

of DDT and PCBs and an epidemic of spontaneous abortions in California sea lions is examined, along with the association of toxin accumulation and incidence of stenosis of the uterus in ringed seals. Perhaps better known was the outbreak of phocine distemper virus in harbour and grey seals in the 1980s. Bonner examines the supposition that it was pollution-induced, and indicates that evidence is insufficient to allow reliable conclusions to be drawn.

The book ends with sections entitled 'A new look at seals' and 'The future of pinnipeds,' in which Bonner finally offers his personal opinions on the sealing issue. Discussing the Canadian harp seal cull, he notes: '...the argument was not really about suffering. It was about the ethics of killing seals at all. The fact that seal products — fur and leather — were for a luxury trade made it even less acceptable. Fading film stars visited the ice and burnt their fur coats, rejecting the blood-stained luxuries' (page 216). His view of environmental pressure groups is, like many marine biologists, ambivalent. On the one hand, he is scathing of groups like Greenpeace and the International Fund for Animal Welfare (IFAW), which used emotive photography to draw attention to the seal hunt with scant attention to biological facts: 'A dispassionate observer might suggest that the suffering of a seal pup on the ice, whose life was suddenly ended with a blow to the head from a club or a hakapik, was substantially less than that of a sheep or a steer transported hundreds of miles from its home to be held in lairage at an abattoir before being taken into a killing chamber and shot or electrically stunned' (page 216). He also writes, 'Conservation interests would better have looked at the general exploitation of the North Atlantic, rather than the seal hunt. But there is inevitably less concern for fish than for cuddly seal pups' (page 216). Yet, on the other hand, Bonner acknowledges that environmental pressure groups have 'brought the general issue of wildlife protection to the attention of a wide general public and this may be of benefit to species and ecosystems far more endangered than the seals of the north-west Atlantic ever were' (page 216).

Seals and sea lions of the world is a splendid addition to the expanding library of books on these remarkable mammals. It is not an academic book, like the recent *Antarctic seals: research methods and techniques*, edited by R.M. Laws, and contains no new insights into the rapidly developing world of marine mammal science like *Elephant seals: population ecology, behavior, and physiology*, edited by B.J. Le Boeuf and Laws. It is a book intended for the interested lay reader, and, in the words of Bonner himself, while noting the tenuous position held by many animals in a world dominated by an expanding population of humans, 'If this book helps to sustain and develop an interest in the seals, sea lions and walruses of the world, it will have been worthwhile' (page 217). (Elizabeth Cruwys, Department of Environmental Sciences, University of East Anglia, Norwich NR4 7TJ.)

References

Bonner, W.N. 1980. *Whales*. Poole, Dorset: Blandford

Press (Blandford Mammal Series).

Bonner, W.N. 1989. *The natural history of seals*. Bromley, Kent: Christopher Helm.

Laws, R.M. (editor). 1993. *Antarctic seals: research methods and techniques*. Cambridge: Cambridge University Press.

Laws, R.M. 1995. Polar profile: William Nigel Bonner. *Polar Record* 31 (176): 67–70.

Le Boeuf, B.J., and R.M. Laws (editors). 1994. *Elephant seals: population ecology, behavior, and physiology*. Berkeley, Los Angeles, and London: University of California Press.

ARCTIC ARTIST: THE JOURNALS AND PAINTINGS OF GEORGE BACK, MIDSHIPMAN WITH FRANKLIN, 1819–1822. C. Stuart Houston (Editor). 1994. Montreal and Kingston: McGill–Queen's University Press. xxviii + 403 p, illustrated, hard cover. ISBN 0-7735-1181-4. \$Can45.00.

With the publication of this fine book, Stuart Houston concludes with an appropriately elegant flourish one of the most impressive Arctic historical projects of recent decades. The task that Houston set himself was to edit the journals, notes, paintings, and related materials of the three naval officers serving under Lieutenant John Franklin on his renowned Arctic Land Expedition of 1819–1822: midshipmen Robert Hood and George Back, and naval surgeon and naturalist John Richardson. Franklin's own narrative of that extraordinary expedition was published as early as 1823, but his ponderous, uninspired, and inordinately long-winded prose seldom did justice to an expedition that was, by its very nature, of compelling interest from the outset, and that became quite spellbinding as it ran its course. It set out with high hopes of achieving major distinction by locating and exploring the north coast of North America, but a long series of setbacks evolved cumulatively into crippling disorganization, and ultimately into disaster and tragedy. By publishing the records of the three other leading participants — all men of rare individual talent — Houston has given the reader the chance to feel closer to the action, and has laid before his audience a wide range of new insights into one of the most remarkable exploring expeditions in polar history.

There is no doubting the historical importance of what Houston has achieved, for this expedition was in many ways unique, and for decades afterwards it played a prominent role in shaping both official and public perceptions of the Arctic throughout Britain, Europe, and North America. If, for the remainder of the nineteenth century, the Arctic was seen as being considerably more hostile than it really was, then Franklin's expedition, and the prolonged agony that attended the death of 11 of his 19 companions, was one of the main reasons. The expedition was also important in effectively launching the Arctic careers of three of the most prominent and influential polar explorers of that century: Franklin, Richardson, and Back (sadly, Hood, as fine a budding talent as any of them, met a violent death at the hands of one of the expedition's voyagers in 1821).

The expedition derives its uniqueness from its status as a naval expedition that seldom saw the sea (for much of its duration it was anything up to 1000 km inland). It was unique, too, as the first serious attempt to explore the Arctic coastline of the American continent, and unique in placing the logistical support of a naval expedition representing the British government almost entirely in the hands of the staff of trading posts (many of whom knew nothing about the expedition or its objectives until it turned up — quite literally — on their doorsteps, demanding help). Finally, it was uniquely unfortunate in finding Canada's two main fur companies at the climax of a bitter trade-war that left the trading posts isolated and desperately in need of the very same logistical support that they were supposed to offer Franklin. Franklin's party did ultimately make its way, despite many hardships, along established trading routes from Hudson Bay to the unexplored country north of Great Slave Lake, and in 1821 it did explore a stretch of coast from Coppermine River to Bathurst Inlet; but, returning overland to its base, Franklin lost more than half his men to starvation, exposure, murder, and cannibalism.

Stuart Houston, professor emeritus of medical imaging at Saskatoon, began his long, painstaking researches into the expedition fully a quarter of a century ago, with the journals and paintings of Robert Hood. That book was published in 1974 by McGill–Queen's and the Arctic Institute of North America as *To the Arctic by canoe 1819–1821*. The two remaining parts of the trilogy have followed at intervals of exactly 10 years. Richardson's journal was published by McGill–Queen's in 1984 as *Arctic ordeal*. Now, finally, the reader is treated to Back. As the work has progressed, each volume has proved to be rather more detailed, more complex, than its predecessor, although that reflects the growing complexity of the task rather than any fluctuation in the exemplary standard of scholarship. Hood's records probably presented the most straightforward task, for his journals are the shortest, ending in September 1820, just a year into the expedition and a year before his death. The main demands on the editor were to add some commentary on the background and the text, and on Hood's fine paintings, some of which were reproduced in the book. Richardson presented more of a challenge, for he was the expedition's naturalist, and for an editor as thorough as Houston, his observations on birds, mammals, fish, plants, and geology each demanded a separate commentary, in addition to a lengthy introduction and a careful commentary on the journal. (Richardson's journal, incidentally, conveniently takes up the story where Hood left off; his journal starts in August 1820 and ends in December 1821.)

Back's journals must surely have presented much the greatest challenge of the three. They are more detailed, and cover almost the entire expedition, from its departure from Britain in June 1819 to the point of sailing for home in August 1822. To this reader they are much the most rewarding of the three for several reasons. Back was by far the expedition's best writer, a fact that prompted Houston

— ever alert to the prospect of different editorial lines of approach — to invite Dr I.S. McLaren to add some commentary on the aesthetics of Back's writing. (McLaren, a leading expert on the history of polar exploration literature and art, also provides commentary on Back's paintings and on a poem written by Back about the expedition.) Back is also rewarding because he spent more time away from the main body of the expedition than any other of its officers, so he has much to say that is new. Even when he was with Franklin, he recorded much in his journals that the others did not. Houston, in an astounding display of editorial attention to detail, has made a careful comparison between Franklin's *Narrative* and Back's journals, and has highlighted in darker print those many passages in Back's journals that tell the reader something that Franklin omitted or overlooked.

One could say much more about the outstanding quality of Houston's editorial vision, his painstaking quest for new insights. Every last detail that might help the reader's understanding of the expedition as a whole, of Back and other personalities, is recorded, be it in the introduction or postscript, a footnote, or an appendix. I shall offer just two more examples. First, straying somewhat from Back but remaining pertinent, he has added an appendix on 'The Franklin expedition as recorded in Hudson's Bay Company post journals,' which sometimes offer insights as fascinating as Back's own. Second, he has added a feature that turns a remarkable work of scholarship into something more: a truly beautiful book. The book includes, among other illustrations, about 40 of Back's watercolour sketches drawn during the expedition, reproduced in colour. To make that possible, Houston won the support of more than 60 benefactors, listed in the acknowledgements. Their confidence in him is entirely justified; the paintings are more than just the icing on the cake — they are an integral part of a superbly crafted, memorable book. (Clive Holland, 3 Lilac End, Haslingfield, Cambridge CB3 7LG.)

POLAR TOURISM: TOURISM IN THE ARCTIC AND ANTARCTIC REGIONS. Colin Michael Hall and Margaret E. Johnston (Editors). 1995. New York and Chichester: John Wiley and Sons. xvi + 329 p, illustrated, hard cover. ISBN 0-471-94921-3. £37.50.

This compilation of tourism-related articles has much to commend it. The editors' excellent, introductory overview of substantive and particular tourism issues fairly elaborates and compares differences and similarities of focus that exist between the Arctic and Antarctic. It also notes the fundamental importance of sovereignty and jurisdiction in this realm; to the north, a host of individual governments have the ability singularly to affect the regulation of tourists; to the south, however, the Antarctic Treaty sidesteps claims and jurisdictional questions, and establishes a continent that is unowned and unmanaged by any single government (although collectively the Treaty Parties do render management decisions via consensus recommendations, measures, decisions, and resolutions).