Antarctic Specially Protected Area No. 151 (Site of Special Scientific Interest No. 34)
Lions Rump, King George Island, South Shetland Islands

1. Description of Values to be Protected

The Area was originally designated as a Site of Special Scientific Interest in Recommendation XVI-2 (1991, SSSI No. 34) after a proposal by Poland on the grounds that it contains diverse biota and geological features and is a representative example of the terrestrial, limnological, and littoral habitats of the maritime Antarctic. The Area is designated primarily to protect the site's ecological values. It is also valuable as a reference site with its diverse avian and mammalian Antarctic fauna, against which disturbance at other site can be measured.

The grounds are still relevant. There is rich lichen flora and frequent stands of *Colobanthus quitensis* and *Deschampsia antarctica*. There are colonies of Adélie Penguin (*Pygoscelis adeliae*), Gentoo Penguin (*Pygoscelis papua*) and Chinstrap Penguin (*Pygoscelis antarctica*) and breeding areas of nine other birds: Giant Petrel (*Macronectes giganteus*), Cape Pigeon (*Daption capense*), Wilson's Storm Petrel (*Oceanites oceanicus*), Black-bellied Storm Petrel (*Fregatea tropica*), Sheathbill (*Chionis alba*), McCormick's Skua (*Catharacta maccormicki*), Antarctic Skua (*Catharacta antarctica*), Dominican Gull (*Larus dominicanus*), and Antarctic Tern (*Sterna vittata*). Furthermore, Elephant Seals (*Mirounga leonina*), Weddell Seals (*Leptonychotes weddelli*), and Fur Seals (*Arctocephalus gazella*) breed on the beaches.

In the littoral zone of the Area approximately 13 taxa of benthic macroalgae are represented. The *Rhodophyta* are represented by 5 species, *Chlorophyta* by 5 species and *Phaeophyta* by 3 species. Macroalgae colonize King George Bay to depths of 90-100 m. Both considerable abundance and biomass values of benthic fauna were noted. Bivalve molluscs are clearly dominant. Both *Amphipoda* and *Polychaeta* contribute significantly to benthic fauna abundance. The species composition and proportion of endemics indicate that King George Bay is transitional between Subantarctic and coastal zone of the Antarctic continent.

The Area includes several features of geological interest, such as raised beaches, Tertiary lavas and tuffs with brown coal intercalations, and silicified wood fragments.

The Area takes its name from the distinctive rocky hill lying between the southern extremity of King George Bay and Lions Cove.

The values to be protected are those associated with an example of a site which has been subjected to minimal disturbance by human activity, except for occasional monitoring studies of the mammal and bird populations, and geological and geomorphological studies.

2. Aims and Objectives

Management of the Area aims to:

- protect all bird colonies and seal breeding areas against unnecessary and potentially damaging human activities
- ensure that sites of geological and geomorphological interest be protected from oversampling and fragile vegetation cover be protected against pedestrian activity;
- undertake essential management activities necessary to protect the values of the site;
- avoid degradation of, or substantial risk to, the littoral and limnological values of the Area.

3. Management Activities

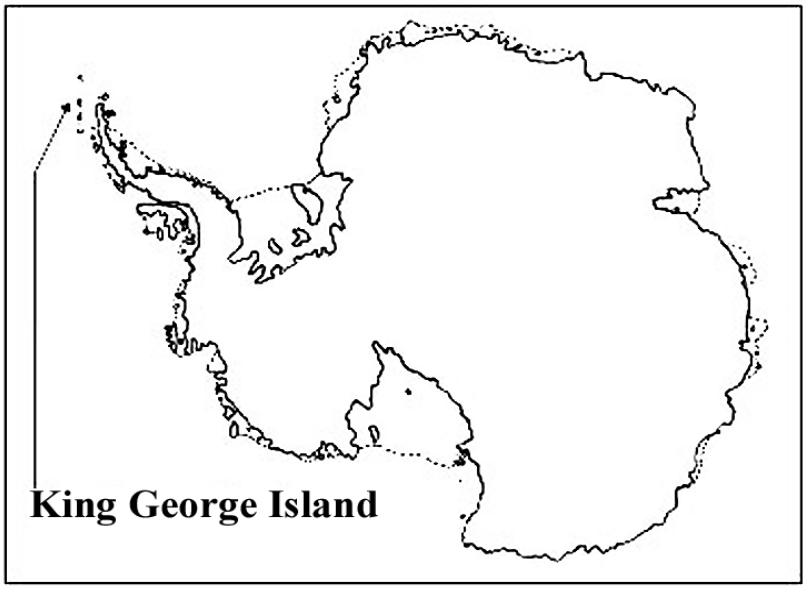
Ensure that the biological condition of the Area is adequately monitored, preferably by non-invasive methods, and that any sign-boards and boundary markers are serviced.

4. Period of Designation

The Area is designated for an indefinite period.

5. Maps

Map A shows the location of King George Island in Antarctica.



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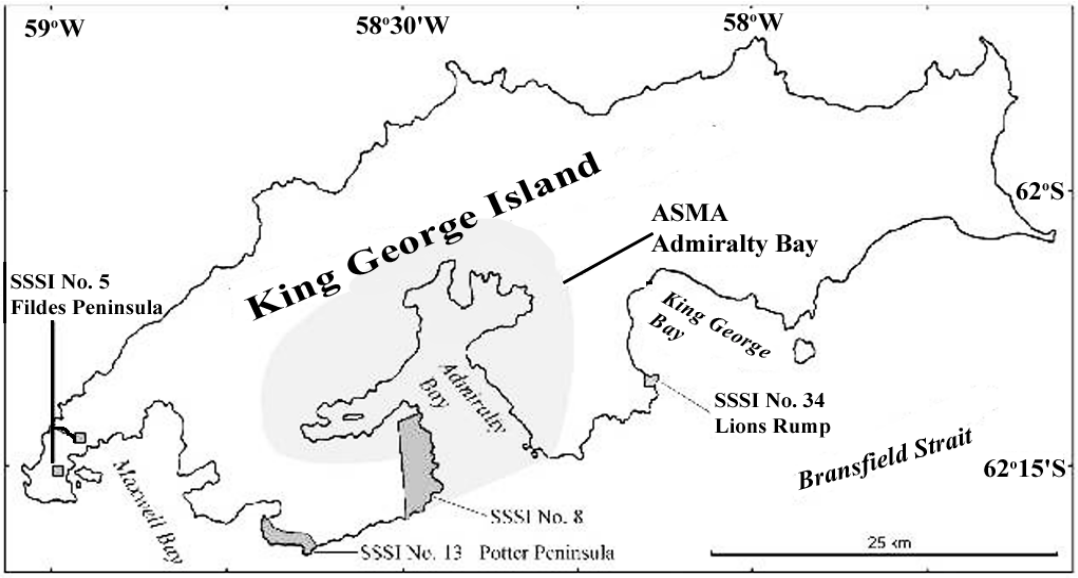
Map A*

Map B shows the Lions Rump, Site of Special Scientific Interest (SSSI) No. 34, in relation to King George Island.



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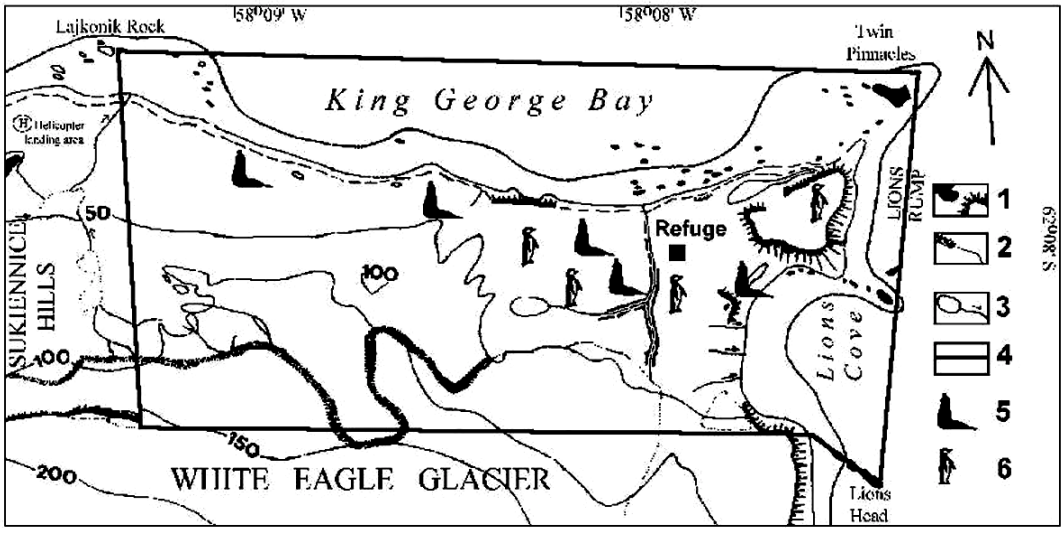
Map B*

Map C shows the Area in greater detail

1. cliffs and rocks
2. recent moraines and glaciers
3. lakes and streams
4. boundary of the SSSI No. 34
5. seal colony
6. penguin rookery



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Map C*

6. Description of the Area

6.(i) Geographical co-ordinates, boundary markers and natural features
The site is located on the southern coast of King George Bay, King George Island, in

the South Shetlands Islands. It is described as all the land and sea falling within the area bounded by the following co-ordinates:

62°07'48"S, 58°09'17"W;

62°07'49"S, 58°07'14"W;

62°08'19"S, 58°07'19"W;

62°08'16"S, 58°09'15"W.

The Area includes the littoral and sublittoral zones extending from the eastern end of Lajkonik Rock to the most northerly point of Twin Pinnacles. From this point the boundary extends to the easternmost end of the columnar plug of Lions Head to the east of White Eagle Glacier. On land, the Area includes the coast of raised beaches, freshwater pools and streams on the south side of King George Bay, around Lions Cove, and the moraines and slopes which lead to the lower ice tongue of White Eagle Glacier, then westward to a small moraine which protrudes through the ice cap south-east of Sukiennice Hills.

The ice-free area exhibits a range of geomorphological features, including beaches of various width and length, moraines, hills and inland rocks. The highest point rises to an altitude c. 190 m.

Geologically, Lions Rump consists of Tertiary lavas and tuff containing thin brown coal intercalations and petrified wood fragments. The front of White Eagle Glacier is marked by large, dome-shaped moraine ridges belonging to several Holocene stages of glacier advance and retreat.

Large numbers of penguins breed throughout the Area. There were: 7825 pairs of Adelie penguin (*Pygoscelis adeliae*) in 1995/96, 7 pairs of Chinstrap penguin (*Pygoscelis antarctica*) in 1995/96, and 2207 pairs of Gentoo Penguin (*Pygoscelis papua*) in 1995/96.

There are at least 9 other breeding species of bird.

Approximately 13 taxa of macroalgae were found in the littoral zone of the Area. The most common among them were: green alga (*Monostroma hariotti*), red algae (*Georgiella confluens, Iridaea cordata* and *Leptosarca simplex*), and brown algae (*Adenocystis utricularis* and *Ascoseira mirabilis*).

The lichen flora of the Area consists of 104 taxa. The most diverse genera are *Caloplaca* (16 species) and *Buellia* (7 species). The highest species richness was found in places with diversified habitats, e.g. with rocks, near penguin colonies or in places of bird perching. The lowest species richness was found in recently deglaciated terraine (young moraines) or in snowbeds. Liverworts have little

importance in local plant communities. They most frequently occur in moss banks. Fungi are rare or uncommon. Knowledge of the Area freshwater algae is poor.

6 (ii) Restricted zones within the Area
None.

6 (iii) Location of structures within the Area
Removable caravan (belonging to Poland) functioning as a summer field laboratory for two persons.

6 (iv) Location of other Protected Areas within close proximity
Fildes Peninsula, SSSI No. 5 and SSSI No. 33, Ardley Island lie about 50 km west of Lions Rump. Potter Peninsula, SSSI No. 13 lies about 35 km to the west and Antarctic Specially Managed Area (ASMA), Admiralty Bay, King George Island (South Shetland Islands) containing the western shore of Admiralty Bay, SSSI No. 8, lies about 20 km to the west.

7. Permit Conditions

Permits may be issued only by appropriate national authorities as designated under Annex V Article 7 of the Protocol on Environmental Protection to the Antarctic Treaty.

Conditions for issuing a permit for the Area are that:

- it is issued only for a scientific purpose which cannot be served elsewhere,
- the actions permitted will not jeopardize the natural ecological system or scientific values of the Area,
- any management activities are in support of the objectives of the Management Plan,
- the action permitted are in accordance with this Management Plan,
- the permit, or a copy, must be carried within the Area,
- a report is supplied to the authority named in the Permit, and
- a permit is issued for a stated period only.

7 (i) Access to and movement within the Area
No helicopters or terrestrial vehicles are allowed within the Area. Overflights of the Area, either by helicopters or fixed wings aeroplanes must be offshore 250m. Helicopters should land only outside the Area.

Access to the Area from the sea must be to the west of the Area. No pedestrian routes are designated within the Area, but persons on foot should avoid walking on vegetated areas or disturbing wildlife whenever possible.

7 (ii) Activities which are or may be conducted within the Area, including restrictions on time and place

- Scientific research which cannot be conducted outside the Area, and which will not damage or interfere with any aspect of the Area's biological, geological, or aesthetic values.

- Essential management activities, including monitoring.

7 (iii) Installation, modification or removal of structures
No further structures are to be erected in the Area, or scientific equipment installed, except for essential scientific or management activities, as specified in the Permit. The temporary refuge will be removed when appropriate.

7 (iv) Location of the field camp
If camping in the Area, is necessary it should be close to the caravan. The caravan is normally available to two persons.

7 (v) Restrictions on materials and organisms which may be brought into the Area
No living animals or plant material shall be deliberately introduced into the Area.

No poultry products, including food products containing uncooked dried eggs, shall be taken into the Area.

Any chemical which may be introduced for compelling scientific purposes specified in the Permit, shall be removed from the Area at or before the conclusion of the activity for which the permit was granted.

Fuel, food and other materials are not to be stored in the Area except in support of activities for which the Permit has been granted. All such materials should be kept to a minimum, made secure against the elements and removed when no longer required.

7 (vi) Taking or harmful interference within native flora and fauna
This is prohibited, except in accordance with a Permit. Any animal sampling or interference involved should be in accordance with the SCAR Code of Conduct for Use of Animal for Scientific Purpose in Antarctica, as a minimum standard.

7 (vii) Collection and removal of anything not brought into the Area by the Permit holder
Material may be collected or removed from the Area only in accordance with a Permit. Marine debris may be removed from the beaches of the Area. Exceptionally, dead specimens of fauna or flora may be removed for laboratory examination without a Permit.

7 (viii) Disposal of waste
All waste shall be removed from the Area, with the exception that human waste should be deposited in the sea.

7 (ix) Measures that may be necessary to ensure that the aims and objects of the Management Plan continue to be met
The Permit, or a copy, must be carried within the Area.

Permits may be granted to enter the Area to carry out biological monitoring and site inspection activities, which may involve the collection of small samples for analysis or audit, or to erect or maintain signpost, or protective measures.

Access to and movement within the Area shall, in any case, be limited in order to avoid disturbance to birds, and damage to vegetation and geological features.

7 (x) Requirements for reports

The principal Permit Holder for each issued Permit shall submit a report of activities conducted in the Area. The Visit Report form suggested by SCAR provides a suitable model. This report shall be submitted to the authority named in the Permit as soon as practicable, but no later than 6 months after the visit has taken place. Such reports should be stored indefinitely and made accessible to interested Parties, SCAR, CCAMLR and COMNAP if requested, to provide the documentation of human activities within the Area, which could be utilized for good management.