Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes 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.
- Further information and guidance in support of Ramsar site designations are provided in the Strategic Framework for the future development of the List of Wetlands of International Importance (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
- 3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1.	Name and address of the Official Respondent:	FOR OFFICE USE ONLY.
	Joint Nature Conservation Committee Monkstone House City Road Peterborough Cambridgeshire PE1 1JY UK Telephone/Fax: +44 (0)1733 - 562 626 / +44 (0)1733 Email: RIS@JNCC.gov.uk	Designation date Designation date Site Reference Number 3 - 555 948
	Name and address of the compiler of this form: UK Overseas Territories Conservation Forum, 102 Broadway, Peterborough, PE1 4DG, UK	
2.	Date this sheet was completed/updated: Designated: 24 September 2001	
3.	Country: UK (Falkland Islands)	
4.	Name of the Ramsar site: Sea Lion Island	
5.	Designation of new Ramsar site or update of existing	site:
Thi	is RIS is for: Updated information on an existing Ramsar	site
	E DIC 1-4 11 4- 41 4 4	ignation or parlier undates
6.	For RIS updates only, changes to the site since its desi	ignation of earner update.

- ** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.
- b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

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7. Map of site included:

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

- a) A map of the site, with clearly delineated boundaries, is included as:
 - i) hard copy (required for inclusion of site in the Ramsar List): yes \checkmark -or- no \square ;
 - ii) an electronic format (e.g. a JPEG or ArcView image) Yes
 - iii) a GIS file providing geo-referenced site boundary vectors and attribute tables $yes \checkmark$ -or- $no \Box$;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

52 26 00 S

59 06 00 W

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town. Sea Lion Island is situated 17 km south-east of Bull Point, the most southerly point of Lafonia, East Falkland, and 120 km south-west of Stanley (population 1600).

Administrative region: Falkland Islands

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 1556

Min. 0

Max. 30

Mean No information available

12. General overview of the site:

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

Sea Lion Island is an isolated island, 17 km off the southern tip of East Falkland, noted as an important Falkland breeding site for southern sea lion (Thompson *et al.* 1995; Thompson 2003) and elephant seal (Galimberti & Boitani 1999). 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 stands of fenced 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.

13. 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

14. Justification for the application of each Criterion listed in 13 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).

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 *Paradiochloa 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 *Phlacoboenus 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 subspecies 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 subspecies for which tussac grass is an important habitat, notably Cobb's wren and tussacbird *Cincloides a. antarcticus*. The island is also free of introduced predators such as rats and cats and therefore represents an important refuge for endemic birds. Populations of endemic species and subspecies 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 papuam*, 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. It has the largest breeding colony of elephant seal within the archipelago, with approximately 500 breeding females (Galimberti & Biotani 1999).

See Sections 21/22 for details of noteworthy species

15. 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 Ocean
- b) biogeographic regionalisation scheme (include reference citation):

16. 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	acidic, sand, peat, boulder
Geomorphology and landscape	island, coastal, crags/ledges, islands, lagoon, cliffs, 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 2–6° C.
	Rainfall averages 610 mm per annum.

General description of the Physical Features:

No information available

17. 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).

No information available

18. Hydrological values:

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

Other

19. Wetland types:

Inland wetland, Marine/coastal wetland

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

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

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, subtidally 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. Rockpools 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 1999; 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 principal vegetation associations are non-native marram—lyme grass *Ammophila—Elymus*, and sea cabbage *Senecio candidans*. The principal 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 ha 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 (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.

Ecosystem services

21. 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.*

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

Feugian violet *Viola magellanica*, only recorded from this site in the entire archipelago and important for the Falklands fritillary as a food plant.

22. 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

Species Information

Species occurring at levels of national importance:

Southern Sea Lion

Gentoo Penguins

Killer Whales

Southern Elephant Seal

Rockhopper Penguins

The introduced-predator-free status of all the five islands in the group make them an important site for small passerines and potentially for burrowing petrels. They are also of importance for striated caracara, which breed on all five islands. Permanent ponds and boggy ground also provide important habitat for waterfowl and wading birds. The four smaller islands are worthy of further survey to ascertain numbers and distribution of qualifying species. The population of gentoo penguins on Sea Lion Island has increased from 3,000 in 1995, whilst the rockhopper population has remained relatively stable.

Gentoo penguin Near Threatened

>1% global

c. 5,600 breeding adults (Clausen & Huin in press)

Rockhopper penguin Vulnerable 970 breeding adults (Clausen & Huin in press)

Macaroni penguin Vulnerable 1 or 2 pairs breed occasionally

Magellanic penguin Near Threatened Breeding confirmed on all five islands, numbers unknown.

White-tufted grebe (Range-restricted) subsp Need confirmation of presence Southern giant petrel Vulnerable c40 breeding adults on Sea Lion Island.

Sooty shearwater > 10,000 pairs Breeding confirmed on Sea Lion Island, numbers unknown. Presence likely on other islands.

Grey-backed storm petrel > 1% global Presence probable but unconfirmed.

Common diving petrel (> 1% global) subsp Breeding confirmed on Sea Lion Island, Sea Lion easterly and Rum Island. Numbers unknown.

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Rock shag > 1% global c500 breeding adults, mainly on Whisky Island King shag > 1% global Breeding confirmed, more than a 1000 pairs.

Black-crowned night-heron (Range-restricted) subsp

Upland goose (Range-restricted) subsp

(> 1% popl) subsp

Kelp goose (Range-restricted) subsp

(> 1% popl) subsp

Ruddy-headed goose Data-deficient

Range-restricted

> 1% popl Breeding confirmed on Sea Lion Island. Small numbers, uncounted.

Falkland steamer duck Range-restricted

> 1% pop Widespread around all coasts, numbers unknown.

Striated caracara Near Threatened

Range-restricted

> 1% global c20 breeding adults breeding on all islands (Woods 1997).

Two-banded plover (Range-restricted) subsp ??

Magellanic snipe (Range-restricted) subsp?? Widespread throughout Sealion island

Dolphin gull > 1% global

Short-eared owl (Range-restricted) subsp

Tussacbird Range-restricted Numerous on all five islands

Dark-faced ground-tyrant (Range-restricted) subsp

Falkland pipit (Range-restricted) subsp Grass wren (Range-restricted) subsp

Cobb's wren Vulnerable

Range-restricted Numerous on all five islands

Falkland thrush (Range-restricted) subsp Black-throated finch Data-deficient

Range-restricted Presence confirmed, numbers unknown.

Sea Lion Island is of particular interest for the large colony of breeding elephant seal, which produce around 200 pups per year. These are the subjects of a long-term study by Italian researchers from the University of Rome. Southern sea lion also breed on the coasts, a breeding population producing 40 pups in 2003. The other small islands are used as haul out sites for both sea lion and elephant seals, although no breeding takes place there. Because of the steeply shelving coastline and diverse bird and mammal life, the island is also popular among tourists for being a good site to see killer whales, often feeding on penguins and seals just offshore. One striking feature of the bird community of Sea Lion group is the total absence of breeding or non-breeding long-tailed meadowlark, despite them been present at Bull Point only 15 km away.

23. Social and cultural values:

Describe if the site has any general social and/or 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.

Archaeological/historical site

Livestock grazing

Non-consumptive recreation

Tourism

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

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

25. Current land (including water) use:

Activity	On-site	Off-site
Tourism	+	+
Current scientific research	+	
Livestock watering hole/pond	+	
Grazing (unspecified)		+
Oil/gas exploration		+
Military activities	+	+

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

Explanation of reporting category:

- 1. Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.
- 2. Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Is the site subject to adverse ecological change? NO

27. 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
Other		
Management plan in preparation	+	

b) Describe any other current management practices:

28. Conservation measures proposed but not yet implemented:

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

Management plan in preparation - The site is pending designation as a National Nature Reserve and a management plan was drafted and agreed upon for this purpose. This is not yet implemented.

No further conservation measures are currently proposed although discussions with the landowner are ongoing with regard to an increase in the level and type of tourism at the site, including increasing and evolving tourism activities – including helicopter trips. This may lead to greater conservation steps being taken in the future to protect the site.

Erosion - No further conservation measures are currently proposed.

29. Current scientific research and facilities:

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

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

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

The islands' penguin population is annually monitored as part of the Falklands Conservation Seabird Monitoring Programme.

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

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

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

There is a hide located to the north of the Lodge, which protects the breeding colony of Southern giant petrel. Literature for tourists is produced by the Lodge owners, and copies of the Countryside Code are widely distributed. All military personnel visiting the island receive a full wildlife briefing before they arrive and the site is also featured in *A visitors guide to the Falklands*, which seeks to raise awareness of the sensitivity of the site to cruise ship passengers.

31. Current recreation and tourism:

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

This is the island's principal 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. It is likely that this will increase dramatically in the near future as tour operators are expanding to carry out civilian helicopter trips for Stanley and cruise-ship based tourists. Discussions are underway to ensure that this is carried out in a sustainable fashion.

32. Jurisdiction:

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

Falkland Islands Government.

Government House, Port Stanley, Falkland Islands

33. 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.

Deputy Governor and First Secretary, Governor's Office, Falkland Islands Government, Government House, Port Stanley, Falkland Islands

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Site-relevant references

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