



RORQUALS FEEDING GROUND IN ORIENTAL CANARY ISLANDS



Figures 3-6 the different species founded feeding in the area, *B. physalus* (3), *B. borealis* (4) and *B. brydei* (5 y 6).

INTRODUCTION

Little is known about the distribution, movements and feeding ecology of rorquals in the North-eastern Atlantic sector. Lanzarote and Fuerteventura are the most eastern Islands of the Canary Archipelago, situated at 100 km of the North West African coast in an oceanographic transition area within the Canary Current System. The presence of deep waters close to the coast, the local upwelling, together with the cold and productive water currents of the African coast, makes the region one of the most productive region of the Canary Islands.

METHODS

From October 2007 to October 2010 we conducted 137 days of visual-acoustic census and zig-zag random transects from the coastline to 37 km offshore. The study area of 9848.43 Km² off the oriental coast of Lanzarote and Fuerteventura was surveyed with a 17 m motor yacht, covering 7572.06 km and 624.62 hours "on effort".

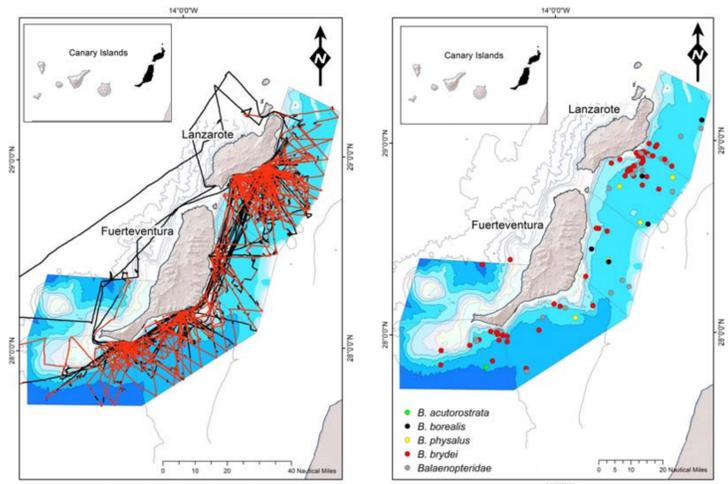


Figure 1 shows the dedicated effort and sightings of *Balaenoptera* spp. in the study area from October 2007 to October 2010.

RESULTS

We had 627 sightings of 20 cetacean species; 72 (11.5%) of these sightings were of rorquals, of which 41 (56.9%) were Bryde's whale (*Balaenoptera brydei*), 4 (5.5%) Sei whale (*B. borealis*), 5 (6.9%) Fin whale (*B. physalus*), 1 (1.4%) Minke whale (*B. acutorostrata*), and 21 (29.2%) no identified rorquals (Figure 2). Bryde's, Fin and Sei whales were observed feeding in the area, with active surface lunges, on fish patches of pilchard, mackerel, horse mackerel and anchovy. This behaviour was also observed for Bryde's whale, gathering up to 10 individuals in a small patch at the surface and in association with Atlantic spotted dolphins (*Stenella frontalis*), common dolphins (*Delphinus delphis*) and Cory's Shearwater (*Calonectris diomedea*).

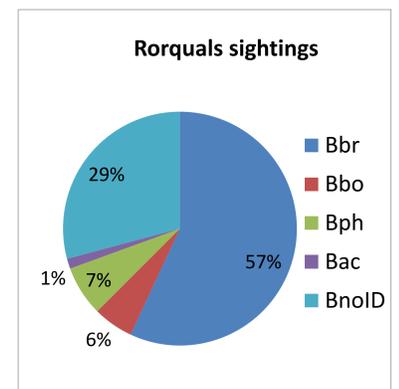


Figure 2 shows the frequency of the different *Balaenoptera* species sighted in the area.

DISCUSION

According to Doniol-Valcroze *et al.* (2007) the dynamic environmental variables are determinant to understand whales habitat use. To this area arrive filaments from the upwelling nearby the African coast, increasing the local productivity. As the distribution of rorqual whales on their feeding grounds is mainly related to the abundance and patchiness of krill (Murase *et al.*, 2002) and fishes (Whitehead & Carscadden, 1985), the study reveals the area as a feeding ground for at least 3 species, Bryde's, Fin and Sei whales. In several species, especially the rorquals, feeding grounds are believed to be more „concentrated' geographically than breeding grounds (Donovan, 2008) so must be considered as critical habitats for the species conservation. The results of this study suggest the importance of this area as a key area for rorquals in the North-eastern Atlantic sector.

REFERENCES

MURASE, H.; MATSUOKA, K.; ICHII, T. & NISHIWAKI, S. (2002). Relationship between the distribution of euphausiids and baleen whales in the Antarctic. *Polar Biol* 25:135–145 · WHITEHEAD, H. & CARSCADDEN, J.E. (1985). Predicting inshore whale abundance whales and capelin off the Newfoundland coast. *Can J Fish Aquat Sci* 42:976–981 · DONIOL-VALCROZE, T.; BERTEAUX, D.; LAROCHE, P. & SEARS, R. Influence of thermal fronts on habitat selection by four rorqual whale species in the Gulf of St. Lawrence. *Mar Ecol Prog Ser*, Vol. 335: 207–216. · DONOVAN, G. (2008) Marine Protected Areas for large cetaceans *in* Proceedings of the ECS/ASCOBAMS/ACCOBAMS Workshop "Selection Criteria for Marine Protected Areas for Cetaceans". ECS Special Publication Series No. 48 (PGH Evans, Ed).



Figure 7-9 show 3 animals sighted in the area, *B. brydei* (7-8) and *B. acutorostrata* (9).

ACKNOWLEDGMENTS

We thank the many people who have made this research possible. Cetacean observers include Alexis Rivera, Cristina Gilbert, Nuria Varo and Rosa Brito. Funding for this Project was provided by MARM (Environmental Ministry), Tragsesa, Canary Government, INDEMARES Project (LIFE07/E/NAT000732) under authorization of the Canary Government.

