TRENT, McGILL, AND THE NORTH: A STORY OF CANADA'S GROWTH AS A SOVEREIGN POLAR NATION. By PETER ADAMS. Peterborough, Ontario: Cover to Cover Publication Services, 2007. ISBN: 978-0-9784368-0-3. 221 p., maps, b&w illus., 24 colour plates, endnotes, bib., appendices. Softbound. Cdn$20.00.

There is a very strong autobiographical component to this book, which the author describes as "a downloading exercise." Peter Adams came to Canada from England in 1959 to join the late Dr. Fritz Müller, of McGill University, on the Jacobsen-McGill Axel Heiberg Expedition (later the McGill Axel Heiberg Expedition). This multidisciplinary expedition aimed to make a comprehensive study of an area of western Axel Heiberg Island, as a region representative of the Canadian High Arctic. As a reflection of Fritz Müller's own interests, there was a strong emphasis on glaciology. During the first season, Müller and Adams were engaged mainly in a basic survey of the area, which involved climbing numerous peaks around the head of Expedition Fiord. Adams spent the subsequent two seasons focusing on his own glaciological research, which formed the basis of his PhD dissertation.

In 1963, Adams and his family moved to Schefferville, Quebec, an iron-mining town in the middle of the Quebec-Labrador Peninsula, still accessible only by air or rail. Adams had accepted the directorship of the McGill Sub-Arctic Research Laboratory, which had been established in 1954, soon after the founding of the town. At that time the core funding for the Laboratory was a contract from the Department of Transport to operate a first-order weather station (i.e., one that handled both aviation weather and synoptic observations round the clock). The weather programme was run by a senior weather observer and—under his guidance—four McGill University master's candidates. Auxiliary programmes focused on such topics as snow, lake ice (Adams' particular interest), frost heave, and permafrost temperatures.

After a brief spell in Grenoble, France (1966–67), and Exeter, England (1967–69), Adams and his wife and family returned to Canada, where he had accepted the position of founding chairman of the Department of Geography at Trent University. This new university (founded only in 1963) straddles the Otonabee River on the northern outskirts of Peterborough, Ontario. Under Adams' guidance, the Department of Geography developed a programme with a strong emphasis on fieldwork, especially in winter. The curriculum involved studies of snow and lake-ice led by Adams, both locally (including the Kawartha Lakes) and on an annual field trip to the McGill Laboratory at Schefferville in February–March, which became enormously popular with the students.

In 1980, Adams was invited to revisit the base camp on Axel Heiberg Island (unused for many years), to "pick up the threads" of Fritz Müller's operations there. From 1984 onwards, the station has been used by faculty, graduate students, and undergraduates, mainly from Trent University and Wilfrid Laurier University, the focus being on lake-ice studies and glaciology. Adams led the group each year until 1993. In that year he was elected the Liberal MPP for Peterborough, and he subsequently became the Liberal MP for Peterborough. During his term as MP, Adams took a particular interest in northern affairs; he was chair of the Government Caucus on Post-Secondary Education and Research (with a polar research arm) and a member of the Standing Committee of Parliamentarians of the Arctic Regions, the publicity arm of the Arctic Council. He did not stand for re-election in 2006 and now describes himself as a "recovering politician."

The book deals with all the northern-oriented facets of Adams' career. He describes in great detail the environment, facilities, and research activities and personalities at each location with which he has been involved. The common threads running through each section of the book are the importance of fieldwork, especially northern fieldwork, to a university education, and the importance of student exposure to the North in terms of strengthening Canada's identity as a northern nation. Details of the later careers and publications of the students involved underline the latter point, revealing that many followed careers in academia, thereby disseminating interest in the North even more widely.

Anyone who knows the author will confirm that he is extremely energetic and enthusiastic, even passionate, about everything he embraces. These qualities emerge clearly in his writing, whether the topic is glaciology, the field stations and universities with which he has been so intimately associated, his role as a politician, or Canada as a whole.

As regards Adams' lifelong involvement with research, a resumé of some of the most important results—at a level that should be comfortable for the average reader—is presented in Chapter 5. The summary embraces glaciology, lake ice, and snow studies. As with the remainder of the text, this chapter is supported by an impressive array of references for those who might wish to pursue any particular topic further.

One criticism that might be directed at the book concerns the subtitle, "A story of Canada's growth as a sovereign polar nation." Any reader expecting a thorough study of this topic will be disappointed. The only aspects that relate to sovereignty are the argument that basic research (especially university-based research) in the Arctic helps to sustain Canadian Arctic sovereignty, and that, as mentioned earlier, exposure of students to the North, by broadening public awareness of the North, also contributes to Canada's strength as a northern nation. To give the author his due, however, he does entitle one section "Presumptuousness."

The book is illustrated with a profusion of photographs of practically every aspect of the facilities and fieldwork described in the text. Sadly, however, the black-and-white photos are often extremely poor in quality; many appear to

be out of focus, and in some cases even the specific feature identified in the caption cannot be easily discerned. This is extremely unfortunate, in that it detracts from what is otherwise a unique study of university-based northern research, seen from an insider's intimate perspective and spanning almost half a century.

All proceeds from sales of this book will go to a bursary for students from the North or with an interest in the North, tenable at the Department of Geography, Trent University.

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ZACKENBERG—AN ARCTIC PEARL IN THE NORTH EAST GREENLAND NATIONAL PARK. By THOMAS BJØRNEBOE BERG. Humlebæk, Denmark: Rhodos Science and Art Publishers, 2008. ISBN 87-7245-967-0. 232 p., 3 maps, 128 colour and 31 b&w illus. Hardbound. ~US$60.00 + postage.

Captured in a diary of expressive wording and brilliant pictures are four short summers at Zackenberg, an isolated field station in the High Arctic on the northeastern coast of Greenland. This is a book about ecological field research in the short Arctic summer. But it is a book with a difference. It is not the sanitized presentation of research papers and textbooks. It tells the story of the real day-to-day life of fieldwork—its joys, its frustrations, and its dangers—during four summers. Most of all it reflects the challenges, beauty, and vibrancy of Greenland's ecology in the short Arctic summers.

The Danish Polar Centre selected Zackenberg in 1992 as a field station for a major multidisciplinary analysis of the dynamics of a High Arctic ecosystem. In 1995, the concerted field research effort began with a combination of survey, observation, and experiment. Researchers used an old hunting station, extended in 1996 by laboratory and accommodation buildings, for the three short summer months of detailed study. The effort reflects the intensive ecosystem studies of the International Biological Programme (IBP) of the 1950s and is similar to the Canadian study on Devon Island at virtually the same latitude (74°28′N). Like Devon Island, the field site is serviced by that polar workhorse—the twin engine otter—from Akureyri in Iceland. But the study of Devon Island was never documented like this!

Unlike the IBP studies and most research projects, this book is very personal. Written by a perceptive, patient, and knowledgeable ecologist, it tells the stories of many different challenges and methods of day-to-day fieldwork. The narrative moves easily from the 200 000 000 years of geological time, via the 10 000 years of post-glacial history, to the daily life and short-term behaviour of the flora and fauna—and the researchers.

The text is in the form of a light-hearted but perceptive diary describing Berg's fieldwork and that of his colleagues. Berg describes his day-to-day research work as a field biologist in a completely non-technical language with a level of practical detail that is never seen in technical papers or books. But he does not stick to his personal research subject, the collared lemming. As the base leader, he was on site from beginning to end of the field season, while his colleagues were there only for short periods. He spent long hours making observations for his botanical, zoological, and geographical colleagues and he describes what he is doing and why. He regularly tramped many miles to census herds of muskox, to check on populations of other plants and animals and collect samples for analysis. Thus readers are taken out onto the tundra to experience the challenges and rewards of a diversity of patient, detailed field research—observations that bring them literally face-to-face with the animals, plants, and their physical environments. In between his fieldwork he seemed to consume large quantities of coffee—and occasionally, he slept. This is the real world of fieldwork!

The diverse colour photographs of landscapes, seascapes, fauna and flora in both panoramic and close-up shots are beautifully presented in large format on high-quality paper**.** The photography itself is stunning. It benefits from the photographer's patience and skill, his depth of ecological knowledge, but also from the curiosity of the animals themselves, who lack experience with humans. Can you imagine crawling slowly to within a few feet of a wolf, walrus, snowy owl, or gyrfalcon? Or holding your ground as an aggressive young bull muskox charges you, but then, thankfully, decides that you are not actually challenging him? The plants and landscapes are less dangerous but just as beautifully presented.

Scientists generate masses of research papers and books, but very rarely do they capture the challenge and thrill of field observations in this graphic and personal way.

This book will grace the bookshelf or coffee table in the department, library, school or home. It is for all Arctic researchers (actual and potential), and it will attract, entertain, and educate people of all ages, scientists and non-scientists alike. Readers will come back to it time and again to enjoy the fabulous photographs. In the detail and intimacy of his photographs and observations, Berg goes beyond most researchers to capture for us the excitement and reality of field study in High Arctic places. For those who have not yet had the privilege to visit the Far North (or South), this book is a glorious, entertaining, and educating substitute.

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