BEST Initiative

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Forest Restoration and Improved Biosecurity on Nightingale Island

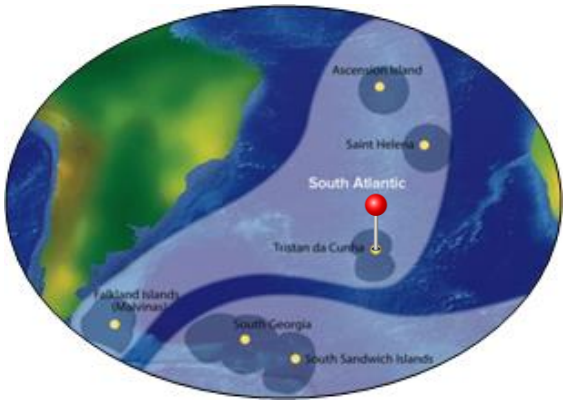
Targeted territory: Tristan da Cunha

Total project budget: 125,293 Euros

BEST 2.0 grant awarded: 98,750 Euros

Duration: July 2016 – June 2018 (24 months)

Lead organisation: Government of Tristan da Cunha, Conservation Department



Background:

Nightingale Island is the smallest of the 4 islands that make up the Tristan archipelago. It is home to millions of breeding seabirds, and two endemic land birds, including the Wilkins' bunting (*Nesospiza wilkinsi*), which is listed as Endangered in the IUCN Red List.

Only 80 pairs of Wilkins' bunting breed on Nightingale but estimates of basic demographic parameters such as productivity and survival are limited. The persistence of the species is threatened by the small population size, their sensitivity to habitat loss, and the potential for accidental introductions of predators. The adults are found primarily in the *Phylica* woodland, which now only grows at the top of the island in fragmented remnants of a few hectares, and feed primarily on the Phylica seeds. Without the Phylica woodland, this highly specialised and endangered species would likely suffer serious declines, and potential extinction.

A number of immediate and potential threats are of concern including the introduction of invasive rodents and other alien species from nearby Tristan da Cunha or shipwrecks. A major biosecurity concern is a sooty mould fungus (*Seiridium phylicae*) which influences the seed-set of Phylica trees. This sooty mould is common on both Tristan and Inaccessible islands. The arrival of this fungus on Nightingale could have catastrophic effects on the Wilkins' buntings if the Phylica tree, as both their food source and primary nesting habitat is negatively affected.

Description of the Project:

The project will strengthen inter-island biosecurity measures to prevent the arrival of this fungus and other non-native species to Nightingale on human visitors moving between the islands.

The Wilkin's buntings territory will be mapped and the population will be studied to determine its growth rate and estimate the reproductive success. Restoration of Phylica woodland will be undertaken by planting collected seeds and transplanting saplings from existing stands.

The project will also develop a biosecurity protocol for visitors to Nightingale Island and establish a monitoring protocol for new weeds along commonly travelled routes on the island. The Phylica stands will be monitored annually to check for signs of sooty mould fungus and introduced scale insects.

Intended results:

- The area of Phylica woodland present on Nightingale island is increased as a result of restoration work.
- Increased understanding of the demography and ecology of the Wilkins' Bunting and the response of the population to the recreation of Phylica habitat.
- Biosecurity is improved through the adoption of a Biosecurity Protocol and establishment of effective monitoring thereby decreasing the potential for invasive species to arrive on Nightingale island.

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