Reviews

ANTARCTIC FISH AND FISHERIES

FISHES OF THE SOUTHERN OCEAN. O. Gon and Heemstra, P. C. (editors). Grahamstown, J. L. B. Smith Institute of Ichthyology. 462 p., illustrates, hard cover. ISBN 0-86810-211-3. $120

This large volume, primarily concerned with ichthyology, begins with chapters on aspects of fish ecology, depicting the environment in which the fish live and describing how many have adapted to a cold stenothermal life. The 69 pages of these early chapters concentrate on readability and are not comprehensive, but they give a valuable introduction with key references to the literature on distribution, physiology, ecology and fisheries. The remaining five-sixths of the volume cover taxonomy.

Before this volume appeared the Southern Ocean fish biologist trying to identify even the commonest species was faced with a large number of publications, many in journals that are not widely available, and species that seemed to suffer regular changes of name. The experts contributing to 'Fishes of the Southern Ocean' bring this information together in a single standard reference work. The style adopted is similar to that of J. R. Norman (Coastal Fishes. Part III. The Antarctic Zone. *Discovery Reports* 18: 1–104 (1938), the previous standard work. Sections on each family begin with good introductions and, where appropriate, keys to the genera. Species are illustrated with clear line drawings, lists of diagnostic characters, notes on distribution and other topics. I could easy recognize the species that I know, and assume that those I have yet to see are as well described. The remarks, both from museum workers and those who have seen the fish alive, made interesting, relevant reading, contributing much to the volume. There are 12 colour plates at the end, the best being drawings from colour photographs and note books. The colour photographs are recognizable but are of little further help.

The volume is well produced and should be available to anyone interested in Southern Ocean fish because it is a valuable, and I hope, a long-lasting, addition to the literature. It is expensive but considering the out-datedness of the previous standard work, it is a worth-while scientific investment. (Inigo Everson, British Antarctic Survey, Natural Environment Research Council, High Cross, Madingley Road, Cambridge, UK.)

ARCTIC ETHNOLOGIST

ARCTIC ODYSSEY. Jenness, S. E. (editor). 1991. Ottawa, Canadian Museum of Civilization. 859 p, illustrated, hard cover. ISBN 0-662-12905 1.

Diamond Jenness, a New Zealander by birth, graduated in classics and took a diploma in anthropology at Oxford. Following his return to New Zealand in 1913, after a year's field work in New Guinea, he received a telegram that shaped the rest of his life. Although he had no previous Arctic experience, he eagerly accepted the telegram's invitation to join the Canadian Arctic Expedition. It appears that his name had been put forward by an Oxford associate, the Canadian ethnologist Dr Marius Barbeau, on the staff of the Geological Survey of Canada (GSC).

The expedition was financed by the Canadian government under overall command of Viljhalmur Stefansson, who led not only men of his own choice but also a group of GSC staff under Dr R. M. Anderson, to which Jenness was assigned. While Stefansson's party ranged far among the northwestern Arctic islands, discovering new land, the GSC party operated independently on the Arctic mainland coast from Point Barrow to Coronation Gulf, and on Victoria Island. This diary records the day to day experience on which Jenness's scholarly publications and semi-popular books (eg *The people of the twilight*, 1928) are based. Of the 14 volumes of *Scientific Results of the Canadian Arctic Expedition*, Jenness contributed five, covering linguistics, folklore, ethno-musicology, physical anthropology, material culture and ethnography. While biologists and geologists have subsequently been able to re-examine the field area of the expedition, and refine and build upon its pioneer work, the material of Jenness's study has gone away for ever, for the harsh life of the traditional Inuit is now but a memory even in this remote and desolate region.

Stuart Jenness, a former geologist and scientific editor with the GSC, has edited and annotated his father's diary with exceptional skill and as a labour of love. Dr W. E. Taylor, the archaeologist, has contributed a perceptive foreword, and appendices list people encountered in the field, Eskimo words, trading items, and Jenness's hitherto uncatalogued collections of biological specimens, Eskimo songs and expedition photographs. Many of the latter, of historic interest, are used to illustrate this book. The Canadian Museum of Civilization has produced a unique memorial to a great Canadian scholar whose spare frame and modest bearing concealed the stamina and tenacity of purpose revealed in his diary. (G. Hattersley-Smith, The Crossways, Cranbrook, Kent TN17 2AG.)

ANTARCTIC GEOLOGY

GEOLOGICAL EVOLUTION OF ANTARCTICA. Thomson, M. R. A., Crame, J. A. and Thomson, J. W. (editors). 1991. Cambridge, Cambridge University Press. 722 p, hard cover, illustrated. ISBN 0-521-37266-6. £50.00, $89.50.

This handsome volume contains papers given at the 5th International Symposium on Antarctic Earth Sciences, held at Robinson College, Cambridge University, 23-28 August 1987. Not long ago a purely descriptive geological account of a previously unexplored region of Antarctica

would justify publication. Progress in our understanding of the geological make-up of Antarctica ensures that this is no longer so. Antarctic geologists accept the need to place their findings in a broader context if our understanding of this part of the world is to advance. This volume does just that, reflecting the Symposium's two main themes, tectonic evolution of the the Antarctic crust, and palaeoenvironmental evolution of Antarctica since the Mesozoic.

The first theme takes up some three-quarters of the volume, in five sections. The first 20papers concern development of the Antarctic craton, most involving detailed evidence from particular regions. The next 17 papers cover topics on crustal development of the Transantarctic Mountains; for example Stump and others propose that the Nimrod and Beardmore orogenies are the same, and Rowell and Rees give a detailed note on the Shackleton limestone. Crustal development of the Weddell Sea - Ross Sea region forms the third section, covering seismic, palaeomagnetic, crustal extension, geochemical and other studies. The largest group, of 33 papers, covers virtually all aspects of Antarctica's Pacific margin. The final section of 10 papers covers aspects of the breakup of Gondwanaland. The second theme includes 17 papers on the evolution of Cenozoic palaeoenvironments, many dealing with palaeontology or glaciology.

No volume of this nature can be expected to show uniform quality. Time will determine which of the contributions prove most significant. Contributors from 19 countries reflect the growing interest in Antarctica by an ever-increasing number of nations: the bulk of research is still being done by Australia, Britain, New Zealand and USA, though increasingly significant contributions are being made by Argentina, Brazil, Chile, Poland and South Africa. Topics and regions not fully represented hereinclude geophysical investigations of Antarctic shelves and studies on the Ellsworth Mountains and Marie Byrd Land. But the editors have assembled a very significant collection of papers on the geological evolution of Antarctica: the volume will become an essential work to which all interested in Antarctic geology will frequently turn.

It is a pity that over three years have passed before these proceedings appeared in print. The editors may be congratulated, however, on achieving a volume with internal consistency without enforcing a stereotyped format on the authors. Diagrams and photographs are generally well reproduced and there are few typographic errors. Spot checks failed to fault the full and useful index. This is an excellent volume, highly recommended to all, institutions and individuals alike, who have interest in the geology of the Antarctic or related regions. (C. P. Hughes, Robinson College, University of Cambridge, Cambridge CB3 9AN).

THE FUTURE OF ANTARCTICA

ANTARCTICA: PRIVATE PROPERTY OR PUBLIC HERITAGE?. Suter, K. 1991. London, Zed Books. 211 p, illustrated, soft cover. ISBN 0 86232 847 0. £9.95. Aust$15.00.

My shelves are filling with rows of small books that advise the world, and the Antarctic Treaty nations in particular, on what they should do about Antarctica. Much of the advice is insubstantial; the Treaty nations rightly view it with suspicion. Keep Antarctica pristine? It hasn't been pristine for years. Make it a continent for science? Scientists are part of its trouble — I'd as soon hand it over to lawyers. Make it an international world park? There is no such thing, and Antarctica is no place for trying one out. Let the United Nations run it? Now that really is fighting talk.

This, mercifully, is a responsible book, written by an international lawyer who has done his homework and tries to be practical. Sketching the background, outlining the Treaty and its works, putting the whole into a context of international law, it sets the scene fairly. Then it draws attention to the deadlock within the Treaty, brought about by loss of consensus, and suggests an interesting way forward. To protect Antarctica, says the author, let us use current awareness of environmental issues (without, one might add, mindlessly banging the green drum). Let us not alienate the Antarctic Consultative parties, for we cannot function without them, and let us not invite in the UN. Let us build on the world park concept, trying to find for it a substantial basis in law — linking it perhaps with a concept of 'public heritage', a variant on the public trust which is gaining growing acceptance throughout the world, and applied at international level.

I do not know if 'public heritage' will prove viable, but this book introduces it simply and sensibly, and merits close reading. If it is not already sold out, I shall recommend it to this year's crop of postgraduate students and see what they make of it. (Bernard Stonehouse, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER)

A MAN FOR MOST SEASONS

A TALENT FOR ADVENTURE. Croft, Andrew. 1991. Hanley Swan, The Self Publishing Association Ltd. 280 p, illustrated, hard cover. ISBN 1 85421 139 0. £14.95.

Col Andrew Croft DSO OBE has lived through stirring times, making use of every adventure that came his way. This book is packed with good stories from Greenland, India, Svalbard, Lapland, Norway, Corsica, Canada, the North-West Frontier and elsewhere. But Croft is more than an adventurer, and this is far more than a collection of ripping yarns. About half the book is polar: the rest covers a range of activities from 'minding' a budding maharajah to parachuting into wartime France.

Born to a country rectory, educated at Lancing, Stowe, Oxford and Manchester School of Technology, Croft was raised as a middle-class Englishman, neither rich nor poor, destined first for the cotton trade and later for schoolmastering. However, he was one of those astonishing young men, mainly from Oxbridge, who in the 1920s and '30s became competent Arctic explorers, and later distinguished themselves in World War II and in industry, commerce and research. On his first expedition Croft learnt dog-driving and survival techniques from Greenland professionals, and used them well in Greenland.