

NEW ZEALAND'S ROSS DEPENDENCY

ANTARCTICA: THE ROSS SEA REGION. Hatherton, T. (editor). 1990. Wellington, DSIR Publishing. 287 p, illustrated, hard cover. ISBN 0-477-02586-2. Mail order price NZ\$89.95, US\$89.95

Hurried negotiations in the early 1920s, necessitated by C. A. Larsen's first whaling expedition to the Ross Sea, landed New Zealand with a huge slice of Antarctica. Extending from the Southern Ocean to the South Pole, the Ross Dependency had already proved a gateway to the inner secrets of the continent, even to the Pole itself. But New Zealand during the 1920s and '30s had neither wealth nor enterprise for land exploration. The gateway was exploited mainly by whalers and by successive US land expeditions. Richard Byrd used it before World War II: from 1946 US naval operations *Highjump* and *Windmill* moved in.

Challenged by the Transantarctic Expedition and the International Geophysical Year, and stirred on by the enthusiasts of her own Antarctic Society, New Zealand finally began to take part in 1957. Once involved, the Kiwis took Antarctica seriously. From Scott Base young New Zealanders rode agricultural tractors to the South Pole, made long and productive dog-sledging journeys, and contributed substantially to the IGY. Prominent among them were Trevor Hatherton who edited this book, Sir Edmund Hillary, who wrote the introduction, and the wise, much-loved and sadly-lamented Sir Holmes Miller, to whom *Antarctica: the Ross Sea region* is dedicated.

This book celebrates both the Dependency itself, and the work of New Zealand and other expeditions that have contributed to its study, mostly since the 1950s. The 16 chapters by New Zealand writers cover everything from history and politics to climate, sea ice, biology, geology, glaciology and international relations. This is not the first time the format has been used: produced as it is by a government department in association with other government departments, this book could have proved monumentally dull. However, just as David Walton's *Antarctic Science* showed the lively side of research in the maritime Antarctic, Trevor Hatherton's does a similar and more colourful job for the Ross Dependency.

Hatherton knows well that the Ross Sea region is different in many exciting ways from the rest of Antarctica, in its relatively snow-free mountains and volcanos, for example, its dry climates, oasis valleys, ice sheets, clearly-demonstrated geology and high-latitude wildlife. His team, many of them representing the newer generation of polar Kiwis, have responded well, realizing a book that is elegant, informative, evocative, superbly illustrated, and highly readable both for scientists and for the lay public. If it is also expensive, librarians may rest assured that, despite its attractive appearance, this is a worthy book and very good value for money. (Bernard Stonehouse, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

ANTARCTIC ECOSYSTEMS

ANTARCTIC ECOSYSTEMS: ECOLOGICAL CHANGE AND CONSERVATION. Kerry, K. R. and Hempel, G. (editors). 1990. Berlin, Springer-Verlag. 427 p, illustrated, hard cover. ISBN 3-540-52101-1. DM148.

The fifth SCAR Symposium on Antarctic Biology was held in Hobart, Tasmania on 29 August to 3 September 1988. This volume, slender in comparison with recent SCAR geological symposia but nevertheless substantial, is the record of its proceedings. Of the 80 papers and 93 posters presented, only 45 appear here — those which the steering committee deemed most relevant to the theme *Ecological change and conservation of Antarctic ecosystems*. It would be difficult to quarrel with their choice: it was a memorable meeting and selection cannot have been easy. Nor is it easy to summarize so comprehensive a volume in limited space.

Papers are grouped under five headings: 'Long- and medium-term changes in Antarctic environments', 'Seasonal changes in sea ice zones and off South Georgia', 'Ecological and population changes in sea birds and mammals', 'Actual and potential fisheries', and 'Human impacts on terrestrial and marine systems'. Broadly, however, they fall into two categories — those few that advance evidence of changes in Antarctic environments, and the many that report and comment on changes in Antarctic ecosystems and populations. Among the first are P. G. Quilty's assessment of evidence for change in Antarctic marine environments over the last five million years and A. Clarke's summary of changes in Southern Ocean temperatures throughout the Tertiary. The latter are legion, covering both seasonal changes and long-term population trends, in a wide range of organisms from lichens and mosses to whales.

The final summing-up, by Gotthilf Hempel with help from four others, is a most useful summary of perceived changes under six headings — sea ice biota, phyto- and zooplankton, benthos, fish, birds and mammals, and terrestrial and freshwater ecosystems — with an assessment of knowledge gained and future research needs in each category. His final paragraphs, under the heading 'Research needs in Antarctic ecology', points out that the main stream of public interest, and hence of national funding, is currently toward environmental protection rather than resource development, and the role of the Antarctic region in global climate. Both are fields in which ecologists can shine, in in which much work remains to be done, so prospects for the Antarctic ecology as a discipline are bright.

SAAMI CULTURE AND POLITICS

READINGS IN SAAMI HISTORY, CULTURE AND LANGUAGE. Broadbent, N. (editor). 1989. Umeå, Center for Arctic Cultural Research (Miscellaneous Publications 7). 146 p, illustrated, soft cover. ISSN 0283-9687.

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