

Scelopacidae (plovers). They dominate the avifauna of high arctic tundra of Greenland with eleven regularly breeding species, including nine for which these high latitudes are the primary breeding range. Their seasonal cycles and breeding abundance and success are affected by a variable and short growing season, by patterns and timing of snowmelt, and by the sparse and spatially discontinuous vegetation. The objectives of Meltofte's monograph are to review the annual phenology and populations of waders in high arctic Greenland and to examine the environmental factors that influence these. By and large these objectives are successfully met, using a highly descriptive treatment.

Meltofte carefully chose fourteen study sites (for three of these he was the primary investigator). Twelve of these are in northeastern Greenland, one is on the northern end, and one on northern Ellesmere Island. Other high arctic sites in the Canadian arctic archipelago and in northern Eurasia had comparably accurate census data but were not considered because there was little or no species overlap with the Greenland sites. In some respects this is an understandably restrictive sampling criterion; however, Meltofte thereby lost the opportunity of writing a more synthetic review of high arctic waders.

A strength of this monograph, and of the original research papers reviewed by Meltofte, is the painstakingly collected information on the waders themselves. In contrast, information on the vegetation and physical environment of habitats is parsimonious, not very quantitative, and generally glossed over. As a result, descriptions of habitat are of a very general nature.

Meltofte makes some effort to discuss the quantitative relationships among wader species. For example, he notes that among the fourteen study sites the abundances of dunlin and sanderling and of ruddy turnstone and knot are "highly correlated," with correlation coefficients (r) of 0.64 and 0.76 respectively. Although these are statistically significant relationships, they account for only <58% of the variation, and hence are relatively weak. Overall, this section on species abundance would have been greatly strengthened by a more quantitative approach; in particular the species x site data matrix was suitable for investigation using multivariate statistics. This might have revealed species interrelationships more clearly than the more simple approach used.

The most important environmental variable affecting breeding phenology was snowmelt in early June, while breeding densities were best correlated with snowcover at about this time. These simple explanations are intuitively reasonable. Again, however, the actual correlation coefficients ($r = -0.36$ and 0.45 respectively) were weak. This indicates that the situation is too complicated to be satisfactorily resolvable with an analysis as simple as the one used. More detailed habitat data is required, as is a statistically more sophisticated analysis.

The discussion section is highly readable and reveals a great deal about the autecologies of the waders that are considered; hence I found this section to be quite enjoyable.

Overall, I found Meltofte's monograph to be an interesting and informative work. I recommend it highly to anyone interested in avian ecology at high latitudes.

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VILLAGE JOURNEY: THE REPORT OF THE ALASKA NATIVE REVIEW COMMISSION. By THOMAS R. BERGER. New York: Hill and Wang, 1985. x + 187 p. Notes, appendix, map, photos. Hardbound. Cdn\$22.95.

Widespread apprehension about the impact and future of the 1971 Alaska Native Claims Settlement Act led the Inuit Circumpolar Confer-

ence (ICC) in July 1983 to request a review of the act by Thomas R. Berger, with his deserved reputation of sympathy to natives gained from his Mackenzie Valley pipeline inquiry and legal defence of native rights. This report of his review commission is written both for the ICC and other aborigines and for politicians and the larger public. Included in the review are two sections with photographs: the first details life on the land (subsistence) indicated from the hearings, while the second notes the hope held by the people for the hearings that took place in a variety of circumstances in 60 villages.

Berger discusses the promise of the 1971 act to bring the Alaska natives into the American mainstream and to use the land to improve the economic conditions. The settlement gave 10% of Alaska (44 million acres), including surface and some sub-surface rights, to village corporations and 12 regional corporations controlled by native shareholders born before the 1971 act came into force. Shares could be traded only after 1991. There would be additional compensatory payments over 11 years. This settlement, which was negotiated by leaders and not subject to popular consultation, seemed generous according to non-natives, but not to Alaskan natives. It has failed expectations. Lack of training, administrative and legal burdens, undercapitalized village corporations, and the imposed corporate structure jeopardized not only the political and social autonomy of Alaskan natives but also their rights to the land, which was to be the bedrock of economic development. Noting that improved social services resulted not from the settlement but from federal programs, Berger suggests that new ways are needed to strengthen the subsistence way of life.

Subsistence is not poverty. Canadians call it the traditional economy. Berger stresses it involves the land, production, distribution and sharing of the produce. Despite intrusion of Western socio-economic institutions and laws, the subsistence culture continues. Though attempts have been made to restore it, such as in a 1980 Conservation Act, whaling and caribou commissions, and migratory bird agreements, the settlement and imposed legal structure threatened subsistence activities. Berger states land is the focus of the cultural conflict. Noting that Europeans justified taking the land on the basis of discovery (articulated by Chief Justice John Marshall) and the profit motive, at more than one point he outlines the historic treatment of American natives, including the imposition of a corporate model, which he speculates was knowingly incompatible with the tribal and subsistence way of life. Subsistence was threatened by transformation of resources into a commodity. The corporate model has unravelled: those born after 1971 have no shares; most regional corporations have lost money and are in debt, thus putting in jeopardy legally alienable land assets (in contrast to outside Alaska, where native land is in trust); cash-poor natives are tempted to sell shares after 1991, as did the Manitoba Metis or Oklahoma Osages.

Interests of corporate shareholders may not be the same as native concerns. Alternatives such as non-profit corporations and cooperatives contain weaknesses, threatening the land as well. For Berger the solution is to transfer the corporation's land to tribal government, thus preventing sales of land or loss through bankruptcy. In the Lower 48, tribal government has been sanctioned by courts (since Marshall) and federal law. Natives have high hopes that tribal government will protect their interests better than the 1971 act and state government. Corporations could be dissolved; self-government and subsistence, including renewable resource management, could secure the way of life.

While Berger shows cultural conflict and the land in relation to subsistence, some problems occur. He suggests the settlement has meant the Alaska map has been coloured by the land reserves, but nowhere in the report is there a map showing areas reserved to various corporations or federal conservation areas. He says there is no study indicating the economic value of subsistence, yet studies made during the Mackenzie Valley inquiry might have been extrapolated to Alaska: he used demographic research on the Kaminuriak caribou herd in Canada. In presenting his solution, Berger makes brief reference to the James Bay Agreement and the COPE Agreement in Canada's Western Arctic; more detail might have given readers a better view of alternatives to 1971. Readers might also have liked to know reasons for the

success of Ahtna and Cook Inlet corporations or why the Metlakatla Tsimshians' history led to acceptance of a reservation.

Inevitably the report will draw comparisons with his Mackenzie Valley report. The village hearings were the same but the review was not government-sponsored. It was funded by bingo games and donations, without money for extensive research. While the book deals with social conditions, the focus is less on development: rather it deals with restructuring the 1971 settlement. In presenting his case, Berger relies heavily on the hearing testimony, some federal reports and court decisions, reflecting restricted funding.

Though occasionally some legal terms such as fee simple patent or encumbrance may not be part of most readers' daily vocabulary, this well-written and well-organized report is an important study of native claims in Alaska for laity and specialist — a case study of indigenous people (or the "Fourth World," as he mentions at the end of the book).

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THE ISLAND OF SOUTH GEORGIA. By ROBERT HEADLAND. Cambridge: Cambridge University Press, 1984. £13.95. US\$39.50.

The author of this book was a biological assistant at the British Antarctic Survey station at Grytviken at the time of the Argentine invasion on 3 April 1982 (he had previously served there during 1977-80). He and his companions conducted themselves with courage, dignity and (as far as circumstances allowed) considerable resource when confronted by *force majeure*. They were removed at gunpoint to an Argentine ship bound for Rio Grande, Tierra del Fuego, and eventually repatriated through Uruguay. The unwelcome interlude of three weeks before the island was repossessed by British forces provides the finale to this book, and also presages the end of an era for, as a direct result of the conflict in the South Atlantic, South Georgia ceased to be a Dependency of the Falkland Islands and became, with the South Sandwich Islands, a separate territory by Statutory Instrument of 3 October 1985. It has therefore been a timely occasion to take stock of the history, geology and natural history of the island.

South Georgia was probably first sighted by Antonio de la Roché (Antoine de la Roche), a London merchant of French parentage, in April 1675 when his 350-ton ship (the name of which is not recorded) was blown off course on a trading voyage to Peru. In June 1756 the island was circumnavigated in similar circumstances by the Spanish trading ship *León* on passage from Callao, Peru, to Cadiz. However, its position and extent remained in doubt until the voyage of HMS *Resolution* and *Adventure*, 1772-75, under the command of Captain James Cook, RN, who made the first chart of the island in January 1775 and took possession of it for King George III under the name "Isle of Georgia."

Cook's reports of the abundance of fur seals and elephant seals led to British sealers starting work on the island in 1778, soon to be followed by Americans. By 1791 there were more than 100 vessels engaged in securing seal oil and skins in the Southern Ocean, one vessel alone accounting for 57 000 fur seals in a single season. The story of these early operations and ruthless slaughter for money, which is not for the squeamish, is admirably described by the author, who includes a number of extracts from contemporary accounts. By 1825 the near-extinction of the fur seal had halted the industry, although there was a brief revival of sealing in the 1870s, following a partial recovery of the fur seal population. The later complete protection afforded this species led to the recolonization of its old haunts, which has been one of the great success stories in conservation.

The early sealing operations had been unregulated by any government, but with the introduction of shore-based whaling on the island in

1904 the Falkland Islands government, under the British crown, stepped in by issuing regulations on the new industry in 1905. This led in 1908 to the issue of Letters Patent announcing that the Falkland Islands Dependencies, comprising South Georgia and the South Sandwich Islands, were British possessions. After 1931 shore-based whaling gradually began to decline with the innovation of pelagic whaling, but continued until 1964, when the last whaling station closed down. But British administration on the island has been continuous since 1905, apart from the brief interregnum of the Argentine occupation.

All these aspects of the 20th-century history of the island are extremely well described by the author, who also gives summary accounts of the principal expeditions or investigations that have contributed to our knowledge of the island, including the work of the South Georgia Survey under the leadership of Duncan Carse in four seasons between 1951 and 1957 and of the British Antarctic Survey, which has maintained scientific stations at Grytviken, 1969-82, and on Bird Island in the north since 1972. The events of April 1982 are recounted in detail. Not the least valuable part of the book are the excellent syntheses on physical sciences and natural history in South Georgia. With 250 illustrations (including adequate maps and excellent photographs, many of great archival interest) and a bibliography of about 90 items, the book is likely to remain the standard authority on the island for many years to come.

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VILHJALMUR STEFANSSON AND THE DEVELOPMENT OF ARCTIC TERRESTRIAL SCIENCE. Edited by G. EDGAR FOLK, JR., and MARY ARP FOLK. Iowa City, Iowa: The University of Iowa, 1984. xiii + 239 p. Softbound. US\$15.00.

While a school boy I read Stefansson's books as examples of high adventure. Eventually, some localities became points of reference and his accounts were reread with interest. In his later years he still appeared now and then as a charming and enthusiastic advocate of life in the far north. On the occasion of his hundredth birth-year, it was a pleasure to attend a symposium in his honor. His widow's account of their 20 years together was fascinating. Only after I had been asked to submit a review of the publication did any misgivings come to mind. His history was discussed with individuals who have been working actively in the Arctic. Our university library has a set of his books and related literature; several were secured for perusal. A recent book by Richard J. Diubaldo (1978) was found to be critical, to say the least. It seems that our explorer-author appears no better under close scrutiny than others who have achieved notoriety. He is still a hero to most of us.

During the early 1900s a portion of the Canadian Arctic was considered to be unexplored. The mystery concerning Sir John Franklin's elaborately conceived expedition of the 1840s had created further interest. Nansen, Sverdrup, Amundsen, and Peary all carried out important exploration. Within a few years, Vilhjalmur Stefansson came to personify small-scale effort in learning about the region. His book *My Life with the Eskimo* did much to establish him as an authority. His years of travel in the North were described exuberantly in various publications and lectures. A popular account, *The Friendly Arctic*, expressed many of his thoughts concerning this region and its inhabitants. Some aspects were controversial and not all matters were seen to reflect favorably upon the author. Nevertheless Stefansson has been recognized as one of the foremost arctic explorers, who had a great aptitude for living there and learning from the native people. Observations concerning diet stimulated research that is still active.

In essence, 30 years after his strenuous field activity, Stefansson was a respected scholar and arctic authority. Some of his visions concerning