



# PYGMY AND DWARF SPERM WHALES IN THE CANARY ISLANDS

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## INTRODUCTION

Pygmy sperm whale (*Kogia breviceps*) and dwarf sperm whale (*Kogia sima*) are teuthofagous species very similar in appearance and both occur in tropical and temperate marine waters worldwide. Both species are one of the least-known cetaceans due subtle surfacing behavior and avoiding boats, and much of what is known has come from stranded animals. Although it is difficult to distinguish both species in the field, the dorsal fin is a characteristic feature (see photos left). The first record of *K. breviceps* in Canary islands was in 1973, a specimen beached in an indeterminate location off the North of Gran Canaria (Casinos. 1977). The next identified record was in 1987.

## METHODS

### Study area

The Canary Archipelago, 7 islands and various islets with 7.273 Km<sup>2</sup> of surface and a coastline of 1.500Km, is located in the African continental edge. Its volcanic origin explains the almost absent continental shelf, reaching depths up to 2.000m between the main islands and 1.500m depth forward the neighboring African coast. The oceanographic parameters, conditioned by both the Cold Canary Current -descending branch of the Gulf Stream- and the up-welling of cold waters from the African coast, result distinctive characteristics, like the warm-temperate conditions with surface temperatures lower than the ones corresponding to these latitudes.

### Field work

**Surveys.** As part of a intense multi-species study of cetaceans in the oriental coast of Lanzarote and Fuerteventura islands supported by diverse projects, most of the sightings have been registered from October 2007 to October 2010. The study area, with 9848.43 Km<sup>2</sup>, was visual-acoustic surveyed with a 17m motor yacht, covering in 137 days and 624.62 h "on effort" a total of 7572.06 km in zig-zag random transects from the coastline to 37 km offshore.

**Strandings.** Since the early 80's, the Society for Study of Cetaceans in the Canary Archipelago (SECAC) carries out a long-term cetacean stranding program in the Canary Islands, and since 1999 this work is developed in collaboration with the Institute for Animal Health IUSA (ULPGC) and logistically coordinated by the Canary Government. The stranded animals are given an established protocol to obtain all the biological information feasible as the samples. Osteological and biological material of most carcasses are currently kept in the Canary Islands Cetacean Museum (MCC) collections placed in Lanzarote.

## RESULTS

**Surveys.** We realized 627 sightings of 20 cetacean species, from which 15 (2.4%) were pygmy sperm whale, 3 (0.5%) were dwarf sperm whale and 1 (0.16%) was an unidentified Kogiidae. Pygmy and dwarf sperm whales were observed lie motionless at the surface alone or in small groups with three animals maximum. On 3 occasions they were close to Gervais's beaked whale (*Mesoplodon europaeus*) groups.

**Strandings.** From 916 stranded cetaceans between 1980-2010 in the Canary Islands, we have recorded 64 (6.98%) specimens of *Kogia* spp.: 53 (82.8%) pygmy sperm whales throughout the year, 9 (14.1%) dwarf sperm whale and 2 (3.1%) indeterminate.

Three *K. breviceps* and one *K. sima* were pregnant. Two of the *K. breviceps* (both with calves) were pregnant while still lactating.

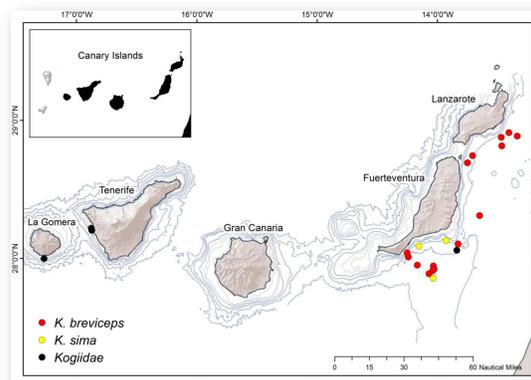


Figure 1. Sightings of *Kogia* sp. in the Canary Islands between 1990-2010

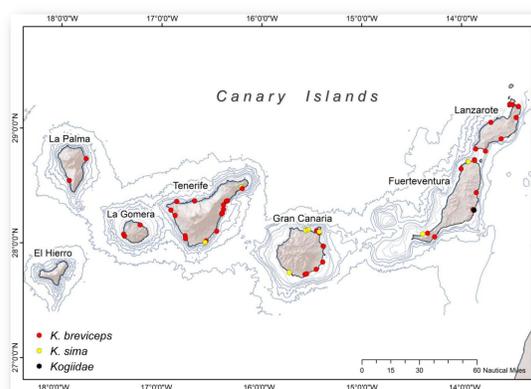
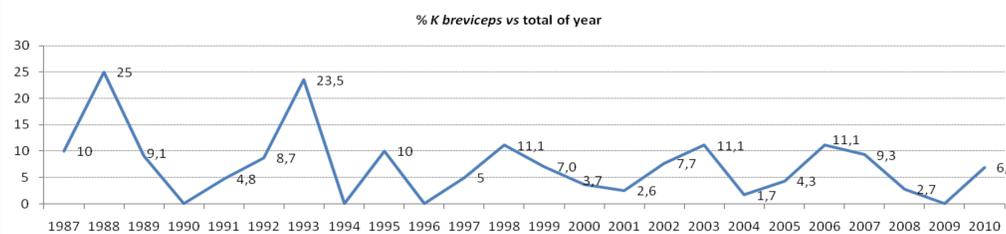
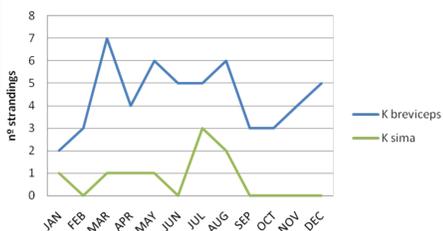


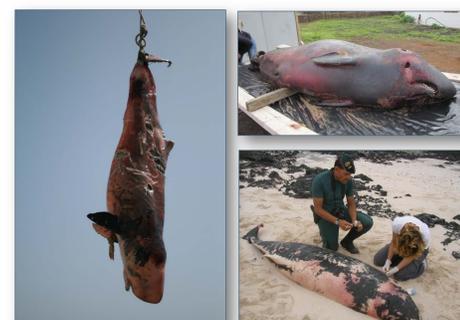
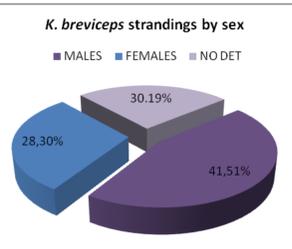
Figure 2. Strandings of *Kogia* sp. in the Canary Islands between 1987-2010



Monthly frequency for *Kogia* sp. strandings



	total	%
<b>Females</b>	15	100,00
Mature	1	6,67
Pregnant	8	53,33
Immature	1	6,67
Indet.	4	26,67
<b>Males</b>	22	100,00
Mature	13	59,09
Immature	5	22,73
Indet.	4	18,18



## ACKNOWLEDGMENTS

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## INDEMARES



## CONCLUSIONS

- Such strandings and sightings show that both species are present in the Canary archipelago throughout the year.
- K. breviceps* is significantly more frequent in the stranding records than *K. sima*. In addition, the high number of dead breeding animals from these populations should be a worrying fact.
- The strandings coincident with naval exercises suggest that pygmy sperm whale may be susceptible to impacts from mid-frequency sonar.
- The sightings suggest that the east coast of Lanzarote and Fuerteventura islands appear to be an important area for both species.

## REFERENCES

Casinos, A. (1977). "On a stranding of a pygmy sperm whale *Kogia breviceps* (Blainville, 1838) on the Canary Islands." *Saugetierkunde* 25(1): 79-80.