

MARION AND PRINCE EDWARD ISLANDS

A monograph on the 1965/66 South African expedition to these islands.

Editorial Committee: Dr. R. A. Dyer, Prof. J. M. Winterbottom and Prof. E. M. van Zinderen Bakker. Publishers: A. A. Balkema, 93 Keerom Street, Cape Town, South Africa. Price R22,50.

An expedition financed by the South African Government, was made to these sub-Antarctic Islands in 1965/66. A small team of geologists and biologists stayed on the islands for three and fifteen months respectively and collected as many data as possible. Marion and Prince Edward islands were previously little known to science and the results obtained by the expedition have revealed important information on the origin, the age and the geological history of these islands and on their flora and fauna.

Accurate maps of the islands have been drawn and their volcanic origin has been studied in detail. The glacial history gives valuable information on the world-wide lowering in temperature that occurred during the Würm-Wisconsin ice age and also on the age of the animal and plant life. The biological work, which was primarily concerned with taxonomic studies, is important for the understanding of the dispersal problems in the sub-Antarctic region, while extensive botanical investigations have given an insight into the ecology of the vegetation which is poor in species.

The general survey of the avifauna of these bird paradises is of great value, as the islands are completely protected. For instance, an analysis of the behaviour of the Gentoos penguin has provided a great many new details of the life of this bird species.

Many specialists have been working on the material collected by the expedition. The data on some of the groups such as the fresh water algae, the lichens, and diatoms have not yet been analysed, and some collections are still awaiting attention. This monograph covers the first stage of the biological-geological investigations of these islands.

The book contains 496 pages, 153 figures, 89 black and white photographs and 25 colour plates.

The list of contents is as follows:

Foreword: F. J. Hewitt.

The South African Biological and Geological Expedition: E. M. van Zinderen Bakker Sr.

Introduction: E. M. van Zinderen Bakker Sr.

PART I: GENERAL

1. *The climate of Marion Island*, B. R. Schulze.
2. *Topographic survey*, O. Langenegger and W. J. Verwoerd.
3. *Geology*, W. J. Verwoerd.

4. *Palaeomagnetic study of some recent lavas*, C. Snape and J. A. Retief.
5. *Geochronology*, Ian McDougall.
6. *Geochemical features of lavas*, E. J. D. Kable, A. J. Erlank and R. D. Cherry.
7. *History of the vegetation*, H. J. W. G. Schalke and E. M. van Zinderen Bakker Sr.
8. *Vegetation*, B. J. Huntley.
9. *Comparative avian ecology*, E. M. van Zinderen Bakker Jr.

PART II: BIOGEOGRAPHY AND SYSTEMATICS – BOTANY

10. *Musci*, B. O. van Zanten.
11. *Hepaticopsida*, R. Grolle.
12. *Preliminary microbiological studies*, J. J. Joubert.

PART III: BIOGEOGRAPHY AND SYSTEMATICS – ZOOLOGY

13. *The position of Marion Island in the sub-Antarctic avifauna*, J. M. Winterbottom.
14. *Birds observed at sea between Prince Edward Island and Cape Town*, E. M. van Zinderen Bakker Jr.
15. *Behaviour analysis of the Gentoos penguin* (*Pygoscelis papua Forster*), E. M. van Zinderen Bakker Jr.
16. *The genus Diomedea*, E. M. van Zinderen Bakker Jr.
17. *Pisces*, A. P. Andriashev.
18. *Echinodermata*, I. Bernasconi.
19. *Holothuroidea*, D. L. Pawson.
20. *Mollusca*, J. M. Gaillard.
21. *Araneida*, R. F. Lawrence.
22. *Oribatei*, R. van Pletzen and D. J. Kok.
23. *Ixodoidea*, Gertrud Theiler.
24. *Insecta*, Ph. Dreux.
25. *Diptera*, E. Séguéy.
26. *Lepidoptera*, L. Vari.
27. *Curculionidae*, G. Kuschel.
28. *Mallophaga*, K. C. Emerson.
29. *Entomostraca*, W. A. Smith and R. L. Sayers.
30. *Tigriopus angulatus Lang*, J. R. Grindley.
31. *Isopoda*, J. J. Cléret.
32. *Polychaeta*, J. H. Day.
33. *Oligochaeta*, R. W. Sims.
34. *Hirudinea*, R. Ph. Dollfus.
35. *Hydrozoa*, N. A. H. Millard.
36. *Actinaria*, Ch. E. Cutress.
37. *Rhizopoda*, Th. Grospietsch.

Topographical and Geological Maps of Marion and Prince Edward Islands.

Scientiae December 1971.

RSA'S BLEAK YEARS IN THE FROZEN SOUTH

THE ETERNAL ICE, by Captain Kenneth McNish

Cape Town: Tafelberg

RSA, South Africa's hardy little ice-breaker, left on her maiden voyage to Antarctica in January, 1961. Two months later the ship was beset. Ice threatened to crack her bright red hull or imprison her for a full Antarctic winter.

RSA survived. She returned recently from her 11th voyage to SANAE – South Africa's base on the international continent. Captain McNish is still in command.

RSA operates beyond the reach of normal rescue. She must make her own way to Tristan da Cunha, Gough Island, Marion Island and, each January, to the ice.

When the ice closed in during March, 1961, the nearest help was in New Zealand – the American ice-breaker *Glacier*. It would have taken a month to reach the *RSA*.

Captain McNish tells of the endless days, running the ship back and forth across small pools of open water surrounded by ice, unable to break out. Each day brings winter a little closer.

The story begins with the building of the *RSA* in Japan and her maiden voyage to Cape Town.

Loading delays follow and the ship steams south in terrible weather. Petrol drums secured to the foredeck break loose night after night. Deck-hands, officers and scientists battle waist deep in icy water to secure the rampaging drums.

Unloading on to the ice shelf is no less laborious. The ship must make her own moorings and unload with her own cranes. Tractors and men can easily be lost in a few kilometres.

A new base is built: a series of pockets linked by ice tunnels. Exhaust heat is used to turn snow into usable water.

Delays are the great danger. The Antarctic summer is brief. Work is not complete when the ice begins to seal off the channels to the north.

Trapped, the ship is carried back and forth in drifting ice. Eyes hunt for a "water sky" – the reflection of open sea on clouds. Young men face a second year away from home.

What happens is Captain McNish's story of the Eternal Ice.

– G.S.

Rand Daily Mail