

RECORD OF THE LAYARD'S BEAKED WHALE, *MESOPLODON LAYARDII* (GRAY, 1856), IN NORTHEASTERN BRAZIL

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Layard's beaked whale, *Mesoplodon layardii* (Gray, 1856) is a species that lives in temperate waters of the Southern Hemisphere. South American records are from Uruguay, the Malvinas (Falklands) Islands, Argentina, Chile and Brazil (Praderi, 1972; Lichter, 1986; Pinedo *et al.*, 2002). To date, the only confirmed record in Brazil is a stranding on the Rio Grande do Sul state coast (32°04'S, 52°00'W), southern Brazil (see review by Pinedo *et al.*, 2002). A putative record of Layard's beaked whale for the coast of Rio de Janeiro, Brazil, is based on a specimen stranded in August 1990 (Siciliano, 1994). Only a few vertebrae were collected from this specimen, which prevented positive identification, but external appearance was

attributed to *M. layardii* (Siciliano and Franco, 2005). On 13 September 2002, a female specimen, measuring 552 cm total length was found washed ashore in Maré Island at the Todos os Santos Bay, Bahia state (12°47'40"S, 038°31'54"W), northeastern Brazil. The carcass was highly emaciated and a clear 'neck' was visible, indicating a loss of body condition (Figure 1a). Coloration pattern (such as a white throat patch extending back to a medial point between the flippers) was still present and helped in species identification (Figures 1b,c). A pair of anteriorly convergent throat grooves, typical of ziphiids, was also observed (Figure 1c).

External measurements were taken according to Norris (1961) (Table 1).



Figure 1. Layard's beaked whale, *Mesoplodon layardii*, stranded at Maré island, Bahia state, northeastern Brazil. Note the typical white throat patch extending back to a medial point between the flippers.

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Table 1. External measurements (cm) of Layard's beaked whale, *Mesoplodon layardii* (CCPM 0133), stranded at Maré island, Bahia state, northeastern Brazil.

MEASUREMENTS (in cm)	CCPM0133
Total length	552
Tip of upper jaw to right eye	82
Tip of upper jaw to left eye	82
Tip of upper jaw to apex of melon	38
Length of gape (right side)	67
Length of gape (left side)	64
Tip of upper jaw to blowhole along midline	78
Tip of upper jaw to apex of dorsal fin	338
Tip of upper jaw to anterior insertion of right flipper	37
Tip of upper jaw to anterior insertion of left flipper	38
Tip of upper jaw to center of anus	391
Width of flukes (tip to tip)	134
Length of right flipper (anterior insertion to tip)	66
Length of left flipper (anterior insertion to tip)	61
Length of right flipper (axilla insertion to tip)	49
Length of left flipper (axilla insertion to tip)	48
Width of right flipper	18
Width of left flipper	18
Width of dorsal fin (at base)	46
Height of dorsal fin (fin tip to base)	23
Length of genital aperture	41

The specimen had seven wounds of ovoid shape varying from 6 to 8 cm in diameter and from 1 to 2 cm in depth, probably caused by cookie-cutter sharks *Isistius* sp. (Strasburg, 1963; Jones, 1971) (Figure 2). Several circular scars were also present and attributed to *Isistius* bites. Two semi-circular lacerations were

found on the left lobe of flukes measuring 22.0 cm and 17.8 cm wide. Both were characterized by unlined arcades, possibly caused by a shark of the Carcharhinidae family (C.L. Sampaio, pers. comm.²). No solid food items were found in the stomachs, but a large amount of white-yellowish fluid was present. There were some areas of hemorrhage and fibrosis in the gastric mucosa, characterizing infectious processes of chronic evolution.

The photos are deposited at the Scientific Collection of the Marine Mammal Research and Conservation Institute, Salvador, Bahia, Brazil, under the registration code CCPM0133.

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References

- JONES, E.C. (1971) *Isistius brasiliensis*, a squaloid shark, the probable cause of crater wounds on fishes and cetaceans. *Fishery Bulletin* 69(4): 791-798.



Figure 2. Circular wounds and scars probably caused by cookie-cutter sharks bites, stranded at Maré island, Bahia state, northeastern Brazil.

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- LICHTER, A.A. (1986) Records of beaked whales (Ziphiidae) from the Western South Atlantic. *Scientific Reports of the Whales Research Institute* 37: 109-127.
- NORRIS, K. (1961) Standardized methods for measuring and recording data on the smaller cetaceans. *Journal of Mammalogy*. 42(4): 471-476.
- PINEDO, M.C., BARRETO, A.S., LAMMARDO, M.P., ANDRADE, A.L.V. AND GERACITANO, L. (2002) Northernmost records of the spectacled porpoise, Layard's beaked whale, Commerson's dolphin, and Peale's dolphin in the southwestern Atlantic Ocean. *Aquatic Mammals* 28(1): 32-37.
- PRADERI, R. (1972) Notas sobre um exemplar de *Mesoplodon layardii* (Gray) (Cetacea, Hyperoodontidae), de la costa Atlantica de Uruguay. *Comunicaciones Zoológicas del Museo de Historia Natural de Montevideo* 137(10): 1-7.
- SICILIANO, S. (1994) Review of small cetaceans and fisheries interactions in coastal waters of Brazil. *Reports of the International Whaling Commission* (special issue 15): 241-250.
- SICILIANO, S. AND FRANCO, S.M.S. (2005) *Catálogo da Coleção de Mamíferos Aquáticos do Museu Nacional*. FIOCRUZ/ENSP. 44p., il.
- STRASBURG, D.W. (1963) The diet and dentition of *Isistius brasiliensis*, with remarks on tooth replacement in other sharks. *Copeia* 1: 33-40.

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