
RAMSAR INFORMATION SHEET

FOR WETLANDS OF INTERNATIONAL IMPORTANCE

Site reference number 6UK011
1 Compilation date August 2001
2 Country Falkland Islands
3 Name of wetland Bertha's Beach
4 Site centre location: Latitude: 58 25 00 W Longitude: 51 55 00 S
5 Altitude (m) **Min: 0 Max: 10 Mean 0**
6 Area (ha) 4000

7 Overview

Sandy beach on the northern shore of Choiseul Sound, East Falkland, connecting the former islands at Fox Point to the mainland. Above high tide mark includes coastal dunes, dune slacks and pools, and grasslands; offshore, includes kelp beds in shallow seas and two islands with tussac vegetation, Direction Island and Fox Point Islet. Of value as a good representative example of Falkland coastal wetland types, including beach, small lakes, shallow marine ecosystems and tussac islands, supporting a broad range of Falkland avifauna and flora, including the endemic Falkland Steamer Duck and other endemic sub-species of waterfowl, and Gentoo Penguin colonies.

8 Wetland type Marine/coastal wetland

Code	Name	% Area
A	Shallow marine waters	15
B	Marine beds (eg. sea grass beds)	10
D	Rocky shores	5
E	Sand / shingle shores (including dune systems)	15
U	Peatlands (including peat bogs swamps, fens)	45
K	Coastal fresh lagoons	10

9 Ramsar Criteria 1, 2, 3, 4
10 Map of the site √
11 Compiler **Joint Nature Conservation Committee**
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12 Justification of criteria

The principle criterion under which Bertha's Beach qualifies is Criterion 1, since it is a good representative example (in a relatively natural state) of several different wetland habitat types found around much of the coast of the Falkland Islands, including:

- Low sand dunes at the top of the beach (Ramsar wetland type E);
- Shallow waters offshore, with kelp beds (Ramsar wetland type A & B);
- Freshwater pools above high water mark and associated short turf grassland (coastal "greens") (Ramsar wetland type K);
- Fox Point Islet and Direction Island, two offshore rock outcrops with tussac grass (Ramsar wetland type D); and
- Areas of peaty moorland with Whitegrass *Cortaderia pilosa* and Diddle-dee *Empetrum rubrum* (Ramsar type U).

It qualifies under Criterion 2 because it supports appreciable numbers of Ruddy-headed Goose *Chloephaga rubidiceps*, listed as “Lower Risk: near-threatened” by IUCN (1996). Cobb’s Wren *Troglodytes cobbi*, listed by IUCN as “vulnerable”, may occur on Direction Island and/or Fox Point Islet. Several of the six Falkland plant species, listed as “globally threatened” by IUCN (Walter & Gillett, 1998) may occur.

The site qualifies under Criterion 3 by virtue of the richness of the waterfowl populations which are important value for maintaining the genetic and ecological diversity of the region. The site supports populations of the endemic Falkland Steamer Duck *Tachyeres brachydactyla* and a number of endemic Falkland sub-species including Upland Goose *Chloephaga picta leucoptera*, Kelp Goose *Chloephaga hybrida malvinarum*, White-tufted Grebe *Podiceps rolland rolland* and Tussacbird *Cinclodes a. antarcticus*. The endemic Cobb’s Wren may occur on the tussac islands. Two of the twelve Falkland endemic plants (Moore, 1973) Clubmoss Cudweed *Chevreulia lycopodioides* and Coastal Nassauvia *Nassauvia gaudichaudii* occur.

It qualifies under Criterion 3 because it provides breeding habitat for an unusually diverse assemblage of breeding water birds of the Falklands, in greater variety and numbers than many other apparently similar areas in the islands, including the rare species mentioned under Criterion 2, the endemic species and sub-species indicated under Criterion 3 and other more widespread species noted in section 18. Populations of endemic species and sub-species may be of international importance on this site.

It qualifies under Criterion 4 because it supports breeding Southern Sea Lion *Otaria flavescens* and breeding colonies of Gentoo Penguins *Pygoscelis papua* at a critical stage in their biological cycle.

13 General location

On the north shore of Choiseul Sound, East Falkland, 40 kilometres south-west of Stanley (population 1,600) and eight kilometres south-east of Mount Pleasant Airport and the British Forces Falkland Islands Garrison main complex (personnel approx 2,000).

Administrative Region: Falkland Islands

14 Physical Features

Soil & Geology	acidic, clay, sand, sandstone
Geomorphology and Landscape	coastal, pools
Nutrient status	
pH	alkaline
Salinity	no information
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

Shoreline stabilisation and dissipation of erosive forces, Other (provide drinking water for cattle and sheep).

The pools above high water mark capture water from the catchment and provide drinking water for cattle and sheep. There are no data on ground water. The sandy beach prevents coastal erosion, and beach sediment connects the former island to the mainland, creating a natural harbour at East Cove which is currently used in support of the military base

16 Ecological features

Starting from the seaward side, six main wetland types can be distinguished: offshore islands (Ramsar type D); shallow seas (Ramsar type A), with kelp beds (type B); beach and dune systems (type E);

coastal grasslands and pools (type K); and eroded sandy outcrops in the oceanic heath (type U), important as the site of the penguin colonies.

Offshore island. About one kilometre offshore lies Direction Island (so called because it presents a magnetic anomaly which affects ships' compasses, including that of the Norwegian iron barque Bertha which was wrecked in 1892 and bestowed its name on the beach), a one hectare rocky outcrop covered with a hectare of Tussac Grass *Parodichloa flabellata*. Tussac Grass is typical of Falkland coastal areas, but has in many areas suffered from over-grazing and is now much more restricted than formerly, so that it mostly survives on small offshore islands. Direction Island has in the past supported a small population of Southern Sea Lions *Otaria flavescens* and there are indications of breeding shearwaters (Strange et al 1988). Fox Point Islet, the other tussac island, is located immediately off Fox Point and covers about one hectare.

Shallow seas. Below low tide mark are a number of low lying reefs and extensive beds of kelp *Macrocystis pyrifera*, which in fact extends beyond the six metre mark, as in many offshore sites in the Falklands. Kelp helps to protect coastlines from erosion, and probably provides spawning grounds and shelter for many fish (mullet, smelt), squid, jellyfish, molluscs (including chitons), crabs and other marine life forms. In addition it provides feeding grounds for dolphins, seals, fish and some water birds such as shags, steamer ducks and terns.

Beach and dune systems. The littoral vegetation is composed of associations of Sea Cabbage *Senecio candidans* and Marram Grass-Lyme Grass *Ammophila-Elymus* (the latter introduced to stabilise sand dunes). The beach is used by South American Tern *Sterna hirundinacea* and shorebirds, mainly resident Magellanic Oystercatcher *Haematopus leucopodus*, together with White-rumped Sandpiper *Calidris fuscicollis* and some Sanderling *C. alba*, both of which spend the austral summer here. Falkland Steamer Duck and Kelp Gull *Larus dominicanus* loaf on the beach.

Coastal grassland ("greens") and pools. Behind Bertha's Beach, above high water mark, at the foot of the higher ground which slopes gradually down from inland, is an area of flat coastal grassland grazed by sheep and some cattle, with occasional pools and marshy ground. The associations in the short-cropped grasslands (greens) are characterised by *Agrostis* and *Festuca* spp. and, on the damper areas, pigvine *Gunnera magellanica* and *Cotula scariosa*. In the ponds Spike Rush *Eleocharis melanostachys* provides cover, while Water-milfoil *Myriophyllum elatinoides* and filamentous algae are important food sources for water birds.

Sandy outcrops. In the higher ground, dominated by the ubiquitous White Grass and Diddle-dee, some outcrops have been eroded, and support nesting colonies of Gentoo Penguin.

17 Noteworthy flora

Species occurring at levels of international importance

Higher Plants

Moonwort Fern *Botrychium dusenii*

Species occurring at levels of national importance

Habitat type

Greens

Higher Plants

Moonwort Fern *Botrychium dusenii*

18 Noteworthy fauna

Species occurring at levels of national importance

Southern Sea Lion

Gentoo Penguins

19 Social and Cultural Values

Livestock grazing

No special values known
 Non-consumptive recreation
 Other
 Tourism

20 Land tenure/ownership

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

21 Current land use

Activity	On-Site	Off-Site	Scale
Recreation	+	+	Large-Scale
Research	+		Large-Scale
Livestock watering hole/pond	+		Large-Scale
Grazing (unspecified)		+	Large-Scale
Military activities	+	+	Large-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	+	+	Large-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". Bertha's Beach 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, the Conservation of Wildlife and Nature Ordinance 1999, Bertha's Beach will require management provisions to be agreed, in consultation with the land owner and manager. These would include measures to guarantee continued use for sheep farming and conservation of wetland values; they might include further restrictions on access, to avoid disturbance to sheep at critical periods like lambing. The military activities within the site should be controlled in sensitive areas and the level of education on site should be increased. The oil spill response plan from the nearby port at Mare Harbour should also be reviewed as part of any management strategy. The potential adverse factors are at present few in number and not severe.

(a) In the Ramsar site itself

Construction and military activities – The disturbance caused in recent years by construction and military activities in or near the site appears to have decreased significantly. A military Oil Spillage Contingency Plan exists, but it may need to be reviewed to give additional attention to possible

damage to the proposed Ramsar site. The site is occasionally used for military firing exercises however this is not frequent or highly disturbing.

Disturbance by human visitors – Disturbance by people using the beach for recreation is limited at present. Recreational use of vehicles on the beach is prohibited.

Over-grazing – Throughout the Falklands, grazing – especially by sheep – has led to impoverishment of the native flora, and in some instances to erosion of the thin soils. Studies near Bertha's Beach, in the L'Antioja catchment by Wilson et al (1993) suggests that erosion continues to occur, while Hoppe and McAdam (1994) report on studies of defoliation and winter grazing of Whitegrass at Bush Pass. At Bertha's Beach pilot studies on improving techniques for plant species introduction are being carried out. If applied in some future time over a large area of the coastal grasslands, they could affect the natural vegetation.

Burning of vegetation – Throughout the Falklands, burning has historically exacerbated soil erosion. Miles (1984) notes that, in the Mount Pleasant area, "few potentially inflammable stands of vegetation appear to have escaped burning in the recent past". The practice has decreased considerably in recent years, but is occasionally still used to promote growth of pasture for sheep.

Erosion of the beach by natural factors – There is a need to check on the possible effects of natural scouring of the beach by sea currents.

Hunting of wildfowl and collection of penguin eggs – This was formerly widely practiced, but has decreased significantly in recent years.

(b) In the surroundings and catchment

Additional measures to be taken in case of leaks or oil spills at East Cove, may need to be carefully designed. The issues of over-grazing and burning (see above) are relevant in the surrounding catchment as well as in the proposed Ramsar site.

No legal site conservation measures taken (ie. No ordinance under the two 1964 ordinances on Nature Reserves and Protection of Wild Animals and Birds). Access to the site is controlled by the farm manager, who oversees the access through the farm at Fitzroy, and delegates control of access from Mount Pleasant to the military authorities who supervise the locked gate across the access road. There is no formal monitoring of conservation status of site by Falkland Islands Government authorities. A military Oil Spillage Contingency Plan exists.

25 Current scientific research/survey/monitoring and facilities

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

Number of scientific papers on flora and fauna of Falklands

No ongoing research activities or facilities.

26 Current conservation education

No activities at present

Area has enormous potential for conservation education for military and civilian visitors

27 Current recreation and tourism

It would be possible to develop visitor facilities, such as signs, a nature trail, and eventually perhaps, a visitor centre, with a warden to guide visitors and oversee access to the more sensitive areas

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 Farm Manager, Fitzroy Farm, East Falkland and Falkland Landholdings (landowner), 44 John Street, Stanley, Falkland Islands.

30 Bibliography

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