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

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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.

ASCENSION ISLAND

Construction of a track to the south east coast of the island

The Letterbox area on the south east coast of Ascension Island is of geological interest, outstanding natural beauty and is considered a potential Nature Reserve. The existing track to this area is long and dangerous. It is badly eroded in places and at risk of succumbing to land-slides. The erosion of the current track has facilitated the spread of invasive plant species to this area, encouraging the presence of alien rodents, which prey on the eggs of nesting seabirds. Better access to the south east coast is considered a priority to enable more effective and frequent management of invasive species and to carry out ongoing monitoring activities relating to all aspects of conservation in this priority area.

A total of £7,350 of the Defra funds was allocated to support the construction a new track to the south east coast. By the end of March 2011, the route of the new track had been marked out, and the majority of the construction work required completed. The final bit of construction work needed to complete the track that has been marked out will be supported by the additional funds provided by JNCC in 2011. The construction of the new track has ensured that field workers are better able to access the important south east coast to undertake a range of priority activities including:

- Rodent control.
- Management of alien invasive plant species such as *Nicotiana*, Mexican thistle, guava, *Prosopis juliflora*, lantana and *Opuntia*
- Monitoring the return of seabirds from the offshore islands and stacks to the main island following the eradication of Feral Cats
- Routine monitoring of the endemic and Critically Endangered *Euphorbia origanoides*
- More frequent monitoring of Boatswainbird Island and marine life, such as whales, dolphins, sharks and hawksbill turtles.

A small amount of further track maintenance work is required, and will be undertaken with a portion of the additional funding provided by JNCC in 2011.

Construction of a safe storage facility to house equipment and materials

A total of £2,500 of the Defra funds was used to construct a safe storage area to house equipment and materials (including chemicals) used in the management of invasive alien species. The building of the storage facility was completed in October 2010, and is presently in use.

Construction of a Feral Donkey enclosure

Feral donkeys on Ascension are vectors for the spread of invasive plant species. Most importantly, they feed on pods of the invasive Mexican Thorn, *Prosopis juliflora*, and are largely responsible for the rapid spread of this species on Ascension. The donkeys are free-ranging on the island, distributing seeds, and facilitating the colonisation of new areas by invasive plant species. Currently, little is known about what the donkeys eat, the distance they transfer seeds, their population structure and general health.

A total of £2,800 of the Defra funds was used to construct a donkey corral, including the provision of a water supply and mineral supplement. It is anticipated that the provision of water, food and mineral supplements in the enclosure area will reduce the amount of foraging the donkeys undertake in other areas of the island. It will hopefully also reduce the distance donkeys' travel for food, thereby limiting the spread of invasive plant species.

The corral also allows for safe animal husbandry to be carried out. Prior to the construction of the corral, donkeys that required veterinary treatment would need to be chased often vast distances over uneven terrain. The corral makes it easier for the donkeys to be contained and treated safely.

Purchase of equipment and materials for the monitoring and control of invasive species

A range of urgently needed equipment and supplies required for the monitoring and control of invasive species was purchased. A total of £3,300 of the Defra funds was used to purchase rodent bait for targeted distribution in the vicinity of seabird breeding colonies, and areas of conservation importance on Green Mountain. £4,000 of the Defra funds was used to purchase safety equipment for field workers involved in invasive species management, to carry out essential maintenance to the Green Mountain Nursery and to purchase supplies such as compost, plant pots and hose lances. This will enable the continued propagation and cultivation of Ascension's endangered endemic plant species which will be planted out into restoration areas on Green Mountain.

Rodent control – ongoing work by the Ascension Island Government

Dr Mark Lambert from FERA visited the island to review the current rodent control strategy. He spent four days working closely with the Conservation Department, visiting seabird nesting colonies and areas of other scientific interest, and three days with the Environmental Health Department visiting sites where rats are currently being controlled. He also looked at other areas of potential concern and met with the councillors to discuss the current rodent control arrangements and report his initial findings. Mark came to the conclusion that the current rodent management plan is working well. Across most of the island rat numbers are low, their distribution broadly follows the distribution of resources, and so populations are greatest at higher altitudes where fresh water and natural foods are found. These tend to be the areas where rats cause least problems to residents and wildlife, but they can be a nuisance (and health risk) for recreational users of the parks and footpaths. He advised that rat control should continue to be a high priority, and offered his help to work with the Conservation and Environmental Health Departments to improve management of rodent populations and maintain rodent numbers at low levels.

Alien plant monitoring and control – ongoing work by the Ascension Island Government

Monitoring and assessment of the presence and impact of alien plant species on the island continues. The biological control agent introduced to control the Mexican Thorn appears to be working effectively. There has been a definite reduction in numbers since the introduction of biological control. The mature bushes seem to be increasing in size. There has been an increase in the number and size of *Nicotiana glauca*. Many seedlings have appeared over the wet season. The mature plants are increasing in size and produce seeds which are wind distributed to all areas of the Island.

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)

Ascension Island

- The construction of a track to improve access to the south east coast of the island, to facilitate ongoing work on invasive alien species, and to minimise erosion and disturbance that is currently facilitating the spread of invasive alien species on the island. This will take place from March to September 2010, with a provisional budget of £7,000.
- The construction of a feral donkey enclosure to control numbers and reduce the risk associated with donkeys spreading the seeds of invasive alien plant species. This will take place from May to September 2010, with a provisional budget of £2,800.
- The construction of a safe storage area to house equipment and tools used for the monitoring and control of invasive alien species on the island. This will take place from March to September 2010, with a provisional budget of £2,500.
- Continued monitoring and assessment of the presence and impact of rodents on the island. Rodent bait will be purchased for the targeted control of rats in identified hotspots. This represents ongoing work, and has a provisional budget of £2,700 (for the purchase of rodent bait). The bait will be purchased by June 2010.
- Continued monitoring and assessment of the presence and impact of invasive alien plant species throughout the island, and the targeted control of these invasive species. A range of urgently needed equipment and supplies will be purchased (including protective clothing, herbicide sprayers, brush-cutter blades, chainsaw parts). These items will be purchased before September 2010, and will cost in the region of £5,000.
- Continued monitoring of high priority indigenous species that are affected by climate change and invasive alien species to track population status, and ascertain the efficacy of eradication and control interventions. No funds required. Ongoing work by the Ascension Island Government.
- Re-establishment and monitoring of endemic plants in areas that have been cleared of invasive alien plant species. No funds required. Ongoing work by the Ascension Island Government.