

# RECORDS OF BEAKED WHALES (ZIPHIIDAE) FROM THE WESTERN SOUTH ATLANTIC

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## ABSTRACT

Five genera comprising eight species of the family Ziphiidae (*Tasmacetus shepherdi*, *Berardius arnuxii*, *Mesoplodon densirostris*, *M. layardii*, *M. hectori*, *M. grayi*, *Ziphius cavirostris* and *Hyperoodon planifrons*) have been recorded from the western and southwestern South Atlantic from Brazil to Cape Horn, including the Malvinas (Falkland) and the South Georgia Islands. A review of published records for the area is given and new and unpublished records are presented for *Mesoplodon layardii* (5), *M. hectori* (5), *M. grayi* (1), *Ziphius cavirostris* (8) and *Hyperoodon planifrons* (3). The first known gonad weights are given for *M. layardii*. A mass stranding of *M. hectori* included two adult females and two calves; one of the calves, of 190 cm, the smallest known to date.

## INTRODUCTION

The family Ziphiidae, established by J. E. Gray in 1865, comprises five genera, *Tasmacetus*, *Berardius*, *Mesoplodon*, *Ziphius* and *Hyperoodon*. *Indopacaetus* (Moore, 1968) is now generally considered congeneric with *Mesoplodon* (Mitchell, 1975). Knowledge of many species of this family is scanty due to the comparatively small number of specimens available and the even fewer observations at sea. Nearly all known information has come from strandings. Certain Northern hemisphere species, especially those which were of some commercial interest (*Berardius bairdii*, *Hyperoodon ampullatus* and *Ziphius cavirostris*) have been fairly well studied, but those from the Southern hemisphere are among the least known cetacea.

Eight species, representing all five genera, have been sighted or found stranded on the coasts of the western South Atlantic, for the purposes of this paper defined as the area from Río do Janeiro (23°S), Brazil, to Cape Horn (56°S), including the Strait of Magellan, the Beagle Channel and the Malvinas (Falkland) and South Georgia Islands. (Fig. 1).

Since few records exist for this region, a summary of published records and new specimens may be of use to future workers.

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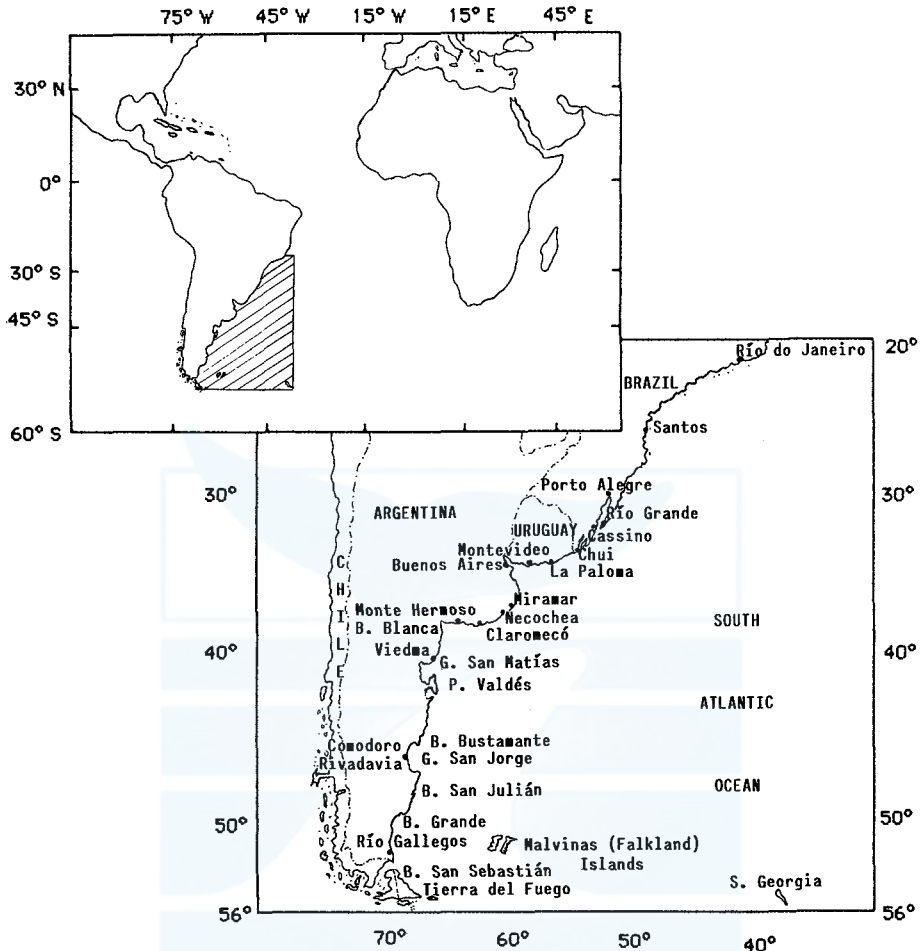


Fig. 1. Map of the western South Atlantic (study area).

## MATERIALS AND METHODS

The literature has been searched for records of specimens and sightings of this family within the study area. The following museums were personally checked for specimens:

*Province of Buenos Aires:* Museo Argentino de Ciencias Naturales B. Rivadavia, Buenos Aires (MACN-BA); Museo de La Plata, La Plata (MLP); Museo de Ciencias Naturales de Mar del Plata; Museo Municipal de General Alvarado, Miramar (MMGA); Estación Hidrobiológica Necochea; Museo Municipal de Monte Hermoso (MMH); Universidad Nacional del Sur, Bahía Blanca (UNS). Museo Salesiano de Pedro Luro, (MSPL); Museo Provincial de Carmen de Patagones.

*Provincia de Río Negro*: Museo Provincial de Viedma.

*Uruguay*: Museo Nacional de Historia Natural, Montevideo (MNHN-M) (checked by R. Praderi)

*Brazil*: Museu Nacional de Río do Janeiro (MNRJ) (checked by L. Lodi); Museu Oceanográfico de Río Grande (MORG) (checked by C. Pinedo).

*Great Britain*: British Museum of Natural History (London-BMNH) (personally checked).

The private collections of J.F. Mermoz (JFM), R. Praderi (RP) and that of the author (AAL) were examined and included.

All the specimens listed in this paper were beach cast or stranded along the coasts of the western South Atlantic Ocean. The great length of these coasts, the lack of population in some areas, and the lack of trained cetologists contribute to the loss to science of many such specimens and information. Most of those that were recovered are in a beach worn state; only a few were examined while fresh.

Only the dates of freshly stranded specimens are taken into consideration, for the analysis of possible seasonal occurrence of these species. Another important aspect to be considered is the difficult access to areas south of 40°S during the winter season.

Sightings of these species for this area are few, but have been presented when known.

Abbreviations used in the Tables are: Ea., estancia or ranch, B., bahía or bay; Pen., peninsula; Dept., department; v., vertebrae; c., complete; N°, number; Col, Collection; IPPA Instituto de la Patagonia de Punta Arenas (Chile); MPC, Museo Provincial de Cipoletti, Río Negro (Argentina); Phys. mat., Physical maturity based on epiphyseal fusion or suture fusion of skull: A, adult, J, juvenile. It does not indicate sexual maturity. "Skull" means cranium with mandibles and "cranium" means mandibles are missing.

#### SPECIES ACCOUNTS

*Tasmacetus shepherdii* Oliver, 1937

Shepherd's beaked whale. Zifio de Shepherd

The ten specimens of this rare whale were summarized by Goodall (1978). Since then, the known number of specimens has risen to 13: eight from New Zealand, one from Australia, one from Isla Juan Fernández and the specimens from the western South Atlantic listed below (Baker, 1983) (Table 1, Fig. 2).

As far as we know, only one probable sighting, from New Zealand waters, has been reported for this species (Watkins, 1976). No new specimens were found in our review of museums.

*Berardius arnuxii* Duvernoy, 1851

Arnoux's beaked whale. Zifio de Arnoux.

## LICHTER

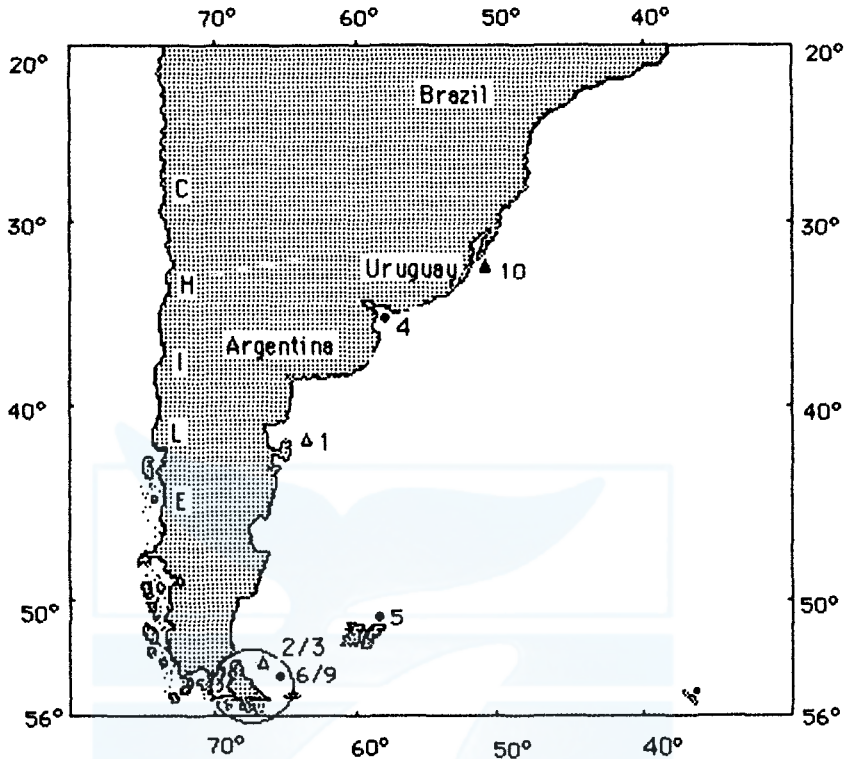


Fig. 2. Distribution of specimens of *Tasmacetus shepherdi* (open triangles), *Berardius armuxii* (closed circles) and *Mesoplodon densirostris* (closed triangles) in the western South Atlantic. Records from Tierra del Fuego and the Strait of Magellan occur within the open circle.

TABLE 1. RECORDS OF *TASMACETUS SHEPHERDI* FROM THE WESTERN SOUTH ATLANTIC

Nº	Specimen Nº	Locality	Date	Sex	Phys. mat.	CBL mm	Type of specimen	Reference
<u>Published records</u>								
<u>Argentina</u>								
1	USNM 484,878	Península Valdés Chubut	01 FEB 1973	F		1230	complete skeleton	Mead and Payne (1975)
2	RNP 457*	Punta María S, Tierra del Fuego	04 MAR 1977				cervicals	Goodall (1978)
	RNP 582*	Punta María S, Tierra del Fuego	06 NOV 1977				cranium incomplete	Goodall (1978)
3	RNP 666	Isla Gable NE, Beagle Channel	09 APR 1977				cranium, mandible	Goodall (1978)
			15 MAR 1978				cervicals,	
			09 APR 1978				18v.	

\*: Cervicals RNP 457 appear to belong to the cranium RNP 582.

TABLE 2. RECORDS OF *BERARDIUS ARNUXII* FROM THE WESTERN SOUTH ATLANTIC

Nº	Specimen Nº	Locality	Date	Sex	Phys. mat.	CBL mm	Type of specimen	Reference
<u>Published records</u>								
<u>Argentina*</u>								
4	MACN-BA 54-121	Arroyo del Pescado, Buenos Aires	29 MAY 1918	F		1421	complete skeleton	Marelli (1920) Mc Cann (1975)
5	BMNH 1935.8.23.1	Foul bay, Malvinas (Falkland) Islands.		M?	A		mandible	Hamilton (1952)
6	RNP 472	Río Lainez, Tierra del Fuego	05 MAR 1977				cervicals	Goodall (1978)
7	RNP 693	Punta María 6 N, Tierra del Fuego	03 MAR 1977				cranium, incomplete	Goodall (1978)
<u>Chile</u>								
8	RNP 566	Bahía Inútil, Tierra del Fuego	25 JUL 1977				cervicals	Goodall (1978)
9	IPPA CE-30	Punta Arenas					cranium and v.	Sielfeld (1980)

\* Two specimens (BMNH 1935.10.23.2 and BMNH 1937.10.23.1.) from Malvinas (Falkland) Islands appearing in the BMNH cetacean catalogue.

Fraser (1948) cited this species for the South Georgia Island, without specific record.

In the Southern hemisphere strandings are known for Australia, New Zealand, South Africa, Argentina, Malvinas (Falkland) and the South Georgia Islands, Chile and it is also fairly common in Antarctic waters (South Shetland Islands and Antarctica Peninsula) (Fraser, 1948; Brownell, 1974; Mc Cann, 1975 and Goodall, 1978). No new specimens were found during the study, but those formerly known for the area are presented (Table 2, Fig.2).

*Mesoplodon densirostris* (de Blainville, 1817)

Blainville's beaked whale. Zifio de denso rostro.

This species has a wide distribution in warm and tropical waters in both hemispheres. In the Southern hemisphere, records exist from Australia, Tasmania, Lord Howe Island, the Seychelles, Mauritius and South Africa (Baker, 1983; Leatherwood, Reeves and Foster, 1983). The only specimen of this species that has been recorded for the western South Atlantic was a female of 4.4m, found at Cassino, Rio Grande do Sul, Brazil (32°S) (Castello and Pinedo, 1980) (Table 3, Fig. 2).

*Mesoplodon layardii* (Gray, 1865).

Strap-toothed whale. Delfín picudo de Layard.

The distribution of Layard's beaked whale (Australia, New Zealand, South Africa, Uruguay, Argentina and Chile) has been described by Goodall (1978), Sielfeld (1979), Ross (1979) and others.

A 450 cm male specimen was found on the shores of the Golfo San José,



Fig. 3. *Mesoplodon layardii* stranded in Comodoro Rivadavia, Chubut, in October, 1973. (Photo MACN-BA).

Península Valdés, on 23 June 1983 by G. Harris, who has contributed the following reproductive data: left testis weight 86.5 gr, length 9 cm; right testis weight 112 gr, and length 12 cm, width 5 cm. These are the first gonad weights known for the species (Mead, 1984). The stomach of this animal was empty; no food habits are known for this species (Goodall pers. comm.).

Total length have been reported for only four specimens of this species, the largest male reaching 584 cm, considerably larger than the male here reported.

The new specimens found during the study are presented in Table 4 (Figs 3, 4).

*Mesoplodon hectori* (Gray, 1871)

Hector's beaked whale. Delfin picudo de Hector.

Only 15 specimens of this species have been reported from Tasmania, New Zealand, South Africa, Malvinas (Falkland) Islands, Argentina, Chile and California (Baker, 1983). Two probable sightings at 8 miles East Catalina Island, California (2 animals) and at 50/70 miles West San Diego, California (2 animals) were reported by Mead (1981).

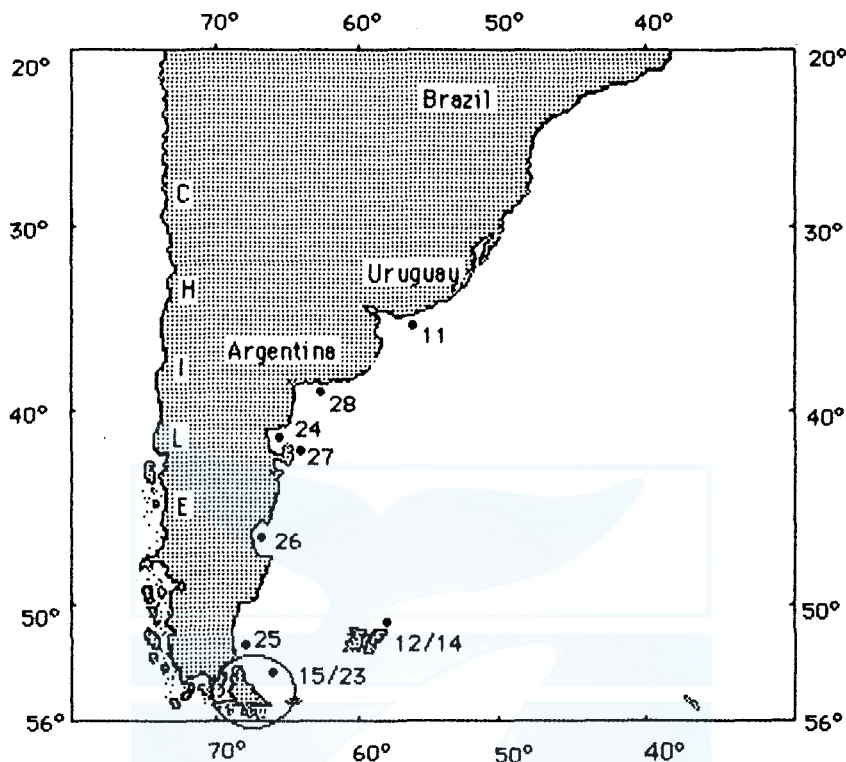


Fig. 4. Records of *Mesoplodon layardii* from the western South Atlantic. Records from Tierra del Fuego, Strait of Magellan and Isla Navarino occur within the open circle.

TABLE 3. RECORDS OF *MESOPLODON DENSIROSTRIS* FROM THE WESTERN SOUTH ATLANTIC

N°	Specimen N°	Locality	Date	Sex	Phys. mat.	CBL mm	Type of specimen	Reference
Published records								
<u>Brazil</u>								
10	MORG 062	Cassino, Río Grande do Sul.	05 MAY 1977	F			complete skeleton	Castello and Pinedo (1980)

The new specimens presented here increase the number of known specimens to 20. Specimen UNS 2031 is a very incomplete cranium found near Sauce Grande in the southern Province of Buenos Aires in 1982. Two females and two calves were found at Claromecó, Buenos Aires, Argentina, 38°50'S, 59°53'W, they constitute the first stranding of this species comprising four specimens. The two females, at 415 cm and 400 cm in length, were shorter than the longest reported female (443 cm) (Mead, 1984); specimen

TABLE 4. RECORDS OF *MESOPLODON LAYARDII* FROM THE WESTERN SOUTH ATLANTIC

Nº	Specimen Nº	Locality	Date	Sex	Phys. mat.	CBL mm	Type of specimen	Reference
<u>Published records</u>								
<u>Uruguay</u>								
11	MNHN-M 2471	Isla de la Tuna, Dept. de Rocha	09 FEB 1971	F	A	1040	complete skeleton	Praderi (1972)
<u>Argentina</u>								
12		Lafonia Pen., Malvinas (Falkland) Islands	- - 1866		J			Turner (1880)
13		Port Sussex, Malvinas (Falkland) Islands	- - 1875		J		cranium, part of skeleton	Turner (1880)
14	BMNH 1965.8.19.2	Bleaker Island, Malvinas (Falkland) Islands	- - 1964	F			skull and skeleton	Strange (1972)
15	RNP 61	Pen. Páramo, Tierra del Fuego	04 JUL 1975	M?	J		cranium, cerv., 14v.	Goodall (1978)
16	RNP 74	Bahía Brown, Tierra del Fuego	31 DEC 1975	F	J		cranium good, 7v.	Goodall (1978)
17	RNP 313	B. San Sebastián, Tierra del Fuego	13 FEB 1976				cranium, 5v.	Goodall (1978)
18	RNP 326	B. San Sebastián, Tierra del Fuego	13 FEB 1976	F	A		cranium, 10v.	Goodall (1978)
19	RNP 659	Ea. San Martín N, Tierra del Fuego	29 JAN 1978				cranium incomplete	Goodall (1978)
<u>Chile</u>								
20		Río Seco, Punta Arenas	- MAR 1968				photo	Venegas and Sielfeld (1978)
21	IPPACE-10	Cabo Espíritu Santo, Tierra del Fuego	15 FEB 1978				mandibular symphysis	Venegas and Sielfeld (1978)
22	IPPACE-25	Bahía Windhond, Isla Navarino	- MAR 1979	M	A		cranium	Sielfeld (1979)
23	IPPACE-32	Chabunco, Punta Arenas					cranium	Sielfeld (1980)
<u>Unpublished records</u>								
<u>Argentina</u>								
24	AAL 004	Las Grutas, Río Negro	- OCT 1970	M	A	980+	cranium incomplete	Col. AAL
25		Río Gallegos, Santa Cruz	- MAR 1972				photo	MACN-BA
26		Comodoro Rivadavia, Chubut	- OCT 1973				photo	MACN-BA
27		Golfo San José, Chubut	23 JUN 1983	M			complete skeleton	G. Harris pers. comm.
28	AAL 007	Monte Hermoso, Buenos Aires	23 MAR 1985			530+	cranium, incomplete	Col. AAL



TABLE 5. RECORDS OF *MESOPLODON HECTORI* FROM THE WESTERN SOUTH ATLANTIC

N°	Specimen N°	Locality	Date	Sex	Phys. mat.	CBL mm	Type of specimen	Reference
<u>Published records</u>								
<u>Argentina</u>								
29	BMNH 1949.8.19.1	Malvinas (Falkland) Islands	- - 1949	J	601		skull	Fraser (1950) Hamilton (1952)
30	RNP 172	B. San Sebastián N, Tierra del Fuego	21 DEC 1975	J			nearly c. skeleton	Goodall (1978)
<u>Chile</u>								
31	IPPACE-23	Bahía Windhond, Isla Navarino	- MAR 1979	J			cranium	Sielfeld (1979)
<u>Unpublished records</u>								
<u>Argentina</u>								
32	UNS 2031	Balneario Sauce Grande, Buenos Aires	- MAR 1982				cranium incomplete	Col. UNS
33	AAL 008	Claromecó, Buenos Aires	23 JAN 1985	F	A	712	almost c. skeleton	Col. AAL
34	AAL 009	Claromecó, Buenos Aires	23 JAN 1985	F	A	675	almost c. skeleton	Col. AAL
35	AAL 010	Claromecó, Buenos Aires	23 JAN 1985	F	J	405	skull	Col. AAL
36	AAL 011	Claromecó, Buenos Aires	23 JAN 1985	J		390	incomplete skeleton	Col. AAL

AAL 011 measured 190 cm, smaller than the shortest reported calf previously reported (210 cm) (Mead, 1984). The length of the second calf was 202 cm. More data on these four animals will be presented in a future paper (Table 5, Fig. 5).

*Mesoplodon grayi* von Haast, 1876.

Gray's beaked whale. Delfín picudo de Gray.

This species has a circumpolar distribution exclusively in the Southern hemisphere, except for a specimen stranded in the Netherlands (Boschma, 1950). Records exist for Australia, New Zealand, the Chatham Islands, South Africa, Argentina and Chile (Table 6, Fig. 5). The only new specimen reported here is an incomplete cranium (AAL 003) collected at Balneario San Antonio in the Province of Buenos Aires.

*Ziphius cavirostris* Cuvier, 1823

Cuvier's beaked whale. Zifio de Cuvier.

Cuvier's beaked whale has a wide distribution in both hemispheres. There are records in the western South Atlantic for Brazil, Uruguay, Argentina and Chile. For Brazil, besides the record quoted for the study area, there is only one record of a pregnant female from Cabedelo, Paraíba, Brazil (7°S) (Carvalho, 1975).

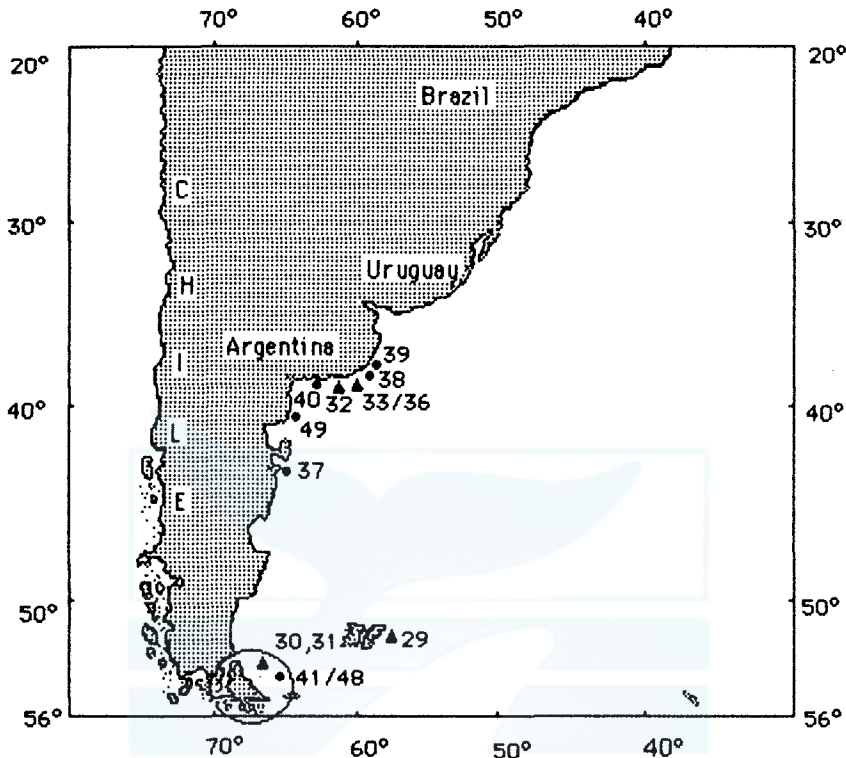


Fig. 5. Distribution of specimens of *Mesoplodon hectori* (closed triangles) and *Mesoplodon grayi* (closed circles) in the study area. Records from Tierra del Fuego, Strait of Magellan and Isla Navarino occur within the open circle.

Eight new specimens are presented in this paper. Specimens MACN-BA 16198, MMGA and MSPL Zc04 are incomplete crania. Specimen MACN-BA P0023 is a skull (without teeth) collected by R. Payne at Bahía San Sebastián in Tierra del Fuego. Specimen MLP 1118 is now on exhibition in the Museo de La Plata.

The three strandings (4 m male from San Julián, Santa Cruz, a mature specimen from Comodoro Rivadavia, Chubut and a mature female from Bahía Bustamante, Chubut) were identified by means of photos (Table 7, Fig. 6).

*Hyperoodon planifrons* Flower, 1882

Southern bottlenose whale. Zifio nariz de botella.

The distribution of this species covers a great part of the Southern hemisphere and was summarized by Gianuca and Castello (1976). There are records for Australia, New Zealand, South Africa and South America; Leatherwood *et al* (1983) stated that there is evidence of its presence in equatorial waters of the Pacific Ocean.

TABLE 6. RECORDS OF *MESOPLODON GRAYI* FROM THE WESTERN SOUTH ATLANTIC

N°	Specimen N°	Locality	Date	Sex	Phys. mat.	CBL mm	Type of specimen	Reference
<u>Published records</u>								
<u>Argentina*</u>								
37		Golfo Nuevo, Chubut	- - 1895				most of skeleton	Moreno (1895)
38	MACN-BA 25-170	Quequén, Buenos Aires	20 JUL 1925	J	450		cranium incomplete	Urquiola de De Carli, Aramayo and Piñero (1970)
39	MACN-BA 25-169	Miramar, Buenos Aires	- JUL 1925				right mandible	Urquiola de De Carli, Aramayo and Piñero (1970)
40	UNS 207	Monte Hermoso, Buenos Aires	- - 1968	A	795		skull	Urquiola de De Carli and Aramayo (1970)
41	RNP 270	Los Chorrillos, Tierra del Fuego	- - 1975	A			6 thoracics	Goodall (1978)
42	RNP 271	Ea. San Martín, Tierra del Fuego	28 JAN 1976	F	A		nearly c. skeleton	Goodall (1978)
43	RNP 328	B. San Sebastián, Tierra del Fuego	13 MAR 1976				cranium incomplete	Goodall (1978)
44	JFM 2-0	Golfo San José, Chubut	12 AUG 1977	F	A	850	skull	Mermoz (1979)
45	RNP 378	Río San Martín S, Tierra del Fuego	21 NOV 1977	F	J		cranium incomplete	Goodall (1978)
46	RNP 379	Río San Martín S, Tierra del Fuego	21 NOV 1977				cranium incomplete	Goodall (1978)
<u>Chile</u>								
47	IPPACE-26	Punta Wreck, Strait of Magellan	- OCT 1979	M	J	730	skull	Sielfeld (1979)
48	IPPACE-34	Punta Catalina, Tierra del Fuego					cranium	Sielfeld (1980)
<u>New records</u>								
49	AAL 003	Balneario San Antonio, Buenos Aires, Argentina	15 AUG 1984	A	461+		cranium incomplete	Col. AAL

\* 3 New records, including a 449 cm female with a 185.7 cm fetus, were presented for Tierra del Fuego, Argentina by Goodall, Galeazzi and Sobral 1983.

Three new specimens are presented.

Specimen MSPL Hp01 is an incomplete, partially damaged cranium of a juvenile (Fig. 8). MACN-BA P0022, a skull (without teeth) of an adult collected by R. Payne in Tierra del Fuego, and a 7 m male from San Julián, Santa Cruz that was identified by means of photos (Table 8, Fig. 7).

TABLE 7. RECORDS OF *ZIPHIUS CAVIROSTRIS* IN THE WESTERN SOUTH ATLANTIC

Nº	Specimen N°	Locality	Date	Sex	Phys. mat.	CBL mm	Type of specimen	Reference
<u>Published records</u>								
<u>Brazil</u>								
50		Santa Amaro, Guarujá, San Pablo	31 AUG 1948	F			pregnant specimen	Paiva de Carvalho (1969)
<u>Uruguay</u>								
51	MNHN-M 1303	Balneario Jaureguiberry, Canelones	05 JAN 1960	M	A	953	skull	Praderi (1971)
52	MNHN-M 2428	Playa Buceo, Montevideo	02 NOV 1967	F	A	890	complete skeleton	Ximenez, Langguth, and Praderi (1972)
53	MNHN-M 1405	Balneario Bella Vista, Maldonado	10 AUG 1969	M	A	890	complete skeleton	Ximenez <i>et al.</i> (1972)
<u>Argentina</u>								
54		Coasts, city of Buenos Aires	08 AUG 1865	M	A	680	complete skeleton	Burmeister (1867)
55		B. San Antonio, Río Negro						Moreno (1895)
56	BMNH 1965.7.1.1	Whaler Bay, Malvinas (Falkland) Is.	— — 1964	M			complete skeleton	Strange (1972)
57	RNP 3	Ea. Harberton, Tierra del Fuego	24 SEP 1967	M	A		nearly c. skeleton	Goodall (1978)
58	RNP 60	B. San Sebastián, Tierra del Fuego	03 JUL 1974	F			cranium incomplete	Goodall (1978)
59	RNP 73	Punta María, Tierra del Fuego	05 JUL 1974	F			cranium incomplete	Goodall (1978)
60	RNP 138	B. San Sebastián, Tierra del Fuego	19 DEC 1975		J		c. axial skeleton	Goodall (1978)
61	RNP 177	B. San Sebastián, Tierra del Fuego	21 DEC 1975	M			cranium incomplete	Goodall (1978)
62	RNP 327	B. San Sebastián, Tierra del Fuego	13 FEB 1976	M			cranium, mandibles	Goodall (1978)
63	RNP 377	Río San Martín, Tierra del Fuego	21 NOV 1976	F			cranium incomplete	Goodall (1978)
64	RNP 638	B. San Sebastián, Tierra del Fuego	12 DEC 1977	F			cranium worn	Goodall (1978)
65	RNP 696	Punta María, Tierra del Fuego	14 MAY 1978	M			cranium broken	Goodall (1978)
<u>Chile</u>								
66	IPPA CE-1	Cabo Espíritu Santo, Tierra del Fuego	— — 1974				cranium and v.	Sielfeld (1980)
67	IPPA CE-7	Punta Catalina, Tierra del Fuego	— MAY 1978				cervicals	Venegas and Sielfeld (1978)
<u>Unpublished records</u>								
<u>Argentina</u>								
68	MLP 1118	Necochea, Buenos Aires					c. skeleton	exhibited in Museo La Plata
69		Comodoro Rivadavia, Chubut	— APR 1964		A		Photo	
70	MACN-BA 16198	Ea. Punta Loyola, Santa Cruz	— JUN 1972	M	A	964	cranium incomplete	Col. MACN-BA

(Continued)

TABLE 7. (Continued)

71	MMGA Zc02	Miramar, Buenos Aires	-	-	1973			556+	cranium incomplete	Col. MMGA
72	MACN-BA P0023	B. San Sebastián, Tierra del Fuego	-	MAY	1973	F	A	994	skull	Col. MACN-BA
73	MSPL Zc04	Balneario San Antonio, Buenos Aires	-	-	1979	F?		792+	cranium incomplete	Col. MSPL
74		Bahía Bustamante, Chubut	29	DEC	1984	F	A		Photo	La Nación, 09 JUN 1985
75		Puerto San Julián, Santa Cruz	-	JAN	1985	M			Photo	

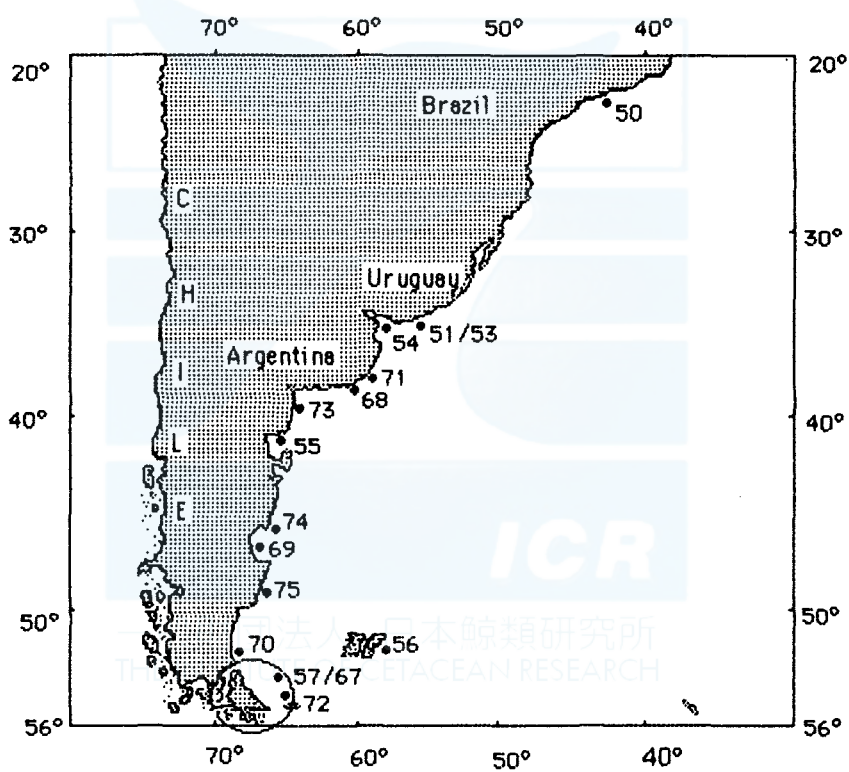


Fig. 6. Distribution of specimens of *Ziphius cavirostris* in the western South Atlantic. Records from Tierra del Fuego area occur within the open circle.

TABLE 8. RECORDS OF SPECIMENS AND SIGHTINGS OF *HYPERODON PLANIFRONS* IN THE WESTERN SOUTH ATLANTIC

Nº	Specimen N°	Locality	Date	Sex	Phys. mat.	CBL Type of mm specimen	Reference
<u>Published records</u>							
<u>Brazil</u>							
76	MORG 15	5 Km.N. of Chui, Rio Grande do Sul.	26 MAR 1975	M	A	complete skeleton	Gianuca and Castello (1976)
<u>Uruguay</u>							
77	RP 339	Pta.Artilleros, Dept.Colonia	19 FEB 1978	M		1170 complete skeleton	Praderi (1980)
<u>Argentina*</u>							
78	MLP	Bahía Santa Cruz, Santa Cruz				left mandible	Moreno (1895)
79	MLP	Río Chubut, Chubut		F		1100 skull, skeleton	Moreno (1895)
80	MLP 1121	Arroyo Sauce Viejo, Buenos Aires				1150 complete skeleton	Moreno (1895)
81		Leith Harbour, South Georgia Island	03 JAN 1927	M		690 Photo	Fraser (1945)
82	MACN-BA 54-110	Near Gritviken, South Georgia Island	— NOV 1929	M		1440 complete skeleton	Carcelles (1948)
83	BMNH 1934.7.23.3	Vicinity of South Georgia Island	— — 1931	F		1190 complete skeleton	Fraser (1945)
84		West Malvinas (Falkland) Islands				skull	Hamilton (1952)
85		Malvinas (Falkland) Islands				mandible	Hamilton (1952)
86	BMNH 1952.9.30.1	East Malvinas (Falkland) Islands	— AUG 1950	F		complete skeleton	Hamilton (1952) Fraser (1964)
87	MPC	60 Km.SW of Viedma, Río Negro	25 AUG 1965			skull	Brownell (1974)
88	RNP 4	Ea. Harberton, Tierra del Fuego	— SEP 1967			cranium fair	Goodall (1978)
89	RNP 382	Ea. Viamonte, Tierra del Fuego	19 DEC 1976			cranium incomplete	Goodall (1978)
90	RNP 584	San Sebastián N, Tierra del Fuego	21 NOV 1977			cranium, incomplete	Goodall (1978)
91	RNP 585	San Sebastián N, Tierra del Fuego	21 NOV 1977			cranium mandibles	Goodall (1978)
92	RNP 630	San Sebastián, Tierra del Fuego	11 DEC 1977			cervicals (7 fused)	Goodall (1978)
<u>Sightings</u>							
93		45°15'S, 58°10'W	03 APR 1962			1 animal	Zemskii and Budylenko (1970)
94		44°37'S, 59°03'W	22 DEC 1981			5 animals	Bastida and Bastida (1984)
95		44°45'S, 58°49'W	22 DEC 1981			1 animal	Bastida and Bastida (1984)
96		45°13'S, 58°19'W	22 DEC 1981			1 animal	Bastida and Bastida (1984)

(Continued)

TABLE 8. (Contineud)

		Unpublished records			
		Argentina			
97	MSLP Hp01	Isla Verde, Buenos Aires	- - 1970	j 1030+	cranium incomplete Col. MSPL
98	MACN-BA P0022	B. San Sebastián, Tierra del Fuego	- MAY 1976	1236	skull Col. MACN-BA
99		San Julián, Santa Cruz	- DEC 1981	M	Photo

\* A specimen (BMNH 1961.6.8.1.) from South Georgia Island, appearing in the BMNH cetacean catalogue.

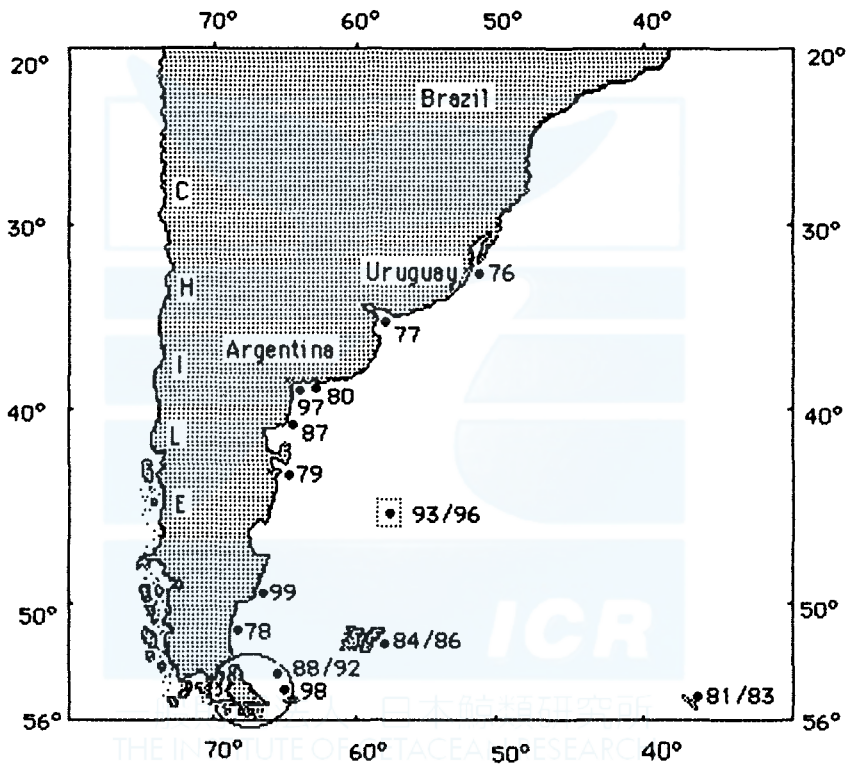


Fig. 7. Distribution of specimens of *Hyperoodon planifrons* in the western South Atlantic. Records from Tierra del Fuego area occur within the open circle. Sightings occur within the area limited by dots.



Fig. 8. *Hyperoodon planifrons*, lateral view of MSPL Hp01, collected at Isla Verde, Buenos Aires, in 1970. (Photo A.A. Lichter).

#### DISCUSSION

*Tasmacetus shepherdi*: The 13 known records from the Southern hemisphere, range from Isla Juan Fernandez, Chile, (33°S) (Brownell, Aguayo and Torres, 1976) to Tierra del Fuego, Argentina (55°S) (Goodall, 1978). The northernmost record for the study area is Península Valdés, Argentina (42°S) (Mead and Payne, 1975), and the southernmost is the previously mentioned for Tierra del Fuego.

*Berardius arnuxii*: Arroyo del Pescado, Argentina (34°S) (Marelli, 1920) is the northern known limit for this species. The southern limit is Antarctic Peninsula (62°S) (Taylor, 1957). Strandings in South African, New Zealand and Australian waters are seasonal (December–March) (Ross, 1979; Baker, 1983). The only known record of a fresh stranded specimen for this area occurred in May (Marelli, 1920).

*Mesoplodon densirostris*: The southernmost known record is for Tasmania (40°S) (Baker, 1983). The only known record for the study area is for Cassino, Brazil (32°S) (Castello and Pinedo, 1980).

The known South African records amount to 15 (Ross, 1979). Baker (1983) mentioned no records for New Zealand and four records for Australia. *Mesoplodon layardii*: The record from Bahía Windhond, Chile (55°S) (Sielfed, 1979) established the southern limit of the known distribution of this species.

The northern limit of this species in the western South Atlantic, Isla de la Tuna, Uruguay (34°S) (Praderi, 1972) lies south of the northernmost record from Walvis Bay, South Africa (23°S) (Turner, 1880). Ross (1979)



stated that South of 38°S the records are distributed throughout the year, and North of 38°S the records are distinctly seasonal during the summer months.

The same seems to happen in the study area where records occurred in February (Isla de la Tuna, 34°S) (Praderi, 1972), March (Río Gallegos, 52°S), June (Golfo San José, 42°S) and October (Comodoro Rivadavia, 46°S).

*Mesoplodon hectori*: The new specimens extend the distribution in the southwestern South Atlantic from Tierra del Fuego (53°S) (Goodall, 1978) to Claromecó, Argentina (39°S). By analyzing the stranding and sighting dates, it is noted that in the Northern hemisphere except for a record in December, strandings and sightings occur between May and September (Mead, 1981). The records herein presented agree with Ross (1979) who indicated a possibly seasonal onshore movements during the summer months. These were immature specimens in the Northern hemisphere during May (Mead, 1981), and in the Southern hemisphere, in January (New Zealand, South Africa and Argentina) (McCann, 1962; Ross, 1979; this paper).

*Mesoplodon grayi*: The record of Los Chorrillos, Tierra del Fuego, Argentina (53°S) (Goodall, 1978) is the southernmost known record.

The only known date of stranding in the study area was 12 August 1977, for a female of 4.64 m (Mermoz, 1979). In spite that in the Southern hemisphere there are records of this species for almost all the year, the frequent strandings are noted between December and April (Ross, 1979).

*Ziphius cavirostris*: This cosmopolitan species has a wide distribution in the study area, ranging from Tierra del Fuego, Argentina (55°S) (Goodall, 1978) to Santo Amaro, Guarujá, Brazil (24°S) (Paiva Carvalho, 1969).

The southern known limit would reach the Antarctic area at 62°S (IWC/IDCR V Cruise, J.F. Mermoz pers. comm.).

The western South Atlantic strandings of this species, occur within a period from April to January. This would indicate non seasonal presence of *Z. cavirostris* in this area as well as in New Zealand waters (Gaskin, 1972). Ross (1979) stated that this species moves away from the South African waters in spring and early summer.

*Hyperoodon planifrons*: In the study area it occurs from Tierra del Fuego, Argentina (55°S) (Goodall, 1978) to Chui, Rio Grande do Sul, Brazil (32°S) (Gianuca and Castello, 1976).

The known distribution for the Southern hemisphere extends from 29°S (Ross, 1979) to the Antarctic area at 70°S (IWC/IDCR V Cruise, J.F. Mermoz pers. comm.). Its presence in South African waters seems to be seasonal during summer months (Ross, 1979). Similarly, records in South West Atlantic, except for a record in August (Brownell, 1974) and a sighting in April (Zemskii and Budylenko, 1970), occur between November and March.

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