

POLAR BEARS: A COMPLETE GUIDE TO THEIR BIOLOGY AND BEHAVIOR. By ANDREW E. DEROCHE; Photographs by WAYNE LYNCH. Baltimore, Maryland: The Johns Hopkins University Press, 2012. ISBN: 978-1-4214-0305-2. 249 p., colour illus., glossary, bib., index. Hardbound, US\$39.95.

The polar bear occupies a diverse set of niches in the popular imagination. Universally recognizable, it is an obligate carnivore in an extreme environment at the top of a food chain. It is an important cultural, nutritional, and economic resource to communities across the Arctic. Finally, it is emblematic of the vulnerability of a species in the face of global climate change. In light of these facts, Andrew E. Derocher's *Polar Bears: A Complete Guide to their Biology and Behavior*, an accessible account of polar bear biology and behavioral ecology, is a welcome and timely contribution. Derocher is among the world's preeminent polar bear biologists, so the book is a reliable and comprehensive source of information, benefiting from a broad perspective and a vast pool of personal experiences.

The first several chapters provide a detailed background on the physical attributes and adaptations of polar bears (e.g., the fur, skull and teeth, limbs, and senses) and their evolutionary history and relationship to other *Ursus* species. The polar bear's Arctic environment is described, from the physical attributes, such as the extreme seasonality and the critically important sea-ice habitat, to the biological features, in particular the primary prey species. Derocher goes into some detail describing the 19 recognized subpopulations of polar bears, outlining the state of the knowledge on each subpopulation. The latter half of the book focuses on polar bear behavior, including details on various hunting tactics, mating, denning, and the birth and care of cubs. The end of the book covers the threats polar bears face, from pollution to hunting and, of course, climate change.

The book is dense with concrete information, including relevant (or simply interesting) facts, and detailed descriptions. But it is also visually appealing, with excellent photographs by Wayne Lynch, carefully selected to illustrate points in the text. There are also colorful text boxes sprinkled throughout the chapters with sometimes unexpected asides, such as "Polar bears in Antarctica?" and "To catch a polar bear."

What really makes the book stand out, however, is the wealth of personal anecdotes drawn directly from Derocher's field experience. Often with humor and using the distinctive voice of a keen biologist synthesizing his observations, Derocher describes many events that he witnessed during his biological field work, including surveys and polar bear captures, as well as reporting strictly behavioral observations. These anecdotes are often delightful and give the reader a visceral feel for the experience of studying polar bears in their natural habitat. For example, Derocher recounts observing the athletic feat of a polar bear climbing a ladder to reach some dog food, or describes removing his parka and squeezing himself into the presumably empty

den of a polar bear. These moments give the reader an idea of the surprising and unpredictable events that are characteristic of field-based animal observations, and perhaps of the types of experiences, however rare, that draw biologists back to the field despite remote and difficult conditions.

The final chapter, "Looking forward" (p. 225), provides a general message of encouragement to the global community to reduce carbon emissions in various ways, from taking small steps in one's daily life to encouraging political entities to support green initiatives and industry compliance. Because the book is otherwise largely focused on behavioral aspects of polar bear biology, it gives a somewhat cursory treatment of Inuit interactions with polar bears, perspectives from traditional ecological knowledge, and general features of the polar bear harvest in the Arctic.

The book is accessible to a wide range of people, including the general public, students, and scientists. Derocher takes care to define and clearly explain any ecological concepts or terminology as they appear in the text. Despite having worked in the Arctic for many years, including with polar bears, I found myself highly engaged and entertained by the text, particularly the personal observations and anecdotes from the field. The reproduction quality of the photographs and printing is excellent, with a soft and appealing look and texture and agreeable dimensions. The book is also well documented—complete literature sections for each chapter are available for readers interested in following up by delving into the primary scientific literature. In addition, two appendices include the scientific names of all the species mentioned in the book and a list of polar bear prey items.

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POLAR TOURISM: A TOOL FOR REGIONAL DEVELOPMENT. Edited by ALAIN A. GRENIER and DIETER K. MÜLLER. Québec: Presses de l'Université du Québec, 2011. xx + 270 p., 14 contributors, maps, b&w illus., index. Softbound. Cdn\$45.00.

This edited book is a useful summary of papers presented at the inaugural conference of the International Polar Tourism Research Network (IPTRN), held in Kangiqsujuaq, Nunavik, Canada in 2008. The IPTRN was formed to give the growing number of researchers on tourism in both polar regions a way to share interests and to advance the study of polar tourism, not only among academics, but also by practitioners and policy makers (IPTRN, 2012). It was not surprising, therefore that the first IPTRN conference, focused on the contribution that polar tourism could make

to regional development, while acknowledging the challenges and opportunities of operating tourism from remote geographic locations. Using the conference location in Nunavik (regarded as one of the new Canadian Arctic destinations) alongside other case study chapters focused mainly on the North, the book sought to understand how tourism can become an effective tool for regional development.

The thematic approach of the book is its key strength, and this aspect of the book sets it apart from more generic texts on the subject of polar tourism. While the conference took place in 2008, it is clear that the editors and contributors have updated the chapters with current references. The introductory chapter by Grenier effectively sets the scene for the book, and Enzenbacher, one of the first researchers to study polar tourism, provides a thorough overview of the topic and grapples with the difficult question of who actually benefits from tourism development in the polar regions.

In the past, polar tourism researchers have been criticized for a lack of engagement with theory (Stewart et al., 2005), but this book confirms that the study of polar tourism is moving beyond its descriptive beginnings to address questions more deeply embedded in theory. For example, in his chapter Grenier provides a sociological conceptual analysis of polar tourism; Grimwood and Fennell use a variety of theoretical tools to underpin their assessment of visitor codes of conduct; and Müller draws on notions of the “pleasure periphery” to examine nature-based tourism developments in Swedish Lapland and the view of tourism development as a possible solution to economic decline in the region.

Aboriginal or indigenous tourism is a key focus of the case study chapters. In a chapter on Inuit heritage and tourism, d'Amours uses the local Kangiqsujuaq interpretive centre in Nunavik to explore questions relating to patrimonialization and sustainable, ethical tourism. Similarly, Kapashesit (and others) illustrate how a Cree village ecolodge located in northern Ontario in the Canadian Sub-Arctic can support community development and empowerment, while at the same time providing impetus for strategic planning at the local and regional scales. Moving to Arctic Norway, Viken focuses on the potential impact that tourism and festivals may have on the identity of Sami peoples.

The main weakness of the book is that there are many more chapters focused on the Arctic and Sub-Arctic (Norway, Sweden, Canada) than on their southerly counterparts, which will disappoint those readers who are interested in the Antarctic. In fact, only one chapter is explicitly devoted to issues on the southern continent: Lamars and Amelung provide a useful analysis of what sustainable tourism development looks like in Antarctica. Similarly, a chapter focused on the Russian Arctic would have been a welcome addition to the case studies, but the geographic scope of the chapters was determined largely by the location of the conference in Arctic Canada, so this comment does not detract from the overall quality of the text.

I have no hesitation in suggesting that the growing IPTRN network has raised awareness of the issues at the core of sustainable tourism development at both poles, while at the same time lifting the status of polar tourism research among our colleagues. The momentum started in Nunavik in 2008 and the collective efforts published in this edited book clearly laid the foundation for the subsequent IPTRN conferences in Abisko, Sweden (2010) and Nain, Canada (2012). For readers who are interested in attending the next IPTRN conference, it is to be held for the first time in the Southern Hemisphere in Christchurch, New Zealand, during the Antarctic Festival scheduled in 2014.

Overall, this attractive edited book, which is appropriately illustrated with excellent maps and black-and-white photographs, is a welcome addition to the growing literature on polar tourism. The readable and accessible text will be highly valuable to senior undergraduates, as well as to more established researchers, decision makers, policy makers, and operators who are seeking to understand the nature of polar tourism, and in particular its contribution to regional development. The editors, Alain Grenier and Dieter Müller, are congratulated for bringing this edition together.

REFERENCES

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