

First sightings of the pygmy killer whale, *Feresa attenuata*, for the Brazilian coast

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Pygmy killer whales, *Feresa attenuata* (Gray, 1874), have been recorded in tropical, subtropical and warm temperate waters of all major oceans (Donahue & Perryman, 2002), but this species still remains one of the least known of the small cetaceans. Most of the available information comes from stranded animals (e.g. Lichter et al., 1990; Zerbinì & Santos, 1997). This note reports on the first sighting of wild *F. attenuata* for the Brazilian coast, and perhaps to the south-western Atlantic Ocean.

The Humpback Whale Institute (IBJ) develops cetacean research and conservation activities in the coast of Bahia State. The IBJ was initiated in 1988 to study the humpback whales (*Megaptera novaengliae*) at the Abrolhos Bank, considered as the main breeding area for the species (Engel, 1996; Martins et al., 2001; Morete et al., 2003), and in 2000 was enlarged to study the humpbacks at Praia do Forte, North Bahian coast (Mas-Rosa et al., 2002).

Field surveys were conducted aboard a 15 m wooden schooner with a 250 hp diesel engine. Three observers scanned an angle of 180° from both sides to the bow of the boat. When a group of cetacean was sighted we approached, following the limits imposed by the national legislation (Edict no. 117 – IBAMA 1996). Usually we spent no more than 45 minutes with each group to get photo-identification images, biopsy samples and bioacoustic recordings.

During humpback whale monitoring, off the north-eastern Brazilian coast, two groups of the pygmy killer whale, *Feresa attenuata*, were sighted and approached off Praia do Forte (12.58°S 38.01°W) (Figure 1). Following our sampling protocol for other cetacean species, we collected information about geographic position, group size and composition, behaviour and any other naturalistic observation.

The first sighting occurred at 1120, (12.56263°S 37.85019°W), about 7.5 nautical miles from the coastline, where animals were found floating and slowly swimming just below the water surface (or in sub-surface), in a cohesive group, apparently resting. The group contained six adult individuals, some with distinctive scars on the dorsum and dorsal fin (Figure 2). The water temperature was 27°C and depth was 97 metres. We stayed with this group until 1140, and then we left the group, following our field protocol, to search for humpback whales.

The second sighting was registered at 1300 (12.56493°S 37.84379°W), totalizing 10 min of direct observation, about 800 m eastwards from the first one. The water temperature was 24°C and depth was 200 metres. The same behavioural pattern of slow travelling at sub-surface was registered. The second group was also composed only of adult animals. We also snorkelled twice, to film and photograph the animals but low visibility prevented good results.

In the south-west Atlantic Ocean, there is just one confirmed record of *F. attenuata* based on two females stranded at Punta Piedras (35°30'S 57°09'W), Argentina, in April 1987 (Lichter et al., 1990). There is one uncertain sighting reported by Caldwell & Caldwell (1971). Zerbinì & Santos (1997) presented the first confirmed record of pygmy killer whales for the Brazilian coast, reporting on a single animal, which had stranded alive, but subsequently died. Complementing the previous information, our sighting is the first documented, illustrated with pictures, for wild animals of this species for the Brazilian coast and possibly for the entire south-western Atlantic Ocean.

Prey taken by a stranded animal (Zerbinì & Santos, 1997) suggests that feeding occurred over the outer continental shelf and slope. However, Zerbinì & Santos (1997) also identified slender inshore squid (*Loligo*

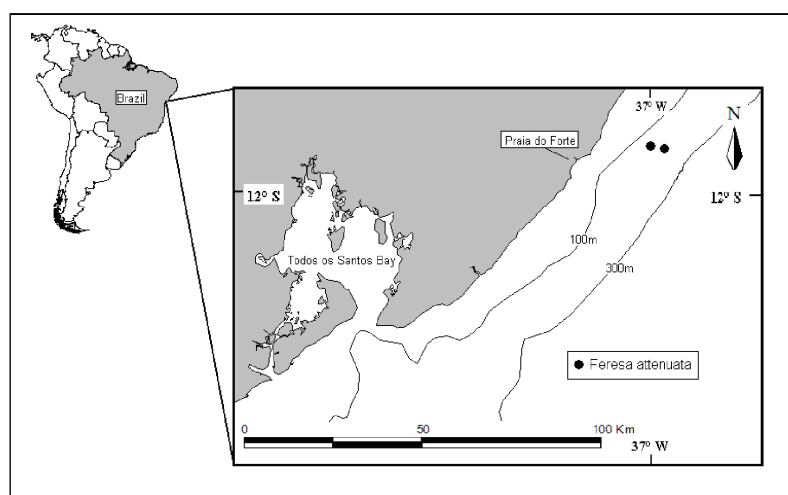


Figure 1. Sightings (N=2) of the pygmy killer whale, *Feresa attenuata*, at Praia do Forte, Bahia State, north-eastern Brazil.

plei) in the stomach contents of *F. attenuata*, suggesting that this animal had foraged close to the coast before stranding.

In our case, we did not see any foraging evidence, such as energetic movements, fish persecution or other. Furthermore, with just two sightings we cannot affirm that the animals come to the coast to forage, despite this being a reasonable possibility. We could also speculate that the animals come to the shore to avoid any kind of disturbance in oceanic waters, such as ongoing seismic work off the Brazilian coast.

The north coast of Bahia State has a narrow continental shelf, and oceanic cetaceans such as Minke whales, *Balaenoptera acutorostrata*, spinner and spotted dolphins, *Stenella* sp., rough toothed, *Steno bredanensis*, bottlenose, *Tursiops truncatus* and melon-headed, *Peponocephala electra* dolphins have all been observed in the area (I.B.J., unpublished data).

The sightings presented here confirm the presence of an additional species for Bahia State, confirming the cetacean diversity in this area and suggesting that the area should be a protected habitat as it faces increasing development pressures through tourism, fishing, vessel traffic and the recent oil excavation activities close to the Brazilian shore.

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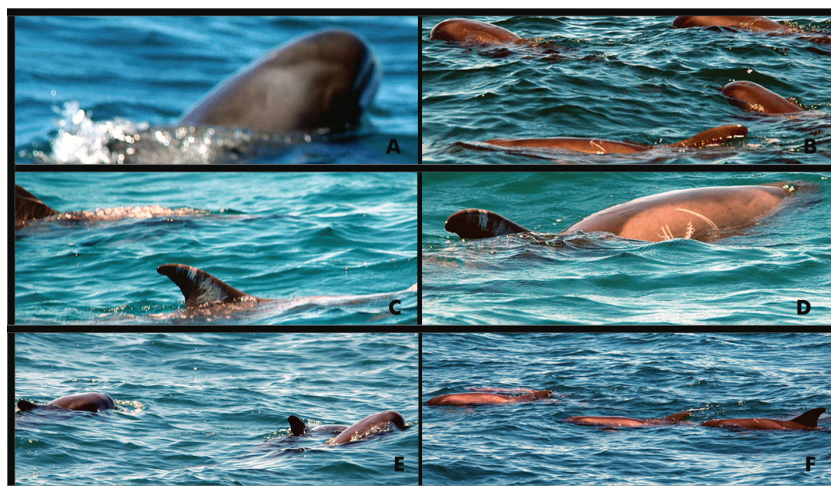


Figure 2. Pygmy killer whales (*Feresa attenuata*) showing the characteristic rounded head (A, B, E), clearly demarcated dorsal cape and white tooth marks (D, F), and pointed dorsal fin (C, D, F) group observed at Praia do Forte, Bahia State, north-eastern Brazil (photographs: M. Rossi-Santos).

REFERENCES

- Caldwell, D.K. & Caldwell, M.C., 1971. The pygmy killer whale in the western Atlantic with a summary of world records. *Journal of Mammalogy*, **52**, 206–209.
- Donahue, M.A. & Perryman, W.L., 2002. Pygmy killer whales (*Feresa attenuata*). In *Encyclopedia of marine mammals* (ed. W.F. Perrin et al.), pp. 1009–1010. San Diego: Academic Press.
- Engel, M.H., 1996. Comportamento reprodutivo da baleia jubarte (*Megaptera novaeangliae*) em Abrolhos. In *Anais de Etologia*, **14**. Sociedade Brasileira de Etologia. Uberlândia, 16–19 de outubro, p. 275–284.
- Lichter, A., Fraga, F. & Castello, H., 1990. First record of the pygmy killer whale, *Feresa attenuata*, in the south-west Atlantic. *Marine Mammal Science*, **6**, 85–86.
- Martins, C.C.A., Morete, M.E., Engel, M.H., Freitas, A.C., Secchi, E.R. & Kinas, P.G., 2001. Aspects of habitat use patterns of humpback whales in the Abrolhos Bank, Brazil, breeding ground. *Memoirs of the Queensland Museum*, **47.2**, 563–570.
- Mas-Rosa, S., Baracho, C.G., Marcovaldi, E. & Engel, M.H., 2002. Dados preliminares sobre reocupação de uma antiga área de reprodução de baleia Jubarte (*Megaptera novaeangliae*) no litoral norte do Estado da Bahia, Brasil. In *Reunião de Trabalhos de Especialistas em Mamíferos Aquáticos da América do Sul*, **10**; Congresso da Sociedade Latino Americana de Mamíferos Aquáticos - SOLAMAC, 4. Libro de Resúmenes. Valdivia, Chile, p. 103.
- Morete, M.E., Pace III, R.M., Martins, C.C.A., Freitas, A.C. & Engel, M.H., 2003. Indexing seasonal abundance of humpback whales around Arquipélago dos Abrolhos, Bahia, Brazil. *Latin American Journal of Aquatic Mammals*, **2.1**, 21–28.
- Zerbini, A.N. & Santos, M.C.O., 1997. First record of the pygmy killer whale *Feresa attenuata* (Gray, 1874) for the Brazilian coast. *Aquatic Mammals*, **23.2**, 105–109.

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