

ences in a broader sense. The nearly synchronous decline of Alaskan king crab populations in the early 1980s has sparked scientific inquiry about disease and parasitism in crabs. Three extended abstracts provide preliminary information about potentially widespread role of epizootics as a factor influencing stock abundance. New advances in genetic stock identification techniques and protection of nursery areas of young crabs may aid in the rebuilding of depressed stocks.

Habitat protection, particularly for that of young crabs, while universally recognized as being important, is not always practiced. It is disappointing that this issue and others pertaining to the protection of stocks were not fully explored at the meeting. Without exception, information is lacking about juvenile crabs (of all species) and their habitat requirements. With few exceptions little has been done to ensure environmental quality or well-being of young crabs distributed in these areas. In the western Bering Sea, the U.S.S.R. prohibits trawling in nearshore environments important to reproducing and rearing king crabs. Similarly, the Japanese have identified a nursery for *C. opilio* crabs and have taken appropriate protective measures. The policies of other nations regarding the size and seasonal catch restrictions prescribed for industry often represent the extent of biological protection. Groundfishery effects on benthic habitats and populations may be substantial. In the U.S. and other nations, bycatch — the number of crabs captured in bottom-sweeping trawls — is capped by management but continues to be a major source of mortality. Perhaps such issues will be addressed in future symposia.

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THE SOUTHERN ICE-CONTINENT. By ERICH v. DRYGALSKI. Bluntisham, Huntingdon, UK: Bluntisham Books, 1989. £49.95; US\$95.00.

About a century ago, when the Deutsche Südpolarexpedition was planned and finally carried out, the polar regions of our earth were still terra incognita. Drygalski's narrative of this German South Polar Expedition from 1901 to 1903 on board the research ship *Gauss* gives an expansive account of the plentiful discoveries that were still to be made in the Southern Ocean and on the Continent. Although a comprehensive synopsis (20 volumes) of the results of the *Gauss* expedition has been published, the cruise report by Drygalski, the expedition leader, is still fascinating to read.

The first three chapters give an insight into the scientific planning, funding, selection of the expedition members and fitting out of the ship. There was some cooperative planning with Scott's *Discovery* expedition, which was bound for the Pacific sector, whereas the *Gauss* was to approach the ice from the Indian Ocean. There had been some preceding reconnaissance cruises to the Kerguelen in 1874 to set up a meteorological and magnetic station. The *Valdivia*'s German Deep Sea Expedition in 1888/89 from Cape Town went close to Enderby Land and was regarded as very successful. The cruise plans of the *Gauss* were strongly influenced by G.v. Neumeyer, who favoured magnetic measurements on the Kerguelen and proposed a warm water current flowing southward across Antarctica to join the Weddell Sea.

The cost of the expedition could not be met by private subscriptions, but was finally secured by the Reichstag, as the dispatch of a Südpolarexpedition had become a matter of national honour in many European nations. Is there a parallel to be seen in the present? The *Gauss* was finally built at the Howaldt shipyard in Kiel to the apparent satisfaction of the expedition members.

For a quarter of the book there follows a detailed description of the cruise, starting with its departure from Kiel (August 1901) to the

day when the *Gauss* was beset in the ice (February 1902). The expedition started with the disclosure of serious shortcomings in the ship and its equipment. This part of the book also contains exhaustive descriptions of the different port calls, including biological, geological and political considerations (the Boer War raged in South Africa). The scientific highlights were the confirmation of the Romanche Deep and the discovery of the Crozet-Kerguelen trench, with cold Antarctic water at depth.

The central part of the book deals with the real Antarctic adventure. The seizure of the ship in the ice was followed by intensive activities to set up a winter station and consequent collection of meteorological, magnetic, astronomic, geodetic, glaciological, oceanographic and biological data from various huts and the ship. Continuous loss and failure of equipment was met with ingenious inventions: construction of a tide gauge; the building of lamps for burning oil from seal blubber according to Meyers Konservationslexikon; setting up a windmill for generation of electricity; "hiring" an emperor penguin to carry a line under water from bow to stern of the ship.

Several expeditions on sledges were carried out to the coast, 90 km away from the ship, and farther inland to the Gaussberg. The dogs were taken over from the Kerguelen Station, to which they had been shipped from Kamchatka via Australia. One sledge party almost got lost in a blizzard when returning to the ship. Drygalski describes all these activities, sometimes exhaustively and sometimes only briefly, in a light-hearted, matter-of-fact style but also with some sense of irony and humour. From his account spirits were high throughout among the expedition members. Only in November/December 1902, when no hope of getting out of the ice was in sight, did the excitement about the new discoveries subside; the prospect of staying a second winter in the ice dampened the mood. Many plans were made about how to get the ship out of the ice (e.g., blasting icebergs until they capsize to make it out of the ice in their wake) or to set out to Knox Land, 900 km away, for a rendezvous with a relief party in the austral summer of 1903/04.

However, in February 1903 the ice broke and *Gauss* drifted helplessly in the pack in a westerly direction before it was completely free in April 1903. The scientific work went on and the reader, waiting excitedly for the ship to get free, has to put up with intermingled remarks about phytoplankton and benthos populations or about the role of nitrifying and denitrifying bacteria in relation to Karl Brandt's theories — business as usual. Drygalski had seriously planned a second winter station and found it the hardest decision not to carry this out and to sail to the Kerguelen for safety reasons.

The journey back to Kiel is described similarly as the journey down south at the beginning (full of details about South Africa, where the Boer War had just ended), as are the reports about the island where the ship called into port (e.g., a photograph of the grave of Bonaparte on St. Helena).

Drygalski was deeply disappointed by the rejection of his proposal to set out for Antarctica again from Cape Town and his instructions to sail back to Germany as soon as possible. The *Gauss* expedition was regarded as a failure. News of the exploits and surveys of Scott's *Discovery* expedition had broken in Germany. In comparison the *Gauss* had broken no record; *Discovery* had finally reached 82°S in the Ross Sea, whereas *Gauss* was beset just north of the polar circle. Drygalski regarded his expedition as part of an international plan, and he had worked in his area as effectively as other expeditions in different regions, but "the fact that the coast lay where we found it was noted with regret by some critics, because it was situated at an insufficient high latitude." How do we measure the success of an expedition today?

The tasks of the *Gauss* were plentiful. It had to explore an unknown coast, it had to carry out magnetic measurements for the sake of safer navigation in the Southern Ocean, and it conducted an impressive sampling program for a variety of parameters, despite a long list of minor mishaps. It was the second ship, after the *Belgica*, captured in the ice for an entire year. On reading this book on a warm

May weekend in a lush garden at 56°N, 10°E, and having worked in a variety of polar regions since 1980, I did not have the impression that the *Gauss* expedition was a failure. The expedition brought home a wealth of new information (e.g., the discovery of the Antarctic Convergence) gathered by dedicated scientists and ship crew, which was finally published in 20 volumes. Reading this narrative is worthwhile for everyone interested in the pioneer work of polar research, and many thought-provoking comparisons to the way science is run today can be drawn. Through the first English translation of Drygalski's narrative, this book should find a wider readership.

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THE MUMMIES FROM QILAKITSOQ — ESKIMOS IN THE 15TH CENTURY. Compiled and edited by J.P. HART HANSEN and H.C. GULLØV. Copenhagen: Meddelelser om Grønland, 1989. *Man & Society* 12. 199 p., 8 plates, 33 black and white figs., 205 black and white photographic and radiographic figs. and plates, 26 tables, index. Hardbound. DKK 297.50 excl. VAT and postage.

This book represents the culmination of nearly 20 years of well-coordinated and carefully executed scientific research on the spectacular find of eight mummified Inuit in two graves at Qilakitsoq, Uummannaq district, West Greenland, in 1972. In 1985 the Grønlandsmuseum, Nuuk, produced a beautifully illustrated book in Danish that summarized the find, the conservation process, and most of the ongoing scientific investigations for a broad range of interested people (Hart Hansen, J.P., Meldgaard, J., and Nordqvist, J., eds. 1985. *Qilakitsoq. De grønlandske Mumier fra 1400-tallet*. Nuuk: Grønlandsmuseum and København: Ejlers' Forlag). Two years later the Dutch publishers *Natuur & Techniek* of Maastricht produced a Dutch translation of that popular book, together with more and even higher quality graphics (Hart Hansen, J.P., Meldgaard, J., and Nordqvist, J., eds. *Qilakitsoq. De Groenlandse Mummies van 1400*. Maastricht: *Natuur & Techniek*). In the meantime, 45 co-workers have generated more than 20 scientific papers published in both Danish and English in widely disparate journals and books.

The editors and compilers of this volume are to be complimented for integrating all these studies into 27 chapters, which together form a satisfying and unified entity as well as an expansion of the aforementioned more popular book. The main thrust of this volume in the well-known journal *Meddelelser om Grønland* is the presentation of the results of the human biological investigation of the mummies. Covering everything from the hair to the toenails, body lice to heavy-metal trace elements, genetic affiliation to diet, disease to tattoos and from hard-rock geology to diatoms, this book is a plethora of information for the specialist and the anthropologically oriented generalist alike. The respective articles are well written and presented in a form and style both satisfying to the specialist and understandable and relevant to ethnographers and archaeologists alike. Equally praiseworthy is the fact that each article is accompanied by its own bibliography.

Considering the wide range of disciplines covered, the translators and editors are to be congratulated for the quality and clarity of the English text. Unfortunately it would appear that the galley proofs were not corrected by a native English speaker, so that unnecessary "printing errors" occur with irritating frequency.

Far and away the greater part of this volume is new and it is more complete and more detailed than either of the earlier, more popular-scientific books. As such it is a valuable addition to the body of published data coming from that exceptional find and its most conscientious team of researchers. However, it is a regrettable fact of academic life that scientific journals cannot compete with commer-

cial or private publishing houses when it comes to reproducing high-quality colour photographs and drawings. Therefore the reader would be well advised to have access to the Danish or the Dutch book in order to appreciate fully the richness of the Inuit clothing, the tattoos and the pathological and histological detail of the microscopic examination of the various tissues.

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BOOKS RECEIVED

- ANIMAL RIGHTS, HUMAN RIGHTS; ECOLOGY, ECONOMY AND IDEOLOGY IN THE CANADIAN ARCTIC.** By GEORGE WENZEL. London: Belhaven Press, 1991. ISBN 1-85293-030-6. ix + 206 p., maps, b&w illus., appendix, bib., index. Hardbound. £35.00. Softbound from The University of Toronto Press, Cdn\$18.95.
- GYAEHLINGAAY: TRADITIONS, TALES, AND IMAGES OF THE KAIGANI HAIDA.** By CAROL M. EASTMAN and ELIZABETH A. EDWARDS. Seattle: University of Washington Press, 1991. ISBN 0-295-96824-9. 131 p., maps, b&w illus., bib. Softbound. US\$14.95.
- PRESERVING DIVERSITY: ETHNOARCHAEOLOGICAL PERSPECTIVES ON CULTURE CHANGE IN THE WESTERN CANADIAN SUBARCTIC.** By ROBERT R. JANES. New York: Garland Publishing, Inc., 1991. ISBN 0-8240-2506-7. xxxiii + 224 p., map, b&w illus., bib. Hardcover. US\$57.00.
- PROCEEDINGS OF THE INTERNATIONAL HERRING SYMPOSIUM. ANCHORAGE, ALASKA, USA, OCTOBER 23-25, 1990.** Fairbanks: Alaska Sea Grant College Program, 1991. 9th Lowell Wakefield Fisheries Symposium. (Available from Communications Department, Alaska Sea Grant College Program, University of Alaska Fairbanks, 138 Irving II, Fairbanks, AK 99775-5040.) 672 p. Softbound. US\$14.00.
- THE GREENLAND MUMMIES.** Edited by JENS PEDER HART HANSEN, JØRGEN MELDGAARD and JØRGEN NORDQVIST. Montreal: McGill-Queen's University Press, 1991. ISBN 0-7735-0870-8. 192 p., map, illus., bib., index. Hardbound. Cdn\$39.95.
- UNRAVELLING THE FRANKLIN MYSTERY: INUIT TESTIMONY.** By DAVID C. WOODMAN. Montreal and Kingston: McGill-Queen's University Press, 1991. ISBN 0-7735-0833-3. xiv + 390 p., maps, b&w illus., notes, bib., index. Hardcover. Cdn\$29.95.
- WITH PTARMIGAN & TUNDRA WOLVES.** By CY HAMPSON. Victoria: Orca Book Publishers Ltd., 1991. ISBN 0-920501-59-1. 140 p., 65 colour and b&w illus. Softbound. Cdn\$16.95.

PAPERS TO APPEAR IN ARCTIC

- TIMONEY, K.P., LA ROI, G.H., ZOLTAI, S.C., and ROBINSON, A.L. The High Subarctic Forest-Tundra of Northwestern Canada: Position, Width, and Vegetation Gradients in Relation to Climate.
- MUDROCH, A., ALLAN, R.J., and JOSHI, S.R. Geochemistry and Organic Contaminants in the Sediments of Great Slave Lake, Northwest Territories, Canada.
- TURCK, T.J., and LEHMAN TURCK, D.L. Trading Posts along the Yukon River: Noochulohoyet Trading Post in Historic Context.
- SVENSSON, T.G. Clothing in the Arctic: A Means of Protection, a Statement of Identity.
- BLIX, A.S., and LENTFER, J.W. Noise and Vibration Levels in Artificial Polar Bear Dens as Related to Selected Petroleum Exploration and Developmental Activities.
- WINTERS, G.V., and SYVITSKI, J.P.M. Suspended Sediment Character and Distribution in McBeth Fiord, Baffin Island.
- BARR, W. Franklin in Siberia? Lieutenant Bedford Pim's Proposal to Search the Arctic Coast of Siberia, 1851-52.
- BRIGHAM-GRETTE, J., and CARTER, L.D. Pliocene Marine Transgressions of Northern Alaska: Circumarctic Correlations and Paleoclimatic Interpretations.
- DRIVER, J.C., and HOBSON, K.A. A 10 500-Year Sequence of Bird Remains from the Southern Boreal Forest Region of Western Canada.