

# FIRST RECORD OF THE SOUTHERN BOTTLENOSE WHALE, *HYPEROODON PLANIFRONS* FROM BRAZIL

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## INTRODUCTION

On the 26 March, 1975 a specimen of the southern bottlenose whale, *Hyperoodon planifrons* was discovered on the beach, 5 km north of Chui, near the Brazilian frontier with Uruguay.

The carcass had been partially flensed on the middle of the back by native fishermen who removed some neural spines with fresh meat. When first observed by staff members of the Museo Oceanografico de Rio Grande (M.O.R.G.) it had probably been dead more than a month and almost all entrails and some of the left ribs were lacking. The skin, except on the head and the flukes had sloughed and was partially discolored. A number of photographs were taken, dissections were made and the entire skeleton was collected. Lately it was cleaned and mounted (M.O.R.G. cetacean coll. n°15) and it is being exhibited in the Cetacean Hall of the previously mentioned institution. The Brazilian specimen, in addition to extending the range of the species from southern Buenos Aires province (Argentina) coast, has provided data in relation to bone pathology of the species.

## EXTERNAL FEATURES

The animal was an adult, total length 7500 mm, black greyish coloured. The head presented a prominent rounded melon or forehead and a well defined beak (Fig. 1). The V-shaped grooves, 300 mm long each, beneath the chin, a distinctive character of the *Ziphiidae*, were deep and well defined. The blowhole showed no curvature, it was 50 mm wide and took the form of a transverse slit lying just anterior to a transverse plane through the eye.

The pectoral fins, 750 mm long, were small; the dorsal fin that in other previously described specimens is falcate, was lost. A pair of alveoli, 30 mm wide, with spongy bone on the base can be clearly seen in the tip of the lower

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Fig. 1.

jaw. Unfortunately the teeth could not be found and the sex of the specimen could not be determined.

#### VERTEBRAL FORMULA

The Rio Grande specimen has a vertebral formula  $C7+D9+L10+C20=46$  which completely agree with that counted by Hale (1931) and mentioned by Nishiwaki (1972). However, Moreno (1895) counted in a Buenos Aires province specimen and also in a South Pacific juvenile  $C7+D8+L12+C17=44$ , but he stated that in his Argentine skeleton, the last caudal vertebrae were lacking. Also some of the last caudal vertebrae of the South Georgia specimen described by Fraser (1945) were lost and the resulting vertebral formula is  $C7+D8+L11+C17=43$ . Another South Georgia skeleton on the exhibition in the Museo Argentino de Ciencias Naturales at Buenos Aires has the following formula:  $C7+D8+L12+C19=46$ . This specimen has only 8 ribs on both sides, 6 of which are double-headed, while in the Rio Grande do Sul specimen the ninth right rib and the last three left ribs were lost.

#### SKELETON PATHOLOGY

On the neural arches between the posterior part of the 25th vertebra and the anterior arch of the 26th there is a very interesting hyperostotic growth that will be described in a future note. The left mandible shows fractures on the posterior half as does the right one, but while the first one completely healed in life, the last one broke again during the stranding along the same old fracture lines. The scapula and the skull show a decalcification process in some parts. The right VIIIth rib and the left IVth and Vth were broken

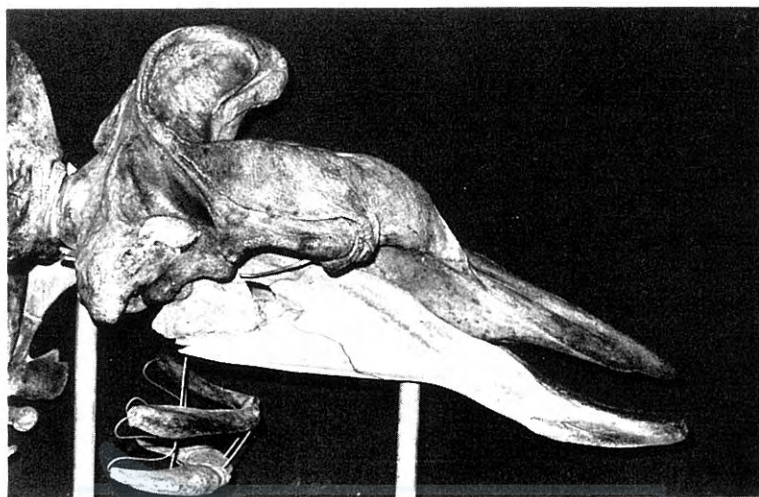


Fig. 2.

during the life of the individual and lately healed.

#### PREVIOUS RECORDS OF THE SOUTHERN BOTTLENOSE WHALE

The species has not been mentioned for Brazil by Vieira (1955) and it was not recorded for Uruguay by Ximenez *et al.* (1972).

The northern record for Argentina was that of Moreno (1895), and adult about 6.25 m long, stranded on the shore of the Arroyo Sauce Viejo, S. of Buenos Aires province. In the same article Moreno also gave some information about two other specimens, one from Chubut river and another from Santa Cruz Bay.

A recent record for the Rio Negro province (erroneously mapped by Brownell in 1974 for Buenos Aires province-ref. n°25) is that mentioned by the newspaper La Nacion, 19th October, 1965. The stranded specimen was an adult, over 7 m long and was beached 60 km S. of Viedma. The skull was recovered and is preserved in the Salesian Museum of that city, there it was studied and photographed by Dr. Robert Menni and Lic. Raul Aramburu from La Plata Natural Sciences Museum.

Hamilton (1952) briefly reported on the collection of remains from three specimens in the Falkland Islands; others had been collected, measured or photographed at the South Georgia Islands (three records) by Fraser (1945) and Carcelles (1948) (one record: 54-110 Mus. Arg. Cs. Nat.) and at South Orkney Islands, also by Fraser (1945). Near the South Shetland Islands, on the base of whaling statistics, Marelli (1922) reported five hunted Hyperoodontids. Mörch (1911) had stated that near those islands bottle-nosed whales had been observed swimming in small schools.

Fraser (1964) mentioned one lactating female caught at 61°09'S-84°44'W.

TABLE 1. SPECIMENS OF THE SOUTHERN BOTTLENOSE WHALE, *HYPEROODON PLANIFRONS* COLLECTED, PHOTOGRAPHED OR MEASURED IN SOUTHERN HEMISPHERE WATERS.

Record No.	Locality or latitude and longitude at sea	Date of stranding	Authors	Sex	Total length	Skull length	Evidence	Museum collection n°
1	Beach of Lewis Island Dampier Archipel.; NW Australia	before 1882	Flower, 1882			+1.20 mt	Mutilated skull	Type, 1814A British Mus. (Nat. Hist.)
2	13 miles S. Port Victoria, Yorke Penins.; S. Australia	22 November, 1929	Hale, 1931	♂	6.93 mt	1.39 mt	Complete skeleton	2852, South Australia Museum
3	Humewood, Port Elizabeth; S. Africa	18, January, 1964	Tietz, 1966	♂	6.36 mt	1.21 mt	Skull and mandible	
4	Beach at East Cape; N. Island; New Zealand	before 1912	Waite, 1913		7.50 mt	1.15 mt	Skull fragment	Canterbury Mus.; not available
5	Brown's beach, near Timaru, 5 miles from Winchester, S. Island; New Zealand	before 1959	McCann, 1961	♀			Symphyseal mandible portion	1417 Dominion Museum
6	Malvinas (Falkland) Isl.; Gran Malvina and Soledad Island	August* 1950	Hamilton, 1952 and Fraser, 1964	♀	6.70* mt		Rest of three specimens	British Museum (Nat. Hist.)
7	Vicinity of Orcadas del Sur (S. Orkney) Isl.	January, 1915	Fraser, 1945				Photographed on a whal. ship	
8	Vicinity of Georgias del Sur (S. Georgia) Isl.	near, 1934	Fraser, 1945	♀	6.50 mt	1.19 mt	Complete skeleton	1934. 7. 23. 3 Brit. Mus.
9	Leith Harbour, Georgias del Sur (S. Georgia) Isl.	3 January, 1927	Fraser, 1945	♂	4.63 mt	0.69 mt	Photographed in whal. stat.	
10	Near Gritviken, Georgias del Sur (S. Georgia) Island	November, 1929	Carcelles 1948	♂	6.54	1.44	Complete skeleton	54-110, Mus. Arg. Cs. Nat.; Buenos Aires
11	Near Shetlands del Sur (S. Shetland) Isl.	before, 1929	Marelli, 1929				Five specimens hunted	
12	On the beach near Arroyo Sauce Viejo, S. Buenos Aires Prov.; Argentina	early, 1884	Moreno, 1895		6.25 mt	1.15 mt	Complete skeleton	1121, Mus. Cs. Nat. La Plata Argentina
13	60 km SW of Viedma, Rio Negro Province; Argentina	25 August, 1965	La Nacion 19/X/65; Brownell, 1974		+7.00 mt		Photographs and skull	Salesian Museum at Viedma
14	Vicinity of Chubut River, Chubut Province; Argentina		Moreno, 1895			+1.10 mt	Skull	Mus. Cs. Nat. La Plata

(Continued of Table 1.)

15	Beach at Santa Cruz Bay, Santa Cruz Province; Argentina		Moreno, 1895				Left mandible	Mus. Cs. Nat. La Plata
16	South Pacific Coast; Chile ?		Moreno, 1895	♀	4.50 mt	0.81 mt	Complete skeleton	Mus. Cs. Nat. La Plata
17	61°09'S-86°44'E		Fraser, 1964	♀	7.45 mt		Complete skeleton	Brit. Mus. (Nat. Hist.)
18-20	45°15'S-58°10'W	3 April, 1962	Zemskii and Budylenko, 1970		6.80 mt	1.31 mt	Photographed and measured on a whaling vessel	?
	57°33'S-05°08'E	16 December, 1966		7.00 mt	?			
	56°14'S-86°58'E	18 January, 1968		5.70 mt	?			

\* Female complete skeleton collected at East Falkland.

More recently at 45°S-58°10'W, one bottlenose whale 6.80 m long was hunted by a Russian whaling ship and was measured by Zemski and Budylenko (1970).

In the Chilean coast, Clarke (1962) reported a sighting of five specimens off Valparaiso (21/X/1958). Mörzner Bruyns (1971) saw a pod off Chile, estimated to comprise about 40 specimens (May, 1965).

According to McCann (1962), *Hyperoodon planifrons* is restricted to the southern Hemisphere, south of 20 degree latitude and it has been also mentioned (Table 1) for New Zealand by Waite (1913), McCann (1961) and Gaskin (1968), for South Africa by Tietz (1966) and Australia by Flower (1882) and Hale (1931).

During the summer it seems to be abundant in the Subantarctic and Antarctic oceans (Table 2).

### CONCLUSIONS

Including the Rio Grande do Sul specimen, 8 complete skeletons of the southern bottlenosed whale had been recovered, half of them are stored in Argentine and Brazilian museums. Only one specimen is known to have stranded alive. The Rio Grande do Sul specimen, probably a male, was surely very old as the several hyperostotic growths and decalcification signs may suggest.

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TABLE 2. SIGHTINGS ATTRIBUTED TO *HYPEROODON PLANIFRONS* IN THE SUBANTARCTIC AND ANTARCTIC OCEANS ACCORDING TO LIOUVILLE (1915), LILLIE (1915), WILSON (1907), TOMILIN AND LATYSHEV (1967) AND DUGUY (1973).

Record No.	Locality	Latitude and longitude	Date of sighting	Number of specimens	Observer
1	Weddel Sea	72°22'-19°10'	4 March, 1904	some	Wilson
2	"	69°46'-19°10'	21 Febr., 1903	scarce	"
3	"	73°30'-24°00'	13 March, 1904	several	"
4	"	60°05'-32°10'	10 Febr., 1903	2	"
5	"	65°29'-44°06'	12 March, 1903	2	"
6	South Atlantic	59°43'-48°10'	28 Nov., 1903	————	Brown
7	Drake Passage	————	7 Dec., 1972	2	Duguy
8	Deception Island	63°00'-60°40'	28 Nov., 1909- 6 Jan., 1910	————	Liouville
9	Petermann Island	65°10'-66°12'	5 May, 1909	2 or 3	"
10	Bransfield Strait	64°49'?-65°40'	27 Nov., 1909	2	"
11	Matha Bay	66°50'-70°00'	14 Jan., 1909	20	"
12	Mer de la Belgique	69°54'-82°35'	7 Nov., 1898	1 or 2	Racovitza
13	"	69°55'-82°36'	6 Sept., 1898	3 or 4	"
14	"	69°29'-85°47'	1st Jan., 1910	1	Liouville
15	"	70°15'-87°05'	19 Jan., 1899	3 or 4	Racovitza
16	"	70°16'-87°12'	20 Jan., 1899	1	"
17	"	70°30'-93°57'	15 Feb., 1899	3 or 4	"
18	"	70°38'-88°56'	2 May, 1898	4	"
19	"	70°41'-86°34'	3 July, 1898	5 or 6	"
20	Admunsen Sea	68°24'-122°38'	22 Jan., 1910	1	Liouville
21	Ross Sea, Balleny Islands area	69°51'-166°17'	29 Dec., 1912	————	Lillie
22	McMurdo Strait	77°00'-166°00'	25 Febr., 1902	6 or 8	Wilson
23	"	77°30'-166°00'	Febr., 1904	————	Wilson
24	Ross Sea	62°00'-162°03'	10 March, 1911	2	"
25	"	69°51'-166°17'	29 Dec., 1912	————	"
26	"	77°32'-173°22'	1903	————	Racovitza
27	Subantarctic Indian Ocean sector	48°00'-100°00' E	5 Nov., 1904?	1	Wilson
28	Antarctic Indian Ocean sector	57°00'-150°00' E	17 Jan., 1965	3	Tomilin and Latyshev
29	Antarctic Pacific Ocean sector	62°00'-162°03' E	10 March, 1911	2	Lillie

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