

New records of beaked whales (genus *Mesoplodon*) in south Spain

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Here we report the stranding of two occasional species of the genus *Mesoplodon* not previously recorded on the Andalusian coast. Two Blainville's beaked whale stranded in two different events, one in Matalascañas (Huelva) in 1996 and another in Tarifa (Cádiz) in 2003, and two Sowerby's beaked whale were found stranded together on the coast of Rota (Cádiz) in 2007. These strandings are located near the range boundaries of both species, whose distribution is poorly known. Additionally, three new records of Gervais' beaked whale stranded on the Andalusian coast are presented.

Keywords: strandings, cetaceans, Andalusia, Gulf of Cádiz

The Andalusian coast is located on both sides of the Gibraltar Strait, the geographical border between the Atlantic Ocean and the Mediterranean Sea. This border effect is possibly one of the causes of the high biodiversity found in the area, and is also reflected in the variety of cetaceans recorded. Seventeen marine mammals species were found stranded on the Andalusian coast (unpublished data) by the Recovery Centre of Marine Endangered Species (CREMA), which belongs to the Consejería de Medio Ambiente de la Junta de Andalucía and has operated on the coast of Andalusia since 1994.

According to data collected by CREMA, 95% of the strandings of marine mammals in Andalusia correspond to four different species of dolphins (family Delphinidae, Gray 1821). The remaining 5% is divided between species that may be regarded as casual. These are either rare species or species for which Andalusia is at the limit of their distribution, such as the harbour porpoise (*Phocoena phocoena*, Linnaeus, 1758) found in the Alboran Sea (Bellido et al., 2006) or the hooded seal (*Cystophora cristata*, Erxleben, 1777) pups entering the Mediterranean (Bellido et al., 2007). It also includes specimens belonging to species with solitary habits or other features which do not facilitate subsequent strandings once dead or diseased. We report here strandings of two occasional species not previously recorded on the Andalusian coast (Figure 1), whose determination was based on the dental formula and the morphometric data.

The first species is the Blainville's beaked whale (*Mesoplodon densirostris*, De Blainville, 1817), with one specimen stranded in Mazagón (37°06'N 6°45'W, Huelva Province) on 20 May 1996 in an advanced state of decomposition. The skeleton of this specimen is housed in the Vertebrate Collection of the Estación Biológica de Doñana (specimen EBD 23813). The other specimen stranded in Tarifa (36°01'N 5°35'W, Cadiz Province) on 17 December 2003, also in an advanced state of decomposition (Figure 2). This specimen was a female with a total length of 414 cm, and was buried in the same beach where it stranded. Only two records of this species had been previously reported in the Iberian Peninsula, one on the coast of Portugal (Reiner, 1979) and another on the coast of Castellon in the Mediterranean (Casinos & Filella, 1981).

The other species is the Sowerby's beaked whale (*Mesoplodon bidens*, Sowerby, 1804), with two individuals stranded together on the coast of Rota (36°37'N 6°22'W, Cadiz Province) on 8 September 2007, which were still fresh (Figure 3), which suggests that they died in the previous 12 hours. They had no external lesion and an *in situ* necropsy revealed no apparent internal damage. They were two males with total lengths of 480 cm and 435 cm, respectively. Their skeletons are kept in the Vertebrate Collection of the Estación Biológica de Doñana (EBD 28806 and EBD 28807), and samples of skin, fat tissue, and



Figure 1. Geographical location of strandings: 1 *Mesoplodon europaeus* Huelva 1990; 2 *Mesoplodon densirostris* Matalascañas 1996; 3 *Mesoplodon europaeus* (two records) 1997; 4 *Mesoplodon densirostris* Tarifa 2003; 5 double strandings *Mesoplodon bidens* Rota 2007.



Figure 2. Displaying exemplary *Mesoplodon densirostris* Tarifa 2003.



Figure 3. Full view of the two specimens of *Mesoplodon bidens* stranded in Rota 2007.

muscle are kept in the Aula del Mar of Málaga (Spain) under the control of the Consejería de Medio Ambiente de la Junta de Andalucía (Andalusian Government). The Sowerby's beaked whale is a little known species (Ostrom et al., 1993; Hooker & Baird, 1999; McLeod et al., 2004). Specimens of *M. bidens* live in groups of between 2 and 10 individuals, distributed in the waters of the North Atlantic (Castells & Mayo, 1990). Until 2002 there was no record of this species in the waters of the Mediterranean (Notabartolo, 2002), but it was later reported in the waters of Greece (Frantzis et al., 2003). The only stranding event of this species reported in Spain was a female, on the coast of Santander (northern Spain) in 1980 (Castells & Mayo, 1990). Therefore, the two individuals stranded on the Andalusian coast represent the first record on the Andalusian coast and the second in Spain and, in addition, represent the first case of a multiple strandings of this species in Spain.

Mesoplodon is a little known genus, included within the family Ziphiidae (Gray, 1865), and includes a number of very similar species distinguished from each other by tooth formula. These strandings provide new information for these unusual species, which belong to a family with scattered and incomplete information (McLeod et al., 2006). In Andalusia, only a specimen of Gervais' beaked whale (*Mesoplodon europaeus*, Gervais 1855) had been previously detected (Valverde & Galán, 1996). *Mesoplodon europaeus* is an endemic species from the Atlantic with strandings records from south-east Brazil to the Canaries (McLeod et al., 2006). We also provide three new records of this species in Andalusia (Figure 1). The first stranding occurred in Huelva Province in 1990 and is the most ancient record reported in the Andalusian coast. The other two cases were males that stranded on 17 and 19 September 1997 near the mouth of the river Odiel (37°13'N 6°57'W Huelva, province). Their skeletons are kept in the Vertebrate Collection of the Estación Biológica de Doñana (specimens EBD 26005, EBD 23878 & EBD 23879 respectively).

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