

Mass strandings of cetaceans on Atlantic coast of Iberian Peninsula and Macaronesian archipelagos

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INTRODUCTION

Most of cetacean strandings are individual and dead specimens. However, occasionally, the strandings can be massive and some specimens are still alive. A stranding event is classified as a mass stranding when it involve 2 or more specimens, except for the stranding of a pair mother-calf.

RESULTS

A total of 67 massive strandings were recorded, of which 50 were classified as typical (75%) and 17 as atypical (25%). Atypical mass strandings of large divers like *Ziphius cavirostris*, *Hiperoodon ampullatus*, *Mesoplodon europaeus*, *M. mirus* and *M. densirostris* (n=9) stand out. 59.7% of the cases were recorded between 1990 and 2022 (n=40), and 40.3% (n=27) were recorded from the mid of the 18th century to 1989. Altogether, 2762 individuals were recorded, 49.6% (n=1371) of them survived. A total of 15 species of odontocetes were recorded, some of them considered as resident or frequent in the studied area (for example *Delphinus delphis*, *Tursiops truncatus*, *Grampus griseus*, *Stenella coeruleoalba*, *Physeter macrocephalus* and *Globicephala macrorhynchus*, Fig. 2), others are uncommon (like *Kogia breviceps*, *Steno bredanensis* and *Stenella longirostris*), and others are only known from mass strandings (*G. macrorhynchus* and *Pseudorca crassidens* in the northern coasts).

OBJECTIVES

This study pretends to review the bases of strandings and compile the mass strandings on the Iberian Atlantic coast, insular and peninsular, by area and classify them into typical and atypical. These strandings were classified by typical when occurring in the same place and date, and atypical when occurring at different places and/or dates with a common cause.

MATERIAL & METHODS

This study reviews the mass strandings events on the Atlantic coast of the Iberian Peninsula and the Macaronesian archipelagos (Canary Islands, Azores and Madeira), based on records of the local stranding networks, specialized bibliography and published references from the mid 18th century to date.



Figure 2. *G. macrorhynchus* mass strand, Bares, Galicia, 2013.

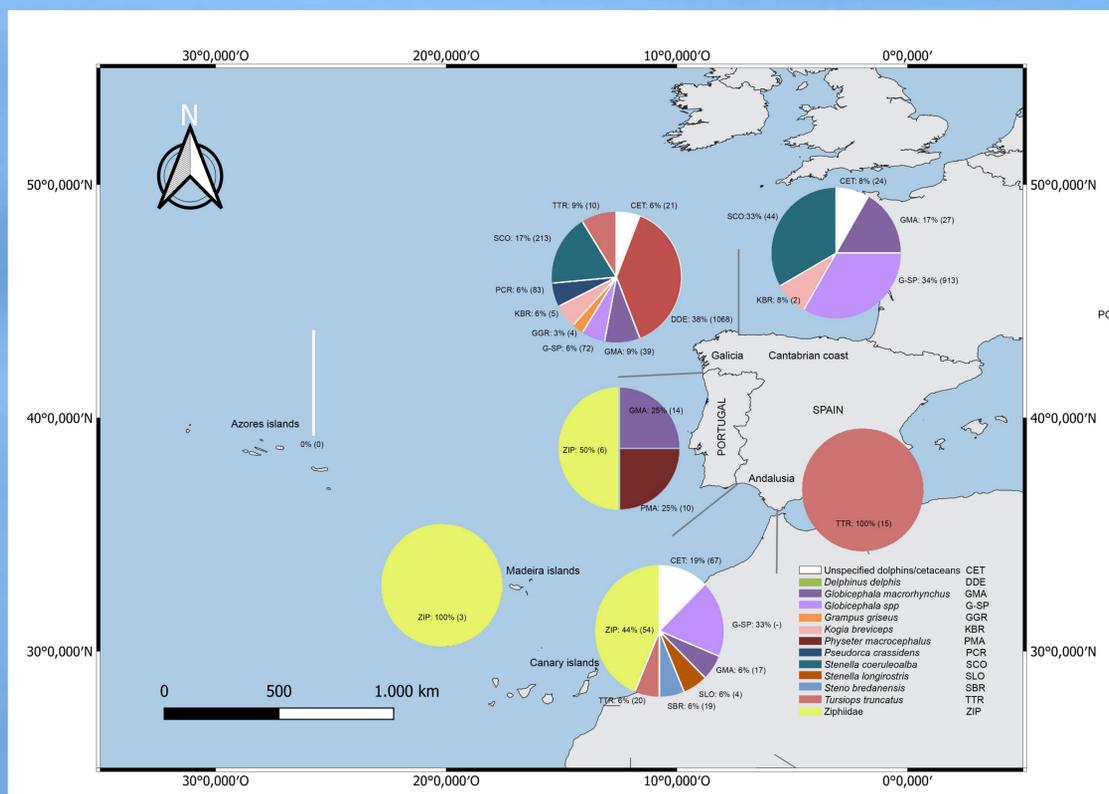


Figure 1. Distribution map of records by area and proportion of species.

	Total	<1990	≥1990	Typical mass strandings	Atypical mass strandings
Galicia	34	7	27	30	4
Cantabric coast	12	6	6	9	3
Canary islands	16	12	4	8	8
Madeira islands	1	1	0	0	0
Portugal	3	1	2	2	2
Andalusia	1	0	1	1	0
	67	27	40	50	17

Figure 3. Characterization of massive strandings by area.

CONCLUSIONS

- There were 15 different species of toothed whales implicated in the mass strandings in the study area.
- 60% of the cases were registered after the year 1990.
- The 75% of the cases were registered on the coast of the Iberian Peninsula and especially on the north of Galicia and Cantabrian coast.
- The 75% of the cases were typical mass strandings and 25% of them were atypical.