

Lagenorhynchus australis (Peale, 1848)

English: Peale's dolphin

German: Peale Delphin

Spanish: Delfín austral

French: Dauphin de Peale

Family Delphinidae

1. Description

L. australis is a stocky dolphin with the barest indication of a beak. Length reaches 210 cm in females and 218 cm in males; the heaviest animal weighed 115 kg. Colour is dark grey or black on the back, with two areas of lighter shading on the flanks. A curved white-to-grey flank patch angles forward from the vent, narrowing to a single line ending below or in front of the dorsal fin. The posterior curves of the flank patch almost meet above the tail stock. The larger thoracic patch is light to medium grey, outlined with a narrow dark line on its lower surface. A black double eye-ring extends forward onto the inconspicuous snout. Flippers of older animals may have a series of small knobs on the leading edge. The ventral surface behind the throat patch is white, with a few dark streaks in the genital area. Younger animals are lighter grey than adults. Peale's dolphins can be confused with dusky dolphins (*L. obsucurus*) through much of their range (Goodall, 2002).

2. Distribution

<http://www.iucnredlist.org/apps/redlist/details/11143/0/rangemap>

Distribution of Lagenorhynchus australis: cool, coastal waters of southern South America including the Falkland / Malvinas Islands (Hammond et al. 2008; © IUCN).

Peale's dolphin mainly ranges in coastal waters of southern South America from Valdivia, Chile (38°S) and Golfo San José, Argentina (44°S), south to Beagle Canal and the Falkland Islands / Islas Malvinas (Goodall et al. 1997a; Goodall, 2009). *L. australis* may occur farther north on both the Atlantic and Pacific coasts of South America; it has been recorded as far north as Provincia Buenos Aires, Argentina (33°S), and Concón, Chile (38°S; Brownell et al. 1999; Goodall et al. 1997a). Records from southern Brazilian waters (41-32°S) have been reported by Pinedo et al. (2002; not shown on the map). A group of dolphins closely observed and photographed near Palmerston Atoll (18°S, 163°W) in the Cook Islands also appear to be of this species (Brownell et al. 1999). The southernmost sightings were 57°S and at 59°10'S in the Drake Passage (Goodall et al. 1997b).

3. Population size

No substantial information is available about the abundance of *L. australis*. It is most common south of Puerto Montt, Chile, and particularly common around the Falkland Islands and Tierra del Fuego (especially the Straits of Magellan and Beagle Channel). It is one of the most frequently sighted cetacean species in the Straits of Magellan. The distribution may be

continuous between Argentina and the Falklands (Carwardine, 1995; Brownell et al. 1999; Goodall et al. 1997a).

4. Biology and Behaviour

Habitat: Peale's dolphins are often seen near the coast and so are easily observed. They occupy two major habitats: open, wave-washed coasts over shallow continental shelves to the north; and deep, protected bays and channels to the south and west. In the channels, this is an 'entrance animal', associated with the rocky coasts and riptides at the entrance to fjords, where the highest water temperature recorded was 14.7°C.

Throughout the northern part of its range, they inhabit the waters of the wide continental shelf off Argentina and the narrower shelf off Chile. Although Peale's dolphins have been observed in waters at least 300m deep, they appear to prefer shallower coastal waters (Brownell et al. 1999 and refs. therein).

Peale's dolphins show a high degree of association with kelp beds (*Macrocystis pyrifera*), especially in the channel regions. They swim and feed within, inshore and offshore of the kelp forests, using natural channels for movement (Goodall et al. 1997b; de Haro and Iniguez, 1997). Because kelp forests appear to be a fundamental habitat for them in coastal ecosystems, kelp protection might be crucial for the conservation of Peale's dolphin populations (Viddi and Lescrauwaet, 2005).

Behaviour: Peale's dolphin is known to ride bow-waves of large vessels and may swim alongside smaller ones. It sometimes swims slowly but can be energetic and acrobatic, frequently leaping high into the air and falling back into the water on its side with a splash. It has been observed playing in surf in the company of Risso's Dolphins (Carwardine, 1995).

Reproduction: The young are born from spring to autumn, October to April (Goodall et al. 1997a).

Schooling: Peale's dolphins have been seen in small groups of 2-30 and may associate with Risso's and Commerson's dolphins (Jefferson et al. 1993; Brownell et al. 1999 and refs. therein). Over much of its range Peale's dolphin is sympatric with the dusky dolphin, *L. obscurus*, although their usages of habitats are slightly different (Goodall et al. 1997b; de Haro and Iniguez, 1997).

Food: The stomachs of three *L. australis* incidentally killed in fishing gear off southern Patagonia, Argentina contained molluscs, crustaceans and fish. The most frequently encountered prey were the kingklip fish (*Genypterus blacodes*), the shrimp *Pleoticus muelleri* and the squid *Loligo gahi* (Brownell et al. 1999). Schiavini et al. (1997) studied the stomach contents of nine specimens recovered from Tierra del Fuego which included eight species of fish, three cephalopods, one bivalve mollusc, two crustaceans, and one species of salp. Of these, the most important prey species were bottom fish, namely hagfish (*Myxine australis*), southern cod (*Salibota australis*) and Patagonian grenadier (*Macruronus magellanicus*), as well as octopus (*Enteroctopus megabocytizus*) and squid (*Loligo gahi*). The feeding ecology of *L. australis* appears to be associated with demersal and bottom species taken in or near kelp beds. Dive times range from 3-157 s, with an average of 28 s (Goodall 2002 and refs. therein).

5. Migration

Evidence from photoidentification studies suggests that some dolphins spend the entire year in limited areas close to shore, in the Strait of Magellan (Jefferson et al. 1993; Carwardine, 1995). Although there is no published information on the movements of this species at this time (Brownell et al. 1999), at least some of the population appears to move offshore in winter, but more observations are needed (Goodall et al. 1997b).

On the west coast of the Strait of Magellan, Chile, land-based surveys indicate that higher total animal counts are registered during summer months (December to February) compared to winter periods. Land-based surveys showed an increase in abundance in the southern compared to the central portion of the area during spring and a more homogeneous distribution during the rest of the year. Although total abundance increases in summer compared to the winter period, both seasons show less marked preference for a specific sector. Concentration in the southern part of the study area during spring appears to be related to the calving season that can be observed as early as October. Individual identification shows at least part of the population to be residential throughout the year, while another observation of one individual documents a range of at least 300 km (Lescrauwaet, 1997).

6. Threats

Direct catch: There is considerable concern about unknown numbers of Peale's Dolphins that become accidentally entangled in fishing nets and that were hunted with harpoons in the Strait of Magellan and around Tierra del Fuego; the meat was used as bait in crab traps (Carwardine, 1995; Jefferson et al. 1993). Although direct hunting of dolphins has been prohibited in Chile since 1977, crab traps for centolla (southern king crab), *Lithodes antarctica* and centollon (false king crab), *Paralomis granulosa*, may still be set with dolphin meat (Brownell et al. 1999). There are no recent estimates on dolphin mortality in this region (Lescrauwaet, pers. comm.) but it is thought to be lower than in the past due to overfishing of the target species (Goodall, 2009). Dolphin takes in the Argentinian sector were stopped after the early 1980's (Goodall, 2002).

Incidental catch: Peale's dolphins are incidentally entangled and drowned in nets (Jefferson et al. 1993). There are reports from Queule and Mehuin (Chile), southern Patagonia, north-eastern Tierra del Fuego and southern Santa Cruz (Argentina) that local fishermen may incidentally catch Peale's dolphins (Brownell et al. 1999, Reyes, 1991 and refs. therein). In the northern part of their Pacific range Peale's dolphins seem to be rarely taken in gillnets (Goodall 2002), but there are reports of entanglements in anti-pinniped nets associated with salmon aquacultures around Isla Chiloé (Goodall, 2009).

Pollution: Some residues of organochlorine contaminants were found in a single specimen of *L. australis* from Argentine waters. Dieldrin (0.620 ppm), Hepta-chlor (0.050ppm), HCB (0.094 ppm), HCH (0.067 ppm) and DDT (0.405 ppm) were present in the blubber of this specimen (Brownell et al. 1999 and refs. therein).

7. Remarks

Range states (Hammond et al. 2008):
Argentina; Chile; Falkland Islands (Malvinas)

Included in Appendix II of CMS based on the fact that movements of dolphins through the Beagle Channel and through the Strait of Magellan are likely to involve the national boundaries of Argentina and Chile.

IUCN Status: "Data Deficient" (Hammond et al. 2008). The species is on Appendix II of CITES.

L. australis is poorly known with respect to abundance, migratory behaviour and mortality in anthropogenic operations. Offshore fishing represents a potential danger that should be monitored (Goodall et al. 1997a). Although the potential impact of crab-fisheries must have diminished considerably (there is more control and better availability of legal bait like fish and slaughterhouse wastes), there is still a—not analysed nor estimated—indication that small amounts of wildlife are still being taken for these fisheries. New research in the field is needed to update these data (Lescrauwaet, pers. comm.).

See also recommendations in Hucke-Gaete (2000) in Appendix 1.

8. Sources

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