

resolution of AVHRR is actually 1.1 km, the claim would be correct if the comparison is made with scatterometer-derived maps of sea-ice extent (50 km spatial resolution), but quite wrong if the comparison is made with synthetic aperture radar data, which have spatial resolution two to three orders of magnitude better than AVHRR. I leave it to a biologist to document any problems with the chapters on the bugs and critters.

I counted 150 colour photographs, 17 black-and-white photographs, 15 colour illustrations and 22 diagrams/graphs/maps, all reproduced very well on high-quality paper. The book has a glossary (with two different definitions for ice concentration, but never mind), an index, and three pages of further information that list some relevant books, specialized journals, and websites. As a book that seeks to spread knowledge and appreciation of the pack ice beyond the small number of us who have had the privilege of working there, *Frozen Oceans* will appeal to the scientifically literate layman who is interested in the polar regions. But we specialists, too, ought to have the book on our shelves; no personal or institutional polar/marine science library will be complete without it. It would also serve as a useful introduction to sea-ice biology for undergraduate and graduate students in the polar marine physical sciences.

Notwithstanding the errors, I strongly recommend *Frozen Oceans* for experts and non-experts alike. The first of its kind, *Frozen Oceans* is exceptionally good value. David Thomas is to be congratulated for reducing a complex subject, more or less successfully, to a readable and informative description of the pack ice, and for sharing his knowledge and enthusiasm with a wider audience.

REFERENCES

- ACIA (ARCTIC CLIMATE IMPACT ASSESSMENT). 2004. Impacts of a Warming Arctic: Arctic Climate Impact Assessment. Cambridge: Cambridge University Press. See also <http://amap.no/acia>.
- BROWN, P. 2004. Climate fear as carbon levels soar. *The Guardian Weekly* 171(17):1. October 11, 2004. London: Guardian Newspapers. www.guardian.co.uk/international/story/0,,1324276,00.html
- HAMBREY, M., and ALEAN, J. 1992. *Glaciers*. Cambridge: Cambridge University Press.
- NSIDC (NATIONAL SNOW AND ICE DATA CENTER). 2004. Yet another low year for Arctic minimum sea ice concentration. NSIDC Notes 49:1. Boulder, Colorado: NSIDC. www-nsidc.colorado.edu/pubs/notes/49/#seaice

Martin O. Jeffries
Geophysical Institute, University of Alaska Fairbanks
903 Koyukuk Drive
P.O. Box 757320
Fairbanks, Alaska, U.S.A.
99775-7320
martin.jeffries@gi.alaska.edu

THE WHALES THEY GIVE THEMSELVES: CONVERSATIONS WITH HARRY BROWER, SR. Edited by KAREN BREWSTER. Fairbanks: University of Alaska Press, 2004. ISBN 1-889963-66-6. xvii + 232 p., map, b&w illus., bib., index. Softbound. US\$22.95.

The Brower family has a long and very public history on the North Slope of Alaska. Charles D. Brower, self-styled king of the Arctic, dominated much (although by no means all) of Barrow social life through most of the first quarter of the 20th century. His many-volume, unpublished journal, archived at the University of Alaska, was published in a much shorter version entitled *Fifty Years Below Zero* (1942). His daughter Sadie Neakok is probably best known as Barrow's serving magistrate over many years, a position in which she was determined that local residents would not suffer unjustly from unfamiliar law ways. Sadie was also active in many arenas of public life during the second half of the 20th century and was universally held in high regard by Iñupiat and non-Iñupiat alike. Her remarkable life history was recorded with the help of Margaret Blackman in 1989.

As Brewster says, Harry Brower was perhaps less visibly in the public eye, but his influence was nevertheless profound, not least in helping to foster an unusually collaborative and mutually respectful relationship between scientists and many Iñupiat with specialized knowledge of their environment. For this alone, the present volume makes an important contribution to the social studies of science, posing an important alternative to the all too common assumption of inevitable tensions between expert and lay knowledge, between traditional and modern knowledge, and between indigenous and scientific knowledge.

Through her conversations with Harry Brower, Brewster brings to light a detailed history of this important relationship, beginning with Charles D. Brower's interactions with visiting scientists in the late 19th century, a role that incorporated his children as collectors of scientific specimens. She continues by recounting further interactions with scientists connected to NARL (the Naval Arctic Research Laboratory, established a few miles north of Barrow), who recruited local children to bring them desired specimens. Up to this point, the story is well known, although Harry Brower's account provides nice details that I have not seen elsewhere. What is less well known, but of central importance to an understanding of contemporary political life in Barrow, is Harry Brower's influence in incorporating scientists in the activities of the Alaska Eskimo Whaling Commission (AEWC). When the International Whaling Commission (IWC) proposed to ban Iñupiaq bowhead whaling in 1977, local whalers insisted that the bowhead population was stronger than the IWC believed. The IWC rejected the claim, insisting that Iñupiat whalers did not have the scientific knowledge to back up their assertions. The subsequent organization of the AEWC included the incorporation of scientific research, largely at the encouragement of Harry Brower and

despite initial skepticism on the part of some whalers. One result of this research has been the IWC's acknowledgment that the bowhead population is indeed larger than they had thought, confirming the validity of Iñupiat observations. Another result is the mutual recognition of specialist knowledge by all participants on the North Slope. Whalers are actively interested in what they can learn about the health of the bowhead population from scientists who are on the scene. Scientists actively seek the observations and opinions of whalers to flesh out their research—and indeed, to direct it. The extent to which Brewster has been able to contextualize this story with fine detail is testimony not only to Brower's enduring commitment to sharing his knowledge, but also to Brewster's obvious respect and affection for her interlocutor, a respect that was generated as part of her long-standing engagement with the community at large. In this, Brewster's work stands apart from the work of Margaret Blackman with Sadie Neakok and from that of William Schneider with Waldo Bodfish, Sr., of Wainwright, two recent life histories that reflect the lives of North Slope residents. Those accounts are read locally with lively interest and active enjoyment, but neither Blackman nor Schneider had comparable community experience. Thus it seems to me that Brewster is better able to catch intricate connections and to reflect the rhythms of Barrow daily life in a nuanced way. She writes with a light, descriptive style that makes the whole an easy and pleasurable read. I recommend it.

My one note of caution concerns the history chapter, which seemed a bit flat to me. For an oral historian, Brewster makes curiously little recourse to first-person accounts, and where she does—with Charles Brower, Sr.'s description of reindeer herding, for instance—more detail of this relatively unrecorded part of Barrow history would have been welcome. There is virtually no historiographic analysis of source material, so that complex information is simply presented as historical fact. That being said, the book as a whole is well worth reading. Harry Brower was an important figure whose attitudes and actions have influenced Iñupiaq relations on an international scale. In addition, this volume nicely complements the life history of his sister Sadie Neakok. To date, the North Slope life histories known to me—of Jim Allen, Charles D. Brower, Waldo Bodfish, and Sadie Neakok—contribute to a collective account of North Slope life from the late 19th century on. But all are accounts of major figures who were either among the first Euro-Americans to settle in the region (Charles D. Brower and Jim Allen), or people whose position in the community was mediated by one Euro-American parent. That is an important social fact, but in certain respects it is also a particular one. Partial life histories of other members of North Slope communities have been produced through the Iñupiaq History, Language and Culture Commission, particularly with reference to land-use inventories, but accounts as detailed and descriptive as those listed above have yet to appear. This is by no means a criticism of Brewster's work, since I

know that she has spent many, many hours with many elders in the community. It is simply a plea—to future publishers as well as to future oral historians—to recognize the importance of producing some of those other accounts.

Barbara Bodenhorn
Pembroke College
Cambridge, United Kingdom
CB2 1RF
bb106@cam.ac.uk

TAXONOMY, ECOLOGY AND DISTRIBUTION OF *HYGROCYBE* (FR.) P. KUMM. AND *CAMAROPHYLLOPSIS* HERINK (FUNGI, BASIDIOMYCOTA, HYGROCYBEAE) IN GREENLAND. By TORBJØRN BORGEN and EEF ARNOLDS. Copenhagen: Danish Polar Center, 2004. Meddelelser om Grønland, Bioscience 54. 68 p., map, b&w illus., appendix, bib. Softbound. DKK198 + DKK58 s&h; US\$49.00.

This manual focuses on a group of mushrooms that in Greenland commonly inhabit grasslands and, to a lesser extent, the oceanic mossy dwarf-shrub heaths and fens dominated by *Empetrum*. The objectives were to review the current status of knowledge of these mushrooms, provide an aid to identifying collections, and present detailed descriptions of the species. The authors have done an excellent job of presenting their results. The colors of the pictures are accurately reproduced, the text is displayed in an easy-to-read format, and the quality of the printing is very high.

Of the 29 species and varieties recognized in the 450 collections studied, 28 are assigned to the genus *Hygrocybe* and one species to *Camarophyllopsis*. Seventeen of these have been reported from Canada and the United States. Presumably most will be found in these areas when an intensive survey of the preferred habitats is undertaken.

The authors recognized two taxa that were unnamed and propose one as a new species (*H. rubrolamellata*) and the other as a new variety (*H. conica* var. *aurantiolutea*). Fresh mushrooms of the new taxa are shown in color, which is important because the mushrooms shrink and discolor on drying. Previous reports of three species (*H. coccinea*, *H. marchii*, and *H. coccineocrenata*) from Greenland could not be confirmed; those species have been excluded from the flora. Furthermore, the circumscriptions of six species have been revised on the basis of new data accumulated by Borgen and Arnolds.

The study focused on the macroscopic features of the fresh mushrooms. Characters of the cap, gills, and stem that were evaluated included size, shape, colors, odor, and taste. However, to critically distinguish the species and varieties in this group, it was essential to characterize several microscopic features, such as basidiospores, the various types of cells in the hymenium (the spore-bearing