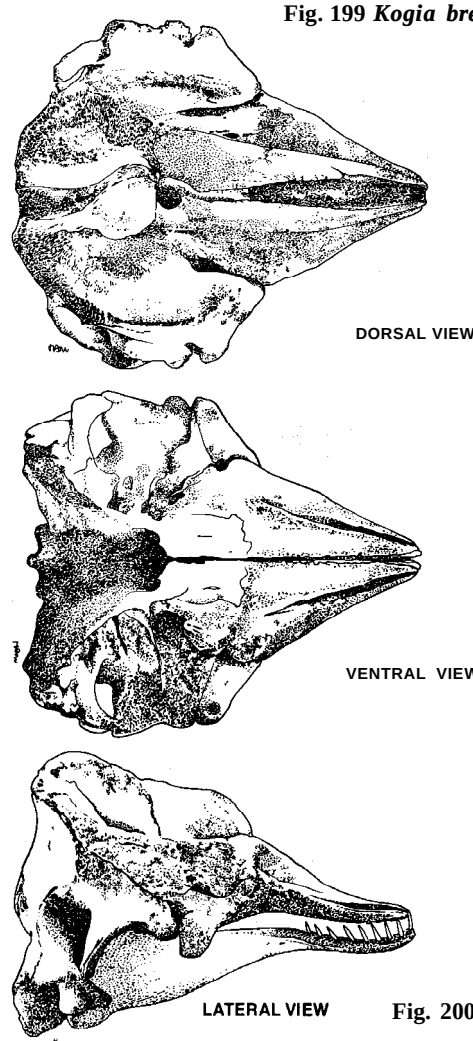



**Fig. 200 Skull**

**Can be confused with:**Pygmy and dwarf sperm whales (p. 70) are somewhat difficult to distinguish at sea. Pygmy sperm whales grow to somewhat greater total lengths, and have smaller, more rounded dorsal fins, set farther back on the body. There is some degree of overlap in most of characteristics of these 2 species, and identifications must be made cautiously.

**Size:** Adult pygmy sperm whales are 2.7 to 3.4 m long, and newborns are about 1.2 m. Adults may weigh as much as 400 kg.

**Geographical Distribution:** Pygmy sperm whales are known from deep waters in tropical to warm temperate zones of all oceans. They appear to be especially common over and near the continental slope.

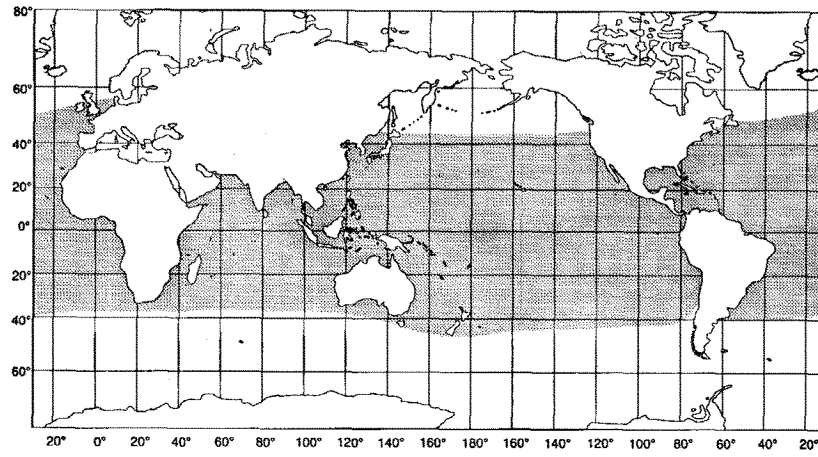



**Fig. 201**

**Biology and Behaviour:** Most sightings of pygmy sperm whales are of small groups of less than 5 or 6 individuals. Almost nothing is known of the behaviour and ecology of this species. They are rarely seen alive at sea, but they are among the most frequently stranded small whales in some areas. When seen at sea, they generally appear slow and sluggish, with no visible blow.

Very little is known of the reproductive biology of the pygmy sperm whale.

Studies of feeding habits, based on stomach contents of stranded animals, suggest that this species feeds in deep water on cephalopods and, less often, on deep-sea fishes and shrimps.

**Exploitation:** Pygmy sperm whales have never been hunted commercially. In recent years, however, a few have been killed in Sri Lanka's gillnet fisheries, and it is likely they are killed in gillnets elsewhere as well. Small numbers have been taken in coastal whaling operations off Japan and Indonesia.

**IUCN Status:** Insufficiently known.

***Kogia simus*** Owen, 1866

**KOGI Kog 2** **DWW**

**FAO Names: En -** Dwarf sperm whale**; Fr -** Cachalot nain**; Sp -** Cachalote enano.

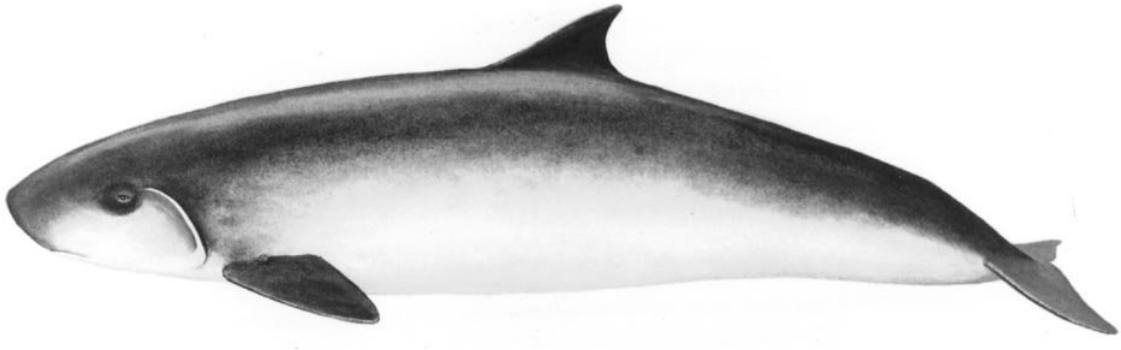
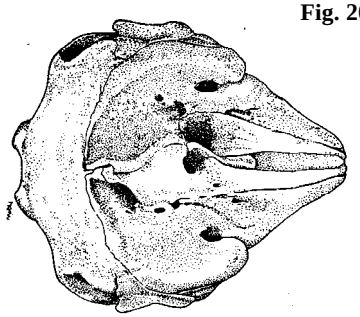


**Fig. 202 *Kogia simus***

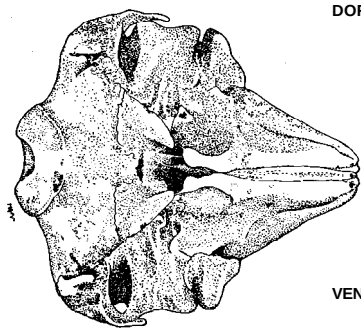
**Distinctive Characteristics:** The dwarf sperm whale is similar in appearance to the pygmy sperm whale, but has a larger dorsal fin (> 5% of the body length), generally set nearer the middle of the back. Like its congener, the dwarf sperm whale has a shark-like profile (but with a more pointed snout than the pygmy sperm whale).

Dwarf sperm whales have grey (dorsal) to white (ventral) coloration, and a pigment marking shaped like a shark's gill slit on the side of its head. Generally, a pair of short grooves, similar to those in beaked whales, is present on the throat.

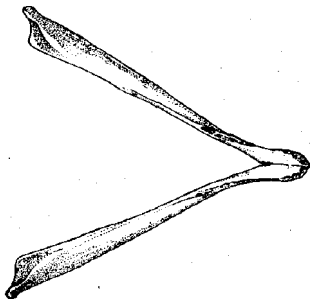
There are 8 to 11 (rarely up to 13) pairs of teeth in the lower jaw; sometimes teeth are present in the upper jaw as well.



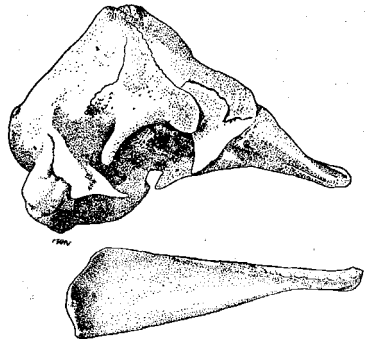
DORSAL VIEW



VENTRAL VIEW



DORSAL VIEW OF MANDIBLE



LATERAL VIEW

**Fig. 203 Skull**

**Can be confused with:** Dwarf sperm whales are most likely to be confused with pygmy sperm whales (p. 70), which are very similar in appearance. Besides reaching smaller maximum lengths, dwarf sperm whales have taller, more dolphin-like dorsal fins, set more toward the middle of the back. However, because sizes overlap and dorsal fins are variable in size and position, many sightings at sea of Kogia whales may not be identifiable to species.

**Size:** Adults of this species are up to 2.7 m long and may weigh up to 210 kg. Length at birth is about 1 m.

**Geographical Distribution:** The dwarf sperm whale, like the pygmy sperm whale, is known mostly from strandings. It has rarely been positively identified in encounters at sea. It appears to be distributed widely in tropical to warm temperate zones, apparently largely offshore.

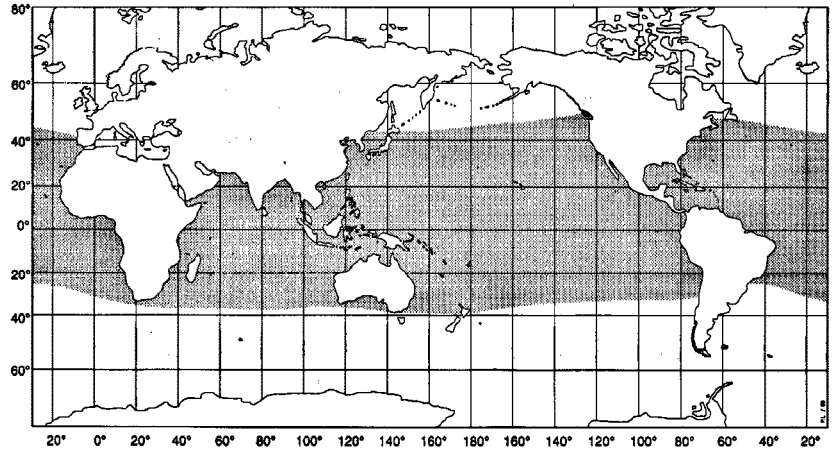



**Fig. 204**

**Biology and Behaviour:** Group sizes tend to be small, most often less than 5 individuals (although groups of up to 10 have been recorded). This species, like the pygmy sperm whale, is also shy and undemonstrative when observed at sea. When startled, dwarf sperm whales, and possibly pygmy sperm whales, may leave a large rust-coloured cloud of fecal material behind as they dive.

In at least one area, there appears to be a calving peak in summer.

Dwarf sperm whales appear to feed primarily on deep-water cephalopods.

**Exploitation:** Some small scale catches of dwarf sperm whales have occurred in Japan and in St. Vincent in the Lesser Antilles. Also, substantial numbers appear to be taken each year in gillnets in the Indian Ocean, and possibly elsewhere.

**IUCN Status:** Insufficiently known.

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