

# Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

Note for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

## 1. Name and address of the compiler of this form:

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DD MM YY		
Designation date		

Site Reference Number							

## 2. Date this sheet was completed/updated:

11 November 2004

## 3. Country:

**UK (Ascension)**

## 4. Name of the Ramsar site:

**Ascension Island**

## 5. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps.

a) **hard copy** (required for inclusion of site in the Ramsar List): yes  -or- no

b) **digital (electronic) format** (optional): Yes

## 6. Geographical coordinates (latitude/longitude):

07°57'S 14°22'W

## 7. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Ascension is an isolated and relatively young oceanic island, lying some 100 km west of the mid-Atlantic Ridge, 1,504 km south-southwest of Liberia (Cape Palmas), and 2,232 km from Brazil (Recife). The nearest land is St Helena, 1,296 km to the southeast.

The site includes the Marine National Park, Pillar Bay to Boatswain Bird Island Nature Reserve and the Sanctuaries within these, Letterbox National Park, Green Mountain National Park, Wideawake NR, Long Beach NR, North East Bay NR and Pan-Am and Turtle Shell Beaches.

**Administrative region:** Ascension Island

<p><b>8. Elevation</b> (average and/or max. &amp; min.) (metres):</p> <p>Min. 0</p> <p>Max. 859</p> <p>Mean No information available</p>	<p><b>9. Area</b> (hectares): [island itself is 9700]</p>
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## 10. Overview:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Ascension Island provides the only breeding station for several species of seabirds using a huge area of the tropical Atlantic Ocean, and one of the world's most important nesting areas for green turtles. It is a geologically young mid-ocean volcanic island with primarily a desertic climate. In addition to the desertic areas on the coasts and mountains filling a wetland role by providing nesting areas for marine animals, there are also important wetland ecosystems in the coastal waters, the shores and the mountain top. The last is often in cloud and has some characteristics of cloud forest, although the endemic and indigenous plants have suffered the introduction of many other species. Despite a generally limited range of plant and animal species (resulting from its young age and remoteness), a high proportion of species are endemic. Particularly important are endemic inshore marine fishes, crusteans, pseudoscorpions and plants. Also notable are several more widespread species which behave in different and characteristic ecological roles in Ascension compared with elsewhere.

Ascension has suffered severe exploitation of some wildlife resources from the early 19<sup>th</sup> century and, even more damaging, a string of profoundly impacting introductions of animals and plants. The last years of the 20<sup>th</sup> century and first ones of the 21<sup>st</sup> have seen the very successful first programme of removal of one of these inxvasives with an immediate response by some breeding seabirds, previously reduced to the safe haven of an offshore islet.

## 11. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

**1, 2, 3, 4, 5, 6, 7**

## 12. Justification for the application of each Criterion listed in 11. above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

- 1 Ascension Island provides the only location in the southern Atlantic for several important wetlands. These include:

The humid zone, above 600 m, which has a luxuriant plant cover that, in places, amounts to a cloud-forest. Although this is now dominated by introduced vegetation (including *Acacia*, *Alpinia*, *Araucaria*, *Bambusa*, *Buddleia*, *Erythrina*, *Eucalyptus*, *Ficus*, *Grevillia*, *Juniperus*, *Mangifera*, *Musa*, *Olea*, *Pinus*, *Podocarpus* and *Psidium*), endemic and indigenous species remain, as does the wetland system.

Sandy beaches, in several bays around the coast.

Anchialine pools (ie without surface connection with the sea but salt or brackish and influenced by the tide) at Shelly Beach, with two endemic shrimp and other endemic species. Their water content is probably filtered through the bank of shell sand on the storm beach separating them from the sea.

An islet and stacks, as well as steep cliffs on the island itself.

Inshore waters sloping rapidly into deeps and, unlike most tropical systems, lacking reef-forming corals, but holding a range of endemic and other fish, crustacean and other species. This system is important also as a rare example of early colonization and speciation on a remote, young volcanic island.

Shoreline rock surfaces dominated by encrusting calcareous algae and sponges.

- 2 The world population of Critically Endangered Ascension frigate-bird *Fregata aquila* breeds at this site.

The beaches are one of the world's most important breeding grounds for Endangered green turtles *Chelonia midas*, and their second most important Atlantic nesting area. Critically Endangered Hawksbill turtles *Eretmochelys imbricate* also occur commonly, but nesting has not been demonstrated.

The Endangered tiny tussock grass *Sporobolus caespitosus* survives in a few places on the Northern and Eastern slopes of coastal hills, and Green Mountain where bare rocks or cinders are exposed to strong winds or mists.

Apart from one (or perhaps two) grass species, the only surviving flowering endemic plant on Ascension is the Ascension Spurge *Euphorbia origanoides*, some of its population occurring within the site.

The Critically Endangered endemic fern *Pteris adscensionis* is now known only from within the site.

- 3 The large number of invertebrates (at least 20 species of which are endemic) includes five endemic pseudoscorpions: *Apocheiridium cavicola*, *Allowithius ascensionis*, *Garypus titanius*, *Neocheiridium* sp. and *Stenowithius duffeyi*.

Two endemic shrimps *Typhlaty rogersii* and *Procaris ascensionis*, are found in coastal rock pools at Shelly Beach.

Although only 71 fish species have been recorded from around the shore of this young, remote island, 11 species are endemic and a further 12 are known only from Ascension and St Helena.

Offshore, the porpoises *Steno bredanensis* (DD) and *Tursiops truncatus* (DD) occur, the former common around the island.

In addition to the endemic plants mentioned in 2, three other endemic ferns are restricted to this site *Xiphopteris ascensionense* and *Marattia purpurascens* are found in the wet summit area of Green Mountain, and *Asplenium ascensionis* occurs on damp stones in the middle slopes of Green Mountain.

- 4 Yellow and purple land crabs *Gecarcinus lagostoma* occur throughout the main island, returning to the sea to breed, laying in shell sand or soft ash.

Five species of cetacean are known to occur in the waters around Ascension Island: bottlenose dolphins, pan-tropical spotted dolphins, humpback whales, sperm whales and Gervais' beaked whales.

- 5 More than 20,000 waterbirds (over 400,000 of 11 species) occur regularly at this site

## 6 Breeding populations

Common name	Species	Numbers	% of Atlantic population
Sooty Tern/ Wideawake	<i>Sterna fuscata</i>	194,000 pairs	?
Black Noddy	<i>Anous minutus</i>	10,000	4
Brown Noddy	<i>Anous stolidus</i>	c. 500 pairs	2 (of world pop)
White Tern/ Fairy Tern	<i>Gygis alba</i>	c. 2700 pairs	1 (of world pop)
Madeiran Storm Petrel	<i>Oceanodroma castro</i>	c.1,500 pairs	?

Red-billed Tropic-bird	<i>Phaethon aethereus</i>	c.500 pairs	17
Yellow-billed Tropic-bird	<i>Phaethon lepturus</i>	c.1,100 pairs	33
Masked Booby	<i>Sula dactylatra</i>	c.1,200 pairs	10
Red-footed Booby	<i>Sula sula</i>	c. 15 pairs	10
Ascension Island Frigate-bird	<i>Fregata aquila</i>	c.6,000 pairs	100

- 7 In addition to the high proportion and numbers of inshore endemic fish noted in 3, the blackfish *Melichthys niger* is extraordinarily abundant. Although a widespread tropical species, elsewhere it is not recorded as playing such a dominant role. It is an omnivore, grazing algae off rocks and rapidly cleaning the hulls of anchored boats.

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**13. Biogeography** (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

**a) biogeographic region:**

South Atlantic Islands

**b) biogeographic regionalisation scheme** (include reference citation):

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**14. Physical features of the site:**

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	Apart from a few beach deposits (shell-sand), the island is entirely volcanic in origin and has a rugged terrain. The relatively low and dry western part is dominated by scoria cones and basaltic lava flows, mantled in many places with fine pyroclastic deposits.
Geomorphology and landscape	The relatively low and dry western part is dominated by scoria cones and basaltic lava flows, mantled in many places with fine pyroclastic deposits. A broad mass of higher ground in the east, with many trachytic domes and flows, culminates in the narrow ridge of Green Mountain, the highest point at 859 m. To the north and west of Green Mountain the land forms a gently sloping plain. Altogether, there are 44 volcanic vents. Ascension is geologically active, and the last onshore eruption may have occurred within the last millennium. The island is roughly triangular in plan, about 13 km across, with an area of 97 km <sup>2</sup> , and has about 100 km of coastline. Whilst the west and northwest coasts have sandy beaches, the south and southeast coasts form steep cliffs, with fewer beaches. Inshore waters are deep and there are no reef-forming corals, but many shoreline rock surfaces are dominated by encrusting calcareous algae and sponges.
Nutrient status	

pH	
Salinity	Oceanic
Soil	Largely absent, except on Green Mountain
Water permanence	Permanent for marine inshore waters, and for small areas near the summit of Green Mountain. Otherwise, temporary rains and mists.
Summary of main climatic features	Ascension has a tropical but oceanic climate, with little seasonal change. It lies in the path of the South-East Trade Winds, and southeast and easterly winds blow for more than half of every month. The trade wind inversion at a height of about 1,000 – 1,500 m acts as a strong cap inhibiting vertical cloud development and thus ensures generally low rainfall. Nevertheless, as the winds rise over the eastern end of the island they bring cool and misty conditions to the ridge of Green Mountain where, at an altitude of 660 m, there is a mean annual rainfall of about 680 mm. At Two Boats, northwest of Green Mountain at an altitude of 290 m, rainfall is approximately half as much, and on the western coast it averages only some 100 – 200 mm annually. There is, however, much variation between years. Very heavy and destructive rains occur occasionally, mainly from March to May, leading to temporary changes in the vegetation. Such events affect the insect populations and doubtless also those of the introduced rodents. The temperature is strikingly constant throughout the year. Monthly average maximum temperatures at sea level vary only between about 27°C and 31°C. At 660 m on Green Mountain maximum temperatures are typically about 13°C lower and minimum temperatures about 7°C lower than at sea-level. The relative humidity at sea-level is around 70%.

## 15. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Ascension is an isolated and relatively young oceanic island, lying some 100 km west of the mid-Atlantic Ridge, 1,504 km south-southwest of Liberia (Cape Palmas), and 2,232 km from Brazil (Recife). The nearest land is St Helena, 1,296 km to the southeast. Apart from a few beach deposits (shell-sand), the island is entirely volcanic in origin and has a rugged terrain. The relatively low and dry western part is dominated by scoria cones and basaltic lava flows, mantled in many places with fine pyroclastic deposits. A broad mass of higher ground in the east, with many trachytic domes and flows, culminates in the narrow ridge of Green Mountain, the highest point at 859 m. To the north and west of Green Mountain the land forms a gently sloping plain. Altogether, there are 44 volcanic vents. Ascension is geologically active, and the last onshore eruption may have occurred within the last millennium.

The tidal range is less than one metre. The northeast and, especially, the south coasts of the island are exposed to fairly heavy wave action under the influence of the southeast trade winds. The west coast is sheltered but is subject to the effects of long-distance oceanic swell waves or 'rollers', from the southwest or northwest, that occur without warning at any time of the year. Generated by distant storms, they persist for a few days, often causing breeding failures of seabirds on the stacks, especially in the north and north-west.

The surrounding seas are tropical or equatorial, with a permanent thermocline preventing vertical enrichment of the euphotic zone. Surface temperatures are always in excess of 23°C. The island lies in

the path of generally westward surface currents throughout the year. As the cold Benguela Current from the west coast of southern Africa flows northwestward, it generally warms up and loses its nutrients, before turning westwards. Around Ascension Island this becomes the South Subtropical Current, which has a general westward flow of 0.1 to 2 knots. The submerged slopes of the submarine pedestal of Ascension are steep, with deep water close inshore. The 200 m depth contour lies between 0.5 km and 5 km off the coast and the shelf area, at about 108 km<sup>2</sup>, is a little larger than the land surface. The submerged slope area is strikingly barren, with low habitat diversity and a complete lack of reef-building corals, as reflected in extremely low fish species diversity. As pelagic foragers, many of the seabirds depend mainly on fish and squid forced to the surface by schools of predators such as tuna or cetaceans, and often forage in mixed species flocks.

Boatswainbird Island site is a barren, steep-sided trachytic rock, about 340 m by 220 m in size, rising to 104 m, with a relatively flat basaltic top nearly 3 ha in extent, located 305 m north of the eastern part of Ascension Island. Included also is a small, isolated rock 670 m east of the southern end. The site is heavily overlaid with guano, and there are traces of a guano industry that operated in the 1920s.

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## 16. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

The mountain structure is fundamental to generating rainfall. Before the introduction of desalination, the Island's water supply depended on this feature.

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## 17. Wetland types

Code	Name	% Area
A	Permanent shallow marine waters	60
D	Rocky marine shores; includes rocky offshore islands, sea cliffs	36
E	Sand, shingle or pebble shores	2
J	Coast brackish/saline lagoons	<1
W	Shrub-dominated wetlands	2
2	Ponds	<1

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## 18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

At the time of its discovery in 1501 Ascension island was almost entirely barren, with vegetation essentially restricted to Green Mountain. The indigenous flora was minimal, with only about 25 vascular plants (12 of them ferns), together with mosses, liverworts and lichens. Nowadays, the lowland zone, about 67% of the surface, which in the past formed a desert, is being extensively colonized by a variety of introduced plants, which in the settlements include *Bougainvillea*, *Casuarina*, *Hibiscus*, *Opuntia* and *Tecoma*. The middle zone, 330 m to 600 m, has extensive vegetation cover of shrubs and grasses, but also some open ground. The humid zone, above 600 m, has a luxuriant plant cover that, in places, amounts to a cloud-forest, where introduced vegetation flourishes. This includes *Acacia*, *Alpinia*, *Araucaria*, *Bambusa*, *Buddleia*, *Erythrina*, *Eucalyptus*, *Ficus*, *Grevillia*, *Juniperus*, *Mangifera*, *Musa*, *Olea*, *Pinus*, *Podocarpus* and *Psidium*.

The island is roughly triangular in plan, about 13 km across, with an area of 97 km<sup>2</sup>, and has about 100 km of coastline. While the west and northwest coasts have sandy beaches, the south and southeast coasts form steep cliffs. Inshore waters are deep and there are no reef-forming corals, but many shoreline rock surfaces are dominated by encrusting calcareous algae and sponges; the fish fauna here is diverse.



Boatswainbird Island, the principal seabird breeding site, lies 305 m north of the eastern part of the island. Inshore, in addition, are 14 stacks (identified by number), inhabited by breeding seabirds, plus a number of smaller rocks on which birds can rest. Stacks 1 to 8 lie off the northwest and northern parts of the island, the other six between the eastern and central part of the south coast. Stacks 13 (43 m) and 14 (33 m), the Pillar Rocks in Pillar Bay in the south, are the highest.

The beaches are important breeding grounds for marine turtles, largely *Chelonia midas* and, to a certain extent, *Eretmochelys imbricata*. Land crabs *Gecarcinus lagostoma* occur throughout the main island. Other than some invertebrates all land animals are introduced – donkeys *Equus asinus*, rabbits *Oryctolagus cuniculus*, rats *Rattus rattus*, mice *Mus musculus*, cats *Felis catus*, lizards *Liolaemus wiegmanni*, geckos *Hemidactylus mercatorius* and clawed toads *Xenopus laevis*. The large number of invertebrates includes five endemic pseudoscorpions. Porpoises *Steno bredanensis* and *Tursiops truncatus* occur offshore. It is thought that feral cats were eliminated in 2004 but monitoring to confirm this will continue for two years; all domestic cats are neutered and marked with collars and implanted microchips.

### 19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Ashmole & Ashmole (2000) provided a list (copied below) of flowering plants and ferns that are endemic or apparently indigenous to Ascension Island. Among the flowering plants there are four endemic species plus some 3-10 species that may be indigenous.

FAMILY And scientific and English name	Status	Comments
<b>FLOWERING PLANTS</b>		
AIZOACEAE <i>Tetragonia tetragoinioides</i> New Zealand Spinach	Probably indigenous	
CONVULVULACEAE <i>Ipomoea pes-caprae</i> Camel's- foot Creeper	Indigenous	
CYPERACEAE <i>Cyperus appendiculatus</i>	Indigenous	
EUPHORBIACEAE * <i>Euphorbia organoides</i>	Endemic species	
GRAMINEAE <i>Aristida ascensionis</i> <i>Digitaria ciliaris</i> <i>Enneapogon cenchroides</i> <i>Polypogon monspeliensis</i> * <i>Sporobolus caespitosus</i> * <i>Sporobolus durus</i>	Indigenous Possibly indigenous Possibly indigenous Possibly indigenous Endemic species Endemic Species	Identity needs confirmation Identity needs confirmation Perhaps extinct
MALVACEAE ? <i>Hisbiscus trionum</i> Bladder Ketmia	Conceivably indigenous	Identity doubtful; now absent
NYCTAGINACEAE <i>Commicarpus helenae</i> Hogweed	Probably indigenous	
PORTULACACEAE <i>Portulaca oleracea</i> Purslane	Probably indigenous	

RUBIACEAE * <i>Oldenlandia</i> (ex <i>Hedyotis</i> ) <i>adsencionis</i>	Distinctive endemic species	Extinct
<b>FERNS</b>		
ASPLENIACEAE <i>Asplenium erectum</i>	Indigenous	Endemic variety <i>A. erectum</i> var. <i>ascensionis</i>
DENNSTAEDTIACEAE <i>Histiopteris incisae</i> <i>Hypolepsis ruosula</i>	Indigenous Possibly indigenous	Perhaps introduced from St Helena
DRYOPTERIDACEAE * <i>Dryopteris ascensionis</i>	Endemic species	Perhaps extinct
GRAMMITIDACEAE * <i>Xiphopteris ascensionense</i>	Endemic species	Sometimes treated as a form of <i>X. trichomanoides</i>
LYCOPODIACEAE <i>Lycopodium axillare</i>  <i>Lycopodium cernuum</i> Buckshorn	Probably indigenous	Recorded only once, long ago; present on St Helena Also on St Helena
MARATTIACEAE * <i>Marrattia purpurascens</i>	Endemic species	
NEPHROLEPIDACEAE <i>Nephrolepsis hirsutula</i>	Indigenous	Possibly endemic form
OPHIOGLOSSACEAE <i>Ophioglossum</i> species	Possibly indigenous	Identity not clear
PSILOTACEAE <i>Ipsilotum nudum</i>	Indigenous	
PTERIDACEAE * <i>Anogramma ascensionis</i> * <i>Pteris adscensionis</i>	Endemic species Endemic species	

Apart from the ferns and many species of moss, discoveries on the mountain included two endemic grasses: *Sporobolus durus*, which used to occur on Green Mountain, but may now be extinct, and the tiny *Sporobolus caespitosus*, which is adapted to the cool misty conditions on the east side of the mountain and survives in very low numbers.

The native vegetation of Ascension Island suffered its first human-induced disruption as a result of the introduction of goats. The second major influence was the massive introduction of alien plants, which took place mainly after settlement of the island in 1815.

These first systematic introductions had fundamental effects: a species of bamboo became dominant on the peak of Green Mountain around the end of the nineteenth century. *Eucalyptus camaldulensis* is common at intermediate levels. Species of *Acacia* and of *Opuntia* (prickly pear) cover large areas, while agaves are widespread on the lower mountain slopes. Furze (Gorse) *Ulex europaeus* was introduced in 1850 as browse for cattle and horses, and is still present in the lee of the mountain.



An even more recent and much more troublesome introduction is that of the Mexican Thorn or Mesquite *Prosopis juliflora* (it is possible that two closely related species or hybrid forms are involved). This thorny leguminous tree was apparently brought to the island in the 1970s and is now probably the most actively spreading plant on Ascension: in January 1996 it was already present in 56 of the 97 one km map squares covering Ascension (R. Prytherch, 1996; S.V. Fowler, 1998; A.R. Pickup, 1999). It spreads rapidly because the seed pods are eaten by donkeys and the seeds are then distributed in their dung. Up to 60 seeds can be excreted in each dropping and rows of seedling trees can be seen lining donkey paths in otherwise barren cindery areas in the western lowlands. This invasive shrub poses major threats to the environment of Ascension.

## 20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.

### Birds

At least 30 bird taxa are known. The main island of Ascension, together with Boatswainbird Island and the stacks, currently support 11 species of seabird, *Oceanodroma castro*, *Phaethon aethereus*, *P. lepturus*, *Sula dactylatra*, *S. sula*, *S. leucogaster*, *Fregata aquila*, *Sterna fuscata*, *Anous stolidus*, *A. minutus* and *Gygis alba*. of which *Fregata aquila* (Cr) is endemic to the island and has a world population of fewer than 10,000 individuals. Ascension is the type locality for three other species of seabirds – *Phaethon aethereus*, *Sula dactylatra* and *Gygis alba*. *O. castro* and *F. aquila* now breed only on Boatswainbird Island.

In addition to the species listed in Section 12 as achieving international importance individually, approximately 1000 pairs of Brown Booby *Sula leucogaster* nest.

Boatswainbird Island is particularly important. The world population of *F. aquila* breeds at this site. *Puffinus lherminieri* is thought to have once bred. Of the 11 resident species, all seabirds but one, *Anous stolidus*, breed there; the latter breed instead on the main island and stacks.

#### Breeding populations on Boatswainbird Island

Species	Pairs	Year
<i>Oceanodroma castro</i>	c.1,500	1959
<i>Phaethon aethereus</i>	c.5,00	1959
<i>Phaethon lepturus</i>	c.1,000	1959
<i>Sula dactylatra</i>	c.1,300	1990
<i>Fregata aquila</i>	c.6,000	1997

#### Breeding populations on areas outside Boatswainbird Island

Species	Pairs	Year
<i>Sterna fuscata</i>	194,000	1997
<i>Anous minutus</i>	10,000	1990
<i>Phaethon aethereus</i>	55 pairs	1959

The main colonies of *S. fuscata*, by far the most numerous breeding species, are in the southwest of the island and occupied 9.14 ha in 1997.

The numbers of breeding seabirds and the proportions of the various species have changed drastically since the arrival of man and his commensal mammals. Most species now breed only on Boatswainbird Island or on the stacks, and numbers of many of them are now probably only a small fraction of those originally present. Except perhaps for one shearwater, *Puffinus lherminieri*, there is no indication that

additional species bred in the past. Populations may now be fairly stable, but *Sula sula* barely survives as a breeding species and *Sterna fuscata*, though remaining numerous has, for nearly two centuries, suffered heavy predation by feral cats and may still have been decreasing until recently. *Fregata aquila*, which was once abundant in many parts of the main island, breeds only on Boatswainbird Island, where its numbers may be lower than they were in the 1950s. Cats, introduced in 1815, and now feral, are the principal cause of the elimination of most of the birds from the main island. Their eradication (achieved in 2004) should lead to a substantial restoration of the original seabird community. Restored successful breeding on the mainland for species other than Sooty Tern occurred in 2003, with increasing numbers in 2004, when mortality of nesting Sooty Terns was also hugely decreased.

Although now deserted, many former seabird breeding sites are likely to be reoccupied following the removal of the cats. Earlier, occasional, temporary successful nesting attempts by *Sula dactylatra* have been noted, e.g. 20 pairs with eggs and chicks at Letterbox in October 1996, and a single pair on a hill at Georgetown from 1993. Both *Phaethon aethereus* and *P. lepturus* nest on cliffs opposite Boatswainbird Island and along the southeast coast. *Anous minutus* breeds at Spire Beach, Letterbox, South East Bay and Cocoonut Bay, while *Gygis alba* breeds on cliffs inland at Green Mountain and Weatherpost as well as at South East Head and opposite Boatswainbird Island.

There are five resident landbirds, all introduced; *Francolinus afer* (introduced 1851), *Acridotheres tristis* (introduced 1879 and 1880), *Passer domesticus* (introduced 1985 onwards, Georgetown only), *Estrilda astrild* (introduced 1860) and *Serinus flaviventris* (introduced 1890). There are also records of non-breeding visitors and vagrants with fewer than five records. The former include *Bubulcus ibis*, *Gallinula chloropus*, *Arenaria interpres*, *Apus apus*, *Hirundo rustica*, and *Delichon urbica*. In the fossil record two species are known, an extinct night heron *Nycticorax* sp. and the extinct flightless rail *Atlantisia elpenor*.

#### Other threatened / endemic wildlife

See Section 12.

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### 21. Social and cultural values:

e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

The human population is in a state of transition to a more conventional UK Overseas Territory, with a population with voting and ownership rights, and a Council first elected in 2002. In the previous arrangement (the latest of several very strange ones over nearly 200 years), the population of about 1,000 was made up of military personnel and civilian workers on contract (with some families), mainly from the UK, USA and St Helena, none of whom were permanent residents. User organizations included the BBC, Cable & Wireless Communications plc, the RAF and the USAF, with their support staff. Georgetown is the capital and largest settlement. There was no tourism, except for shore excursions for transit passengers off the RMS *St Helena*, sailing regularly between Cardiff and Cape Town, but this is changing. The island is also served by cargo ships. There is a military airport, Wideawake Airfield, in the southwest. Other principal uses relate mainly to a variety of aerial-based systems, for which the location is important. Linked to the UK by regular flights, the island serves as a staging post for the Falkland Islands, and as a US base.

Further opening of the airport to commercial flights, and the development of tourism (with a strong emphasis on nature-based activity) is anticipated.

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### 22. Land tenure/ownership:

Ownership category	On-site	Off-site
Crown	+	+

Pan-Am Beach area is within land leased under treaty to the US Government	+	+

### 23. Current land (including water) use:

Activity	On-site	Off-site	Scale
Military base	+	+	Pan-Am beach area, and adjacent to Wideawake pNR
Tourism	+	+	
Fishing	+	+	Marine areas and shore
Walking, swimming, bird-watching, etc	+	+	
Grazing by feral animals	+	+	

### 24. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Activity	On-site	Off-site	Scale
Introduced aliens, particularly Mexican thorn	+	+	large
Unlicensed, illegal marine fishing by foreign vessels	+	+	large

### 25. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Conservation legislation is provided for under the Wildlife (Protection) (Ascension) Ordinance of 1944, Wildlife (Protection) (Ascension) Regulation of 1948, and Endangered Species Control Ordinance of 1976. Other legislation is provided by the Fish and Fish Products (Export) Ordinance of 1928, Crayfish Export Ordinance of 1933, the Green Mountain (Natural Resources) Protection Ordinance of 1955 and the Ascension Land Ordinance		
The St Helena Government has declared an Ascension Island Exclusive Fishing Zone (EFZ), extending 200 nautical miles (370 km) around the island – but this is ineffective without enforcement.		

In 1989 Boatswainbird Island was declared a Site of Special Scientific Interest and Bird Sanctuary. Initial restrictions on access to the islet were instituted in 1977. The 1989 designation was extended the following year to the stacks and offshore rocks. The offshore stacks and rocks were declared a Site of Special Scientific Interest and Bird Sanctuary in 1990.		
1967 Vehicular access to the <i>Sterna fuscata</i> breeding sites in the southwest is strictly controlled.		
2002? New Protected Area legislation passed		
2004 Suite of Protected Areas identified and public consultation undertaken prior to designation		
Trials to attempt to propagate endemic plants underway.		
Seeds collected for international seed-bank, Royal Botanic Gardens Kew		
Invasive vegetation cleared where immediate threat to endemic plants.		
Nursery for the propagation of endemic plants being constructed		
Feral cat eradication programme undertaken and monitoring being continued intensively for two years to ensure eradication		
Introduced rat population being controlled		
Management Plan for Island in place		
Access to turtle nesting beaches guided		

## 26. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

The management plan for the island includes the recommendation that the UK Government designate the whole island a 'Protected Natural Area.' Apart from the proposed eradication of cats and rats, the plan provides for a substantial programme of conservation education, maintenance of strict and consistent control of access to seabird and turtle breeding sites, a strict control of refuse disposal, and vigilance regarding further alien introductions. Threats include disturbance to *Sterna fuscata* breeding colonies and accidental hooking of seabirds by sports fishermen. Significant quantities of polychlorinated biphenyls (PCBs) in *Sterna fuscata*, are indicated to have come from squid or fish caught within the foraging range of the breeding birds.. By the 1960s, Japanese long-line fishing had spread throughout the Atlantic, with a fleet of up to 50 boats operating under licence in the EFZ from 1988. However, with the lack of enforcement measures, most fishing is now illegal, unlicensed and un-monitored. The threat of over-exploitation of fish stocks, as a result of long-line, purse-seine and other forms of fishing in the area, has important implications for seabirds and other wildlife (as well as the economy). The airport in the

southwest is near the principal breeding sites of *Sterna fuscata*, but air-strikes are considered unlikely as disturbed birds fly low as they move out to sea.

In 1989 the Boatswainbird Island was declared a Site of Special Scientific Interest and Bird Sanctuary. Initial restrictions on access were instituted in 1977, and permits to visit can only be granted by the Administrator, now only seldom given. Besides the accidental introduction of mammalian predators such as cats and rats, the main threat is disturbance. Supervision is poor due to the location of the site at the opposite end of Ascension, away from the authorities at Georgetown. The adjacent mainland, from where the site can be monitored, is seldom visited due to a lack of vehicular access – tracks are poor. Boatloads of visitors have landed illegally, and captains of passing vessels have been known to blow the ship's whistle to put up the birds as a 'spectacle' for passengers and crew. This displaces eggs and chicks, which are lost due to exposure to the sun, and predation. A further threat is commercial fishing; there is potential for over-exploitation of fish stocks.

### 27. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Annual plant population census monitors wild endemic plant populations.

Bird populations monitored.

Bird populations establishing on mainland monitored and birds ringed.

Fencing of trial sites to ascertain whether grazing is a direct threat to the survival of endemics.

Turtle monitoring in place.

### 28. Current conservation education:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Booklets, videos etc prepared and widely available

School parties organised

Facilities provided for visitors to the Island

### 29. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Boat-trips and walks organised

Several-day tourism packages being developed

### 30. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Government of Ascension Island

(with special arrangements for the areas within the US base)

### 31. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Government of Ascension Island, and particularly the Conservation Centre

### 32. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

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