

The derivations of the glacier names are also given: often glaciers were named for a nearby farm (Skaftafell-sjökull, from the neighbouring farm of Skaftafell), a river, or a mountain. These derivations include information on the antiquity of knowledge concerning Iceland's glaciers, often going back more than a thousand years. In this context lies one of the many valuable contributions of the work. As a whole, it provides a very useful baseline for any future assessment of glacier change in relation to the current worldwide climate warming.

The authors explain that Iceland's glacier names waited several hundred years to become familiar to non-Icelanders (and, presumably, non-Danes). Increasing awareness had to await their publication on maps, although a Mercator map (1569) depicts "Snauel Jokel" for Snæfellsjökull. Unlike many other countries, Iceland has no formal institution (such as the U.S. Board on Geographic Names or the Canadian Permanent Committee on Geographical Names) with authority to certify the accuracy of spelling, location, and provenance of place names on the country's official maps. For this reason alone, this publication is a vital source document.

The photographs of the glaciers deserve special mention, from both scientific and aesthetic points of view. Practically all are the work of Sigurðsson and display his outstanding dual ability as glaciologist and photographer. The reproductions, many at half-page size, are excellent, with a very few exceptions that appear "muddy."

The current volume is the second of a trilogy. This reviewer is also familiar with the first volume, a coffee-table format book on the Icelandic Ice Mountains, in which Williams and Sigurðsson (2004) produced an extensively annotated translation of Dr. Sveinn Pálsson's 1796 treatise. Pálsson's work was previously available only in Danish and Icelandic, which accounts for Iceland's not being recognized as dominant in the development of the discipline of glaciology. Pálsson, for instance, was arguably the first "glaciologist" to record the hypothesis that glaciers "flowed down in a semi-melted or thick and viscous state...glacier ice, without actually melting, has some kind of fluidity, like several resins..." (translation by Williams and Sigurðsson, 2004:68).

This second part of the trilogy is basically a textual, photographic, and cartographic source book on glaciers. The authors draw no conclusion concerning the recent response of Iceland's glaciers to present-day climate change. Presumably this topic will be addressed in the third part of the trilogy (Sigurðsson and Williams, in press) due to be published later in 2009.

A book on the glaciers of a small country and their names might seem of limited interest to all but a tiny glaciological coterie. Such should be far from the case. Sigurðsson and Williams are producing a series that should be of special interest not only to glaciologists, geographers, and geologists, and students in those disciplines, but also to the far wider potential readership concerned with climate change. Iceland, over the last decade, has become an attraction to

a rapidly growing following of tourists. Many of them will surely be attracted to Iceland's glaciers, which occupy about a tenth of the country's land surface and are an essential and easily accessible part of its natural beauty.

Geographic Names of Iceland's Glaciers is also published in Icelandic. It is accessible online through the following URL address of the U.S. Geological Survey: <http://pubs.usgs.gov/pp/1746/>.

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Jack D. Ives

Honorary Research Professor

Department of Geography and Environmental Studies

Carleton University, Ottawa, Ontario, Canada

412 Thessaly Circle

Ottawa, Ontario K1H 5W5, Canada

jack_ives@carleton.ca

THE ARCTIC: THE COMPLETE STORY. By RICHARD SALE. Photographs by PER MICHELSEN and RICHARD SALE. London: Frances Lincoln Limited, 2008. ISBN 978-0-7112-2707-1. 632 p., maps, colour illus., index. Large format. Hardbound. US\$60.00; £45.

This book represents an extremely ambitious endeavour, namely the production of what is effectively a single-volume encyclopedia on the circumpolar Arctic. One has to admire the author's chutzpah in even attempting such a task; however, except in selected areas, the results are less than impressive.

The book is divided into five major sections. Part 1, "The natural environment," handles definitions of the Arctic, geology, snow and ice (including permafrost), climate, and atmospheric phenomena. Part 2 covers human history—Native peoples and exploration. Part 3, which deals with habitat and wildlife, includes 200 pages of detailed descriptions of all birds and mammals, both marine and terrestrial. Part 4, entitled "A traveller's guide to the Arctic," presents a brief overview of the history and wildlife of each of the Arctic

countries or major regions. Understandably, however, this cannot be expected to replace one's "Lonely Planet" guide or "Rough Guide" to the various parts of the Arctic in terms of current detail. And finally, Part 5, entitled "A vulnerable ecosystem," focuses on exploitation of wildlife, mining, various types of pollution, and climate change. A rather puzzling feature is the inclusion of two sections on the Antarctic, namely 12 pages on history and 14 pages on wildlife. Understandably, these brief sections cannot be expected to include much detail, and one wonders, given the title of the book, why they were included. A definite weakness is the lack of a bibliography, which means that the reader who wishes to pursue a topic at greater depth is provided with no guidance. One wonders, for example, about the sources of the information on the ranges of species in the Russian Arctic.

The illustrations undoubtedly represent one of the book's greatest strengths. It is profusely illustrated with superb photographs taken either by the author or by Per Michelsen. Very few coffee-table books on the Arctic can match this volume in terms of the quality of the photography. In terms of the text, probably the greatest strength of the book is the section on birds and mammals. While a description of the range of each species is included in the text, no range maps are included; however, the detailed descriptions of each species are comprehensive, and the photographs are superb. Yet insects and fish have received only a cursory treatment, while the vast topic of the vegetation is relegated to a fairly meagre treatment within the section on habitats. Another area that has received only token treatment is that on Native peoples; for example, while the various precursors of the present-day Inuit (Dorset, Thule, etc.) are discussed, there is no description of contemporary Inuit life. Other topics that receive little or no attention are demographics, economic geography, and political systems. The author can legitimately plead that he was obliged to be selective, in order to cover as many topics as possible, however briefly, in a single volume. Nonetheless, in view of these shortcomings in the treatment of what are critically important topics, the inclusion of sections (however brief) on the Antarctic seems even less defensible.

This reviewer detected very few factual errors in this very large volume. One of these, however, is so egregious that one wonders whether it might have been perpetrated by an over-zealous but ill-informed copy editor and subsequently overlooked by the author while proofreading. On p. 15, in the section on the definitions of the Arctic, and specifically in the discussion of the usefulness of the Arctic Circle as defining the southern boundary of the Arctic, one finds the confused, but totally erroneous statement that "a solstice is either of twice annual times, when the Sun is furthest from the Earth, these corresponding to the longest and shortest days." In reality, the relatively minor variations in the distance between the earth and the sun (152 million km vs. 147 million km) during the former's approximately elliptical orbit around the latter have no effect on either the seasonal variations in temperature or the length of day and night. These variations are dictated by the combination of the tilt of

the axis of rotation and the earth's revolution around the Sun. The Earth is closest to the Sun (at its perihelion) on or about 3 January each year, in the middle of the northern winter, and farthest from the Sun (at its aphelion) on or about 4 July each year, in the middle of the northern summer.

This reviewer also detected a somewhat incomplete truth. On p. 460 one encounters the statement that "caribou were never domesticated in North America." This, while true, surely ought to have been followed by a discussion (or at least a mention) of the fact that reindeer, which are the same species as caribou, were initially imported from Chukotka, and have been herded by Inupiat and immigrant Sami (or their descendants) in Alaska, particularly the Seward Peninsula, since 1898, and by Inuvialuit and by immigrant Sami and their descendants in Canada (on the Tuktoyaktuk Peninsula, immediately east of the Mackenzie Delta) since 1935.

As noted earlier, the strength of the text undoubtedly lies in its treatment of birds and mammals. But the wildlife enthusiast should be warned that this is not a field guide that would fit into an anorak pocket. It measures 30 × 24 × 5 cm and weighs a little over 3 kg! But even with its limitations, in view of its strengths this volume would be a useful addition to any library, especially school libraries, and to the home library of any family with an interest in Arctic wildlife.

William Barr
The Arctic Institute of North America
University of Calgary
2500 University Drive NW
Calgary, Alberta T2N 1N4, Canada
wbarr@ucalgary.ca

THE RETURN OF CARIBOU TO UNGAVA. By A.T. BERGERUD, STUART N. LUTTICH, and LODEWIJK CAMPS. Montreal and Kingston: McGill-Queen's University Press, 2008. ISBN 978-0-7735-3233-5. xxxvii + 586 p., maps, colour plates, b&w illus., bib., index. Hardbound. Cdn\$49.95.

The Return of Caribou to Ungava is as much a passionate telling of a northern saga as it is a scientific monograph about caribou. Bergerud and his co-authors tell the story of the rise (1950–88) and fall (1988–2001) of the George River Herd. At its peak, it was the largest herd of migratory tundra caribou in North America. To tell that story, the authors go back to the events unfolding as the last glaciers retreated (Chapter 3) and how the journeys of the caribou and early people became intertwined (Chapter 5). It is not just the human predators, but also the wolverine, bears, and wolves whose fate follows the sweeping changes in caribou abundance. Climate, weather, and vegetation and their interplay with caribou ecology are all part of the story of the George River Caribou herd on the Ungava Peninsula.

Tom Bergerud is one of the world's most influential caribou biologists, and his passion for caribou rings through the book. The book has the stamp of authority from his