Historical sites at the Prince Edward Islands

J Cooper and G Avery (Editors)

A report of a workshop meeting held at the University of Cape Town, 28 June 1984, under the auspices of the Biological Sciences Subcommittee of the South African Scientific Committee for Antarctic Research (SASCAR)

SOUTH AFRICAN NATIONAL SCIENTIFIC PROGRAMMES REPORT NO

128

JULY 1986

Issued by

Foundation for Research Development
Council for Scientific and Industrial Research
P O Box 395
PRETORIA 0001
South Africa
from whom copies of reports in this series are available on request

Printed in 1986 in the Republic of South Africa by the Graphic Arts Division of the CSIR

ISBN 0 7988 3811 6

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COVER

Navigational chart SAN 2003 for the Prince Edward islands region, published in 1976 by the Hydrographer, SA Navy

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PREFACE

South Africa is one of the twelve original signatories of the Antarctic Treaty and South Africans have been actively involved in Antarctic and sub-Antarctic research since 1960. Research in the Antarctic is coordinated internationally through the Scientific Committee on Antarctic Research (SCAR) of the International Council of Scientific Unions (ICSU). The Council for Scientific and Industrial Research (CSIR) coordinates the scientific programmes of the South African National Antarctic Research Programme (SANARP) through a national committee called the South African Scientific Committee for Antarctic Research (SASCAR), which is also the National Committee adhering to SCAR. SANARP comprises four main research divisions - biological (mainly terrestrial) sciences, earth sciences, oceanological sciences, and solar-terrestrial sciences.

The sub-Antarctic Prince Edward islands in the Southern Indian Ocean are South African territory. Like all sub-Antarctic islands they were heavily exploited in the 19th century by sealers. Several shipwrecks occurred during this period. The remains of sealers' camps and activities and of shipwrecks are of intrinsic historical interest and, if studied, may yield information of biological significance.

This document gives the results of a workshop held on historical sites at the Prince Edward islands and makes recommendations for their protection and further study.

ACKNOWLEDGEMENTS

We thank all participants, especially G.I.H. Kerley and B.P. Watkins, for their contributions to the workshop as well as P.R. Condy, A.B. Crawford, R.K. Headland, P.A. le Roux, I.P. Newton, R.W. Rand, R. Skinner and K. Smit for their interest, comments on drafts of the workshop report and loan of photographs. The Percy FitzPatrick Institute of African Ornithology and the South African Museum helped in numerous ways. JC acknowledges the financial and logistical support of the South African Scientific Committee for Antarctic Research (SASCAR) and the South African Departments of Transport (DOT) and Environment Affairs (DEA).

ABSTRACT

This report gives the results of a workshop held on historical sites at the sub-Antarctic Prince Edward islands, southern Indian Ocean. All known visits and sojourns on the Prince Edward islands up to 1948 are tabulated. All known historical sites (dating from the early 19th century up to the time of annexation in 1948) are listed and mapped and details of their present contents, where known, are given. Totals of 18 historical sites are known for Marion Island and six for Prince Edward Island. Most historical sites are the results of sealers' activities, although some are due to shipwrecks. Recommendations are given for research on historical sites at the Prince Edward islands and for their protection. Two appendices schedule details of South African expeditions to Marion Island from 1948 to 1985 and research visits to Prince Edward Island from 1965 to 1985. A third appendix is a bibliography relevant to the study of historical sites at the Prince Edward islands.

SAMEVATTING

Dié verslag bied die resultate van 'n werksessie oor historiese terreine op die sub-Antarktiese Prins Edward-eilande in die Suidelike Indiese Oseaan, aan. Alle bekende besoeke en tydperke van verblyf op die Prins Edward-eilande tot 1948 is getabelleer. Alle bekende historiese plekke (sedert die vroeë negentiende eeu tot die datum van besetting in 1948) is aangeteken en gekarteer, en besonderhede oor hul huidige inhoud, waar bekend, word aangegee. Altesaam 18 historiese plekke op Marion-eiland en ses op Prins Edward-eiland is bekend. Die meeste historiese plekke het deur die aktiwiteite van robbevangers ontstaan, hoewel sommige die gevolg van skeepstrandings was. Aanbevelings word gedoen oor die navorsing oor en bewaring van historiese plekke op die Prins Edward-eilande. Twee bylaes verskaf besonderhede oor Suid-Afrikaanse ekspedisies na Marion-eiland tussen 1948 en 1985 en oor navorsingsbesoeke aan Prins Edward-eiland vanaf 1965 tot 1985. 'n Derde bylae is 'n bibliografie wat op die bestudering van historiese plekke op die Prins Edward-eilande betrekking het.

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INTRODUCTION

The Prince Edward islands, situated at approximately 47 °S, 38°E in the southern Indian Ocean, were apparently discovered by Barent Barentz. Ham in the Maerseveen in March 1663 (Leupe 1868, van Zinderen Bakker Sr 1971). James Cook visited them in December 1776 without landing and it was not until the early 19th Century that exploitation commenced with the often unrecorded visits of sealers. On 29 December 1947 South Africa annexed Marion Island. This was followed by the annexation of the nearby and smaller Prince Edward Island on 4 January 1948 (Anon 1948, Marsh 1948, Goosen 1973). Table 1 lists known visits to and sojourns on the Prince Edward islands up to the time of annexation. Since annexation Marion Island has been occupied continually, initially as a meteorological station of the South African Weather Bureau (Crawford 1950, King 1952, la Grange 1952, 1954), and from the mid-1960s as a station for a broadly-based programme of scientific research (see Appendix 1).

At present, research at the Prince Edward islands includes botany, entomology, limnology, mammalogy, microbiology, ornithology, marine biology and geology, mainly on Marion Island. Prince Edward Island itself is not inhabited and visits are purposefully restricted to bona fide research activities only, in an effort to preserve the island's unaltered environment (Appendix 2).

OCCURRENCE OF HISTORICAL SITES

Evidence of sealers' and castaways' activities exists at a number of localities at Marion and Prince Edward islands (see next section). These are in the form of remains of shelters, equipment, food jars and associated refuse. Several of these localities have trypots: large cast iron cooking vessels in which seal blubber (and possibly that of penguins) was 'tryed' or rendered down for oil. Most sites also have remains such as broken crockery, glass bottles and the foundations of wooden structures. In the past, rusted firearms and large unbroken jars were present (such as at Mixed Pickle Cove) but over the years many of these have been removed as personal souvenirs. Nowadays, however, scientists visiting the Prince Edward islands are instructed not to remove such items. In addition, artefacts marking the annexation of the Prince Edward islands (plaques, flagpoles and graves) are of special historical interest. Several sealers and shipwrecked individuals are known to have been buried on the Prince Edward islands (Marsh 1948) but the sites of their graves remain unknown.

TABLE 1

KNOWN VISITS TO AND SOJOURNS ON THE PRINCE EDWARD ISLANDS UP TO THE TIME OF ANNEXATION IN DECEMBER 1947 AND JANUARY 1948

Date	Vessel	Purpose	Comments	Sources
4 Mar 1663	Maerseveen	trade	Dutch vessel, uncertain position no landing made, by Barent Barentsz. Ham	Leupe 1868, van Zinderen Bakker Sr 1971
13-14 Jan 1772	Mascarin & Marquis de Castries	discovery	French expedition, no landing made, by Marion-Dufresne	Rainaud 1965, Brossard 1972, van Zinderen Bakker Sr 1971
12 Dec 1776	Resolution & Discovery	discovery	British expedition, no landing made, under James Cook and Charles Clerke	Beaglehole 1967, van Zinderen Bakker Sr 1971
1799-1802	Sally	sealing	French expedition, under Pierre F. Péron and Stephen Hall	Headland in press
1802	?	sealing	"sealers' establishments" on both islands	Fanning in Tizard et al. 1885 *

1803-04	Union	sealing	U.S. expedition, under Isaac Pendleton	Kaye 1974
1804-6	Catharine	sealing	U.S. expedition, three visits, under Henry Fanning	Fanning 1834, Clark 1887, Bonner 1968, French 1974, Kaye 1974
1805	?	?	inscription, Cave Bay, Prince Edward	Marsh 1948
1806	?	?	inscription on Prince Edward	This report
1807	Favorite	sealing	U.S. expedition, under Captain Dundas	Headland in press
Aug 1818 and Apr 1820	Pickering	sealing	U.S. expedition, sealing gang left for two years, collected 50 000 gallons of elephant seal oil and c. 7 000 fur seal skins, under Samuel B. Edes	Phelps 1871, Richards 1984, Headland in press
1818	General Gates	sealing	U.S. expedition, under Abimeleck Riggs	Phelps 1871, Richards 1984
2 Nov - early Dec 1820	Princess of Wales	sealing	British expedition, on Prince Edward, took fur seals only, under William Veale	Goodridge 1852

1823	*Philo*	sealing	U.S. expedition, under Isaac Perceval	Goodridge 1852, Headland in press
1826-27	*Cape Packet*	sealing	British expedition, under Captain Duncan	Headland in press
1829	*Uxor*	sealing	U.S. expedition, under Benjamin S. Cutler	Roberts 1958
1830	*Victoire et Lise*	sealing and whaling	French expedition, under Captain Cormerais-Castel	de Pasquier 1982, Headland in press
1830-31	*Betsey and Sophia*	sealing	British expedition, took 40 tons of elephant seal oil, lost an anchor, rescued two stranded sailors, Richard Harris observed birds, under Peter Paterson	Hutton 1865, Savours 1961
1832-33	*Le Rochelais*	sealing and whaling	French expedition, under Joseph Béliard	de Pasquier, 1982, Headland in press
1833	*St Helena*		under Captain Long	R. Richards *in litt.*

1833-34	Athénais	sealing and whaling	French expedition, abandoned two crew members, struck one of the Prince Edward islands, returned in sinking condition, under Joseph Hignard	Lacroix 1938, de Pasquier 1982, Headland in press
1833-34	Harmonie	sealing and whaling	French expedition, under Etienne S. Kernel	de Pasquier 1932, Headland in press
1835-37	Paquebot Bordelais II	sealing and whaling	French expedition, under L. Liger	de Pasquier 1982, Headland in press
1838	L'Héroîne	protect whaling interests	French naval expedition, no landing made, under Jean-Baptiste T.M. Cécille	Marsh 1948, Headland in press
1839-40	Uxor	sealing	U.S. expedition, under Joseph E. Mitchell	Roberts 1958, French 1974
21 & 22 Apr 1840	H.M.S. Erebus & H.M.S. Terror	scientific exploration	British expedition, no landing made, under James Clark Ross, and Francis R.M. Crozier	Ross 1847, van Zinderen Bakker Sr 1971
1842-43	Emeline	elephant sealing	U.S. expedition, under Silas Latham	Clark 1887, Watson 1931

1842-Jan 1844	Franklin & Tenedos	elephant sealing	U.S. expedition, obtained 175 barrels of elephant seal oil from both islands, under Gurdon L. Allyn and Josiah Chester	Roberts 1958, Decker 1973, French 1974
1843-44	Bolton	sealing	under Ellery Nash	Headland in press
1845-47	Courier des Indes	sealing and whaling	French expedition, under Captain Rivallan	de Pasquier 1982, Headland in press
1848	?	sealing	inscription on Prince Edward	This report
1849	?	sealing	sealing party met by survivors of Richard Dart	Marsh 1948
19 Jun 1849	Richard Dart	shipwreck	British vessel, 11 persons on Prince Edward, 52 drowned, under Samuel Potter **	Marsh 1948, Roberts 1958
2 Sep 1849	Courier	sealing	Cape Colony expedition, rescued Richard Dart survivors, under Captain Wingfield	Marsh 1948
1856 - 1857	?	sealing	seven-man sealing party on Prince Edward	Marsh 1948

17 May 1857	Maria	shipwrecked sealer	Cape Colony ** expedition, 28 persons on Prince Edward, under Captain Hamilton **	Marsh 1948, Roberts 1958
6-8 Dec 1857	Flora	sealing?	Cape Colony expedition, rescued Maria survivors, under Captain Dodds	Marsh 1948, Roberts 1958
26 Dec 1873	H.M.S. Challenger	scientific exploration	British expedition, brief landing on Marion and hydrographic survey, under Captain G.S. Nares, Chief Scientist Charles Wyville Thomson	Moseley 1879, Tizard et al. 1885
1894	Antarctic	whaling exploration	Norwegian expedition, no landing made, under Henrick J. Bull (Leader)	Roberts 1958, French 1974
1901	Gauss	scientific exploration	German expedition, no landing made, under Erich von Drygalski **	Verwoed 1971
1906	Victoria	sealing	Cape Colony expedition, first steam vessel, under Carl Olsen	Roberts 1958

5 Oct-Nov 1908	Solglimt	shipwrecked sealer on 16 October	Norwegian expedition, 70 persons at Ship's Cove, Marion Island, 16 October, under Captain Ree	Marsh 1948
Nov 1908 & ? Dec 1908	Agnes G. Donohue & Beatrice L. Corcom	sealing	Canadian expedition, removed survivors of Solglimt & returned to islands following month for six crew of Agnes G. Donohue, under Harry Balcomb and F.W. Gilbert	Marsh 1948, Roberts 1958
1909-11	?	sealing	inscription on Marion	Rand 1956
May 1909	Victoria	sealing	South African expedition, 20 men ashore, under Carl Olsen or Charles Ocean Johnson, brought off elephant seal oil and skins	Marsh 1948, Green 1958, Roberts 1958, Headland in press
Mar 1910	Wakefield	search	British expedition, search for survivors of Waratah, landed at Ship's Cove, Marion	Marsh 1948, Roberts 1958
Nov 1911	Fram	discovery	Norwegian expedition, no landing made, under Raold Amundsen	Marsh 1948

21 Oct 1912 - 14 Apr 1913	Seabird	sealing, shipwreck	South African expedition, landed four men at Marion, wrecked at Prince Edward on 22 October (22 persons ashore), 11 crossings between islands in three lifeboats, under T. Hystad	Marsh 1948
14 Apr 1913	T.W.I	rescue	South African expedition, whale catcher, rescued Seabird party from Marion, under Carl Olsen	Marsh 1948
1920	?	sealing	inscription on Prince Edward	This report
1920	?	sealing	inscription on Marion	la Grange 1952
Mar 1921	Karatara	sealing	South African expedition, removed 15 Norwegian sealers from both islands (four from Prince Edward) after a four-month sojourn, 785 fur seals as well as penguins killed, 6 000 sealskins loaded, under Matthew Thomson	Anon. 1921, Green 1965

1921	?	sealing	inscription on Marion	Rand 1956
Apr 1929	Deucalion	search	British expedition, search for lost Københaven, no landing made, under Charles Melling	March 1948, Roberts 1958, French 1974
Oct-Nov 1930	Kildalkey	sealing	South African expedition, last known sealer, 1 490 elephant seals killed, under H.O. Hansen	Marsh 1948, Rand 1955, Roberts 1958, Rand 1962
1930-31	Oural	?	Norwegian expedition visited both islands, under M. Halbert Mikkelsen	Headland in press
1935	R.R.S. Discovery II	scientific exploration	British expedition, oceanographic survey, no landing made, under N.A. Mackintosh and A.L. Nelson	Marsh 1948, Roberts 1958
23 Jan 1939	Bougainville	scientific exploration	French expedition, brief landing at Ship's Cove, Marion, under Fabre de la Ripelle, Chief Scientist René Jeannel	Jeannel 1940

1939	H.M. Submarine Olympus	exploration	British expedition, examined anchorages, under Hugh V. King	Roberts 1958
Oct 1940	H.M.S. Neptune	search	British expedition, search for World War II prisoners, no landing made, under Rory C. O'Connor	Marsh 1948, Roberts 1958
25 Dec 1947	H.M.S.A.S. Transvaal	annexation	South African expedition, date of arrival given, under John Fairburn	Marsh 1948, Goosen 1973

* No record of this in Fanning (1834)

** = Colony of the Cape of Good Hope

BIOLOGICAL INTEREST OF SITES

Whereas sealers and castaways are known to have exploited seals and sometimes birds at the Prince Edward islands from at least 1802 until 1930 (e.g. Fanning 1834, Goodridge 1852, Moseley 1879, Anon. 1921, Marsh 1948, Rand 1956, van Zinderen Bakker Sr 1971, French 1974, Table 1) practically nothing is known of the level of such exploitation. Only two published accounts give numbers of animals killed: 785 "seals" (Anon. 1921) and 6 000 sealskins loaded (Green 1965) in 1921 and 151 male and 1 339 female southern elephant seals Mirounga leonina in October-November 1930 by the last sealing expedition (Marsh 1948, Rand 1955, 1962). Fur seals at the islands are now increasing in numbers (Kerley 1983). Does this reflect some beneficial change in their environment or is it simply a recovery from the pressures of exploitation ?

It is possible that at least some historical sites have middens containing animal bones. Study of these bones can provide biological information on such aspects as the species, age and sex ratios of seals that were killed and indicate whether penguins and other seabirds were heavily exploited. Middens could be aged by correlation with written accounts and by artefacts, such as crockery and glassware, found within them. In South Africa a similar approach has been applied to prehistoric archaeological sites and has provided much information on Upper Pleistocene and Holocene seal and bird populations of the southwestern Cape (see relevant references in Appendix 3).

HISTORICAL INTEREST OF SITES

Historical sites on sub-Antarctic islands should be studied for their intrinsic value as records of man's early activities in the Southern Ocean. Study of such sites at the Prince Edward islands will add to our knowledge of their history.

CONSERVATION OF SITES

The Prince Edward islands do not fall under the protection of the Antarctic Treaty and are not protected by State or Provincial conservation regulations. However, the seabird and seal fauna are partially protected by the Sea Birds and Seals Protection Act, 1973. Therefore, the protection of the islands themselves, and by implication their historical

sites, apparently has no formal status. Recently, a South African Scientific Committee for Antarctic Research/Interdepartmental Antarctic Committee (SASCAR/IAC) Working Group, following the spirit of the Antarctic Treaty, has produced a code of conduct for the protection of the environment at the Prince Edward islands as the first step in improving their conservation status. The code makes provision for the establishment of Specially Protected Areas (SPA's). Therefore, once the code is implemented it will be possible to designate selected historical sites as SPA's and thus afford them needed protection from interference such as souvenir and firewood collecting. However, whereas this may stop the removal of remains it will do nothing to record them or to protect them from the elements.

FORMAT OF THE WORKSHOP

For the reasons given above, a workshop on historical sites at the Prince Edward islands (up to and including annexation) was held at the Percy FitzPatrick Institute of African Ornithology, University of Cape Town on 28 June 1984. The workshop was open to invited delegates only. The workshop included two introductory lectures to provide the background to the historical, archaeological and biological potential of the sites, followed by discussions.

An important rôle of the workshop was to identify historical sites and then to make recommendations to SASCAR on the desirability and feasibility of research into, and the preservation of, these historical sites at the Prince Edward islands.

Participants were asked to act as rapporteurs for each workshop discussion, and their reports were collated by the editors after the workshop into a draft workshop report. This report, after considerable additional research into the relevant literature, was circulated to all participants for comment, after which this final document has been produced for submission to SASCAR.

REPORTS OF DISCUSSION SECTIONS

INVENTORY, DESCRIPTION AND DISTRIBUTION OF KNOWN HISTORICAL SITES IN RELATION TO THE PRESENT DISTRIBUTION OF SEALS AND PENGUINS

Historical sites and their contents on the Prince Edward islands were documented and identified from the literature, participants' contributions and photographic material. Several such sites are marked on the topographic maps of Marion and Prince Edward islands produced by Langenegger & Verwoed (1971) who also give the derivations of many of the place names of the two islands.

Marion Island

The following sites were identified (numbers refer to localities on Fig. 1):

1. Mixed Pickle Cove

La Grange (1952) maps this hut but, surprisingly, Langenegger & Verwoed (1971) do not. The hut may have been used by sealers from the Karatara (Anon. 1921, Green 1965, Table 1). In 1951/52 a complete hut (Figs. 2 & 3), fully equipped for sealing (skinning knives, beaming boards, clubs, rifles, revolvers, rope and stores, some of which were still edible) was found here (Rand 1956). It had been used by sealers in 1909-1911 and 1920-1921 according to inscriptions on its walls (Rand 1956). La Grange (1952) gives the date "1920" and also states that the names of "several South Africans" were carved on the sides of the wooden bunks. By 1964 the hut was no longer standing but the foundations and some timber are still present. Although much material has been removed by souvenir collectors, the following artefacts have been recorded from this site in the recent past: a rotating grindstone, glass bottles (O.K. Sauce and mixed pickles), tools (chisel, awl?), stove remains, ceramic shards (in 1973 there were at least three ceramic bottles), remains of boots (soles and uppers), kettles, a roll of steel cable and cartridges (marked "Hagen 12*"). La Grange (1952) reports that in 1951/52 this hut contained "two pistols, two pairs of binoculars, a rifle, plane, saw, hammer-axe, tinned Australian butter, several bottles of vinegar, mustard, two boxes of mixed pickles (of exceptionally good quality), a miscellaneous collection of cooking utensils, hurricane

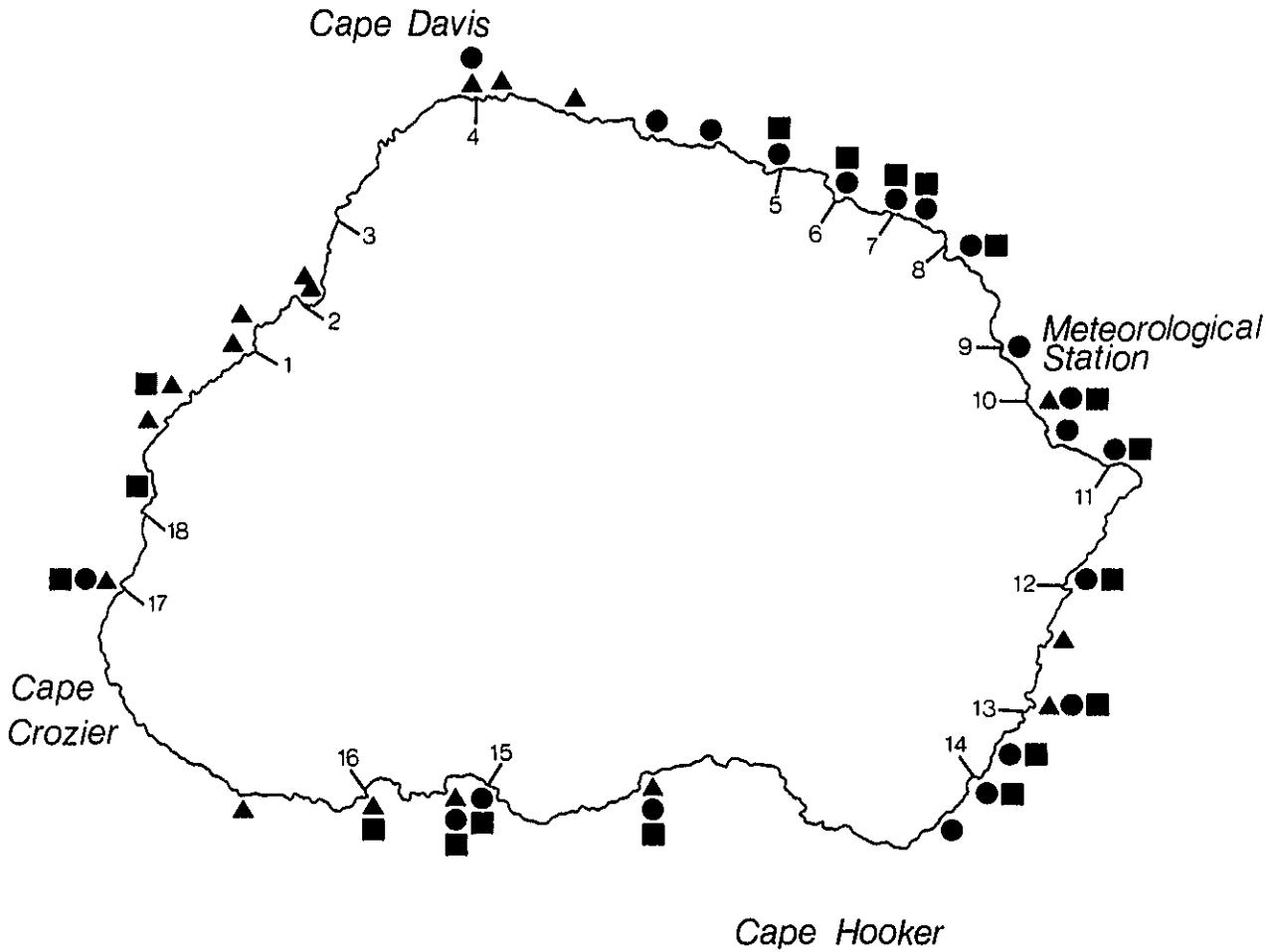

Figure 1

Marion Island showing the numbered historical sites (see text for details) and the distribution of the major concentrations of fur seals (triangles), elephant seals (circles) and penguins (squares).

lamps, books etc. and several gallons of paraffin." A rusty rifle and "other relics" were removed from this locality in January 1972 (Anon. 1972).

2. South side of Triegaardt Bay

The stove-in cutter (a small planked boat) mentioned by Rand (1956) is still present although almost totally buried. The moist soil conditions may have preserved the wood. This beach is a relatively sheltered landing site and possibly served the encampment at nearby Mixed Pickle Cove which is a more exposed landing site.

3. North of Triegaardt Bay

The remains of a shelter have been reported but the exact location is uncertain. R.W. Rand (in litt.) reports observing pottery and planks at this locality in 1951/52.

4. Cape Davis

A hut stood in this area during 1951/52 (Rand 1956) and a few artefacts still remain. These include a cast-iron kettle (with the word "EIRE" cast on the lid), rotating grindstones, pottery shards, broken bottles, remains of a stove and some timber. Crawford (1982, p.138) reports a hut being found in the north-west of Marion Island in 1948, which may have been at this locality. He reported it to be "twelve-by-nine-foot" and containing two grindstones, some kettles, pots and pans and thirteen bottles of pickles. The hut contained bunks and shelving. He specifically states that no trypots were seen. Both la Grange (1952) and Langenegger & Verwoed (1971) map a hut in this vicinity. The former publication also maps a grave some way inland from the hut. The beach at Cape Davis also has a natural accumulation of driftwood and pumice which should not be confused with sealers' remains. A large driftwood log with carved patterns was found at this locality and is now in the station.

5. King Penguin Bay

The Challenger Expedition found a small ruined hut at Marion Island in 1872 containing "an old iron pot, several old casks, and some hoop iron; evidently an old sealer's hut" (Moseley 1879). The hut was situated on the edge of a partially deserted King Penguin Aptenodytes patagonicus colony which "was strewed everywhere with the bones of the penguins in heaps". Moseley (1879) considered that the sealers " had probably employed their spare time in making penguin oil, and taking perhaps skins, which are made up into rugs and mats at the Cape of Good Hope". Tizard et al.

(1885) also refer to this hut saying it was "without a roof, and overgrown with weeds". It is clear from Tizard et al. (1885) that this hut and the King Penguin colony were at King Penguin Bay, as also deduced by Rand (1956). It would seem that remains of this hut no longer exist, at least on the surface.

6. Sea Elephant Bay

Well-preserved stone walls, approximately 1 m high, are situated under an overhang at the northwestern end of Long Ridge. This site is not well known and may therefore yield some interesting artefacts. The site is mapped by la Grange (1952) and Langenegger & Verwoed (1971) and is listed by Rand (1956). Tizard et al. (1885) refer to the remains of a hut built in a cave which may have been at this locality. They reported that a "few cooking utensils ... were scattered about".

7. Sealer's Beach

The hut foundations and iron scraps found here may represent the "penguin-collectors" huts observed in 1910 (Marsh 1948). The site is listed by Rand (1956).

8. Ship's Cove

This is the site of the wreck of the sealing steamer Solglimt on 16 October 1908 (Marsh 1948, Table 1). The survivors constructed a "small village" against the cliff, housing 70 men with four men to each "timber hut" and a large hut in the centre used as a cookhouse and storeroom. The shipwrecked party was rescued only one month later (Marsh 1948, Table 1). A photograph taken at this locality in 1948 is pictured on p.130 of Crawford (1982) and the site is listed by Rand (1956). See also Fig. 4.

In March 1910 the huts "were still standing, one with tables and chairs and the storeroom containing a cooking stove and large quantities of provisions" (Marsh 1948). Three hauled-up boats and three trypots were also present at this time. The "village" was later used by the survivors of the Seabird who sailed across from Prince Edward Island in 1912 (Marsh 1948, Table 1).

At present there are quantities of timber, some bricks, the remains of stoves and a pump, spades, cartridges, broken pottery and glassware. There are two trypots on the beach, one of which is broken, and a third trypot and an anchor are located near the wreck of the Solglimt, parts of which are visible from the shore at low tide in calm conditions.

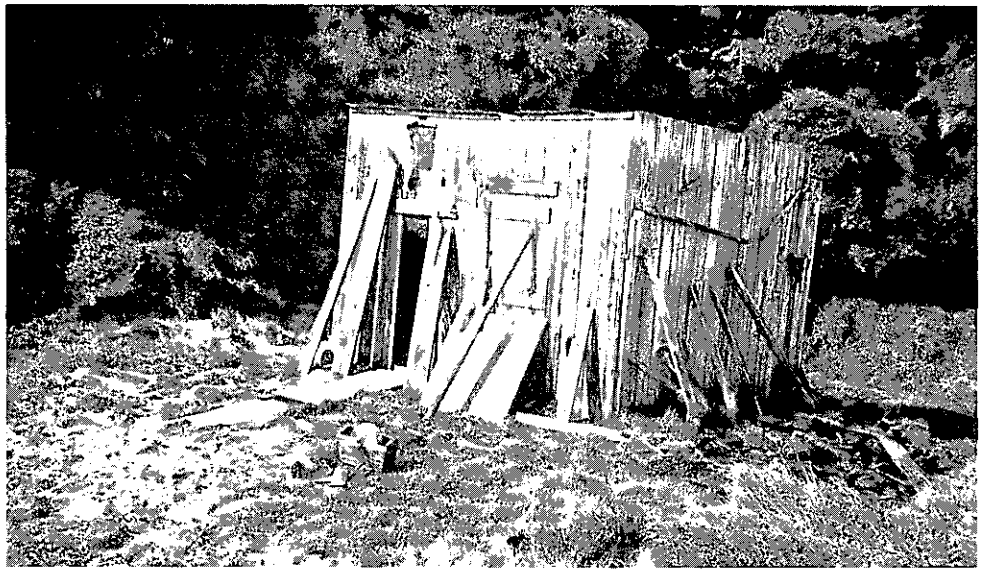

Figure 2
The sealers' hut at Mixed Pickle Cove, Marion Island (Locality 1), photographed in 1951/52. Note the rotating grindstone.
Photograph courtesy of R.W. Rand.

Figure 3
The same hut as depicted in Fig. 2, with R.W. Rand (Biologist, 8th South African Expedition) standing in the doorway.
Photograph courtesy of R.W. Rand.

Figure 4
Remains of a hut and artefacts at Ship's Cove, Marion Island (Locality 8), photographed in 1948.
Photograph courtesy of A.B. Crawford (Officer-in-charge, 1st South African Expedition).

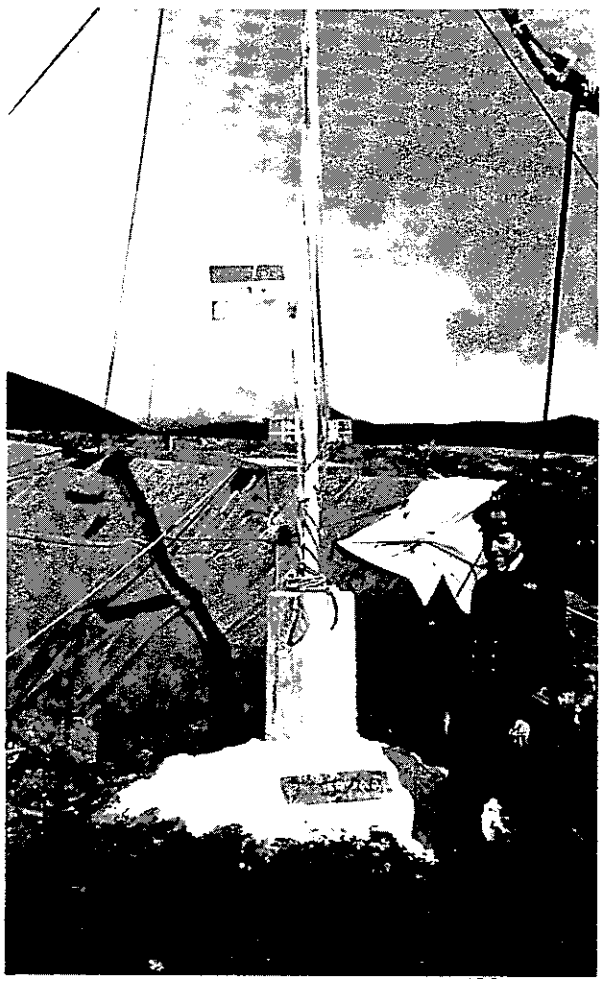

Figure 5
The flagpole and annexation plaque at Transvaal Cove, Marion Island (Locality 9), photographed in 1948.
Photograph courtesy of A.B. Crawford.

Due to the site's proximity to the scientific station (Fig. 1) it has suffered extensive souvenir collection. Some of the wood has been burnt at campfires in the recent past. The 1948 photographs of Crawford (1982) include a rotating grindstone and a cooking pot which are no longer present. Bottles of Worcester sauce were found in 1948 at this locality (Goosen 1973).

9. Transvaal Cove

Marsh (1948) records sealers' remains from this locality, but all traces have now been masked by the station which is built on this site. The brass Marion Island annexation plaque, bearing the inscription "H.M.S.A.S. Transvaal, 29.12.1947" (Fig. 5) has been recently remounted on a concrete plinth next to the station. The Deed of Sovereignty was placed in a brass cylinder made from a 40 mm Bofors cartridge-case and buried in "a disused penguin burrow" at the foot of the original cairn on Cabbage Point on which the plaque was placed (Marsh 1948). The entrance to the burrow (presumably that of a burrowing petrel) was sealed with heavy stones (Marsh 1948). It is uncertain what became of this cylinder and its contents.

Approximately 0,5 km south of the station a wooden cross marks the grave of Joseph Daniels (Fig. 6), a seaman of the S.S. Gamtoos, who drowned on 29 January 1948 while offloading material for the construction of the meteorological station (Marsh 1948, Crawford 1982). Apparently this cross has been blown out and replaced several times. A second cross, without inscription, is situated c. 50 m south of the station and dates from after annexation. It could possibly commemorate a man who drowned in Transvaal Bay on 13 April 1963 (Roets 1963).

Somewhere inland from Transvaal Cove at least four cartridges of German manufacture were found in early 1948 (Marsh 1948, photograph opposite p.89). At least one was of .45 calibre and bore the inscription "H. Utendoerffer, Nurnburg" (Marsh 1948, p. 129).

10. Trypot Beach

One of the best known sealers' sites on Marion Island. Uncertainty exists as to whether the trypot now found here is the original trypot (Fig. 7) or the one recently removed from the cave in Cave Bay on Prince Edward Island. Hut foundations and artefacts are to be found at the back of the beach.

11. Archway Bay

There is a large amount of timber on this beach, probably mainly driftwood.

12. Bullard Beach

A trypot, wooden hut foundations and some rusted artefacts are to be found here. Rand (1956) refers to this site. This is likely to be the site pictured on p. 131 of Crawford (1982) from a photograph taken in 1948, according to G.J.H. Kerley (in litt.). This photograph shows two trypots close together, but only one is now present.

13. Sealer's Cave

The cave shows signs of habitation, with rocks piled up at the entrance. A pile of penguin skins and a few artefacts are also present in the cave. On the clifftop is a square stone structure (c. 1,5 m square) which may have been a lookout hut (Fig. 8). The cave pictured on p. 138 of Crawford (1982), from a photograph taken in 1948, is of Sealer's Cave (A.B. Crawford pers. comm.). Crawford (1982) describes the cave in 1948 as having a stone wall at its entrance with "beach sand filled in to form a level floor"

14. Kildalkey Bay

There appear to be some stone foundations near the eastern end of the bay, but these are obscured by the large King Penguin colony. Rand (1956) lists Kildalkey Bay as a sealer's camp.

15. Goodhope Bay

A broken trypot and a few artefacts are located underneath a rock overhang at the eastern side of this bay. This locality and the remains of a trypot and wood are referred to by Rand (1956). La Grange (1952) maps this cave but Langenegger & Verwoed (1971) do not.

16. Rook's Bay

Rand (1956) mentions a camp located at Rook's Bay that was apparently in use in 1921 (dated by the brand of matches found). In 1951/52 "Bell tents, various food stuffs (tea, beans), fuel and utensils lay packed against a sheltering cliff" (Rand 1956). La Grange (1952) maps a "sealers' campsite" at this point, but the locality is not mapped by Langenegger & Verwoed (1971), presumably because no hut

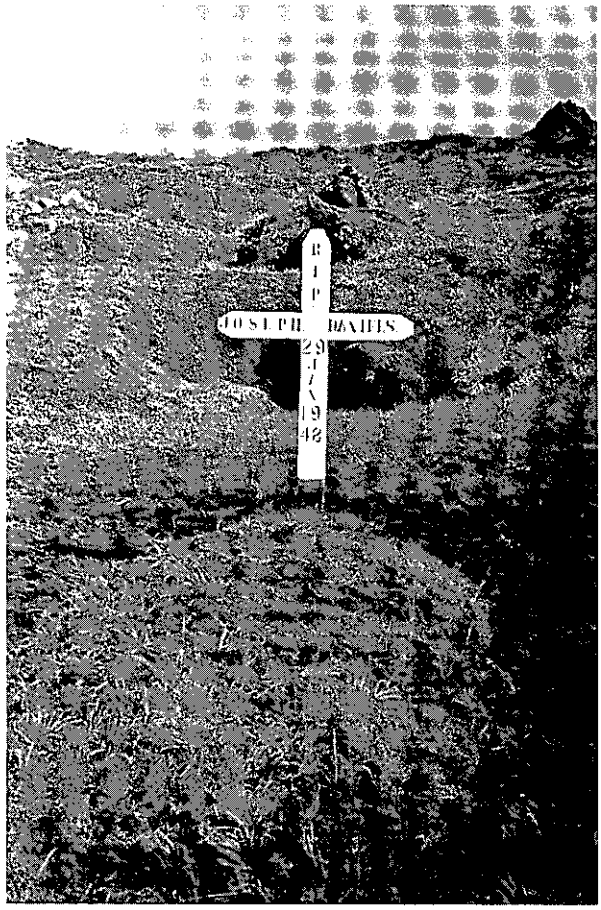

Figure 6
The grave of Joseph Daniels, Transvaal Cove, Marion Island (Locality 9), photographed in 1948.
Photograph courtesy of A.B. Crawford.

Figure 7
Sealers' trypot at Trypot Beach, Marion Island (Locality 10), photographed in 1948.
Photograph courtesy of A.B. Crawford.

Figure 8
Stone structure above Sealer's Cave, Marion Island (Locality 13), photographed in 1948.
Photograph courtesy of A.B. Crawford.

Figure 10
One of the three stone enclosures at R.S.A. Point, Pince Edward Island (Locality 3), discovered and photographed in 1984.
Photograph courtesy of B.P. Watkins.

remains were found in 1964. At present, some timber, bottles, a kettle (same type as at Cape Davis) and the remains of a stove are all that can be seen. It would seem that this site was used by sealers from Cape Town, South Africa (Rand 1956).

17. Swartkop Point

There are two small interleading shelters dug into a volcanic ash face, with the foundations of a hut c. 5 m to the west. Rand (1956) found "utensils, boxes, bags and three rifles" here in 1951/52, but at present only one rifle (in very poor condition) remains. La Grange (1952) states that an "old flint-lock rifle" was found in this cave in 1951/52. Other artefacts presently at this site include a revolver, a rotating grindstone, a kettle (same type as at Cape Davis), an enamel plate and some tent pegs. Inscriptions on the nearby cliff-face include one which could be the name of Capt. Hystadt of the Seabird. Although the ship was wrecked on Prince Edward Island in 1912, the survivors subsequently moved to Marion Island (Marsh 1948, Table 1).

18. Kaalkoppie

The remains of a shelter lie to the south of Kaalkoppie, but its exact position is uncertain. Rand (1956) reports finding "camp sites" between Swartkop Point and Mixed Pickle Cove in 1951/52 which could have been at this locality.

Prince Edward Island

Due to the inaccessibility of Prince Edward Island, except during brief periods when the supply ship is in the vicinity (see Appendix 2), sites have been less disturbed by humans than they have been on Marion Island. Three ships are known to have been wrecked on Prince Edward Island: the Richard Dart (19 June 1849), Maria (17 May 1857) and the sealing schooner Seabird (or Sea Bird) (22 October 1912) (Marsh 1948, French 1974, Table 1). The sites of the wrecks are not known and no remains presently exist. The following historical sites have been identified (numbers refer to localities on Fig. 9).

1. Hope Stream Beach

This locality is inshore of Ross Rocks. A cave with a stone wall across the entrance and extensive hut foundations

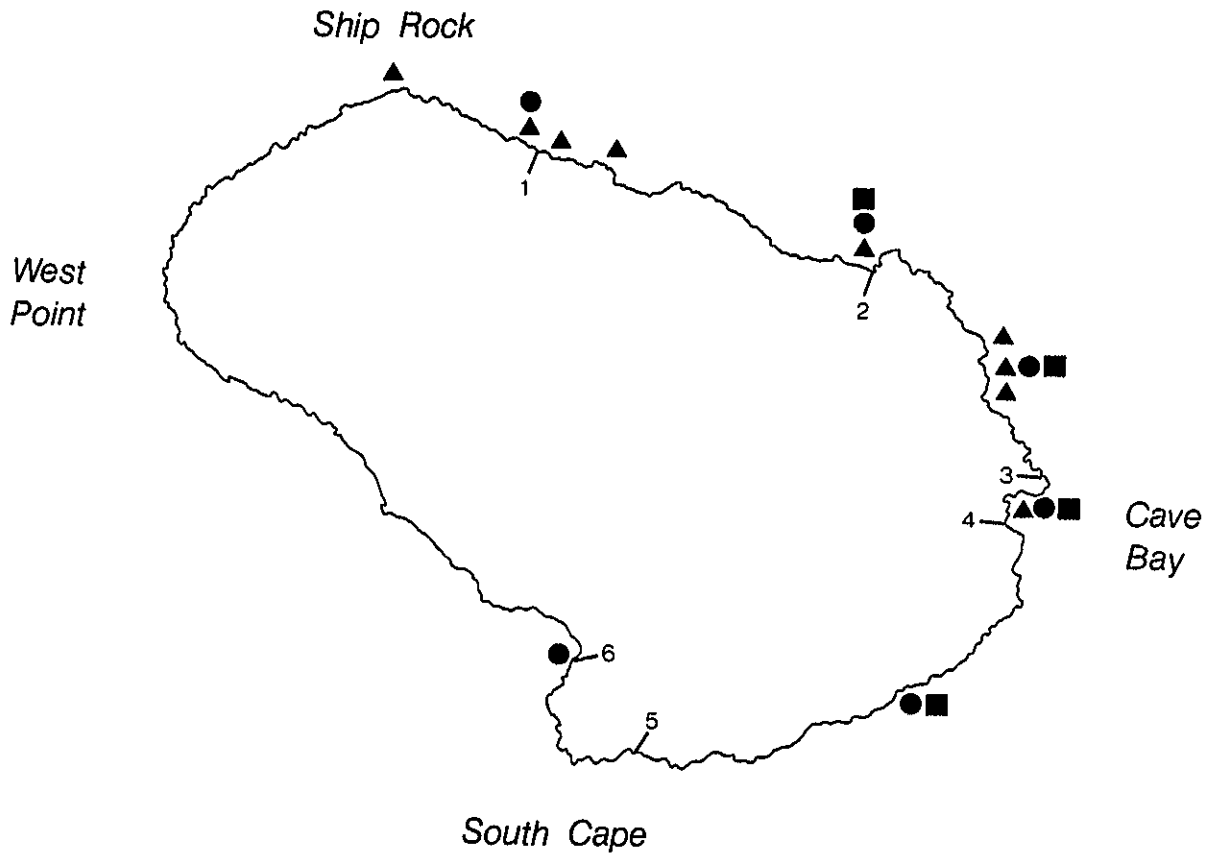

Figure 9

Prince Edward Island showing the numbered historical sites (see text for details) and the distribution of the major concentrations of fur seals (triangles), elephant seals (circles) and penguins (squares).

mark one of the best preserved sealer/shipwreck sites. At the mouth of the cave there are a number of inscriptions including: JOHN ROCHE 1806, O. WILLIAMS (?), GEORGE (?), ANTHONY MALCOLM, JOHN A??AM 1806, and the date 1848. The date 1848 would correspond to the 12-man sealing party met by the survivors of the Richard Dart (Marsh 1948). This sealing party of twelve men had been " killing sea-elephants and frying (sic) oil out of them" (Marsh 1948). The name M. VAN CRAHN with the date 1920 is inscribed on a boulder on the beach, possibly by one of the party of 15 sealers collected by the S.S. Karatara in March 1921 (Anon. 1921). However, some of this party were on Marion Island (Anon. 1921, Table 1). Artifacts at this site include a roll of steel cable, rope, bottles of mixed pickles with their contents intact, pottery shards, the remains of a wooden barrel and a stove and quantities of timber.

2. Albatross Beach

This is possibly the site of the hut occupied in 1849 by sealers and the survivors of the Richard Dart (Marsh 1948). The hut was described as being three miles from a cave, presumably at Cave Bay (see below). The hut foundations are all that remain. If it is this hut, then the grave of William Goldsmith, a survivor of the Richard Dart, who died on 24 August 1849 and was buried the next day (Marsh 1948), should be nearby.

3. R.S.A. Point

Three stone enclosures (Fig. 10), possibly used for holding Macaroni Penguins Eudyptes chrysolophus from the nearby breeding colony (Watkins 1985), were discovered in 1984. They may also be the walls of shelters originally roofed with canvas. The largest enclosure has a diameter of approximately five to six metres (Watkins 1985).

4. Cave Bay

The cave at Cave Bay appears to have been well known to sealers and remnants of earthern walls are visible at the cave's mouth. According to Marsh (1948) the date "1805" is inscribed in the rock in this cave but this inscription has apparently not been recently observed. A trypot used to be in the cave but was removed in April 1982 and its present location is uncertain. Anderson and Tohure Lundstedt, survivors of the Seabird, were buried nearby in October 1912 and 1 March 1913 respectively when the cave was used by 22 persons from the Seabird shipwreck (Table 1). Both graves were marked with "wooden crosses made out of wreckage from the Seabird with their names crudely carved on them" (Marsh 1948). The exact whereabouts of these two graves

are unknown. At present the cave is flooded, but if drained might yield remains.

Cave Bay is the locality where the island's annexation to the then Union of South Africa was proclaimed (Marsh 1948, Goosen 1973). The brass plaque of the annexation on 4 January 1948 from the H.M.S.A.S. Transvaal and the flagpole from the second landing on 24 January 1948 from the H.M.S.A.S. Natal (the latter moved from the site figured in the frontispiece of Marsh 1948) are still present. However, it is not known what has happened to the Deed of Sovereignty in its metal container which was thrust into a bank of peaty soil tied to a metal flagstaff (Marsh 1948). The plaque bears the inscription "HMSAS Natal landed 24/1/48", to which has been added: "landed 8/4/49"; "10.4.50"; and "MV RSA 18.3.65". Van Zinderen Bakker Sr (1971) found a "heavy anchor" just south of this cave in 1965/66. This anchor was removed from the island in September 1980. Its present locality is uncertain.

Wooden foundations and pieces of broken crockery and glassware are situated adjacent to the Cave Bay King Penguin colony, to the southwest of the cave. On the slopes above this colony there is a small cave with a low stone wall at its entrance, containing remains of a trypot and one wooden plank.

5. South Cape

Two shelters constructed from stove-in boats and jetsam are to be found here. One is approximately 500 m inland, whereas the other is close to the shore, approximately 10 m above sea level. A stone wall and wooden planks are present at the latter locality which is the possible landing site of the survivors of the Richard Dart in 1849 (Marsh 1948).

6. McNish Bay

Signs of human habitation are visible at the southern end of the bay, in a small overhang beneath a cliff, with tent pegs, canvas and some timber. Quantities of jetsam (mainly timber and fishing buoys) accumulate on this rocky beach. At the northern end of the bay there are wooden foundations which are probably the remains of a hut.

Discussion

One of the chief factors influencing the distribution of historical sites at the Prince Edward islands is the presence of safe landing points. It would appear, however, that sealers managed to land, or perhaps were wrecked, on some extremely exposed beaches, especially on the west coasts of the islands. The stove-in cutter at Triegaardt Bay suggests that they may not have landed there by choice. They may, of course, also have reached some of these western coastal sites overland from safer landing sites on the leeward east coasts.

The distribution of remains of sealing activities is closely correlated with the present distribution of fur seals Arctocephalus spp. and southern elephant seals (Figs. 1 & 9), although very little is known about the distribution of seals before the sealing era. If the present trend of increasing fur seal numbers represents a recovery from sealing (Kerley 1983), then presumably fur seals were extremely abundant on the islands when first discovered. From accounts of sealing at other localities (Watson 1931, Bonner 1968, Appendix 3), it would appear that when seals were abundant, sealers visited the islands only over summer seasons. However, when seal numbers decreased as a result of their activities, it later became the practice to land sealing parties on the islands for periods of up to several years. This would have necessitated the construction of substantial shelters. Thus, the most prominent remains of today probably originate from this second phase of sealing.

There appear to be two types of sealers' sites on the Prince Edward islands (excluding shipwreck sites): those containing trypots and those containing cast iron kettles and rotating grindstones. The distribution of known trypots is associated with present day elephant seal concentrations, at relatively sheltered landing sites mainly on the leeward coasts of both islands. Concentrations of penguins also occur at these sites nowadays (Figs 1 & 9). Few other suitable haul out sites exist and it is likely that these areas also represent the historical distribution of elephant seals and penguins. The latter could also have fueled the fires below trypots for trying down elephant seal blubber.

Most of the cast iron kettle and grindstone sites are located on the windward western coasts of the islands, in spite of the fact that the western coast of Prince Edward Island is generally less accessible to landing parties than is the case on Marion Island (Kerley 1983). These sites may have been associated with the taking of fur seal pelts (rotating grindstones for sharpening knives) and, therefore, might represent the centres of fur seal concentrations

during the summer months in the earlier part of the sealing era. The kettles may represent sites of more permanent human occupation, probably during the second phase of the sealing era and still mainly associated with the taking of fur seal pelts.

Large scale exploitation of elephant seals appears to have developed during the late 1800's as an adjunct to the whaling industry, so presumably the trypots originate from this period. If the wreck of the Richard Dart did occur off South Cape on Prince Edward Island, with the survivors later moving to a cave (Marsh 1948), presumably at Cave Bay, then they would surely have mentioned the trypot in the cave. It does, therefore, appear that this trypot, at least, was placed there after 1849. However, the 1849 sealing party at Prince Edward Island was engaged in killing elephant seals (Marsh 1948).

INVENTORY OF HISTORICAL ARTEFACTS REMOVED FROM THE ISLANDS

It was agreed that an inventory of historical artefacts from occupied sites on the islands should be prepared. The possibility of acquiring souvenirs previously removed from the islands was discussed. It was agreed that photographs of historical materials would also be of value for the records.

No historical artefacts were brought to the workshop but J.R. Grindley noted that he had a bottle of Mason's OK Sauce from the Hope Stream Beach site, Prince Edward Island. This was recorded in a letter to JRG from Sidney G. Brown, National Institute of Oceanography and tabled at the workshop. W.J. Verwoerd noted that he had a rusty axe which he had collected from a site at Marion Island.

The existence of a large number of other historical artefacts in South Africa, including large objects such as trypots, anchors, kettles, guns, etc., was discussed but the whereabouts of these items was uncertain. It was agreed that it would be desirable to obtain information on what objects had been removed and to do something about conserving this material. The establishment of a formal collection at a museum was desirable to ensure the proper curation of such material. It was agreed that in addition to artefacts, photographs, notebooks, and other records were also of value.

It was recognized that for various reasons it would not be

possible to acquire all the artefacts that had been removed from the islands. It was considered that in some cases photography of artefacts or the copying of existing photographs would be easier. It was noted that photographs taken by A.B. Crawford, G.I.H. Kerley, R.W. Rand and W.J. Verwoerd would be particularly useful.

It was noted that the Department of Transport Museum, Pretoria, has a small display of historical artefacts from the islands but it was considered that better examples exist in private collections in South Africa.

A number of notable specimens was known to have been removed from the islands including reputedly some trypots and an anchor by the Department of Transport, a rusty gun by a former Medical Orderly, L. de Beer, ceramic bottles from Mixed Pickle Cove, etc.

LITERATURE SEARCHES AND SOURCES

Discussions indicated numerous sources, mostly unpublished, which could provide valuable insight into the activities of sealers and knowledge of historical sites at the Prince Edward islands. It was pointed out that information on sealers would be limited owing to the secretive habits of sealing masters.

Sources are

(a) Sealers' logbooks. Though rarer than whalers' logbooks, these should provide important details of localities, catches and so forth. Most (c. 60%) of those known are at the Blunt White Library, Mystic, U.S.A. (c. 80 logbooks), but it was not known if these included information on the Prince Edward islands.

(b) Newspapers of the period can provide useful information on ports of origin and destinations of ships and dates of visits. Newspapers frequently specify types and quantities of cargo. P.B. Best mentioned that several instances of sealers' visits to the Prince Edward islands are contained in the Cape Town Shipping and Commercial Gazette for 1805. Local newspapers as well as those elsewhere, particularly the U.S.A., would need to be checked. Searches of published lists of arrivals and departures of ships which are available for some ports, e.g. Sydney, may shorten the searching time considerably.

(c) Archives. Information relating to more recent visits to the islands is or may be stored in the Cape Archives (Superintendent of Government Guano Islands in relation to the use of the S.S. Gamtoos as a supply vessel to Marion Island in 1948; Marsh 1948), the Central Archives, Pretoria (planning files of the First Biological and Geological Expedition) and the South African Navy Archives (relating to the annexation of the islands).

(d) Sources for more recent exploitation include the Minutes of the Kerguelen/Southern Whaling and Sealing Company, presently housed at the offices of the Anglo-Vaal Co. Ltd., Johannesburg, and the personal recollections of some who were present on early expeditions (for example, P.B. Best mentioned a retired storeman who had been a teaboy while elephant sealing for the Kerguelen/Southern Whaling and Sealing Company).

(e) Other possible sources of information are the Public Records Office, Kew, U.K., for customs records, auction houses dealing in seal skins (e.g. Dunn's Sales, London, U.K.), and records and files of institutes such as the Scott Polar Research Institute, Cambridge, U.K.

PRELIMINARY FIELD RESEARCH

It was clear from the discussions and photographs presented at the workshop that, whereas souvenir collectors had removed artefacts, material still remained on the surface at a number of sites. The meeting expressed concern that artefacts were apparently still being removed from the islands from time to time and that timber from historical sites had been used to fuel camp fires. Deterioration of artefacts may have been accelerated by the trampling effects of seals, penguins and people. Many of the sites are located at good landing points and form part of important seal and penguin breeding areas. Erosion is obliterating inscriptions cut into friable rock surfaces. Recent lava flows (Verwoed et al. 1981) may have obliterated some historical remains.

No archaeologist or historian is known to have visited the Prince Edward islands. Although a number of persons interested in historical sites at the islands have photographic records, no proper scientific and systematic assessment of the historical, archaeological or palaeontological significance of remains on the island has been made. Until this is accomplished there is limited value in setting up a properly planned research programme.

It was agreed that:

1) A reconnaissance to evaluate as many historical sites on the islands as possible should first be undertaken. Such a reconnaissance should be conducted by an archaeologist accompanied by a guide who knows the sites and island conditions.

2) The results and recommendations of the reconnaissance should be presented before further action is contemplated. In the event that a research programme is considered unfeasible the information gained on the initial survey would nevertheless have increased our knowledge about the historical significance of the sites.

3) The reconnaissance should aim to establish the following:

   a) the locality and condition of natural shelters and built structures such as hut remains, etc.

   b) a detailed record (including photography) of all known inscriptions and visible artefacts

   c) the existence of deposits which might include animal bones

4) If it proves feasible and likely to yield useful results, specific project(s) at specific site(s) could be considered with a view to gathering more information on sealing activities and their biological effects.

IN SITU CONSERVATION OF SITES AND ARTEFACTS AND DESIRABILITY OF REMOVING MATERIAL FOR SAFEKEEPING

In principle, members of the workshop agreed with the code of conduct for environmental protection at the Prince Edward islands produced by the SASCAR/IAC Working Group. The code will enable protection of historical sites as SPA's. Souvenir collection would then be prohibited at these sites while scientific collections and investigations could proceed. The urgent need for the protection of such sites was demonstrated by reports of the rotting of wood, rusting of artefacts, souvenir collecting, use of wood for camp fires and the interchange of artefacts between localities.

The harsh environment and elements pose a threat to all but

substantial structures. Artefacts and inscriptions exposed at the surface do not have protection from the elements. Many of the surface artefacts have been removed. Some of these have been replaced in incorrect localities and others have not been replaced at all. The survey, recording and curation of sites and artefacts appear crucial, even in the light of protection of these sites. Involvement of archaeologists is necessary to conduct a reconnaisance survey programme as described in the previous section.

The preservation of sites on the Prince Edward islands should include the following points:

1) The need for an archaeological survey and cataloguing of site material and site distributions.

2) Members of research, meteorological and construction teams should not disturb historical sites or move or remove artefacts. Any new discoveries should be reported, but not disturbed.

3) The reasons for the preservation of historical sites at the Prince Edward islands should be briefly outlined to persons staying at or visiting the islands.

4) The survey and cataloguing of artefacts and sites should include a recommendation for the removal of fragile and deteriorating artefacts for safe-keeping and preservation.

5) Priority should be given to the undertaking of a photographic record of all inscriptions on the islands.

6) Where possible, some of the inscriptions should be protected, especially those carved in softer rock.

PROTECTION OF SITES: ADEQUACY OF EXISTING LEGISLATION AND CODES OF CONDUCT; NECESSITY FOR FURTHER LEGISLATION

It was understood that the Prince Edward islands are covered by South African legislation under the provision of the Prince Edward Islands Act, 1948. The National Monuments Act of 1969 (amended in 1979 and 1981) is the appropriate legislative control for historical sites in South Africa. However, it was noted that, under the National Monuments

Act, protection does not extend to historical materials later than 1652, except in the case of shipwrecks, their contents or the contents of survivor camps which are older than 100 years. Thus, some of the more recent historical sites at the Prince Edward islands would apparently not qualify for protection under the National Monuments Act.

It was felt that the proposed Code of Conduct for the Prince Edward Islands will meet many of the requirements for the protection of historically important sites, but it was realized that no matter what agreed or legalized measures were taken to protect sites, the most important and effective factor was an awareness of their value by those who visited the islands. Therefore, it was recommended that an 'awareness campaign' should be considered, suggestions for which should be taken up in the report of the reconnaissance party.

CURATION AND INTERPRETATIVE DISPLAY OF MATERIAL

It was agreed that:

1) There is an urgent need to protect historical sites at the Prince Edward islands as well as artefacts and inscriptions which occur at them. Degradable materials will not last forever in exposed conditions and some fragile materials should be removed for safekeeping and curation in South Africa.

2) Ideally, there should be some interpretative display at the station at Marion Island or at Trypot Beach (to include a trypot). A greater understanding and awareness of the importance of historical sites should be generated. This could be achieved by the inclusion of information on the historical background to the Prince Edward islands in a handbook introducing the visitor to the islands.

3) Material generated from a programme of excavation should be housed in a designated institution, preferably a museum, as is the case with specimens collected by biological investigations at the Prince Edward islands. Such a centre would most appropriately be a maritime museum with facilities for both curation and research.

4) Archival material should also include copies of logbooks, manifest lists, etc., from modern times as well as those of the past.

DESIRABILITY AND FEASIBILITY OF A RESEARCH PROGRAMME TO EVALUATE THE BIOLOGICAL SIGNIFICANCE OF HISTORICAL SITES AT THE PRINCE EDWARD ISLANDS UNDER THE AEGIS OF SASCAR

A research programme to evaluate the biological significance of historical sites was considered desirable in principle. Excavation of selected sites after a reconnaissance survey might reveal the potential for such a study. Archaeological research could provide a means of investigating biological significance in that it may define the time frame of sealing activities. However, the evaluation of the past impact of sealers on seals and birds through examination of excavated biological material, such as bones, in areas of sealers' habitations was thought to be considerably limited due to the sealers' habit of processing animals on the spot where they were killed.

A SUMMARY OF RECOMMENDATIONS OF THE WORKSHOP

1) An archival centre should be established, preferably at a maritime museum, to curate historical artefacts previously removed from the Prince Edward islands, along with other records of historical interest (e.g. documents, photographs). Appeals should be made to private individuals possessing souvenirs to donate them to the centre once it is established.

2) An investigation of historical records pertaining to the Prince Edward islands should be conducted. Such an investigation could perhaps be undertaken as part of a postgraduate thesis. It is recommended that SASCAR consider funding such an investigation if a suitable person can be found.

3) SASCAR should be requested to approve a visit to the Prince Edward islands by an archaeologist, along with a guide who has experience of the historical sites. It was considered that a minimum of 14 field days with helicopter support to visit Prince Edward Island would be required. Such a visit should include making a photographic record of historical sites and lists of visible artefacts and inscriptions. Some preliminary excavations could take place as well. The archaeologist should be requested to report on the desirability and feasibility of further investigations, with reference inter alia to the biological significance of historical sites. He/she should also be asked to make suggestions for an 'awareness campaign' to reduce disturbance at historical sites.

4) Removal and disturbance of historical artefacts at the Prince Edward islands should not be allowed (but see below). This prohibition should include the use of timber (but not driftwood) for camp fires.

5) Consideration should be given to removing fragile and deteriorating artefacts from the Prince Edward islands for curation. The existence of an archival centre (see above) would facilitate such curation.

6) Improved aerial photographs and maps of the Prince Edward islands should be produced to aid inter alia in research at historical sites. To this end, a naming commission should be established under the auspices of SASCAR to produce a gazetteer of existing place names and their derivations and to devise new names.

7) Any new legislation to protect the environment of the Prince Edward islands should take historical sites into account.

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APPENDIX 1

A schedule of South African Expeditions to Marion Island, 1948-1985

INTRODUCTION

The sub-Antarctic Prince Edward Islands in the southern Indian ocean consist of Marion Island (46o 54'S, 37o 45'E) and Prince Edward Island (46o 35'S, 37o 56'E). The islands were annexed by South Africa on 29 December 1947 (Marion) and on 4 January 1948 (Prince Edward) (Prince Edward Islands Act No. 43 of 1948, Anon. 1948, Marsh 1948, van Zinderen Bakker Sr 1971). Since then, a station on Marion Island has been continuously occupied as a meteorological and scientific base but Prince Edward has only been visited for short periods at a time (Appendix 2).

This schedule lists the names and functions of all expedition members who have stayed at Marion Island for a period longer than a takeover (relief period during which personnel are changed over) when a vessel was present. The schedule serves as a historical record of an aspect of South Africa's activities at its only overseas possession and is a companion report to Appendix 2.

METHODS

We searched the published literature (e.g. Marsh 1948, la Grange 1952, 1954, Crawford 1982) and wrote to individuals known to have stayed at Marion Island to obtain details of their sojourns. Information was also received from the records of the Antarctic Division and the Weather Bureau, Department of Transport and from the Antarktiese/Antarctic Bulletin, the South African Weather Bureau News Letter and the South African Journal of Antarctic Research. Subsequently, we sent drafts of this paper to selected individuals in an endeavour to correct listed information and to obtain further details.

RESULTS

A total of 41 South African Expeditions has been made to Marion Island between the period March 1948 to May 1985

(Table 1). Apart from the early years, most expeditions have gone to Marion in March-May for a one-year period. Relatively few individuals have stayed at Marion Island for more than one expedition. Due to illness and other reasons some expedition members have not stayed at Marion for the full time period of their expedition. Some individuals, often scientific researchers, have stayed for either shorter or longer periods than did the expedition team of which they were originally members. It has not proved possible to list the exact periods of sojourn of all these individuals. Initially, scientific expeditions were named (i.e. the "First South African Biological and Geological Expedition to Marion Island" of 1965-1966). Subsequently, scientists have become more fully integrated with the meteorological expedition teams and the practice of separately naming scientific expeditions ceased after the Fourth South African Biological Expedition of 1973-1974.

DISCUSSION

The Marion Island community has always been a small one, but, over nearly 40 years a large number of individuals has stayed at the island. Many more have of course visited the island during the course of takeovers. By now a number of the early expedition members may no longer be alive and the opportunity to obtain information of their sojourns from them has been lost.

It is hoped that this schedule will encourage interest in the history of the South African presence at the Prince Edward Islands and may serve a useful purpose if a written "official history" of the islands is ever planned.

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Table 1

Schedule of South African expeditions to Marion Island, 1948-1985

Dates	Personnel	Function
Mar-Sep 1948	1st South African Expedition	
	A.B. Crawford	officer-in-charge
	R. Bennet	radio operator
	H. Hawkins	radio technician
	W.M.L. Strydom	medical orderly/cook
	G. Glass	Tristan da Cunha guide (engineer)
	N. Green	"
	J.the B. Lavarello	"
	A. Repetto	" (cook)
	A. Rogers	" (in charge)
	F. Swain	"
Sep 1948 - Mar 1949	2nd South African Expedition	
	D.O. Triegaardt	officer-in-charge
	H.M.E. van den Boogaard	meteorologist
	C.H. Godfrey	radio operator
	C. Laurie	radio technician
	W.M.L. Strydom	medical orderly/cook
	?	servant
	?	servant
Mar- Sep 1949	3rd South African Expedition	
	D.O. Triegaardt	officer-in-charge
	C.H. Godfrey	radio operator
	J.A. Rook	radio technician
	A.G. Shepperson	meteorologist
	W.J. Smith	carpenter
	P.S. Venter	medical orderly
	D.M. Warnick	carpenter
Oct 1949 - Apr 1950	4th South African Expedition	
	H.M.E. van den Boogaard	officer-in-charge
	D.A. Braunschweig	radio technician/ diesel mechanic
	K. Kockjoy	radio operator
	G.J.A. Mostert	meteorologist

R. F. Skawran	meteorologist
W.M.L. Strydom	medical orderly
P. van der Walt	carpenter
D.M. Warnick	carpenter

Apr - Oct 1950 — 5th South African Expedition

D.O. Triegaardt	officer-in-charge
D.A. Braunschweig	radio technician/ diesel mechanic
C.J.J. Holliday	medical orderly
H.L. Ind	carpenter
K. Kockjoy	radio operator
H.L. Malherbe	meteorologist
B.F. Schaaf	carpenter
R. F. Skawran	meteorologist

Oct 1950 - Apr 1951 — 6th South African Expedition

F.W. Martin	officer-in-charge
J.F. Bierman	radio operator
W.D. Jurd	medical orderly
J.J. la Grange	meteorologist
H.L. Malherbe	meteorologist
S.B. Petrowski	carpenter
C.J. van der Walt	radio technician/ diesel mechanic

April - Oct 1951 — 7th South African Expedition

J.A. Rook	officer-in-charge
J.G. Borain	meteorologist
E.E. Bradley	medical orderly
J.J. la Grange	meteorologist
B.F. Schaaf	carpenter
J.L. van der Westhuizen	meteorologist

Oct 1951 - Apr 1952 — 8th South African Expedition

J.A. Rook	officer-in-charge
J.G. Borain	meteorologist
E.E. Bradley	medical orderly
P.S. du Toit	meteorologist
J.J. la Grange	meteorologist
L. Pelser	diesel mechanic
B.F. Schaaf	carpenter
J.L. van der Westhuizen	radio operator

May 1952 - Apr 1953 — 9th South African Expedition

P.S. du Toit	officer-in-charge

B.E. Brokensha	radio operator
L.R. de Villiers	medical orderly
P.B. du Plessis	radio technician
J. Kruger	meteorologist (first six months)
H.L. Malherbe	meteorologist (second six months)
L. Pelser	diesel mechanic
S.B. Petrowski	carpenter
K. van der Merwe	meteorologist
N.J. van der Merwe	storeman

Apr 1953 - Mar 1954 — 10th South African Expedition

G.C. Prinsloo	officer-in-charge
G. Grundlingh	cook
C. Helberg	carpenter
C. Laurie	radio technician
F. Rossouw	medical orderly
H.A. Tate	radio operator
W. Thiele	diesel mechanic
G.J. Visser	meteorologist

Mar 1954 - Nov 1954 — 11th South African Expedition

G.J. Visser	Officer-in-charge/ meteorologist
W.J. Deysel	medical orderly
W.L. Grieve	radio technician
C.J. Grobler	meteorologist
J.J. la Grange	meteorologist
H.A. Tate	radio operator
W. Thiele	diesel mechanic
H.F. Vister	cook

Nov 1954 - Apr 1956 — 12th South African Expedition

J. Bothma	officer-in-charge/ meteorologist
C. Albertyn	meteorologist
G.P. Borstlap	meteorologist
B. Jackson	diesel mechanic
C. Koch	medical orderly
C. Neumann	radio technician
D. Oldewage	radio operator
H.F. Vister	cook

Apr 1956 - Mar 1957 — 13th South African Expedition

J. Bothma	meteorologist/ officer-in-charge
C. Coetser	medical orderly
K. Edmunds	radio operator

P. Evers	diesel mechanic
A.J. Jacobs	cook
P. Maré	meteorologist
C. Neumann	radio technician
W.A. van Huyssteen	meteorologist
A. von Maydell	handyman

Apr 1957 - Mar 1958 14th South African Expedition

P.S. du Toit	leader/meteorologist (until Aug 1957)
J. Roets	meteorologist (leader from Sep 1957)
D.J. Bonnema	meteorologist
K. Edmunds (Dec 1957-Mar 1958)	radio operator
P. Evers	diesel mechanic
C. Neumann	radio technician
B.C. Potgieter	meteorologist
W.F. Radley	cook
J.A. Stergianos (Apr 1957-Nov 1957)	medical orderly
W. Thiele	diesel mechanic
W. van Huyssteen	meteorologist
A.O. van Zyl (Apr 1957-Aug 1957)	meteorologist
R.W. Vice	scientist
S. Vorster	labourer

Apr 1958 - Mar 1959 15th South African Expedition

J. Myburgh	leader/meteorologist
B. Barnard	diesel mechanic
A. Gerber	medical orderly
T. Hurst	handyman
T. Jones	handyman
G. Lampen	meteorologist
R. Mclean	cook
J. Swart	radio technician
O.A. van Zyl	meteorologist
G. Zandberg	meteorologist

Apr 1959 - Mar 1960 16th South African Expedition

W.A. van Huyssteen	leader/meteorologist
J. Botes	handyman
T. Grové	diesel mechanic
G. Lampen	meteorologist
N. Louw	cook
J. Pietersen	radio operator
O.A. van Zyl	meteorologist
C. Veenendal	radio technician
S. Willemse	handyman
G. Zandberg	meteorologist

Apr 1960 - Mar 1960 17th South African Expedition

W.A. van Huyssteen	leader/meteorologist
J. Coetzee	radio operator
J. Lombard	meteorologist
M.S. Muir	meteorologist/physicist
G. Norval	radio technician
J.J. Olivier	meteorologist
C. Schultz	medical orderly

Apr 1961 - Mar 1962 18th South African Expedition

P.A. le Roux	leader/meteorologist
B. Booyens	meteorologist
L. de Beer	medical orderly
J. Mynhardt	radio operator
G. Norval	radio technician
C.G. Snyman	meteorologist/physicist
C. Wolfaardt	meteorologist

Apr 1962 - Mar 1963 19th South African Expedition

J. Nagel	leader/meteorologist
M. Fourie	meteorologist
J.M. Franken	meteorologist
J. Horne	medical orderly
G.N. la Grange	meteorologist
E.R. Statt	radio operator
C.L. van de Ven	radio technician

Apr 1963 - Mar 1964 20th South African Expedition

P.J. van Leeuwen	leader/meteorologist
J.F.U. Fischer	meteorologist
H.J. Groenewald	meteorologist
S.J. Keeve	medical orderly
E.R. Statt	radio operator
C.L. van der Ven	radio technician
L.C. Vorster	meteorologist

Apr 1964 - Mar 1965 21st South African Expedition

T.C. von Ludwig	leader/meteorologist/ physicist
L.W. de Beer	medical orderly
J. Human	carpenter
S.J. Quinn	meteorologist
C. Roberts	handyman
S.G. Strong	meteorologist
W.J.C. Visagie	radio operator/

	technician
C. Wolfaardt	meteorologist

1st South African Biological & Geological Expedition

Jan - Mar 1965

E.M. van Zinderen Bakker Sr	leader/botanist
N.R. Fuller	marine biologist
B.J. Huntley	botanist
O. Langenegger	surveyor/geologist
E.M. van Zinderen Bakker Jr	ornithologist
W.J. Verwoerd	geologist

Mar 1965 - Mar 1966 22nd South African Expedition

B. Sciocatti	leader/meteorologist
F.C. Clements	meteorologist
A.S. Cronje	meteorologist
B.H. Huntley	botanist
D. Jooste	medical orderly
O. Langenegger	biologist
H.J. Steenkamp	radio technician
B.R. van der Riet	radio operator
D. van Schalkwyk	meteorologist
E.M. van Zinderen Bakker Jr	ornithologist

Mar 1966 - Mar 1967 23rd South African Expedition

A.J. Kriel	leader/meteorologist
J.L. Berry	medical orderly
L. le R. Combrink	meteorologist
C.D. Groenewald	radio operator
G.C. Quinn	meteorologist
G.T. van Rooyen	radio technician
J.J. Visser	meteorologist

Mar 1967 - Mar 1968 24th South African Expedition

M. Fourie	leader/meteorologist
C.F. Dunn	meteorologist
(Mar 1967-Apr 1967)	
N.S. Grobbelaar	meteorologist
E.P. Malan	medical orderly
D. Oldewage	radio operator
R.H. Pretorius	radio technician
L. Slater	meteorologist
(May 1967-Mar 1968)	
J.J. Visser	meteorologist

Mar 1968 - Mar 1969 25th South African Expedition

S.A. Watt	leader/meteorologist
J.W. Bradley	meteorologist
A. Dirker	meteorologist
C.H. Godfrey	radio operator
R.H. Pretorius	radio technician
C.F.P.Schulz	medical orderly
H.J.F.H.M. Ullrich	meteorologist
J.A. Wirker	meteorologist

Apr 1969 - Mar 1970 26th South African Expedition

H.G. Pienaar	leader/senior meteorologist
R.H. Galpin	meteoroligist
D.L. Joubert	radio technician
P.B. Nel	radio operator
H.B. Tiggelman	meteorologist
G.L. Venter	meteorologist
R.E. White	medical orderly

Apr 1970 - Mar 1971 27th South African Expedition

J.J. Visser	leader/senior meteorologist
J.H. Coetzee	medical orderly
L.G. Fourie	radio operator
R.L. Goslin	meteorologist
W.A. Pretorius	meteorologist
S.G. Schönfeldt	radio technician
A.M. Steveni	meteorologist

Apr 1971 - Mar 1972 28th South African Expedition

L. Slater	leader/senior meteorologist
J.J. Jansen van	radio operator
J.H. MacNaughton	radio technician
H.B. Tiggelman	meteorologist
G.R. Tosen	meteorologist
H.S. van der Walt	medical orderly
H.A. Wood	meteorologist

2nd South African Biological Expedition

A.F. de Villiers	biologist
R.L. Croome	biologist
J.U. Grobbelaar	biologist
V.R. Smith	biologist

Apr 1972 - Mar 1973 29th South African Expedition

J.D. Langford	leader/medical orderly
J.H.B. Coetzee	radio technician
L.I. Heinonen	radio technician (ionosphere)
F. van R. Krynauw	meteorologist
F. Potgieter	meteorologist
W.I. Pretorius	radio operator
D.J.D. Taljaard	meteorologist
H.B. Tiggelman	senior meteorologist

3rd South African Biological Expedition

A.F. de Villiers	biologist
D.A. Gerneke	biologist
J.U. Grobbelaar	biologist
V.R. Smith	biologist

Apr 1973 - Mar 1974 30th South African Expedition

J.A. Naude	leader/senior meteorologist
E.K. Haberer	medical orderly
J.W.C.A. Heijnen	radio technician
T.R. Potgieter	meteorologist
F.P.J. Smit	radio operator
H.E. Thompson	technician (ionosphere)
F.H. van der Vegte	meteorologist
W. Wilkinson	meteorologist

4th South African Biological Expedition

G.D. Anderson (Jan-Mar 1974)	asst. mammalogist
R.J. Anderson (Jan-Mar 1974)	asst. botanist
A.E. Burger	asst. ornithologist
P.R. Condy	mammalogist
N.J.M. Gremmen (Jan-Mar 1974)	botanist
O.B. Kok	asst. botanist
V.R. Smith (Jan-Mar 1974)	botanist
A.J. Williams	ornithologist

Mar 1974 - Apr 1975 31st South African Expedition

J. van Wyk	leader/radio operator
G.E. Wolvaardt	senior meteorologist
D.D. Waldie	meteorologist
R.J. Thorpe	meteorologist
A.M. Churchill	meteorologist
G.P. Otto	radio technician/deputy

		leader
	P. Ingle	diesel/refrigeration mechanic
	G.M. Tilbury	technician (geomagnetism/ionosphere)
	O.J. Buys	medical orderly
	P.R. Condy	mammalogist
	A.J. Williams	ornithologist
(Mar-Sep 1974)		
	A.E. Burger	asst. ornithologist
(Sep 1974 - Apr 1975)		
	A. Berruti	asst. ornithologist
	N.J.M. Gremmen	botanist
	C.W. Jubelius	asst. botanist
	T. Harris	asst. mammalogist
(Sep 1974-Nov 1975)		
	A.D. Scott	asst. mammalogist
(Dec 1974-Apr 1975)		
	R.J. van Aarde	mammalogist

May 1975 - Apr 1976 — 32nd South African Expedition

	C.J. Grové	leader/meteorologist
	H. Gruellich	radio operator
	M.P. Maurin	technician (ionosphere/geomagnetism)
	R. de V. Maytham	meteorologist
(Apr 1975-Nov 1975)		
	J.M. Mendelsohn	asst. mammalogist
	R.W. Munger	diesel mechanic
	S.H. Potgieter	medical orderly
	R.G. Royce	senior meteorologist
	J.P. Swemmer	radio technician
	S.J. Vosloo	meteorologist
	K.J. Hall	geomorphologist
	R.J. van Aarde	mammalogist
(Nov 1975-Apr 1976)		
	E.M. van Zinderen Bakker Jr	botanist
(Nov 1975-Apr 1976)		
	H.J. Lindeboom	botanist
(Nov 1975-Apr 1976)		
	P.G.J. Koornhof	asst. botanist
(Nov 1975-Apr 1976)		
	J.P. Watson	asst. mammalogist

Apr 1976 - Apr 1977 — 33rd South African Expedition

	J.R. Riley	leader/radio technician /ionosphere
	C. Brittion	radio operator
	B.J. Fourie	meteorologist
	C.J. Stone	diesel mechanic
	J. Venter	medical orderly/deputy leader

	D.J. Rowswell	senior meteorologist
	E. de Beer	meteorologist
	R.C. Mitchell	meteorologist
	G.M. Craig	asst. mammalogist
	A.J. Williams	ornithologist
	A.E. Burger	asst. ornithologist
(Apr 1976-Nov 1976)		
	M.N. Bester	mammalogist
(Nov 1976-Apr 1977)		
	B.H. Erasmus	mammalogist
	K.J. Hall	geomorphologist
	D.C.J. Langley	asst. biologist
	H.J. Lindeboom	botanist
	T.G. O'Connor	asst. mammalogist

Apr 1977 - 1978 — 34th South African Expedition

	C.J. Grove	leader/meteorologist
	C.J.W. Erasmus	technician (ionosphere)
	G.J. Luden	senior meteorologist
	R.M.P. Pettigrew	diesel mechanic
	G.I. Procter	radio technician
	P. Schoeman	meteorologist
	V.L. Trollip	meteorologist
	P. van Schalkwyk	medical orderly
	B.H. Erasmus	mammalogist
	T.G. O'Connor	asst. mammalogist
(summer 1977/78 only)		
	W. du Plessis	asst. mammalogist
	A. van Coller	asst. mammalogist/ radio operator (from Nov?)

1978 - May 1979 — 35th South African Expedition

	S.F. Geldenhuys	leader/meteorologist
	L. Triegaardt	senior meteorologist
	A.L. Cordier	meteorologist
	W.J. Schutte	meteorologist
	S.W.H. van Deventer	diesel mechanic
	D. Thornton	radio operator
	G.M. Slabbert	radio technician
	N. Schutte	medical orderly
	G.J. Robinson	technician (ionosphere)
(Sep 1978-May 1979)		
	J.C. Sinclair	ornithologist

Apr 1979 - Jun 1980 — 36th South African Expedition

	P.P. Visser	leader/meteorologist
	J. Ferreira	senior meteorologist
	A.J.E. McKay	meteorologist
	B.L. Bantjes	meteorologist
	A. Stroh	diesel mechanic

	W.J. Matthews	radio operator
	J.N. Jordaan	radio technician
	P.C. Engelbrecht	radio operator
	G. Povall	technician (ionosphere)
	J.P. Gleeson	mammalogist
	M. Schramm	ornithologist
(Apr 1979-Oct 1979)		
	P.J.J. van Rensburg	asst. mammalogist
(Nov 1979 - Jun 1980)		
	W.O. Blankley	marine biologist
	J.H. Coertzen	asst. botanist
	P.G. Haxen	marine biologist
	A.D. Hes	asst. mammalogist
	J.U. Kruger	asst. botanist
	M.R. Lynch	ornithologist
	M.G. Steyn	botanist

37th South African Expedition

Apr 1980 - May 1981		
	F.J.E. Goldschagg	leader/meteorologist
	A.J. Lourens	senior meteorologist
	J. Nel	meteorologist
	N.W. van der Weele	meteorologist
	J.P.H. Steyn	diesel mechanic
	J.A. Holliday	radio operator
	C.G. Watkins	radio technician
	I.M. Kritzinger	medical orderly
(Sep 1980 - May 1981)		
	A. Berruti	ornithologist
	G.I.H. Kerley	mammalogist
	K. Panagis	mammalogist
	S. Russell	botanist
	M.J. Geddes	asst. mammalogist
	J.M. Karnezos	asst. mammalogist
	J.L. Maltby	asst. ornithologist

38th South African Expedition

Apr 1981 - May 1982		
	R.A. Riley	leader/meteorologist
	N.J. Adams	ornithologist
	C.R. Brown	ornithologist
	D.M. Conway	senior meteorologist
	N.M. Hurst	meteorologist
	T.J. Stallbom	diesel mechanic
	J.A. Truter	meteorologist
	M.H. van Aardt	radio technician
	P.C.B. van Litsenborgh	asst. ornithologist
(Apr-Oct 1981)		
	W.J. Loots	radio operator
(Oct 1981-May 1982)		
	E. van Heerden	radio operator
	P.J.J. van Rensburg	mammalogist
	F. Smit	asst. mammalogist

	M. Grobbelaar	medical orderly
(Oct 1981 - May 1982)		
	M.N. Bester	mammalogist
	L.A. Forde	asst. mammalogist
	S.R. Fugler	ornithologist
	G.I.H. Kerley	mammalogist
	T. Leask	asst. mammalogist

Apr 1982 - May 1983 — 39th South African Expedition

Apr 1982 - May 1983		
	C.J. Grové	leader/meteorologist
	G.C. Clarke	meteorologist
	A.P.F. du Toit	medical orderly
	S.R. Fugler	ornithologist
	A. Faul	meteorologist
	M.A. Haupt	asst. mammalogist
	I.P. Newton	asst. ornithologist
	W.H. Pretorius	senior meteorologist
	M. van B. Theron	diesel mechanic
	R.J. van Rooyen	radio technician
	J.C. Walker	radio operator
(Aug 1982-May 1983)		
	M.H. Ellement	asst. mammalogist
(Aug 1982-Dec 1982)		
	P.J.J. van Rensburg	mammalogist

May 1983 - May 1984 — 40th South African Expedition

	P.B. Esterhuizen	leader/meteorologist
	J.P. van Niekerk	senior meteorologist
	B.C. Birkett	meteorologist
	F.H. Munnik	radio technician
	C.A. van Rooyen	medical orderly
(May - Jun 1983)		
	C.A. Pretorius	diesel mechanic
(Jun 1983-May 1984)		
	D.W. May	diesel mechanic
	L.E. Lines	radio operator
(May 1983-Nov 1983)		
	G.C. Clarke	meteorologist
(Nov 1983-May 1984)		
	M.S. Boekstein	meteorologist
	J.E. Crafford	entomologist
(Nov 1983-May 1984)		
	S.W. Atkinson	asst. mammalogist
	M. de L. Brooke	ornithologist
	L. Chevallier	geologist
	S.L. Chown	asst. entomologist
	C.A. Gilbert	asst. geologist
	C.A.J. Saunders	asst. mammalogist
	B.W. Stead	asst. ornithologist

Mar 1984 - May 1985 — 41st South African Expedition

(Mar-Jul 1984)		
	G.C. Clarke	leader/medical orderly
	P.C. d'Abreton	senior meteorologist
	L. du Plessis	meteorologist
	J.M.W.G. Cook	meteorologist
	E. Rossouw	meteorologist/deputy leader (leader from Jul 1984)
	J. Marschal	radio operator
	J. Stephenson	diesel mechanic (deputy leader from Jul 1984)
	D. Ashton	radio technician
	S. Hunter	ornithologist
	N.J. Adams	ornithologist
	C.R. Brown	ornithologist
	W.K. Steele	asst. ornithologist
	G. Espitalier-Noël	asst. ornithologist
(Mar 1984-Sep 1984)		
	C.A. Gilbert	asst. entomologist
(Jul 1984-Sep 1984)		
	M. Banfield	medical orderly
(Sep 1984-May 1985)		
	J.E. Crafford	entomologist
(Sep 1984-May 1985)		
	J. van der Merwe	medical orderly
(Aug 1984-May 1985)		
	A. Hunt	asst. mammalogist
(Aug 1984-May 1985)		
	P. Bartlett	asst. mammalogist

APPENDIX 2

A schedule of research visits to Prince Edward Island, 1965-1985

INTRODUCTION

The sub-Antarctic Prince Edward islands in the southern Indian Ocean consist of Marion Island (46o54'S, 37o45'E) and Prince Edward Island (46o35'S, 37o56'E). The islands were annexed by South Africa on 26 December 1947 (Marion) and on 4 January 1948 (Prince Edward) (van Zinderen Bakker Sr 1971). Since then a station on Marion Island has been continuously occupied as a meteorological and scientific base but Prince Edward has only been visited for short periods at a time. Marion Island supports feral populations of domestic cats Felis catus and house mice Mus musculus (Anderson & Condy 1974) but Prince Edward has no introduced mammals (Anderson & Condy 1974, pers. obs.). Marion Island also supports several alien plant species including a naturalized invasive grass Agrostis stolonifera which has not been recorded at Prince Edward Island (Gremmen 1981, Gremmen & Smith 1981). To avoid introducing such aliens to Prince Edward Island strict precautions are taken when researchers travel from Marion to Prince Edward Island.

Visits to Prince Edward Island can only take place when Marion Island is visited by a supply ship. Such visits are of short duration. As a consequence, much less is known scientifically about Prince Edward Island than is known about Marion Island.

This schedule lists all known SANARP (South African National Antarctic Research Programme) visits to Prince Edward Island. Such a list should be of value to researchers attempting to put together what published and unpublished research data exists in their specific field. It also acts as a historical record of research activities at one of the less well known sub-Antarctic islands.

METHODS

We searched the published literature (Siegfried et al. 1979) and wrote to researchers known to have visited Prince Edward Island to obtain details of their visits. Subsequently, we

sent drafts of the schedule of visits to selected researchers in an endeavour to correct listed information and to obtain further details.

The schedule of research visits to Prince Edward Island gives dates of the visits and names and affiliations of members of each visit. Because an escarpment divides the island into two parts and is very rarely negotiated on foot, an attempt has been made to list which coast of the island (`west' or `east' or `both') was visited. The purpose(s) of each research visit have been given where known.

RESULTS

A total of 26 research parties has visited Prince Edward Island for a total of at least 103 days between 1965 and 1985. Visits have been of short duration, ranging from one to ten days (mean four days). Most visits have fallen in the months March-May, during the annual relief of Marion Island (Table 1). The east coast of the island has been visited most often.

DISCUSSION

Future research visits to Prince Edward Island should also be undertaken in summer months when, for example, most bird species and the southern elephant seal Mirounga leonina are breeding (e.g. Condy 1979, Cooper & Brooke 1984). Such visits would take place during the second annual relief voyage to Marion Island which usually occurs during the period September - November. Records of future research visits should be `placed on file', preferably by publication of articles in the SASCAR Newsletter (e.g. Adams & Brown 1982, Cooper 1985, Watkins 1985).

All visitors to Prince Edward Island should continue to take strict precautions to avoid introducing alien plants and animals.

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Table 1

Schedule of research visits to Prince Edward Island, 1965-1984

Dates	Personnel	Affiliation	Coast visited	Research purpose
18-23 Mar 1965	O. Langenegger	Geological Survey, Pretoria	both	trigonometrical and geological surveys
	W.J. Verwoerd	"		
	B.J. Huntley N.R. Fuller E.M. van Zinderen Bakker Sr	Dept. Botany, University of the Orange Free State	both	botanical survey, marine biology
	E.M. van Zinderen Bakker Jr	FitzPatrick Institute, University of Cape Town	both	ornithological survey
	F. McAll B. Bing	Public Works Department	east	topographic reconnaissance
28 Mar -1 Apr 1966	W.J. Verwoerd J.N.J. Visser	Geological Survey, Pretoria	both	geological sampling

	B.J. Huntley	Dept. Botany, University of the Orange Free State	east	botanical survey
	E.M. van Zinderen Bakker Jr	FitzPatrick Institute University of Cape Town		ornithological survey
20-27 Apr 1973	A.F. de Villiers J.R. Grindley	Port Elizabeth Museum	both	marine biology, seabird censuses
	D.A. Gerneke	South African Museum	east	marine biology
	J. Grobbelaar V.R. Smith	Institute for Environmental Sciences, University of the Orange Free State	east	botanical survey
5-12 May 1974	A.E. Burger A.J. Williams	FitzPatrick Institute, University of Cape Town	east	seabird censuses
	V.R. Smith R. Anderson O.B. Kok N. Gremmen F. van der Vegte	Institute for Environmental Sciences, University of the Orange Free State	east	botanical research
	P.R. Condy G.D. Anderson G. Smit A. Naude	Mammal Research Institute, University of Pretoria	east	seal censuses and tagging

May 1975	P.R. Condy A. Harris	Mammal Research Institute, University of Pretoria	east	seal censuses
Oct/Nov 1975	P.R. Condy	Mammal Research Institute, University of Pretoria	east	seal censuses
	N.J.M. Gremmen V.R. Smith	Institute for Environmental Sciences, University of the Orange Free State	east	botanical research
19-28 Apr 1976	R.J. van Aarde J. Watson	Mammal Research Institute, University of Pretoria	east	seal censuses
	E.M. van Zinderen Bakker Jr K.J. Hall P.G.J. Koornhof	Institute for Environmental Sciences, University of the Orange Free State	east	botanical and geomorphological research
	S.H. Potgieter	Department of Transport	east	
	A.J. Williams P. Harrison	FitzPatrick Institute, University of Cape Town	east	seabird censuses
21 Mar 1977	R.J. van Aarde B.H. Erasmus G.M. Craig	Mammal Research Institute, University of Pretoria	west	seal censuses

22 Mar 1977	A.E. Burger A.J. Williams	FitzPatrick Institute, University of Cape Town	east	seabird censuses
	C.J. Stone	Department of Transport		
Nov 1978	J.C. Sinclair	FitzPatrick Institute, University of Cape Town	east	seabird surveys
29 May-1 Jun 1979	G.B.F. Arkell M. Schramm G. Panton	FitzPatrick Institute, University of Cape Town	east	burrowing petrel distribution
13-16 Sep 1979	A. Berruti A.M. Griffiths M. Schramm J.C. Sinclair	FitzPatrick Institute, University of Cape Town	east	burrowing petrel distribution and seabird diet collection
	M.J. Imber	Dept. Internal Affairs, Wellington, New Zealand	east	
	P.A. Laycock	School for Environmental Studies, University of Cape Town	east	seabird diet collection
30 May-5 Jun 1980	W.O. Blankley P.G. Haxen	School of Environmental Studies, University of Cape Town	east	comparative marine data collection
	M.G. Steyn J.H. Coertzen	Institute for Environmental Sciences, University of the Orange Free State	east	botanical research

	J.P. Gleeson A.D. Hes	Mammal Research Institute, University of Pretoria	both	investigate presence or absence of mice in relation to insect fauna
11-14 Sep 1980	S. Russell	Dept. Plant Sciences, University of Fort Hare	east	bryophyte collection
	A. Berruti R.W. Abrams B.P. Watkins J.L. Maltby	FitzPatrick Institute, University of Cape Town	east	seabird diet collection
5-6 May 1981	V.R. Smith N.J.M. Gremmen N.W. Pammenter	Institute for Environmental Sciences, University of the Orange Free State	west	botanical research
5-7 May 1981	G.I.H. Kerley J.M. Karnezos N.W. van der Weele	Mammal Research Institute, University of Pretoria Meteorological assistant, Department of Transport	both	seal censuses

6-8 May 1981	W.J. Verwoerd D.H. Cornell J. Swart W.S. Seimons J.A. Conradie J.M. Moore	Dept. Geology, University of Stellenbosch	both	geological surveys
28 Apr - 2 May 1982	S. Russell	Dept. Plant Sciences, University of Fort Hare	west	bryophyte collection
	G.I.H. Kerley T. Leask	Mammal Research Institute, University of Pretoria	west	seal censuses
	A. Hennssen H. Hertel	West Germany		lichen collection
	J.M. de Villiers	Dept Soil Science, University of Natal, Pietermaritzburg	west	soil sampling
	N.J. Adams C.R. Brown J.W. Enticott P.C.B. van Litsenborgh	FitzPatrick Institute, University of Cape Town	west	seabird censuses
	D.D. French	Institute of Terrestrial Ecology, Banchory, Scotland, U.K.	west	soil microbiological sampling

12 May 1982	S. Russell	University of Fort Hare	east	hut siting
	W. van Loo and others	Public Works Dept. Meteorological assistants, Department of Transport		
12-13 May 1982	G.I.H. Kerley T. Leask	Mammal Research Institute, University of Pretoria	east	seal censuses
	N.J. Adams C.R. Brown J.W. Enticott P.C.B. van Litsenborgh	FitzPatrick Institute, University of Cape Town	east	seabird censuses
23-27 May 1983	J.E. Crafford M. Edwardes	Dept. Entomology, University of Pretoria	both	entomological survey
	W.J. Verwoerd L. Chevallier	Dept. Geology, University of Stellenbosch	both	geological research
	D. Grobler	Institute for Environmental Sciences, University of the Orange Free State	both	botanical research
	J. Cooper S.R. Fugler P. Harrison I.P. Newton H.D. van Gysen	FitzPatrick Institute, University of Cape Town	both	seabird censuses

20-23 Mar 1984	J. Cooper M. de L. Brooke N.J. Adams C.R. Brown B.W. Stead	FitzPatrick Institute, University of Cape Town	both	seabird censuses
	J.E. Crafford S.L. Chown	Dept. Entomology, University of Pretoria	both	entomological research
	L. Chevallier C.A. Gilbert	Dept. Geology, University of Stellenbosch	both	geological research
27 Apr 1984	S.W. Atkinson C.A.J. Saunders	Mammal Research Institute, University of Pretoria	east	resighting of tagged seals
31 Aug-6 Sep 1984	S. Hunter P.G. Ryan W.K. Steele B.P. Watkins	FitzPatrick Institute, University of Cape Town	both	seabird censuses
	J.E. Crafford C.A. Gilbert J.C.E. Marais D.T. Rowe-Rowe C.H. Scholtz	Dept. Entomology, University of Pretoria	both	entomological research
17-21 Apr 1985	N.J. Adams C.R. Brown G. Espitalier-Noël W.K. Steele	FitzPatrick Institute, University of Cape Town	both	seabird censuses & diet collection

	L. du Plessis	Meteorologist, Department of Transport	both	"
	J.E. Crafford	Dept. Entomology, University of Pretoria	both	entomological research
	P. Bartlett A. Hunt	Mammal Research Institute, University of Pretoria	both	resighting of tagged seals
25-29 Apr 1985	M. de Wit W. Lompa R.R. Seton	Bernard Price Institute, University of the Witwatersrand	both	placement of seismic recorders

APPENDIX 3

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