

The power of citizen and science to monitor cetacean occurrence and spatial distribution in Macaronesia offshore waters

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CETUS Project is a sound example of a Portuguese project on citizen-science with scientific results that have contributed to improve knowledge on cetacean occurrence and distribution on the Macaronesia and can strongly contribute for cetacean management and conservation of cetaceans in this region. The project is led by CIIMAR in collaboration with the Oceanic Observatory of Madeira, CIMA Research Foundation (Savona, Italy) and Transinsular cargo ship Company. Since 2012, line transect routes within the Macaronesia have been surveyed by volunteers that are trained as Marine Mammal Observers to collect cetacean occurrences during the transects. Volunteers are selected from all over the world and come to Portugal where they have an intensive training on CETUS protocol and species identification before boarding on the Transinsular vessels for the sea-surveys.

So far, 48 volunteers from 14 different countries were trained and the data collected is being used for scientific results such as bachelor, master and PhD thesis or presentation at international conferences. Moreover, CETUS has participated in several educational activities, with volunteers participating in the all process and reaching out to different sea-users, such as the crews of the cargo ships, that become themselves contributors to the data collected providing several cetacean occurrences even during non-monitored trips.

Additionally, this study highlights the importance and results of power in designing and implementing citizen science programs and demonstrates their effectiveness in carrying out long term shore-based monitoring offshore cetacean species, providing a cost-effective early warning system for changes in the marine environment conservation and management.