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New Records of Beaked Whales (*Mesoplodon* spp.) for the Caribbean

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Beaked whales (Family Ziphiidae) are a group of 21 taxonomically confusing odontocete species, some only known from fortuitous sightings at sea, and others from a few stranded specimens or even bone fragments. Two new *Mesoplodon* species (*M. peruvianus* and *M. bahamondi*) were described during this decade by Reyes et al. (1991, 1995), and recent genetic studies suggest the presence of more undescribed species (Dalebout et al., 1998). Little is known about ziphiids in the Caribbean, especially as it relates to species richness and distribution. We document five new stranding records of *Mesoplodon* for Puerto Rico, the Virgin Islands, Jamaica, and Cayman Islands, and review sighting and stranding records for this genus throughout the Caribbean.

Densebeak or Blainville's beaked whale, *Mesoplodon densirostris* (de Blainville)

On 22 June 1991, a 404-cm sub-adult male was found dead off the mouth of Río Herrera (18°26.5'N, 65°49.7'W), Río Grande, Puerto Rico (Table 1, Fig. 1). The animal was in an advanced state of decomposition (code 4, as in Geraci and Lounsbury, 1993). It had numerous net and rope marks, suggesting entanglement as the possible cause of death. The skull was deposited at the University of Puerto Rico's Biology Museum, Marine Mammal Osteological Collection (UPRMMOC) (Mignucci-Giannoni et al., 1997). This is the first record of this species in Puerto Rico. The only

TABLE 1. Records of *Mesoplodon* spp. for the Caribbean.

Catalog number ¹	Date	Locality	No. Animals	Sex	Size	Event	Reference
<i>Mesoplodon densirostris</i>							
NEPST313	06 May 1979	Gun Bay, Gran Cayman Island	1	M	640 cm	Stranding	Mead, 1989
NEPST167	22 Jun 1991	Mouth of Río Herrera, Loíza, Puerto Rico	1	M	404 cm	Stranding	This paper
<i>Mesoplodon europaeus</i>							
STR05563	— 1939	Morant Cay, Jamaica	1	U	— ²	Stranding	Lewis, 1954
STR01147	<1954	Cayo Alacranes, Pinar del Río, Cuba	1	U	425 cm	Stranding	Aguayo, 1954
STR02317	— 1947	Southwest Cay, Jamaica	1	U	— ²	Stranding	Lewis, 1954
BM000070-71	21 Feb 1953	Seven Mile Beach, Bull Bay, St. Thomas, Jamaica	2	F	420 cm	Stranding	Rankin, 1953
STR01144	05 Jan 1953	Twist, Port of Spain, Balandira, Trinidad	1	U	— ²	Stranding	Fraser, 1955
STR01146	Fall 1963	Montego Bay, St. James, Jamaica	1	M	450 cm	Stranding	Caldwell, 1964

¹Catalog numbers and responsible institution: NEPST000 = Caribbean Stranding Network, BM000000-00 and STR00000 = US National Museum of Natural History, Smithsonian Institution.

²Data not available.

TABLE 1. (Continued) Records of *Mesoplodon* spp. for the Caribbean.

Catalog number ¹	Date	Locality	No. Animals	Sex	Size	Event	Reference
<i>Mesoplodon europaeus</i>							
STR02291	06 Mar 1965	Playa Arroyo Bermejo, La Habana, Cuba	1	M	415 cm	Stranding	Varona, 1970
STR05806	09 Nov 1969	Bahía de Cabañas, Pinar del Rio, Cuba	1	F	454 cm	Stranding	Varona, 1985
STR05807	23 Nov 1971	Bahía Dominica, La Habana, Cuba	2	F	460 cm	Stranding	Varona, 1985
				M	251 cm		
STR05808	04 Nov 1982	Mouth of Rio Almendrares, Ciudad de La Habana, Cuba	1	M	440 cm	Stranding	Varona, 1985
STR05809	05 Apr 1984	Barlovento, Ciudad de La Habana, Cuba	1	F	485 cm	Stranding	Varona, 1985
STR05810	05 Apr 1984	Miramar, Ciudad de La Habana, Cuba	1	M	250 cm	Stranding	Varona, 1985
- ²	25 Sep 1985	Playa El Gringo, Haina, San Cristobal, Dominican Republic	1	U	364 cm	Stranding	Villalba-Cisneros, 1986
STR10140	16 Mar 1990	Playa Manzaliña, Curaçao, Netherlands Antilles	1	M	443 cm	Stranding	Debrot and Barros, 1992
NEPST187	08 Feb 1992	WNW of Greig Hill, St. Croix, US Virgin Islands	1	U	- ²	Stranding	This paper
STR10276	24 Jul 1992	Little Cayman, Cayman Islands	1	M	- ²	Stranding	This paper
NEPST233	12 Sep 1993	E point of Estate Judith Fancy, St. Croix, US Virgin Islands	1	M	~457 cm	Stranding	This paper
STR12079	21 Mar 1994	Sint Annabaai, Curaçao, Netherlands Antilles	1	M	413 cm	Stranding	Debrot et al., 1998
STR12136	28 Jun 1997	Playa Onima, Bonaire, Netherlands Antilles	2	M	- ²	Stranding	Debrot et al., 1998
<i>Mesoplodon</i> sp.							
- ²	03 Feb 1985	Anegada Passage	1	U	- ²	Sighting	Mattila and Clapham, 1989
NEPST321	24 Mar 1993	Cousin's Cove, Hanover Parrish, Jamaica	1	U	500 cm	Stranding	This paper
- ²	29 Jan 1995	North of Silver Bank, Dominican Republic	2	U	- ²	Sighting	K. Mullin pers. comm.
- ²	07 Feb 1995	Southeast of Anegada	2	U	- ²	Sighting	K. Mullin pers. comm.

¹Catalog numbers and responsible institution: NEPST000 = Caribbean Stranding Network, BM000000-00 and STR00000 = US National Museum of Natural History, Smithsonian Institution.

²Data not available.

NOTES

other Caribbean record for *M. densirostris* is of a 640-cm male stranded on 6 May 1979 in Gun Bay, Grand Cayman Island (Mead, 1989; Table 1, Fig. 2). Claridge and Balcomb (1995) reported sighting densebeak whales in the northeastern Bahamas between 1991 and 1995, and additional sightings in the same locality were recorded during summer surveys in 1998 (G. Rodríguez, University of Puerto Rico pers. comm.).

Antillean or Gervais' beaked whale, *Mesoplodon europaeus* (Gervais)

Antillean beaked whales recently stranded twice in the US Virgin Islands (Table 1). On 8 February 1992, a sub-adult was found in an advanced state of decomposition on the beach off Greig Hill, W of Salt River Bay in St. Croix (17°46'N, 64°46'W). A second individual, a 457-cm male, was found on 12 September 1993, off the east point of Estate Judith Fancy (17°47'N, 64°45'W), also in St. Croix. The whale had the soft stalked barnacle *Conchoderma auritum* (Linnaeus) attached to its left tooth (Mignucci-Giannoni et al., 1998) and its stomach contained the deep-water shrimp *Gnathophausia ingens* Dohrn, consistent with contents found in a specimen stranded in Curaçao (Debrot and Barros, 1992). The skull of both specimens was collected for the UPRMMOC (Mignucci-Giannoni et al., 1997). A male Antillean beaked whale was found stranded on 24 July 1992 in Little Cayman, in the Cayman Islands (G. Grund pers. comm.) and was identi-

fied by one of us (JGM) using videotape records. Strandings of Antillean beaked whales have been well documented in the Caribbean. (Table 1, Fig. 2).

Unidentified beaked whales (*Mesoplodon* spp.)

On 24 March 1993, a 500-cm unidentified whale was reported stranded on Cousin's Cove (Hanover Parish) in Jamaica (T. J. Goreau, Global Coral Reef Alliance pers. comm.). Other unidentified *Mesoplodon* whales have been sighted by experienced whale researchers in Aneгада Passage on 3 February 1985 (Mattila and Clapham, 1989), N of Silver Bank in the Dominican Republic on 29 January 1995, and SE of Aneгада on 7 February 1995 (K. Mullin, National Marine Fisheries Service pers. comm.) (Table 1, Fig. 2).

Caribbean zoogeography of *Mesoplodon* spp.

In the Western North Atlantic, four species of *Mesoplodon* have been reported, including *M. europaeus*, *M. densirostris*, *M. mirus* True (True's beaked whale), and *M. bidens* (Sowerby) (North Sea or Sowerby's beaked whale). Both *M. europaeus* and *M. densirostris* are well represented in the Caribbean throughout the year (all months except August, October and December), especially in the Greater Antilles. The distribution of the endemic *M. europaeus* appears to be limited to the tropical and warm-temperate waters of the Atlantic Ocean, and overlaps in range with *M. densirostris*, which is found throughout tropi-



FIG. 1. Close-up view of the head of a densebeak whale (*Mesoplodon densirostris*) stranded in Puerto Rico, illustrating the species' diagnostic shape of the mouth.

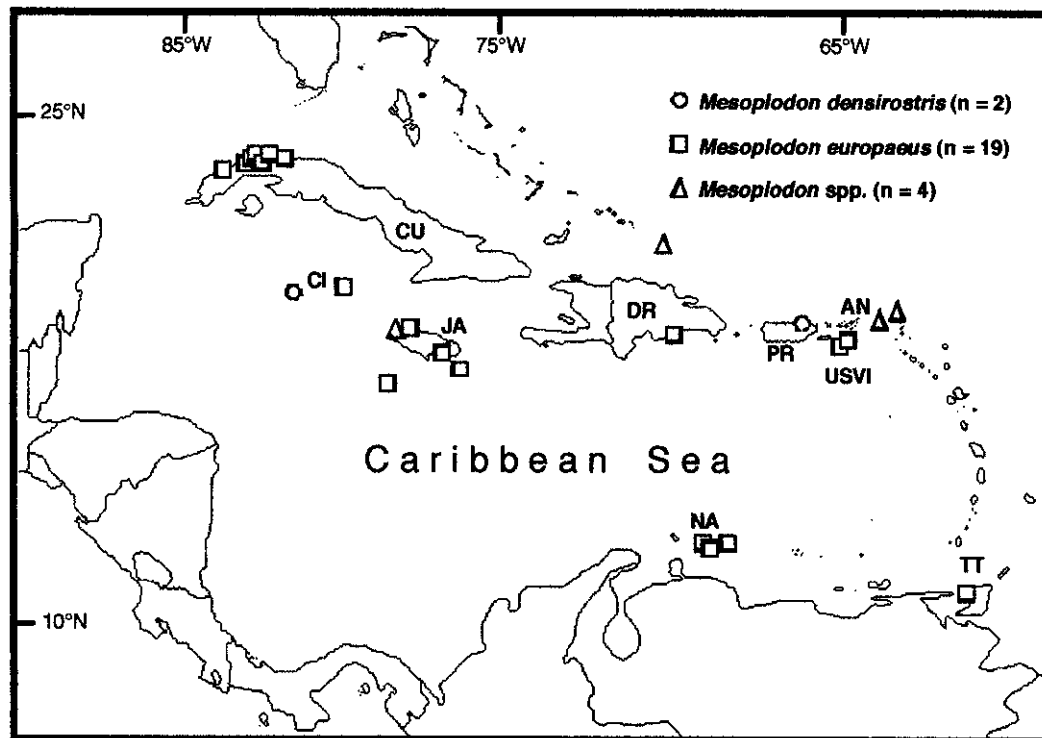


FIG. 2. *Mesoplodon* sighting and stranding records (AN = Anegada, CI = Cayman Islands, CU = Cuba, DR = Dominican Republic, JA = Jamaica, NA = Netherlands Antilles, PR = Puerto Rico, TT = Trinidad and Tobago, USVI = United States Virgin Islands, n = number of records, not specimens).

cal and temperate seas (Leatherwood and Reeves, 1983). In the Caribbean and adjacent waters of the Gulf of Mexico, there are more records for *M. europaeus* than for any other *Mesoplodon* species.

Only three strandings of *M. densirostris* are known for the Gulf of Mexico (Jefferson and Schiro, 1997). The relative paucity of densebeak whale records suggests that this species is more typically found farther offshore (Moore, 1966; Nawojchik, 1994) or that it may be less abundant in Caribbean waters. The on-going study of densebeak whales in the Bahamas should help clarify the tropical Western North Atlantic distribution of the species.

Bonde and O'Shea (1989) reported a stranding of *M. bidens* in St. Joseph Spit, on the Gulf coast of Florida on 17 October 1984, and a record for *M. mirus* exists for Sandy Point, San Salvador Island in the Bahamas on 1 April 1981 (Anonymous, 1981; Mead, 1989). These localities are the lowest latitudes reported for these two species in the Western North Atlantic and probably represent extra-limital occurrences. In further documentation of *Mesoplodon* strandings and sightings it is crucial to consider verification of species identification through the use of photographs, and in the case of strandings, the specimen's skull. For Caribbean waters, *M. europaeus* have been documented in 19 events and *M. densirostris* has been reported twice. The presence in the Caribbean of the other two North

Atlantic species (*M. bidens* and *M. mirus*) remains to be assessed through additional survey studies and mortality assessment.

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