

**Invasive species
in the
UK Overseas
Territories**

Background to the UK Overseas Territories:

The Overseas Territories collectively and individually make a significant contribution to global biodiversity and geological diversity

With the exception of the British Antarctic Territory and Gibraltar, they are all islands, small in size and isolated to varying degrees. These attributes, combined with their geographic location, has often resulted in a high degree of endemism. Equally, the territories are often host to significant populations of breeding birds or marine turtles, and have rich terrestrial and marine ecosystems. Yet, many of these species and habitats are threatened.



Horseshoe Reef British Virgin Islands © British Virgin Islands National Trust.

Table 1: to show Overseas Territories with the area and populations sizes.

Territory	Area (km²)	Human population
<i>Overseas Territories:</i>		
Anguilla	90	12,200
Ascension Island ¹	90	1,000
Bermuda	53	64,500
British Antarctic Territory	1,709,400	0 ³
British Indian Ocean Territory	60 (land) 54,400 (sea & land)	4,000 ²
British Sovereign Base Areas on Cyprus	254	?
British Virgin Islands	153	27,000
Cayman Islands	260	42,000
Falkland Islands	12,173	2,913
Gibraltar	6.5	28,231
Montserrat	102	4,483
Pitcairn	4.5	47
Saint Helena ¹	122	4,000
South Georgia and South Sandwich Islands	3,755	0 ³
Tristan da Cunha ¹	98	275
Turks and Caicos	430	26,000



Savannah Bay, British Virgin Islands ©Andrew McRob RBG Kew

Importance of the UK OTs for biodiversity:

Of globally threatened species identified in the 2004 IUCN Red List, 74 critically endangered species occur in the UK Overseas Territories (compared to 10 in metropolitan UK) along with 49 endangered species (12 in metropolitan UK) and 117 vulnerable species (37 in the metropolitan UK). Many of these species are endemic and so are found nowhere else in the world. In addition, and as an indication of the threat to island biodiversity, there are 39 recorded extinctions in the UK Overseas Territories and two species are extinct in the wild, compared with only a single extinction from the metropolitan UK (namely the great auk). Indeed, the latest extinction in the Overseas Territories, namely that of the St Helena olive *Nesiota elliptica*, occurred in 2003 when the last tree in cultivation died (the last wild individual had died in 1994).¹

¹ It is likely that these figures are under-estimates; new studies invariably report the occurrence of additional species or populations especially amongst the less well known taxa, such as invertebrates.



Montserrat's critically endangered Mountain Chicken (*Leptodactylus fallax*) © Copyright Carole McCauley

Globally/regionally important concentrations of species

In addition to numbers of globally threatened species, the Overseas Territories also hold regionally or globally important concentrations or assemblages of species. For example, Ascension Island supports the second largest green turtle rookery in the Atlantic; Gough Island (Tristan da Cunha) has been described as, arguably, the most important seabird island in the world; and the reefs of the Chagos Archipelago (British Indian Ocean Territory) are described as some of the most pristine and best protected in the Indian Ocean (and account for some 1.3% of the world resource). The importance to nature conservation of parts of the Territories is recognised through the designation as World Heritage Sites of Gough Island & Inaccessible Islands (Tristan) and Henderson Island (Pitcairn) for their insular natural heritage interests.



Green turtle *Chelonia mydas* on Ascension Island © Copyright Anselmo Pelembe

Invasive species in the UK OTs

Non-native species are a major cause of the loss of biodiversity globally and their impacts are especially severe on the island ecosystems and species typical of our Overseas Territories. Species on such islands are often vulnerable to the impacts of non-native species because of their previous isolation from predators, diseases or competitors. Indeed, the majority (72%) of global extinctions since 1500 have occurred on islands and, for example 67% of threatened birds on oceanic islands are threatened by invasive alien species, compared to only 8% on continents (Baillie *et al* 2004). Invasive species are also thought to be responsible for the extinction of at least 65 bird species, more than any other known factor (Baillie *et al* 2004).

Problems with invasive and non-native species are apparent in many of the overseas territories; however the full extent of their occurrence and of the subsequent threat posed, is not known.

JNCC review of non-native species in the UK

Overseas Territories

In 2006 JNCC undertook a review of Non-native species in the Overseas Territories. This was a desk review and therefore was limited by the amount of biological survey work that has been carried out in the OTs. Indeed there are significant gaps of information on both native and non-native species on many of the Territories.

However results showed that a minimum of 2261 non-native species is recorded as occurring across the UK Overseas Territories and Crown Dependencies with a total of >2900 records of occurrence overall. The review showed that Bermuda has the unfortunate distinction of topping the non-native species polls with 1139 species recorded – by contrast the South Sandwich Islands have none.

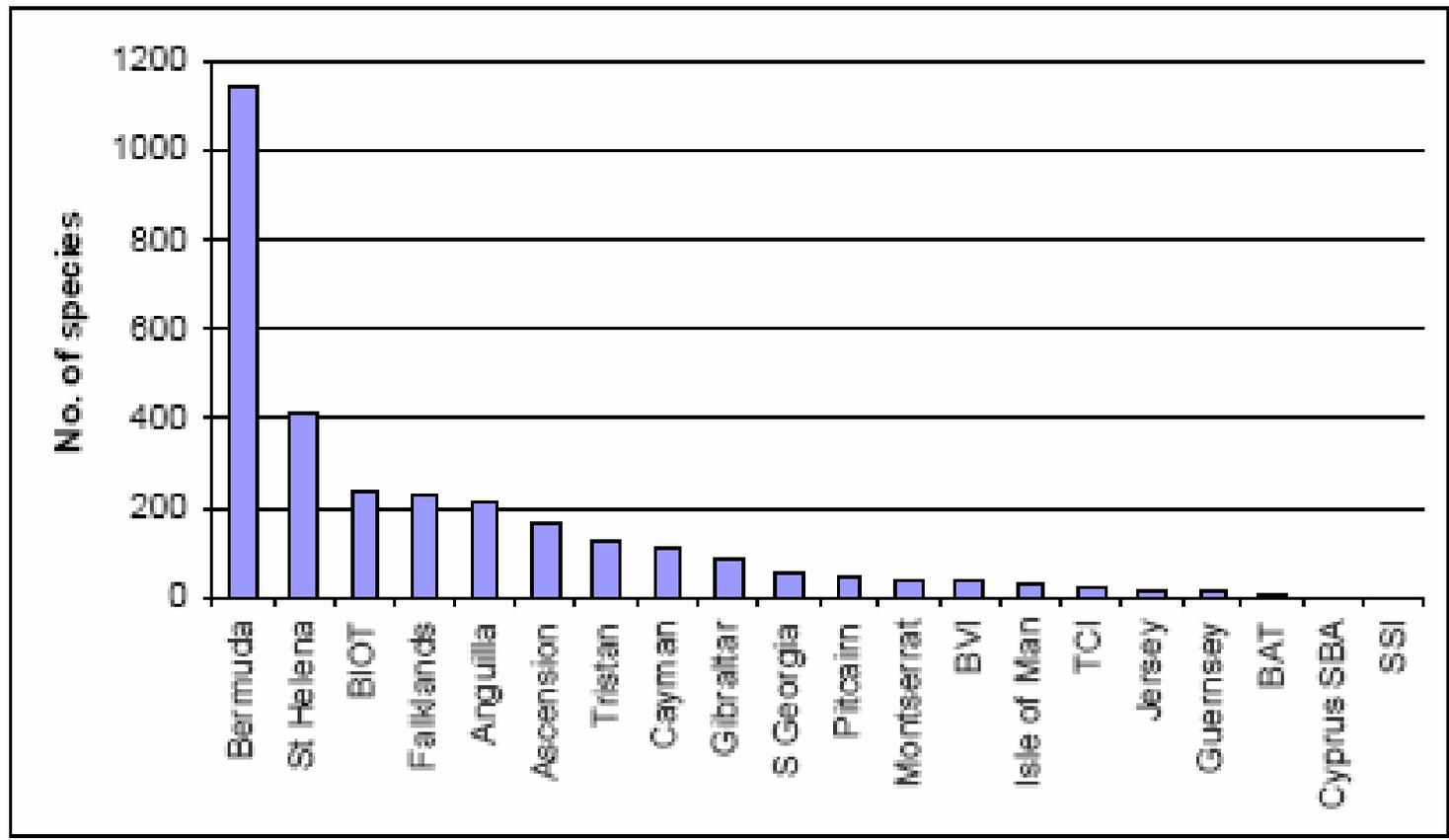


Figure 1. The number of non-native species recorded in each Territory ranked in order of the number of non-native species (BIOT – British Indian Ocean Territory; BVI – British Virgin Islands; TCI – Turks & Caicos Islands; BAT – British Antarctic Territory; SSI – South Sandwich Islands).

Solutions

A number of different projects, with a variety of approaches have been initiated to try to solve some of the invasive species issues on the UK Overseas Territories. Examples of these include:

Feasibility studies:



Anguilla:

2007 Rat eradication feasibility study on Dog Island (ANT², GoA DoE RSPB³)

Rhon Connor on Dog Island, Anguilla © Tara Pelembe

² Anguilla National Trust

³ Government of Anguilla Department of the Environment.

Eradication



Ascension Island:

- *2001 – 2006* A successful feral cat eradication has led to the seabirds returning to the main island of Ascension to nest.

Masked booby Sula dactylatra chick on the main Ascension Island post feral cat eradication © Anselmo Pelembe

- **British Indian Ocean Territory:** Rat eradication attempted on Eagle Island.

Restoration



Cahow endemic to Bermuda © Andy Dobson

Bermuda:

1951 – present. As a result of massive long term conservation measures, including removal of invasives and restoration, Bermudas endemic cahow (*Pterodroma cahow*) population has significantly increased.

Reforestation



Gumwood Trees in the forest ©Robin Richards

St. Helena. St. Helena is running a very successful reforestation project called the Millenium Forest. The native vegetation was almost entirely destroyed, mainly by feral goats introduced by the Portuguese to provide fresh meat for homeward bound sailors. The endemic St Helena Gumwood *Commidendrum robustum* which had dominated the mid-altitude flora was reduced to isolated trees on cliffs. In 2000 seed was collected from the largest population of trees and then planted by the community, bringing life back to a degraded wasteland that was formerly part of a huge gumwood forest and so creating the

Millennium Forest, a legacy of the Island's spirit of community and conservation in the new Millennium⁴.

British Virgin Islands: From the inception of the Trust in 1961, reforestation has been one of its goals. This has been achieved through direct replanting at Sage Mountain and Gorda Peak National Parks with Mahogany and Cedar through the celebration of Arbour Day. During Arbour Day, the Trust distributes hundreds of seedlings to schools and residents (BVI National Trust)

Research

- **Cayman Islands.** There has been recent research done on invasive vertebrates in the Cayman islands. (University of Exeter)
- **Anguilla.** There has been recent research into impacts of the invasive Giant African snail (GoA Department of Environment)

⁴ <http://www.nationaltrust.org.sh/millenniumsearch.php>

Planning



Pitcairn: An environment management plan has recently been created for Pitcairn, this sets out ten targets based on the commitments under the environment charter.

Many species were introduced to Pitcairn both for food, ornament and timber and some of these introductions have become invasive e.g. Lantana (*Lantana camara*) and Roseapple (*Syzygium jambos*). These

invasive species, coupled with the increase in the feral goat population, have seriously affected the local habitat⁵

⁵ Pitcairn Islands Environment Management Plan – 2nd Draft May 2007; Photograph source: <http://www.government.pn/PictureLibrary.html>

- **Falkland Islands:** The Islands are preparing a Conservation Strategy and Biodiversity Action Plan that will guide future conservation action. This will include invasive species.
- **Gibraltar:** The Gibraltar government is developing a green business programme which is an attempt by Government to tackle growing concerns over issues related to water consumption, energy efficiency, waste disposal and pollution of the living environment.

Ecological assessments



Feral pig control by Centre Hills Project staff in Montserrat © Geoff Hilton.

Montserrat: As part of the Darwin initiative funded Centre Hills project, Montserrat is carrying out an Ecological Assessment of the Centre Hills. The impacts of invasive species are of particular concern. Rats and pigs are perhaps the biggest threat to the health of the Centre Hills, though other non-native plants and animals have had negative impacts on the forest as well⁶.

⁶ <http://www.malhe.gov.ms/centrehills/default.htm>

Biosecurity

South Georgia and South Sandwich Islands. With increasing numbers of visitors to the Island, and climate change potentially making South Georgia more hospitable to a wider range of species, the risk of a new and serious species introduction is ever increasing. In order to prevent the accidental introduction or translocation of invasive species, the Government is currently reviewing and improving all of the existing biosecurity measures before the start of the next tourist season⁷



Incoming fresh produce is carefully checked for earwigs or other unwelcome visitors. Photo by Pat Lurcock.

⁷ <http://www.sgisland.org/pages/main/news.htm>

Legislation

- **Tristan da Cunha:** Last year Tristan enacted its Conservation ordinance, which includes clauses that legislate against the introduction of non-native species to the island. It also preserves, in a sustainable and responsible context, traditional hunting and gathering of the Tristan Islanders - perhaps the most endangered species in the South Atlantic. Tristanians have survived as a viable community against the odds, and may prove to be the most effective stewards of their unique environment.⁸



⁸ <http://www.tristandc.com/wildordinance.php>. Photo © <http://www.tristandc.com/settlement.php>

Training



Turks and Caicos Islands:: 2007 is the Year of the Environment on the Turks and Caicos Islands. The Turks and Caicos Department of Environmental and Coastal Resources will be running its 6th Annual Junior Park Warden Programme at the

National Environmental Centre in July for young people to learn what it takes to help preserve and maintain their natural resources.⁹

⁹ <http://environment.tc/about/environmentcentre.htm> ; Photo copyright <http://environment.tc/about/environmentcentre.htm>

The future

There is still a lot of work to be done. Some of the overseas territories have significant gaps in information making management and prioritisation difficult. Eradication and control programmes are often very expensive, and span time periods that are much longer than funding sources provide for.

It is important that these knowledge gaps are filled, that funding sources that cater for these specific needs are sought.

As part of its overseas territories programme JNCC is working on helping to find ways to minimize the impacts of invasive species in the UK Overseas Territories. A workshop will be held at JNCC in Peterborough on the 28th June 2007 to bring together individuals and organisations with expertise in this area to discuss what is being done, and how we can work together in the future.