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## RAMSAR INFORMATION SHEET

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### FOR WETLANDS OF INTERNATIONAL IMPORTANCE

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**Site reference number** 6UK012  
**1 Compilation date** August 2001  
**2 Country** Falkland Islands  
**3 Name of wetland** Seal Lion Island  
**4 Site centre location:** Latitude: 52 25 00 S Longitude: 59 05 00 W  
**5 Altitude (m)** **Min: 0 Max: 30 Mean**  
**6 Area (ha)** 1000

#### 7 Overview

Sea Lion Island is an isolated island, 17kms off the southern tip of East Falkland, noted as an important Falkland breeding site for Southern Sea Lion (Thompson et al, 1995) and Elephant Seal. It is made up of two rocky plateaux, well vegetated with oceanic heath and mixed grassland on their higher points, joined by a broad sandy beach, and retains, for an inhabited and farmed island, unusually large stand of Tussac Grass round the coastline. The former sheep farming operations have now ceased. The main economic activity is wildlife tourism with a small number of sheep to provide meat for the lodge.

**8 Wetland type** Inland wetland, Marine/coastal wetland

Code	Name	% Area
A	Shallow marine waters	10
B	Marine beds (eg. sea grass beds)	10
D	Rocky shores	7.5
E	Sand / shingle shores (including dune systems)	7.5
J	Coastal brackish / saline lagoons	3
Tp	Freshwater marshes / pools: permanent	2
U	Peatlands (including peat bogs swamps, fens)	60

**9 Ramsar Criteria** 1, 2, 3, 4  
**10 Map of the site** √  
**11 Compiler** **Joint Nature Conservation Committee**  
Monkstone House  
City Road  
Peterborough  
Cambridgeshire PE1 1JY  
UK  
Telephone/Fax : +44(0) 1733 562626 / +44(0) 1733 555948

#### 12 Justification of criteria

Sea Lion Island qualifies under Criterion 1 because it includes good representative examples of most of the natural wetland types characteristic of the Falklands, both marine/coastal and inland. Among coastal/marine types, it is a rocky offshore island (type D), set in shallow marine waters (type A) with kelp beds (type B), and has extensive sand and pebble beaches (type E) and a sizeable coastal brackish saline lagoon, Beaver Pond, (type J); for an island with a history of sheep ranching, the extent and condition of the stands of Tussac Grass *Paradiachloa flabellata* are particularly good. Among inland wetland types, the higher parts of the island are made up of peatlands on oceanic heath (type U), with a few permanent freshwater pools (type Tp).

Sea Lion Island qualifies under Criterion 2 because it supports vulnerable, endangered or critically endangered assemblages of: Cobb's Wren *Troglodytes cobbi*, a species which favours Tussac Grass as a nesting habitat and listed as vulnerable by IUCN (1996); and of Ruddy-headed Goose *Chloephaga*

*rubidiceps* and Striated Caracara *Phalacrocorax australis*, both listed as “Lower Risk: near threatened” by IUCN (1996).

The site qualifies under Criterion 3 because the island is of special value for maintaining the genetic and ecological diversity of the region. The site has extensive stands of Tussac Grass, provides an important Falkland breeding site for Southern Sea Lion *Otaria byronia*, holds much the largest numbers of Southern Elephant Seal *Mirounga leonina* breeding in the Falklands, and supports a wide variety of Falkland breeding birds, especially on the beaches, rocky shores and in the Tussac Grass.

Sea Lion Island also qualifies under Criterion 3, since it supports breeding populations of one endemic species Falkland Steamer Duck *Tachyeres brachydactyla*, and two endemic sub-species of waterfowl Upland Goose *Chloephaga picta leucoptera*, Kelp Goose *Chloephaga hybrida malvinarum*, Imperial Shag *Phalacrocorax atriceps albiventor* and Black-crowned Night Heron *Nycticorax n. falklandicus*. In addition it supports breeding populations of other endemic bird species and sub-species for which Tussac Grass is an important habitat, notably Cobb’s Wren and Tussacbird *Cinclodes a. antarcticus*. Populations of endemic species and sub-species may be of international importance on this site. Three of the twelve Falkland endemic plant species (Moore 1973) occur: Falklands Lilaeopsis *Lilaeopsis macloviana*, Falkland Cudweed *Gnaphium affine* and Coastal Nassauvia *Nassauvia gaudichaudii*.

Sea Lion Island also qualifies under Criterion 4, since it is of critical importance to a number of birds and animals during the breeding season, a critical stage in their biological cycle. Among birds, this is true of Gentoo Penguins *Pygoscelis papuan*, Rockhopper Penguin *Eudyptes chrysocome*, Magellanic Penguin *Spheniscus magellanicus* and Southern Giant Petrel *Marconectes giganteus*. Woods & Woods (1997) note that the Falklands hold one of the world’s most important populations of Gentoo Penguins and probably the largest population of Rockhopper Penguin. For marine mammals, it is of importance, both as a breeding and moulting site, to Southern Sea Lion and Southern Elephant Seal.

### 13 General location

Sea Lion Island is situated 17kms Southeast of Bull Point, the most southerly point of Lafonia, East Falkland, and 120kms. Southwest of Stanley (population 1600).

**Administrative Region:** Falkland Islands

### 14 Physical Features

Soil & Geology	acidic, boulder, peat, sand
Geomorphology and Landscape	cliffs, crags/ledges, islands, lagoon, pools
Nutrient status	
pH	acidic
Salinity	brackish / mixosaline
Soil	mainly organic
Water permanence	usually permanent
Summary of main climatic features	Cool temperate oceanic climate, with average temperatures between 2 - 6oC. Rainfall averages 610mm per annum.

### 15 Hydrological values

Other (provide drinking water for livestock).

The pools supply drinking water for the small number of sheep (about 70), cattle (about 20) and horses present. The water requirements of the lodge are supplied by a spring.

### 16 Ecological features

The wetland types are as follows, beginning from the sea and moving inland: permanent shallow marine waters

(Ramsar type A); marine sub-tidal aquatic beds (type B); rocky marine shores (type D) or sandy/pebble shores (type E); a coastal brackish lagoon (type J); most of the higher part of the island is covered with peatland (type U), with a few freshwater pools (type Tp).

Permanent shallow marine waters and aquatic beds. The substrate is universally flat along the southern shore, with red algal-encrusted bedrock, and extensive, sub-tidally well spaced Giant Kelp *Macrosystis pyrifera* (Tingley et al, 1996). Killer Whales *Orcinus orca* regularly feed in this area.

Rocky marine shores, in places backed by cliffs. The rocky shorelines support invertebrates such as mussels, limpets and marine algae. Rock pools trap fish and small marine creatures. These rocky shores provide rich feeding areas for Black-crowned Night Heron, Kelp Goose, Crested Duck *Anas specularioides*, Magellanic Oystercatcher *Haematopus leucopodus*, and Blackish Oystercatcher *H. ater*, and nesting areas for species such as Kelp Goose, Falkland Steamer Duck and Crested Duck. The rocky cliffs provide nesting sites for Rock Shag *Phalacrocorax magellanicus*, with colonies of Imperial Shag and Rockhopper Penguin on the cliff tops.

Sandy/pebble shores. Sandy beaches are found round most of the shores of the island and in the sand neck which cuts right across the island, to the east of the settlement; the latter provides the main hauling out and breeding area for Southern Elephant Seal, with about 520 pups born each year from 1995 to 1997 (Galimberti & Boitani, in press and Galimberti, pers comm). Dolphin Gull *Larus scoresbii*, Kelp Gull *L. dominicanus* and South American Tern *Sterna hirundinacea* breed on the beach. In the centre of this beach is a large pond, extensively used for loafing in winter and spring by waterfowl, waders and seals, though it dries out in most summers. While much of this area is composed of bare sand, the principle vegetation associations are Marram-Lyme Grass *Ammophila- Elymus* and Sea Cabbage *Senecio candidans*. The principle Gentoo Penguin colonies are located on the higher parts of this sandy area. Elsewhere, and in particular along the south coast, the pebble shores at the base of the low cliffs provide the main breeding areas for Southern Sea Lion.

Tussac Grass stands. Tussac Grass does not fit easily into the Ramsar wetland classification though it is a major wetland habitat type in sub-Antarctic islands. It normally grows around the edge of islands, trapping an open wetter surface in the flatter centre of the island, and possibly plays an important role in conserving water in the soil and maintaining the hydrological and ecological balance of islands. "The similarity between tussock-grass and a small palm tree is due to the curious mode of growth of the former. Each plant forms a hillock of matted roots, rising straight out of the ground, and a few feet or more apart from the roots of the surrounding tussock plants. The hillocks are often six feet high, and four or five feet in diameter, and they throw out from the summit copious grassy foliage, with blades full six feet in length, drooping on all sides, those of the opposite plants meeting, so as to over-arch the spaces between them. Thus a tussock-bog (for so a tract of land covered with this grass is called) becomes a labyrinth" (Hooker 1847). "Tussock thrives where it may be subjected to considerable amounts of sea spray and a moisture-laden atmosphere with a high salt content. Whether the plant benefits nutritionally plays an important part in reducing competition from other plants. Although there are exceptions, tussock stands are generally restricted to coastal belts which rarely exceeds some 300 metres in width" (Strange et al, 1988). Tussac Grass has in the past been used for grazing of sheep, cattle and horses, and as a result has decreased or disappeared from many of the settled islands. Only 65 hectares remain on the two main islands of East and West Falkland (Strange et al, 1988). Tussac is an important habitat for birds of the Falklands (e.g. Woods 1970) and for seals (Strange 1992). On Sea Lion Island, the stands of Tussac Grass, though affected by overgrazing and erosion, are exceptionally good for an island with a history of settlement and sheep raising. Stands of Tussac Grass are found around much of the coastline of Sea Lion Island, above the sandy or pebbly shores.

Coastal brackish lagoon. Beaver Pond, a sizeable brackish pool, is at the north-west corner of the island, separated from the sea by a pebble beach. It provides nesting areas for a number of water birds such as Kelp Goose and Falkland Steamer Duck, and supports nesting colonies of Dolphin Gull and Kelp Gull. In the eroded areas around the pool, where Tussac Grass formerly grew, colonies of Magellanic Penguin make their burrows, and Upland Goose and Ruddy-headed Goose make their nest and graze.

## 17 Noteworthy flora

Species occurring at levels of international importance:

Higher Plants

*Codonorchis lessonii*

Species occurring at levels of national importance:

Higher Plants

Tussac Grass

Cinnamon Grass *Hierochloe redolens*

*Lilaeopsis macloviana*

*Gnaphalium affine*

*Nassauvia gaudichaudii*

## 18 Noteworthy fauna

Species occurring at levels of national importance:

Southern Sea Lion

Gentoo Penguins

Killer Whales

Southern Elephant Seal

Rockhopper Penguins

## 19 Social and Cultural Values

Livestock grazing

Non-consumptive recreation

Tourism

## 20 Land tenure/ownership

Ownership category	On-Site	Off-Site
Local authority, municipality etc.	+	

## 21 Current land use

Activity	On-Site	Off-Site	Scale
Recreation	+	+	Large-Scale
Research	+		Large-Scale
Livestock watering hole/pond	+		Small-Scale
Grazing (unspecified)		+	Small-Scale
Oil/gas exploration		+	Small-Scale
Military activities	+	+	Small-Scale

## 22 Adverse factors affecting the ecological character of the site

Activity	On-Site	Off-Site	Scale
Overgrazing by domestic livestock	+	+	Small-Scale
Habitat burning	+	+	Small-Scale
Erosion	+	+	Small-Scale
Recreational/tourism disturbance (unspecified)	+		Large-Scale
General disturbance from human activities	+		Large-Scale
Military activities	+		Large-Scale

## 23 Conservation measures taken

Conservation measure	On-site	Off-site

## 24 Conservation measures proposed but not yet implemented

see below

## Site vulnerability and management statement

The Falkland Islands were included in the UK's ratification of the Ramsar Convention in 1976, but no Falkland site has as yet been designated for the Ramsar "List of wetlands of international importance". Sea Lion Island has been mentioned as fulfilling the Ramsar criteria, and therefore as a potential Ramsar site, in a number of earlier documents, notably Scott and Carbonell (1986) and Hepburn et al (1992).

Under the new Falklands conservation legislation, now in preparation, management provisions will need to be defined on Sea Lion Island, in association with the land owner and manager. This will involve development of management prescriptions, guaranteeing the conservation of this site as a wetland.

(a) In the proposed Ramsar site itself

Past management for stock-raising has led to the total loss of some areas of Tussac Grass, and to degradation of other tussac areas. This loss and degradation comes about through both grazing and trampling. As a result there has been a change in the hydrological situation, in that the whole island has become drier and more liable to erosion. In the western part of the island, severe erosion problems are apparent.

Currently, other adverse factors are few in number and are not severe. Disturbance by the small number of wildlife tourists, who are guided by the lodge managers, is minimal. The impact of the current smaller numbers of sheep and cattle is likely to be very small.

(b) In the surroundings and catchment

Not applicable, since the whole of the island and surrounding shallow waters are proposed as a Ramsar site.

The previous owner of the island made significant improvements to the Tussac Grass through a programme of re-planting. Current management efforts by the managers of the Lodge are directed to restoring stands of Tussac Grass, by fencing them off from grazing and replanting. This is however a long term, difficult process, in which the drying wind makes the task more difficult.

No conservation measures taken to date using the current nature conservation legislation (i.e. the Nature Reserves Ordinance 1964, and the Wild Animals and Birds Protection Ordinance 1964).

## **25 Current scientific research/survey/monitoring and facilities**

Ongoing research – study of breeding biology and population dynamics of Southern Elephant Seal  
Involves marking individuals in entire population (by Scientists from University of Rome, Galimberti & Boitani)

Area covered in Breeding Bird Survey of the Falkland Islands (Woods & Woods 1997)

Mentioned in a number of scientific papers on fauna and flora of the Falklands

## **26 Current conservation education**

No activities at present

Area has considerable potential for conservation education

## **27 Current recreation and tourism**

This is the island's principle current activity, but it is limited by the number of beds available in the Lodge for visitors (15). A small number of tourists arrive on day visits by boat and helicopter.

## **28 Functional jurisdiction**

Attorney General, Falkland Islands Government, Attorney-General's Chambers, Stanley, Falkland Islands

Department of Environmental Planning, Malvina House Gardens, Stanley, Falkland Islands

## **29 Management authority**

Department of Environmental Planning, Malvina House Gardens, Stanley, Falkland Islands in collaboration with the land owner Falkland Islands Development Corporation, West Hillside, Stanley, Falkland Islands and land leasee Strachan-Visik Ltd.

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