Polar Research

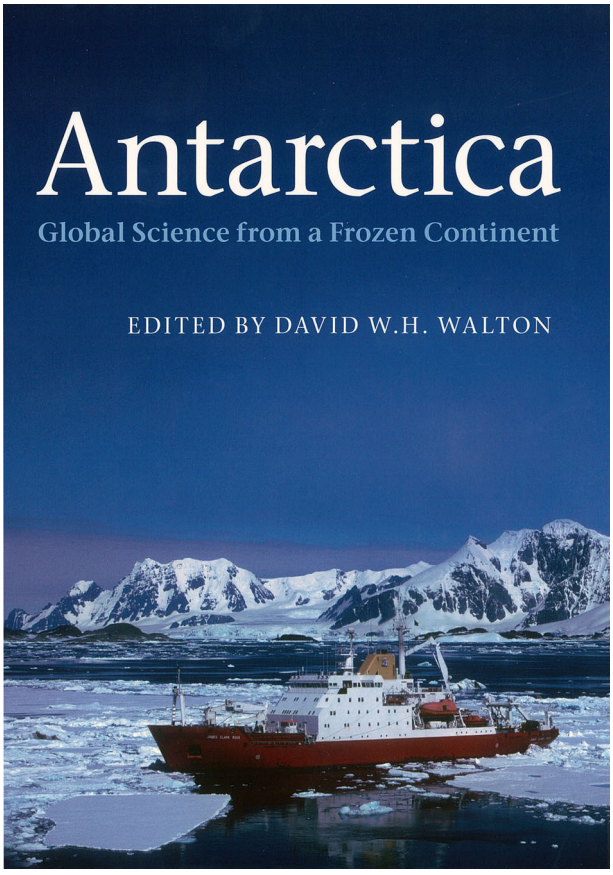
BOOK REVIEW

Review of *Antarctica: global science from a frozen continent*, edited by David W.H. Walton (2013). Cambridge: Cambridge University Press. 342 pp. ISBN 978-1-107-00392-7.

When I agreed to review this book, I assumed I would receive a collation of edited literature reviews exploring various aspects of Antarctic science, similar to several other volumes that are sitting on my office bookshelves. But *Antarctica: global science from a frozen continent* is not that type of book. Instead it is a handsomely produced volume, filled with a large number of excellent-quality colour photographs and figures, which can just as easily be in a high school or public library as in a university professor's research collection.

The chapters are all well written and beautifully illustrated. Importantly, you will not find any references embedded in the text (although there is an appendix of suggestions for further reading for each chapter). Instead the writing is clear and simple, and accessible to newcomers, students, as well as seasoned scientists. The overriding message throughout much of the writing is that Antarctica is critical to our understanding of global environmental change.

Following a brief introduction, the book is divided into 11 chapters from 13 contributors. The book begins with an interesting history of Antarctica and its discovery and exploration, with engravings, historic documents, and photographs. A geological history of the continent is presented in the second chapter, whilst chapter 3 focuses on the importance of Antarctica in the global water cycle. The latter includes a nice précis of the ice coring programmes underway in this critical region for palaeoclimatic reconstructions. The extreme climate is detailed in chapter 4, followed by a summary of the "stormy and icy seas" in chapter 5. Biological aspects are covered in chapter 6, which includes treatments of the marine fauna and flora, and understandably shorter sections on terrestrial and freshwater ecosystems. Chapter 7 summarizes "space science" and includes topics such as cosmic ray observatories. Chapter 8, which begins with the amusing quote by Roald Amundsen that "Adventure is just bad planning"—a quote that will have many veterans of polar expeditions nodding in agreement—provides an overview of some of the challenges with living and



working on the frozen continent. Chapter 9 gives a brief overview of collaborative research in the Antarctic, with a focus on activities within the Scientific Committee on Antarctic Research (SCAR), followed by a summary (chapter 10) of on-going political issues and the evolution of the Antarctic Treaty. The book concludes with a global perspective on Antarctica (chapter 11), with a summary of the major environmental challenges that face us today.

I learned many new things about Antarctica, and the book reminded me of things that I had forgotten. I recommend you buy a copy and convince your library to do the same. This book would also make a welcome gift to, for example, a graduating high school student who might read this book and then possibly decide on a career in polar studies. In summary, this is a well-written and very accessible book that fills an important niche.

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