While researching the migration story, Mary-Rousselière frequently came across information that appeared, after careful scrutiny, to be legitimate but did not fit easily with the main events of the Qitdlarssuaq saga. After careful consideration, he came to the conclusion that some of this information likely applied to the story of Oqe and his band following their separation from Qitdlarssuaq's party in 1862 and that other data pointed to a second attempted migration to Greenland from Baffin Island that took place some time during the last decade of the 19th century.

Mary-Rousselière discusses his hypothesis concerning the likely fate of those who followed Oqe in chapter 11. He begins by outlining the testimony of Merqusaq, a follower of Qitdlarssuaq interviewed by Rasmussen in 1905, that 24 North Baffin Islanders went with Oqe when he split away from Qitdlarssuaq in 1862. The author then discusses Adam Beck's (a native Greenlander who served as interpreter on a number of the Franklin search expeditions) claim that Oqe had returned to Baffin Island in the early 1860s.

While not disputing Merqusaq's estimate of the number in Oqe's party, Mary-Rousselière has difficulty with Beck's story that some or all of this group returned to Baffin Island. The basis for this doubt, he suggests, stems from the fact that out of the list of names known to have been associated with Oqe's group, only two — Qimmingajak and his wife Angiliq — are preserved in stories still related by the North Baffin Inuit. What is more, Qimmingajak and Angiliq are said in these stories to have been the lone survivors of a tragedy in which many people had died. By joining the stories of Qimmingajak and Angiliq with what is known about the Qitdlarssuaq saga and by augmenting this with information found in the log books of the Dundee whaler Ravenscraig, Mary-Rousselière pieces together another sad story of the famine, death and cannibalism that overcame all but 2 of Oqe's original party of 24.

In the course of collecting oral histories from the residents of northern Baffin Island and the nearby Melville Peninsula, Mary-Rousselière came across frequent references to specific individuals said to have made the journey to Greenland but whose names do not appear on any of the lists of those who arrived in the Thule District in 1869-70. As well, some of the named individuals were known personally to Baffin Island Inuit who themselves died as recently as 1960. It would be impossible, therefore, for the individuals named in association with this migration to have been among those who followed Qitdlarssuaq in 1852. The only possible explanation, according to Mary-Rousselière, is that there was a second, largely undocumented, attempt by a group of North Baffin Inuit to migrate to Greenland during the 1890s. In chapter 12 Mary-Rousselière makes an interesting case for linking the historically documented disappearance of a small band of Tununirusirmuit, who once lived on the shores of Admiralty Inlet, Baffin Island, with this second and assumedly abortive attempt to move to the land of the Polar Eskimo.

In the final full chapter, Mary-Rousselière addresses Franz Boas's (1964) claim (supported in part by Emil Bessels and George Nares) that a small band of Inuit permanently resided in Umingman Nuna, the southern coast of Ellesmere Island, during the early 19th century. This is an interesting problem, as Boas's assertion has been cited in support of the view that the Arctic Archipelago, including Ellesmere Island, has been continuously occupied over approximately the last 1000 years (e.g., Wenzel, 1979). Mary-Rousselière argues quite convincingly, however, that Boas and others may have been misled in their beliefs, in part by a misinterpretation of the name Tadjun (a name that Boas equates with Devon Island), which really is a generic term for "where one sets foot or puts into port" and can be applied to many different islands (p. 150). Although the author acknowledges that the Tununirmuit often made expeditions to Somerset, Cornwallis and Devon and perhaps even to southern Ellesmere Island, he doubts very much that the latter area supported a resident population for any significant length of time during the last century.

The 13 central chapters of this book are supplemented by detailed notes at the end of the volume, as well as by 8 appendices, which include excerpts taken from Rasmussen (1908) and Robert Peary's

unpublished notes, as well as transcripts of several of the stories and legends gathered by the author in the course of his research.

Qitdlarssuaq: The Story of a Polar Migration is in many respects a remarkable volume. Although small in size, it provides invaluable insights not only into the Qitdlarssuaq saga itself but also into the way of life — harsh, heroic and sometimes brutal, as it was — of the early historic-period Inuit of the central Canadian Arctic. The book is not without its minor technical flaws: the maps are rather poorly presented, the reproduction of photographs occasionally leaves something to be desired and the lack of page references to maps, tables and photographs in the table of contents is a minor irritant. On the whole, however, the publisher is to be credited for making this valuable work accessible to a wider English-speaking audience, thanks to the seamless English translation by Alan Cooke. I recommend this book highly as essential reading for those with a genuine interest in arctic history, prehistory and/or ethnography. I would also recommend this work to anyone with a broader interest in the study of hunter-gatherer adaptations to anywhere in the world at any point in time — past or present.

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INTERTIDAL BIVALVES. A GUIDE TO THE COMMON MARINE BIVALVES OF ALASKA. By NORA R. FOSTER. Fairbanks: University of Alaska Press, 1991. 152 p., tables, figs., glossary, bib., index of names. Hardbound, US\$30.00. Softbound, US\$20.00.

The author writes that "Whether you're a curious beachcomber, a part-time naturalist or a professional malacologist, this book will help you to identify the bivalves—clams, mussels, cockles, and scallops—found . . . along the coasts of Alaska. . . ." She has succeeded admirably with this goal by producing a volume that should be valuable to a diverse user group. This guide is a much needed addition to the taxonomic literature for all of those interested in bivalves.

The introduction presents a brief discourse on such subjects as bivalve structure and function, species distribution and habitat. Foster is concerned with habitat damage and offers valuable suggestions for intertidal collectors that one does not typically find in taxonomic guides. Examples of the latter suggestions are "... turn ... rocks

over slowly and gently to avoid crushing the animals" and "... holes dug in the sand or gravel should be filled in to ensure ... survival of small burrowing animals." She also suggests that collectors should "... take only what is needed" and that living animals be placed as quickly as possible in cold, filtered, aerated seawater. Many amateur intertidal collectors seem unaware of the fragility of their specimens when out of water, and large numbers of collected animals die and are discarded before they are either preserved or placed in aquaria.

The author wants the readers of her guide to be aware of the dangers of paralytic shellfish poison (PSP) if they consume clams as part of their seashore activity, and she presents a brief, but informative, discussion on PSP.

A short section introduces the reader to basic shell structure, general terminology referred to in the keys and presents a brief introduction to the use of keys in the book. A glossary is included. A comprehensive index to family, genus, species and common names is available for those who recognize their specimen and want to turn directly to a section that will enable them to confirm their preliminary identification. The reader is occasionally apprised of systematic problems that exist for some genera and species. Listings of additional species of particular families that occur subtidally in Alaskan waters are often included. References that might aid the reader with further descriptions and illustrations are included for some families.

The book has a handsome color cover illustrating eight species of bivalves and a two-page map of Alaska and northeast Siberia on the inside cover with place identifications to clarify range distributions. The general size of the volume is a comfortable one to either carry in a pack, tuck under an arm, store on a bookshelf, or examine on a laboratory bench while identifying specimens. All segments of the book are well placed so that sections can be found and examined rapidly. The type size and line spacing in each key enables the user to efficiently follow through the steps needed for identifications. The presentation of line drawings that illustrate major shell features (e.g., pallial sinus, chondrophore) on the same page as steps included in the Key to Bivalve Families is convenient and time saving for the user. The inclusion of line drawings for every species described will certainly be appreciated by those using the keys. All of the drawings are especially helpful to demonstrate shell shape and configurations of pallial lines and sinuses.

The organization of the concise keys, descriptions within the keys, the line drawings, habitat information and inclusion of a glossary result in a relatively "user friendly" volume. Consequently, the book is highly recommended for amateur shell collectors, although it will also be valuable to professional malacologists. The volume will be especially welcomed by Alaskans since it is the only readily available source for bivalve identification of species collected along the remote shores of their northern state. Prior to publication of Foster's guide, identifications of Alaskan bivalves were generally based on descriptions of species in books concerned mainly with northern California or Pacific Northwest shorelines. A number of keys in the guide are useful for determining species whose descriptions in other references are either lacking, are not specific or are unclear. Attention is given to those characteristics that quickly separate species. For example, the key for Macoma spp. is treated in sufficient detail to enable the user, inclusive of the novice, to determine species with relative ease. Another group with good coverage is Musculus, which typically has confusing or poor coverage in other books.

The book has few errors, considering the complex terminology used. A misspelling occurs on the second page of the contents with family Cultellidae entered as "Cutellidae," and on p. 1 Cyclocardia is spelled incorrectly. Several minor errors were detected in the keys. As examples, on p. 80 Panopea generosa should be P. abrupta, while on p. 127 and 128, Figures 221 and 223 for species of Penitella are reversed. On p. 44 on the bottom of the page, the adjective "generic" should be used in place of the noun "genus." A few changes are suggested for the figure on p. 2. The single gill should be referred to as a "ctenidium" and not the plural "ctenidia," and the term "ligament" is generally referred to as the "hinge ligament." It would be useful for

the amateur shell collector if the dorsal-ventral orientation of this figure was identified.

Although the keys and associated material in the book are well executed and very helpful, some modifications might make a future edition even more valuable. Perhaps the most difficult aspect of any taxonomic key for the novice is the complex terminology employed. Some major shell features are shown in drawings in the section on Keys to Families, but some important structures are not clearly identified. A glossary is available as an aid to the reader but would be even more useful if some or all terms listed in the glossary were accompanied by simple, labeled drawings. Bivalve hinge teeth, one of the most difficult structures to describe in keys, are frequently used in differentiating species. Reference to hinge teeth in the guide are occasionally vague, as for example for *Macoma dexioptera* on p. 95, where it is stated that "... hinge teeth are delicate." Also, in many cases, the statement about teeth in a key is clear, but the accompanying drawing does not readily reflect the meaning of the statement.

As noted above, the latter problems could be clarified with an illustrated glossary or, alternatively, an expanded drawing of the hinge region for species when the teeth are important taxonomic features. Although figures showing right and left valves are included for some species (e.g., Macoma spp.) to illustrate differences in hinge structure between valves, it is suggested that such drawings be included for other species that also show such differences. The author, on p. 7, indicates that shell size represents "... an average to large size for the species." However, by the time the key user finally reaches the section on species descriptions, the meaning of the size shown is unclear. It would be useful to define a size range together with a maximum size for the species. Synonymy is mentioned on occasion but not in all cases. For example, the change in name of Spisula to Mactromeris is not mentioned. Name changes, when available, would be a valuable addition. Although the book is designed as an aid for identification of bivalves, some habitat and biological information is included. It would introduce a stimulating dimension to the guide if an expanded section containing important biological, distributional and ecological information could be added for each species when such information is available. Since the guide also includes subtidal distributions of intertidal species, perhaps a better title for a future edition might be A Guide to the Common Marine Bivalves of Alaska.

In summary, this volume is an extremely useful addition to the molluscan literature for those interested in identifying bivalves of the north Pacific and Alaskan coasts. The keys are easy and quick to use, which makes the book valuable for novice shell collectors. The book, written by an expert on Alaskan mollusks, should be especially helpful for research personnel in Alaska who, prior to the availability of this text, had to refer to scattered literature for identifications. This reasonably priced guide should eventually assume an important place on the bookshelf of all individuals, amateur and professional, with an interest in bivalve mollusks.

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## **BOOKS RECEIVED**

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ARCTIC EXPLORATION & INTERNATIONAL RELATIONS 1900-1932. By NANCY FOGELSON. Fairbanks, AK: University of Alaska Press, 1992. ISBN 0-912006-61-7. xiv +220 p., maps, b&w illus., bib., index. Softbound US\$15.00 + 2.50 p&h.

GLACIER MASS-BALANCE MEASUREMENTS: A MANUAL FOR FIELD AND OFFICE WORK. By G. ØSTREM and M. BRUGMAN. Ottawa, ON: