

Hyperoodon planifrons Flower, 1882

English: Southern bottlenose whale

German: Südlicher Entenwal

Spanish: Ballena a nariz de botella del sur

French: Hypéroodon austral

Family Ziphiidae

1. Description

H. planifrons resembles the northern bottlenose whale, with a robust body. It reaches a body length of up to 7.8 m (Jefferson et al. 2008), maximum weight is about 4,000 kg (Ross 2006). Southern bottlenose whales have a large, bulb-shaped forehead and short, dolphin-like beak. Their colour is chocolate brown to yellow, being lighter on the flanks and belly. Some of this colouration is believed to be caused by a thin layer of diatoms. Mature males have a squared-off forehead, whereas in females and immature males it is rounded. Males possess a single pair of conical teeth at the tip of the lower jaw, rarely visible in live animals (Gowans, 2009). Juveniles have diagnostic, bold, cream-white facial fields separated by a distinct dark blowhole stripe (Van Waerebeek et al. 2005).

2. Distribution

<http://www.iucnredlist.org/details/10708/0/rangemap>

Distribution of H. planifrons (mod. from Taylor et al. 2008; © IUCN): The species inhabits the cold, deep waters of the Southern Hemisphere, circumpolar from Antarctica North to about 28°40'S (Van Waerebeek et al. 2004).

Southern bottlenose whales are thought to have a circumpolar distribution in the Southern Hemisphere, south of 30°S (Mead, 1989; Jefferson et al. 1993). They occur from Rio Grande do Sul in Brazil, Cape Province in South Africa, 31°S in the western Indian Ocean, Dampier Archipelago in Western Australia, Ulladulla in New South Wales, North Island in New Zealand, and Valparaíso in Chile, south to the Antarctic continent (Rice, 1998).

Sightings off Durban, South Africa, show strong seasonality with peaks in February and October, the February peak possibly suggesting a general movement northward out of the Antarctic in late summer (Sekiguchi et al., 1993; Van Waerebeek et al., 2004).

The records from north-western Australia and from Brazil indicate that *H. planifrons* also occurs in warm temperate waters.

3. Population size

Southern bottlenose whales are the most common beaked whales sighted in Antarctic waters: In 1995, Kasamatsu and Joyce (1995) published abundance estimates for south of the Antarctic Convergence in January: 599,300 beaked whales, more than 90% of which are

southern bottlenose whales (Kasamatsu et al. 1988). However, according to Gowans (2009) there are no known areas of concentration.

4. Biology and Behaviour

Habitat: *H. planifrons* is most common beyond the continental shelf and over submarine canyons, in water deeper than 1,000m. It is rarely found in water less than 200m deep. In summer, this species is most frequently seen within about 100 km of the Antarctic ice edge, where it appears to be relatively common (Carwardine, 1995). Cockcroft et al. (1990) report sightings in the steep thermocline between the Agulhas current and cold Antarctic water masses.

Behaviour: The southern bottlenose whale is poorly known and rarely observed at sea. It lives far from shipping lanes, and has never been commercially exploited, so it has not been as well studied as its northern counterpart. There are few reports of swimming near boats, but this may be due to lack of observation rather than shyness. After long dives, it may remain on the surface for 10 minutes or more, blowing every 30 to 40 seconds. It can stay underwater for at least an hour, but typical dive time is shorter. When swimming fast, especially under stress, it may raise its head clear of water on surfacing. Probably a deep diver, though it does not tend to travel much horizontal distance while submerged (Carwardine, 1995). There is essentially nothing known of the reproductive biology of this species (Jefferson et al. 1993).

Schooling: Pods of less than 10 are most common, but groups of up to 25 have been seen, exceptionally up to 40 (Bastida and Rodríguez, 2003).

Food: Diet analyses compiled by MacLeod et al. (2003) for *H. planifrons* report 41 species of cephalopod species from 17 families. Where information on prey was available, Onychoteuthid, Cranchiid, Gonatid and Histioteuthid species contributed almost all of the biomass in *H. planifrons*. The largest individual prey item reported was 4080 g. Fish were reported only once, in small numbers. However, this may be attributed to differential digestion rates of cephalopod and fish remains as the stomachs examined came from stranded animals (e.g. Slip et al., 1995).

5. Migration

Southern bottlenose whales apparently migrate, and are found in Antarctic waters during the summer. Like other beaked whales, they are deep-water oceanic animals (Jefferson et al. 1993). Kasamatsu and Joyce (1995) investigated the spatial distribution of various cetacean species during mid-summer in Antarctic waters and found different peaks of occurrence for each species by latitude, suggesting possible segregation. Killer whales occur mainly in the very southernmost areas, sperm whales in the southern half of the study area, whereas beaked whales (mostly southern bottlenose whales) ranged over a wide area.

Sightings of southern bottlenose whales off Durban between February and October showed a strong seasonality with peaks in February and October. The beaks of Antarctic and subantarctic squids in the stomachs of two specimens stranded in South African waters, plus the presence of cold water skin diatoms *Bennettella* (= *Cocconeis*) *ceticola* suggest that the animals had arrived comparatively recently from higher latitudes (Sekiguchi et al. 1993).

6. Threats

Although never taken commercially, some southern bottlenose whales have been killed during whaling operations by Soviet and Russian whalers and others based at South Shetlands and South Georgia, some of these for research purposes (Bastida and Rodríguez, 2003; Van Waerebeek et al. 2004). Several have been recorded as accidental victims of driftnet fishing in the Tasman Sea. Numbers taken annually are not known (Jefferson et al. 1993).

7. Remarks

Range states: Antarctica; Argentina; Australia; Brazil; Chile; Falkland Islands (Malvinas); New Zealand; South Africa; Uruguay (Taylor et al. 2008).

H. planifrons is categorised as "Least concern" by the IUCN (Taylor et al. 2008) and is listed in Appendix I & II of CITES. It is not listed by CMS.

H. planifrons also occurs in southern South America. Recommendations iterated by the scientific committee of CMS for small cetaceans in that area (Hucke-Gaete, 2000) also apply (see Appendix 1). For recommendations on south-east Asian stocks, see Perrin et al. (1996) in Appendix 2.

8. Sources

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