

Commerson's dolphin at the Falkland Islands, Credit: SAERI

## Dolphin biodiversity in the Falkland Islands' waters

With so much technology and information available to us today, it is hard to believe that we only have a superficial knowledge of the dolphins and whales inhabiting our oceans. Even for well-studied species, we know little about the size of their populations, whether they are increasing or decreasing in numbers, or what threatens them. And for many regions we are struggling to even understand how many species, subspecies, and populations there are of these highly charismatic and ecologically important marine species.

In the Falkland Islands' waters, cetacean monitoring has been limited to a few explorative, mainly offshore, surveys. Information about cetaceans' presence, abundance, and genetic characterisation is missing. This lack of data has been recognised as a major threat to the effective conservation of cetaceans in the 'Falkland Islands Species Action Plan for Cetaceans' by the Environmental Planning Department of the Falklands and by the International Union for the Conservation of Nature (IUCN).

Our 'Dolphins of the Kelp: Data priorities for Falkland's inshore cetaceans' project is a multi-partner initiative funded through Darwin Plus. Led by the South Atlantic Environmental Research Institute (SAERI), the project aims to investigate genetic diversity and to estimate abundance of Commerson's (*Cephalorhynchus commersonii*) and Peale's dolphins (*Lagenorhynchus australis*), the only two species of cetaceans inhabiting Falkland waters year-round.

The project has recently entered into its last six months and the results so far have been thrilling. The first result concerns the genetic relationship of the Falkland's dolphins with populations of the same species inhabiting the waters off South America. In order to carry out an analysis, tissue samples were collected in January-February 2017, under the supervision of Professor C. Scott Baker of the Marine Mammal Institute, Oregon State University. This was the first time ever that genetic material was collected from Falkland's dolphins. Preliminary analyses suggested that both Commerson's and Peale's dolphins in the Falklands represent a separate population from mainland South America populations.

The second important result was the first estimate of abundance for both species in Falkland's water within 10 kilometres from the coast. Data were collected in March-May 2017, using a Britten-Norman BN-2B Islander aircraft, flying over 217 transects for a total of 4,300 km at 150m of altitude and a speed of 167 km/hour. A total of approximately 5,500 Commerson's and 2,250 Peale's dolphins were estimated. In term of density, these numbers translate in about 29 Commerson's and 12 Peale's dolphins encountered every 100 km<sup>2</sup>, a relative large number if compared with the 7 Commerson's and 3 Peale's dolphins per 100 km<sup>2</sup> encountered in the waters off Patagonia. It is important to underline that, although our estimates suggest that dolphins are quite abundant around the Falklands waters, their absolute number is

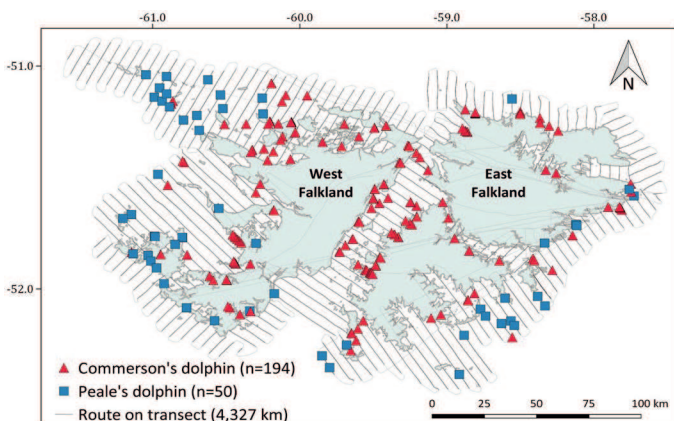


The Britten-Norman BN-2B Islander from the Falkland Island Government Air Service (FIGAS) used for the survey, Credit: SAERI

one order of magnitude smaller than the absolute number of Commerson's (22,000) and Peale's (20,000) dolphins estimated for the Patagonian Shelf (data from Dellabianca *et al.*, 2016 - Spatial Models of Abundance and Habitat Preferences of Commerson's and Peale's Dolphin in Southern Patagonian Waters - PLOSOne).

The results obtained through this project are extremely important for advancing worldwide knowledge of cetacean species and will support decision-makers to implement cetacean conservation measures. Cetaceans are essential components of marine biodiversity and their protection is essential for the proper functioning of ecological systems. Through the 'Dolphins of the Kelp' project, the Darwin Initiative is contributing to the **target 19** of the of the CBD Aichi targets through improving the science base for these species. The 'Dolphins of the Kelp' project is continuing and we are expecting more information about the distribution, habitat preferences, movement, and natural history of Commerson's and Peale's dolphins in the next few months. So stay tuned!

For more information on project DPLUS042 visit their **website**, their **project page**, or contact Project Manager Marina Costa, [mcosta@env.institute.ac.fk](mailto:mcosta@env.institute.ac.fk), [marinza.costa@gmail.com](mailto:marinza.costa@gmail.com)



Map of the Falkland Islands showing the sightings of Commerson's and Peale's dolphins made during the aerial survey, Credit: SAERI