Falkland Islands Government

Environment Department Secretariat Stanley Falkland Islands
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Environmental Studies Budget grant scheme

Reporting Form

Name: Sally Poncet
Organisation: Island LandCare
Project Title: An evaluation of Falkland Islands Habitat Restoration Efforts
Date: 22 August 2022

Narrative report (max. 500 words)

Please describe the work that you completed and any positive outcomes, impacts, changes and benefits for Falkland Islands' biodiversity.

This project involved compiling an inventory of past and present habitat restoration activities around the Islands. It is a first step in the process of producing a geo-referenced archive of habitat restoration and natural regeneration for sites Island-wide. Land management in the Falklands is currently undergoing considerable change, as landowners and managers look increasingly towards redressing the legacy of of past land management practices. Efforts to counter soil erosion and restore vegetation are increasing, as is the area of land being de-stocked in order to allow natural regeneration, plant natives species, protect remnant tussac coastlines and create wildlife areas. Baseline data for the extent and scope of past and current habitat restoration efforts and success are essential for monitoring changes in ground cover, vegetation and biodiversity over time, particularly in the face of anticipated climate change impacts.

Information for the inventory was sourced from interviews with landowners and practitioners with experience in restoring native habitats, and from a wide range of published and unpublished sources, in collaboration with Falklands Conservation and the Antarctic Research Trust. The project has reviewed information about the success of habitat restoration efforts, and documented the 'lessons learnt', as communicated by those who are actively engaged in restoring their land. Other project outcomes include (i) a bibliography of documents relating to Falklands land restoration by destocking and planting native (notably tussac, bluegrass, boxwood, Fuegian couch, swordgrass) and non-native (marram) plants; (ii) Google Earth kmz point and polygon files for each restoration site; (iii) key data for each restoration site including spatial co-ordinates, surface area, fenceline length, number of tillers planted each year pre-2000 and post-2000, lessons learnt, ownership and conservation status, all in spreadsheet format to enable mapping in QGIS and facilitate data searches and analyses.

A preliminary review of this dataset shows that Island-wide:

- As of August 2022, just over 2.5% (30,000 ha) of the Falklands' land mass (1,196,294 ha) is currently being managed for habitat restoration, either actively (planting natives on ungrazed land) or passively (fencing out livestock).
- Active restoration efforts since 2000 include the planting of 345,800 tussac tillers and seedlings (plugs), a few thousand bluegrass and Fuegian couch seedlings, and a few hundred boxwood and swordgrass.
- At an average tussac tiller spacing of 1.5 metres (4,444 tillers per ha), this represents ca. 70 ha of restored 'black' tussac peat: the total area of remaining bare tussac peat potentially

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available for restoration today has not yet been calculated but is estimated to be at least 5,000 ha.

- Half of the tussac tillers (173,000) have been planted on 7 (New, Hummock, Sea Lion, Middle, Motley, Tea and Great Islands) of the 376 stock-free islands. 120,700 tillers have been planted in 25 fenced off paddocks ('plantations') on 19 farms, and 29,000 tillers in seasonally grazed plantations on Bleaker, West Point and Cape Dolphin Farm.
- Prime examples of tussac plantations that have been successfully restored and productively managed for over 100 years are found on West Point (157 ha) and Carcass Islands (300 ha).
- The best documented example of tussac recovery by removal of livestock and natural recolonisation of tussac is on Sedge Island (300 ha) where there is now 100 ha of tussac compared with 2 ha in 1985.
- Sustained year-round and seasonal grazing of tussac by cattle at Cape Meredith and Cape Orford on West Falkland has reduced the original area of tussac (estimated to be at least 500 ha) to less than 50 ha on steep coastal cliffs.
- The dataset has also identified 100 'pristine' islands which have never been grazed, and have never had non-native mammals eg rats, cats, mice, rabbits, rats. Together they account for 1,755 ha, or a mere 0.15% of the Falklands total land mass.
- In total we have 5,595 ha of tussac left, slightly higher than in 1987 (4,159 ha, as reported by Strange et al 1988).
- 21% of the 5595 ha of tussac is on the 100 pristine islands, and 71% on the remaining 376 offshore islands.
- The increase in tussac is attributed to a change in land management over the past 40 years, as increasing numbers of offshore islands are being restored either by natural regeneration or active planting, together with the recovery of tussac at Cape Dolphin on East Falkland.

Finally, this dataset is by no means complete. There is more information to be sourced from past restorations (starting in the late 1800s); and information about some current projects will require verification where records have been overlooked or are incomplete. On-going recording of future restoration efforts is also required – details of tussac planting, changes in land use such re-stocking and land management (eg fencing off more land) - and also of climate-change related impacts such as fire and drought.

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Communications

Please tell us about any existing or planned communications about the project. Please include links where appropriate e.g. newspaper articles, social media posts, radio interviews, publications etc.

Sally did an interview with FIRS on Tuesday 23rd August. A report has been written about the restoration review, and the intention is to create a PowerPoint presentation of the restoration data and findings of this report for use by the DoE and for public presentations.

Photo and video records

When returning your report, please include photos and/or videos of your project. We will use these to communicate about the project and promote the ESB grant scheme. If the files are large, you can use a service like wetransfer.com or contact us to arrange another suitable method.

Financial report

Please describe how the finances were spent in full

Item	Cost	Comments
Data collecting in the field – 5 days	£600.00	Visits to restoration sites in Camp
Interviews with landowners and practitioners – 3 days	£360.00	By phone and email and in person at Farmers Week
Literature reviews and searches – 12 days	£1,440.00	Extracting information from unpublished sources, notably ESB funding applications and reports, FIG Archives, the Falkland Islands Journal, the Falkland

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		Islands Biodiversity Database, SAERI's IMS-GIS, reports by Ian Strange, Robin Woods, Falklands Conservation and Island LandCare
Google Earth mapping , data preparation and entry – 15 days	£1,800.00	Data preparation was very time-consuming: most of the geo-referenced data (surface area, plantation boundaries, fence lines, co-ordinates had to be sourced from Google Earth imagery, and much of the original source material had to be interpreted using Google Earth, as all the early records were pre-GPS.
Report writing – 5 days	£600.00	
Total 40 days	£4,800.00	

Please return