

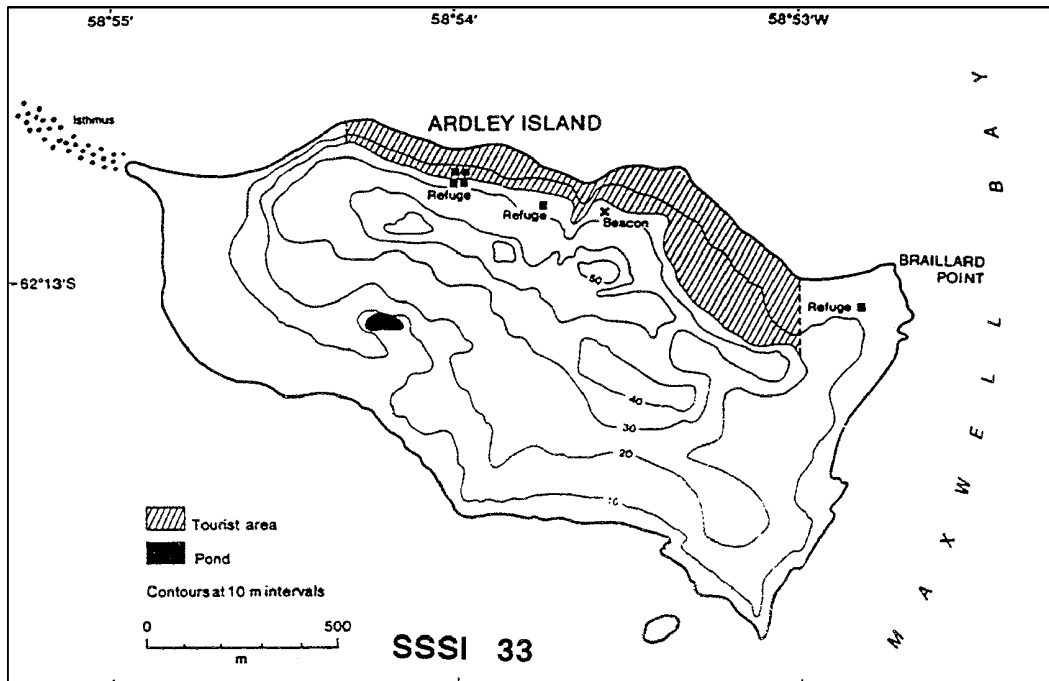
**Antarctic Specially Protected Area No. 150 (Site of Special Scientific Interest No. 33)**

**Ardley Island, Maxwell Bay, King George Island**

1. *Geographical location:* Ardley Island (62°13'S, 58°54'W) is situated about 500 m east of the coast of Fildes Peninsula, Maxwell Bay, King George Island. It is about 1 km south-east of the Soviet station Bellingshausen and the Chilean station Teniente Marsh, and about 0.5 km east of the Chinese station Great Wall.

2. *Management Plan*

i. *Description of Site.* The Site comprises the entire island and its associated littoral zone, including the isthmus between the island and Fildes Peninsula to the west. The island is about 2.0 km long and 1.5 km at its widest, and rises to about 50 m altitude. It comprises mainly Tertiary andesitic-basaltic lavas and tuffs, and there are some raised beach terraces. It is snow- and ice-free in summer. There is a small (about 100 m long) freshwater pond on the south-west of the island. There is a refuge hut (FRG) near Brailard Point, and two more refuge huts (Argentina, Chile) are situated near the middle of the northern coast of the island, the latter comprising several huts.



ASP A 150  
Map A\*

ii. *Reason for Designation.* The Site is of exceptional biological interest. It has a diverse avifauna with 12 breeding species, and is of particular importance for its breeding colonies of Gentoo penguins (*Pygoscelis papua*); the average number of breeding pairs is about 4,000 which is the largest concentration of Gentoos within the South Shetland Islands and probably in the Antarctic. There are also about 1,200 pairs of breeding Adélie penguins (*Pygoscelis adeliae*) and a small number of Chinstrap penguins (*P. antarctica*). Other breeding species of particular importance are Southern

Giant petrels (*Macronectes giganteus*), Wilson's storm petrels (*Oceanites oceanicus*) and Black-bellied storm petrels (*Fregatta tropica*).

The island possesses some of the best-developed and most extensive plant communities in the South Shetland Islands, notably the climax fellfield ecosystem dominated by macro lichens (*Himantormia lugubris*, *Usnea* spp.). Such vegetation is extremely sensitive to human intervention and is very easily damaged.

iii. *Outline of Research.* Detailed ornithological and botanical research has been undertaken on Ardley Island for many years by Chilean, FRG and GDR scientists, with brief studies made also by scientists from other national stations in the area.

Results of a 10-year census and breeding study, commencing in 1979, of pygoscelid penguins have revealed large between-season fluctuations in numbers and the breeding success of each species. Also, the Giant petrel breeding population has declined by about 80% in recent years. There is strong evidence that these population fluctuations are a direct response to disturbance by large numbers of visitors and to vehicles and low-flying aircraft. The effects of these impacts will continue to be monitored as an integral part of the long-term ornithological research being undertaken at this site.

Detailed investigations of the phytosociology of the island's vegetation and of the physiology of selected lichen species have been undertaken. Further terrestrial botanical, zoological and littoral research is planned. Because of the extreme importance of this area to biological research it is imperative that it is protected from the severe threat of human intervention so as to minimise its impact on this exceptional ecosystem.

iv. *Date of expiry of designation.* 31 December 2001

v. *Access points.* None specified, although not more than five persons should enter the site from the sea anywhere east of a north-south line running through the beacon on the mid-north coast of the island.

vi. *Pedestrian and vehicular routes.* Pedestrian activity should be restricted whenever possible to areas with minimal vegetation, and should avoid any bird breeding sites, except as required for approved research studies. Tourists and non-scientific station and ship personnel should visit only the area designated for this purpose (see (ix)) in order to minimise disturbance of biota. The use of any type of vehicle, including amphibious craft on land, is not permitted. Helicopters should not land on or overfly the island below 300 m altitude. Aircraft landing at and taking off from Teniente Marsh airfield should avoid overflying the island.

vii. *Other kinds of scientific investigations which would not cause harmful interference* Other scientific investigations may be permitted as long as they cause minimum impact on the biota and ecosystems. All markers and structures associated with field experiments must be removed as soon as the research is completed.

viii. *Scientific sampling.* All activities involving banding, capture, killing, etc of any bird must conform with the Agreed Measures for the Conservation of Antarctic Fauna and Flora. Any other sampling should be restricted to the minimum required for the purpose of the respective studies.

ix. *Other restraints.* Large groups of visitors to the Site should be limited to a maximum of 20 persons at any time. Such groups of persons should have access only to the 'tourist area' marked on the map, i.e. the north coast of the island as far as 300 m west of Braillard Point and 300 m west of the Chilean refuge, up to an altitude of 20 m

above sea level. Groups should be accompanied by a guide, provided from the national station approving the visit, who will be responsible for their conduct and who is fully conversant with the Site Management Plan, the Agreed Measures for the Conservation of Antarctic Fauna and Flora, and the current research programmes. There should be no access for dogs whether or not they are required for sledging purposes. All human waste materials should be removed from the Site and returned to the Station of origin; no combustible materials should be incinerated within the site.