

Final report on Defra funded invasive aliens and climate change work in the UK's South Atlantic Overseas Territories

Anton Wolfaardt
Joint Nature Conservation Committee
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INTRODUCTION

In 2010, Defra provided £250,000 to the Joint Nature Conservation Committee (JNCC) to address priority alien invasive species and climate change needs in the UK Overseas Territories. These funds were provided as a contribution towards the International Year of Biodiversity. JNCC used the opportunity to initiate a focal point mechanism for regional conservation work in the South Atlantic Overseas Territories (SAOTs)¹, and this was used to develop, with representatives from each of the SAOTs, a list of priority activities to be supported by the funds. A total of £99,900 of these funds was made available through the focal point mechanism for activities in the SAOTs. Part of this mechanism involved setting up a vehicle for the funds to be transferred from JNCC to the Falkland Islands Government (FIG), and then allocated to project proponents according to a formal agreement.

In February 2010, JNCC and FIG signed a Memorandum of Agreement (MoA) outlining the principles and obligations of both Parties in relation to the use of these funds (JNCC REF NO. A09 – 0181 - 0280). The Agreement included an indicative list of projects to be funded in each of the SAOTs and likely timings of the project work (see Schedule 2 of the MoA, and Appendix 1 of this report). This final report provides an overview of the project work that was supported by the funds, and follows two previous reports, one in July 2010, and the other in November 2010.

PROVISION OF FUNDS AND FUNDING MECHANISM

A total of £99,865 was successfully transferred from JNCC to FIG on 11 March 2010. The difference of £35 between the original amount transferred from JNCC (£99,900) and that received by FIG was presumably used for transaction costs. By July 2010, a total of £63,551.77 had been allocated for project work, and by November 2010, £87,611.77. By June 2011, £99,109.95 of the funds had been spent, with £755 remaining. The £755 unspent funds was due to savings in a number of project activities in the Falkland Islands. This saving has been earmarked as a contribution towards planned marine and/or terrestrial alien species management work that will take place from July to August 2011 in the Falkland Islands. The allocation will be finalised at the Environmental Committee meeting of FIG, which takes place in late June 2011.

It was agreed that the best way to allocate the funds was to split it equally between the five SAOTs. For Ascension, St Helena and Tristan da Cunha, it was decided that it would be most efficient to transfer the funds in one go, rather than in a piecemeal manner. This is primarily because each transfer from the Falkland Islands incurs transaction costs, but also because it makes it easier to plan and schedule the work in these distant OTs. The recipients of the funds were responsible for ensuring the funds were spent in the manner

¹ Falkland Islands, South Georgia, Tristan da Cunha, St Helena, Ascension.

originally agreed, to maintain satisfactory records of all expenditure, and notify the JNCC representative if there was a need or request to change the allocation of funds for any reason.

SOUTH GEORGIA

Survey to detect and monitor marine invasive alien species at South Georgia

The marine habitats of South Georgia are potentially of the most interesting in the region, yet at present they are of the most poorly understood. Past studies show that the shelf area of South Georgia has similar or greater species richness in some major groups (eg bryozoans, sponges, nematodes, chelicerates) compared to other regions globally that have much larger shelf areas and that have been more intensively sampled. Furthermore, South Georgia is geologically old and geographically remote, and may therefore host a relatively large number of endemic marine species. Given the increasing fishing and tourism activity on South Georgia, there is a risk of invasive species entering the system with the potential of deleterious impacts on marine benthic biodiversity. In addition, the region has been shown to be one of the most likely globally to be highly impacted by climate change in terms of shifting or loss of biodiversity and potential for invasive species colonisation.

Given the paucity of information on marine invasive species, a total of £20,000 of the Defra funds was allocated to the Shallow Marine Survey Group (SMSG, based in the Falkland Islands) to initiate a monitoring programme for marine invasive species at South Georgia. The £20,000 was used to complement funds received from the Darwin Initiative to conduct marine surveys of the area, and specifically supported the invasive species monitoring component of the surveys. In November 2010, the SMSG team travelled to South Georgia aboard the FPV *Pharos* SG, the Government of South Georgia and South Sandwich Island's fishery patrol vessel, for a three week survey of subtidal and intertidal habitats of South Georgia. As part of the survey, the team initiated an invasive species monitoring programme, surveying subtidal habitats between 5 and 18 metres depth, and intertidal habitats surrounding Grytviken and King Edward Point, compiling comprehensive baseline data essential for detecting and monitoring species invasions. Despite concerns that there may already have been introductions of invasive species, SMSG did not detect any during the initial surveys, although many specimens still await final identification by the relevant taxa experts (but see below). One *Mytilus* species that had been previously reported at Grytviken was not found during the survey. Settlement plates (3 replicate plates per site) were deployed at 3 sites (King Edward Point, Stromness Bay and Possession Bay), chosen because of their exposure to shipping traffic, for longer-term detection and monitoring of possible invasive species recruitment. These will be collected during a future survey, currently being planned for February-March 2012, during which the settlement plates will be photographed and analysed using published methodologies. Comprehensive photographic surveys of wharf piles in Grytviken and King Edward Point will also be undertaken.

A formal progress report has been submitted to, and is available from, the JNCC officer in the Falkland Islands. The project featured in the May 2011 edition of the South Georgia Island Newsletter ([http://www.sgisland.gs/index.php/\(h\)South_Georgia_News_and_Events](http://www.sgisland.gs/index.php/(h)South_Georgia_News_and_Events)). Subsequent to the publication of the interim report, one of the polychaete worms sampled in the survey has been identified as *Chaetopterus* sp. Although the specimen has not yet been identified to species level, *C. variopedatus* (parchment worm) is an invasive species in the

Falkland Islands (see above), and so it could potentially be invasive in South Georgia as well. The specimen was recorded at Prince Olav Harbour, which was the site of an old whaling station, but has been abandoned since 1931. The survey did not reveal any of the characteristic parchment tubes, suggesting that this occurrence may be very rare, but certainly something to investigate further.

CONCLUSIONS

The ca. £100,000 provided by Defra to address invasive species and climate change work in the SAOTs supported a wide range of priority activities in these OTs. The funding mechanism set up for the project, through a MoA between JNCC and FIG, was effective, and has since been used to disseminate further funding. Some of this subsequent funding is being used to support work that follows on directly from activities reported in this document.

In many cases, the Defra funds were used to continue or extend work that had previously been initiated. In so doing, the funds ensured that existing mechanisms were optimally used, and that previous work was further progressed, either by responding to recommendations of previous studies or initiatives, or by continuing ongoing efforts. In the context of invasive species management, it is crucial to maintain control and/or eradication efforts. The control of invasive Spear Thistle in the Falkland Islands, Loganberry, New Zealand Christmas Tree, and Australian Brass Button in the Tristan Islands are a case in point. Had efforts to control these species not continued, and without the funding they may not have, previous control efforts would have been undermined due to the replenishment of the soil seedbank.

Similarly, the funded actions have in many cases provided a baseline from which to continue further work. The marine invasive species monitoring projects in the Falkland Islands and South Georgia, the Thistle Strategy in the Falkland Islands, the construction of a track to the South Eastern coast of Ascension Island, and the Bastard Gumwood project on St Helena for which OTEP funding has recently been approved, are all good examples.

The funds also contributed directly, in the case of Kirsty Green from Tristan, and indirectly to capacity building within the Overseas Territories. The indirect contribution towards capacity building is a result of funds being made available to employ locals of the Overseas Territories to continue the implementation of invasive species management actions, thus enhancing their experience and expertise. Developing a well capacitated team of people within the Overseas Territories is particularly important for invasive species management, which requires a long-term approach, and will involve ongoing work for many years to come.

The project work highlighted a number of other issues which are important to bear in mind when considering conservation work in the SAOTs. First, all of the SAOTs are remote islands, and this presents logistical challenges, which has an impact on project planning – ordering of equipment and supplies has to be done well in advance – and costs. Second, but related, the SAOTs differ in terms of the capacity available to implement work and the logistical challenges and costs associated with project activities. For example, the cost of implementing a marine invasive species monitoring project at South Georgia may be five times more costly than implementing the same project work in the Falkland Islands. This is due to the costs of transporting personnel to South Georgia, and basing them there for the duration of the project work.

The capacity available to implement conservation projects is limited in all SAOTs. Conservation or Environment Departments and associated organisations often comprise only one person, who is responsible for a wide range of work. Consequently, work and project schedules are developed well in advance, and it may be difficult to respond to 'ad hoc' funding opportunities that require rapid expenditure of funds. However, given the focus of work on invasive species in SAOTs in recent years, including the work supported by the Defra funds, a broad programme of work is developing. One of the aims of the SAOT focal point mechanism is to help progress this programme of work, and thus facilitate a strategic and effective approach to conservation work in the SAOTs.

APPENDIX 1: Provisional list of activities to be funded
(from Schedule 2 of JNCC-FIG Memorandum of Agreement)

South Georgia

- The deployment, recovery and analysis of marine settlement plates in areas of known anchorages and moorings and in areas of no known (or minimal) shipping activity (to serve as a control) to assess the extent and impact of marine invasive species at South Georgia, and the potential of ships and other vessels as vectors for marine invasives. This project will be initiated in March 2010, and will continue until March 2011, with a provisional budget of £20,000.