



## Peatland Programme

### **Brief summary of the state of peatlands in British Overseas Territories and Crown Dependencies** June 2011

UK Overseas Territories and Crown Dependencies support some large areas of peatlands, with several areas proposed as Wetlands of International Importance under the Ramsar Convention.<sup>1</sup>

The greatest area of overseas peatland is found in the **Falkland Islands** (Scott & Carbonell 1986). Soils in the Falklands may represent some of the least disturbed soils on the planet. Some 45% of the 12,173km<sup>2</sup> Falkland land area is thought to be blanket peat (over 547,000 ha) (Wilson, 1993). This area is comparable to deep peat coverage in England. The remaining area of lowland Falklands are dominated by shallower peaty soils with ~38cm of surface organic matter, overlying silty or clay with iron pans (Cruickshank, 2001). The islands' peatlands are grazed and subject to burning to improve pasture quality. Observations suggest that poor burning management has led to loss of vegetation from the shallow peaty soils, leading to ongoing wind erosion which may bury adjacent peat with blown mineral deposits, and which is often exacerbated by sheep using the hollows for shelter. Agricultural improvement is also likely to affect these shallow peatlands, and Cruickshank (2001) suggests that deep ploughing to mix the peaty layer with the mineral soil beneath, and break the iron pan, would be the ideal management, although this would be only beneficial for agriculture, and certainly not for carbon storage.

Wilson *et al* (1993), studying erosion in 6 areas of the Falklands, suggested that peaty soils may have been formerly more extensive, but have been eroded or buried by windblown sand. Deeper peatlands in basins, or on flat hill tops or coastal plains seemed least susceptible to erosion, but other areas are subject to extensive wind erosion, especially where the peat is dry, which can take the form of pools with eroding downwind edges, or fluvial and wind erosion forming gullies, or peat hags, where the erosion has exposed the mineral layers beneath the peat. Peat erosion in the Falklands may have initiated in places before the island was settled, but is likely to have been exacerbated by poor burning practice, overgrazing and use of off-road vehicles. The overall extent of peatlands and

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<sup>1</sup> [www.ukotcf.org](http://www.ukotcf.org)

peatland erosion are not known, and the report recommends that a study is made of the extent and activity of peat erosion in the Falklands, and that improved peatland restoration grazing and burning management is developed and applied. One of the results of long term grazing on the Falkland Islands has been to restrict the distribution of tussock grass (*Poa flabellata*) to the ungrazed outlying islands.<sup>2</sup>

Work is now underway, coordinated by Falklands Conservation, to replant this grass in bare and eroding areas of peatland with the aim of stabilising the peat, protecting and storing carbon, and providing forage for sustainable grazing (see also Falklands Conservation, OTEP, UKFIT (2006); this work was underpinned by some earlier trials and research conducted by Queens University Belfast and the United Kingdom Falkland Islands Trust<sup>3</sup>).

**South Georgia** (3,755 km<sup>2</sup>) in the South Atlantic is a large island, over 100 miles long, with 70 small offshore islands, the largest of which is less than 5 miles across. South Georgia is dominated by mountains with permanent ice cover and recognised as a proposed Ramsar Site for its internationally important wetlands. These include narrow coastal strips of wet tussock grassland, likely to be over shallow peat, with occasional deeper peat associated with mire communities. A report commissioned by the UK Department of Environment Food and Rural Affairs in 2005 identified that these areas are threatened by overgrazing by introduced reindeer, which encourage non-native grass to become dominant (Pienkowski, 2005). The retreat of glaciers due to climate change is also having an impact on the natural landscape of South Georgia. In 2011, the South Georgia Government and the South Georgia Heritage Trust<sup>4</sup> began a habitat restoration programme to address some of these issues, including a major campaign to eradicate invasive rodents (Norway brown rats and other species) from South Georgia.<sup>5</sup>

**Bermuda** is a group of densely populated coral limestone islands which support a wide range of wetland habitats including some peatlands. Inland peat marsh savannas and wet “hammock” scrub/woodland formerly covered 117 ha of the island, but 58% of this has been drained. Concerted drainage of the Bermudian peatlands began in 1900, mainly for agricultural improvement and to control mosquitoes, resulting in the extensive loss of native Bermudian flora. Later in the 20<sup>th</sup> century, peatlands continued to be drained to provide space for disposal of landfill waste, which soon became the dominant reason for peat drainage. Since the 1960s conservation organisations including the Bermuda National Trust have sought to restore and manage some of these peatlands and other important wetlands to protect their biodiversity interest and prevent future threats, however, the high population means that Bermudian wetlands continue to be threatened by nutrient pollution from sewage and other human sources. Several sites are actual or proposed Wetlands of International Importance.<sup>6</sup>

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<sup>2</sup> <http://www.iwmi.cgiar.org/wetlands/pdf/Neotropics/South%20America/Falkland%20Islands.pdf>

<sup>3</sup> [http://www.ukfit.org/current\\_activities.html](http://www.ukfit.org/current_activities.html)

<sup>4</sup> [www.sght.org](http://www.sght.org)

<sup>5</sup> <http://www.ukotcf.org/pdf/Ramsar/55SGSSI.pdf>

<sup>6</sup> <http://www.iwmi.cgiar.org/wetlands/pdf/Neotropics/Caribbean/Bermuda.pdf>

The UK overseas territory of **Tristan da Cunha** in the mid South Atlantic includes the main volcanic land mass of Tristan da Cunha itself – the main mountain has crater lakes at the top and extensive peatlands in a wide zone below the summit – and Gough and Inaccessible Islands, rain-drenched islands of ~6500 ha. Gough and Inaccessible Islands are a biological World Heritage Site and a Ramsar site in recognition of their international importance site for birds and wetland communities, as does Nightingale Island, which is a proposed Wetland of International Importance. The islands support extensive *Sphagnum* bog communities on inland flat plateaux and wet heaths on steeper slopes. The islands also support an important dynamic community “fern bush” which relies on naturally-occurring peat slips to expose bare peat for colonisation. Although some disturbed ground is subject to invasion by non native species, the peatlands on this island are generally in good condition, and introduced sheep and goats have now been removed. However, the native bird life on Gough, Inaccessible Island and Tristan da Cunha itself are threatened by introduced mice, which attack albatross chicks.<sup>7</sup>

The mountain top humid cloud forests of **St Helena and Ascension Islands** in the mid Atlantic are likely to support some developing peaty soils, but these delicate ecosystems are threatened by invasion by introduced plant species on St Helena, some resulting from previous agricultural activity.<sup>8</sup>

Other UK overseas dependencies include the **Turks and Caicos Islands**, whose internationally important wetlands are more associated with coastal reefs, lagoons and salt pans, but which also supports mangrove swamp forest that may develop peaty deposits.<sup>9</sup>

The **Cayman Islands** support a wide range of wetland habitats including wet forest, freshwater swamps and mangrove swamps, which are likely to support areas of peat deposits, but these may be threatened, or already lost due to development of the islands for tourism.<sup>10</sup>

There are small areas of peatlands on: **Anguilla**<sup>11</sup>, the **British Virgin Islands**<sup>12</sup>, and **Montserrat**.<sup>13</sup>

There are thought to be few if any peatlands on the Cyprus Sovereign Base Areas, the British Indian Ocean Territory, the **South Sandwich Islands**,<sup>14</sup> or **Gibraltar**,<sup>15</sup> but the former are extremely difficult to visit, so information is limited.

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<sup>7</sup> <http://www.ukotcf.org/pdf/Ramsar/53TristanDaCunha.pdf>

<sup>8</sup> <http://www.ukotcf.org/pdf/Ramsar/51Ascension.pdf>,  
<http://www.ukotcf.org/pdf/Ramsar/52StHelena.pdf>

<sup>9</sup> <http://www.ukotcf.org/pdf/Ramsar/43TCI.pdf>

<sup>10</sup> <http://www.iwmi.cgiar.org/wetlands/pdf/Neotropics/Caribbean/Cayman%20Islands.pdf>

<sup>11</sup> <http://www.iwmi.cgiar.org/wetlands/pdf/Neotropics/Caribbean/Anguilla.pdf>

<sup>12</sup> <http://www.iwmi.cgiar.org/wetlands/pdf/Neotropics/Caribbean/British%20Virgin%20Islands.pdf>

<sup>13</sup> <http://www.iwmi.cgiar.org/wetlands/pdf/Neotropics/Caribbean/Montserrat.pdf>

<sup>14</sup> <http://www.ukotcf.org/pdf/Ramsar/55SGSSI.pdf>

<sup>15</sup> <http://www.gonhs.org/Habitats.htm>

The **Isle of Man** is situated in the northern part of the Irish Sea, nearly equidistant from England, Wales, Scotland and Ireland. It is 53 km long with an area of 572 km<sup>2</sup>. The Ballaugh Curragh was the first Ramsar wetland of international importance designated on the Isle of Man. The site consists of a complex mosaic of interrelated peatland. Associated wetland habitats include bog pools, wet woodland, man-made ditch systems and fen grassland. The peat deposits are important for the historical pollen record that they provide. Of particular significance in the regional context is the presence of habitats on Annex 1 of the EU Habitats Directive (wetbog woodland, natural dystrophic ponds, *Molinia* meadows on peaty soils), and UK Biodiversity Action Plan Priority Habitats (wet woodland, purple moor-grass and rush pastures, fens, species-rich hedges, eutrophic standing waters). Farming has continued to the present day, although the central core of the Ballaugh Curragh is no longer open, consisting mostly of dense willow scrub. Rising land costs on the Island have created a recent interest in curragh as “lifestyle land”, with consequent pressure to clear and/or drain the semi-natural areas.

There may be small areas of peatland in the Crown Dependencies of the **Channel Islands**.

The extensive peatlands in the UK overseas territories seem to be threatened by many of the same factors that have affected peatlands in the UK home territories: burning, overgrazing, drainage, agricultural improvement and afforestation, leading to erosion and potential loss of the peat carbon. In addition to these, the delicate and unique ecosystems of many of these small island territories have been threatened by the introduction, accidental or deliberate, of alien species, which can overrun native vegetation or directly predate wildlife.

These peatlands may also suffer due to their lack of wider recognition within UK policy initiatives that seek to address peatland issues. There seems to be little overall recognition of the importance of UK overseas peatlands for their roles in carbon storage, despite the huge areas of peatland represented, especially in the Falkland Islands, although many areas are recognised at an international level for their importance to biodiversity. Any UK strategy which seeks to address peatland management would be likely to benefit from consideration of these global peatlands which fall under the influence of the UK government.

## **Acknowledgements**

We are grateful to Matthew Shepherd, Natural England, for his expertise and considerable help in compiling this summary. We thank Jim McAdam, United Kingdom Falkland Islands Trust, Mike Pienkowski and Catherine Wensink, UK Overseas Territories Conservation Forum, as well as Derek Scott for helpful comments. Opinions expressed in the summary are those of IUCN UK Peatland Programme. This summary was prepared as contribution to the IUCN UK Commission of Inquiry on Peatlands [www.iucn-uk-peatlandprogramme.org](http://www.iucn-uk-peatlandprogramme.org).

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