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Where are they now? Right whales in the South Georgia marine ecosystem

Targeted territory: South Georgia

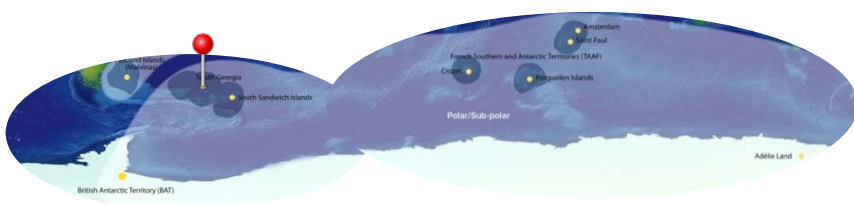
Total project budget: 451,347 Euros

BEST 2.0 grant awarded: 398,731 Euros

Duration: May 2017 – April 2019 (24 months)

Lead organisation: Natural Environment Research Council - British Antarctic Survey (NERC-BAS)

Partner organisation: University Court of the University of St Andrews (USTAN)



Background:

The South Georgia marine ecosystem is globally recognised as a biodiversity hotspot, and its waters are one target of a growing krill fishery. Today, right whales are the most commonly seen whale in South Georgia waters, slowly returning after four centuries of exploitation. Right whales that feed in South Georgia waters in summer have been linked, through photo-identification and satellite tagging, to the wintering ground at Península Valdés in Argentina. However the Península Valdés calving ground has had notably high calf mortalities in the last decade, the cause of which is unknown. A growing body of evidence hypothesises that South Georgia environmental conditions directly influence the low latitude population dynamics of these whales, suggesting foraging success is a primary factor influencing reproductive rates. No dedicated studies of right whales using South Georgia waters have

ever been conducted however so this link has been inferred through climate correlations and is not supported by any *in situ* field data.

Description of the Project:

The project will develop baseline surveys of right whales in South Georgia waters spanning their period of peak occurrence in summer months. The surveys will investigate their prey sources, habitat use in relation to the krill fishing within the sustainable-use South Georgia and South Sandwich Islands Marine Protected Area (MPA), genetic diversity, population connectivity with calving areas and health status. A variety of innovative technologies will be used, first to locate whales and then to collect a broad range of data characterising the status, abundance, distribution and health of whales using South Georgia waters.



Satellite tracks, acoustic and oceanographic data will be used to identify key areas of whale habitat use and foraging patterns in the South Georgia marine ecosystem. The results will be presented to the first scientific review of the South Georgia and South Sandwich Islands MPA in 2018, which assesses whether MPA boundaries and fishery closure timings are appropriate for the right whale feeding ground, and to the Convention for the Conservation of Antarctic

Marine Living Resources (CCAMLR) in order that right whales can be considered in spatial krill fishery management plans and ecosystem models. The project will also investigate migratory connections between South Georgia waters and calving grounds off Argentina and Brazil using photographs and genetics.

Intended results:

- Increased knowledge base (including population demographics, health status, key habitats and prey, primary calving area(s)) of right whales in South Georgia waters and the availability of this information to inform the management of the South Georgia and South Sandwich Islands MPA and the Antarctic krill fishery.

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