

Demographic and tracking data of black browed albatross on New Island

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New Island is one of the islands of the Falklands' archipelago and lies to the west of West Falkland. It is approximately 22.7 square km; the northern and western coastline is characterised by precipitous and breath-taking cliffs (max 200 metres). These are perfect locations for Black-browed Albatross (BBA), Rockhopper and Shag colonies. In contrast, the eastern coastline is lower lying or has smaller cliffs and scarps. Sandy beaches are scattered throughout the northern and southern ends and centre of the island and offer perfect places for penguins, sea lions and, less frequently, elephant seals to come ashore or depart for the open sea. New Island is owned by the New Island Conservation Trust (<https://www.newislandtrust.com/>), which is a non-profit charitable conservation organisation and aims at assuring the future of the island as wildlife reserve in perpetuity.

Conservation is therefore the main activity carried out on New Island: currently there are researchers from all over the world studying demographic, migratory behaviour, and foraging ecology of Gentoo, Rockhopper and Magellanic penguins, Black-browed Albatrosses, Striated caracara, Thin-billed prions, White chinned petrels, Southern giant petrels and Falkland skua's. The amazing diversity of species and their "accessibility" makes New Island a special place. This is helped greatly by the good infrastructure (accommodation and lab space) provided by the Trust that allows researchers to carry out field work and long terms studies. Along with seabirds, plants and habitats have also been the focus of studies, the most recent being the broad scale habitat mapping carried out by Dr Rebecca Upson in 2010-2011.

While visiting the Island in early November it was extremely interesting to participate in the field work conducted by Dr Letizia Campioni, who is a postdoc at the ISPA-Instituto Universitario of Lisbon and one of the members of the team of scientists led by Dr Paulo Catry. Since 2003 the team from Portugal has been conducting yearly monitoring of the BBA colonies at the so called "Settlement rookery". Through the collection of data (such as count of breeding pairs, eggs and chicks) and the ringing of breeding or immature birds as well as chicks, researchers obtain information that helps to understand the

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dynamics of the albatross populations. The main goal of such long-term project is to use these demographic data as a tool for conservation and environmental monitoring. Further details on the Albatross Project at:

<https://sites.google.com/site/projectoalbatroz/Home>.



At the same time, the team collected ecological and behavioural data. In the latest years, Dr Letizia Campioni has been focusing her work on immature BBA, studying the foraging ecology, foraging specialisation and strategies during the breeding and wintering season. She is doing this by sampling blood and feathers for stable isotope composition and by tracking birds using GPS-loggers, activity loggers and geolocators. These data will enable the identification and modelling of the parameters that are driving population changes and relate those to environmental variables (i.e. climate and fisheries) and management practices (fisheries regulations).



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The team, led by Dr Paulo Catry, also conducts low to medium intensity biological and monitoring studies of two predators of chicks: the Falkland Skuas and the Striated caracaras (Johnny Rooks).

Overall, the data gathered and analysed by the researchers in New Island will provide a better understanding of the population dynamics, their distribution and relationship with resources (e.g. food), other environmental variables (e.g. climate, oceanography) and human activities. In addition, the metadata of these data will be kept available through an online catalogue. Metadata will offer the opportunity to quickly find the data that has already been collected. As such, it will facilitate data sharing and increase scientific partnerships and collaborations, with benefits and advantages for both the conservation of wildlife in New Island and the researchers.

