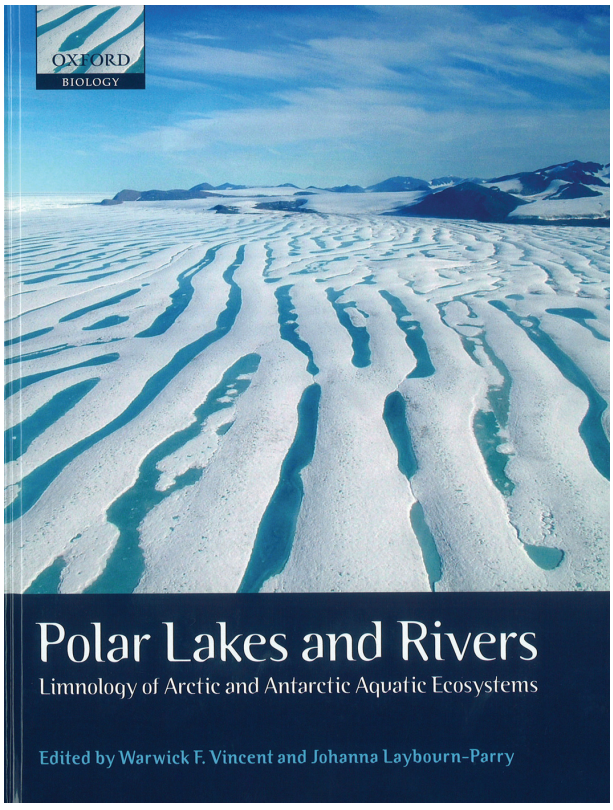
Polar Research

BOOK REVIEW

Review of *Polar lakes and rivers: limnology of Arctic and Antarctic aquatic systems*, edited by Warwick F. Vincent and Johanna Laybourn-Parry (2008). Oxford: Oxford Press. 377 pp. ISBN 978-0-19-921388-7.



There are a number of books on polar ecosystems around including a few that are specifically devoted to lakes or ponds, but there is really no up-to-date, comprehensive work that covers all freshwater systems including running waters, both in the Arctic and Antarctic. This book fulfils such a demand and, clearly, few would be more competent to do this job than the two editors of this volume.

Unlike many other scientific (sub-)disciplines, limnology and polar biology are fields of study defined by habitat and geography, respectively. Combining them into polar limnology, *Polar lakes and rivers* employs a conventional disquisition that is familiar from more general textbooks, starting with physico-chemical properties and then following a "bottom-up" approach via nutrients, autotrophs and, finally, the higher trophic levels in both the benthic and pelagic habitats.

A first challenge is, of course, to convince the reader that there are common properties among Arctic and Antarctic freshwater systems—apart from their geographic location at the southern and northern extremities of the globe—that unite water bodies ranging from large sub-Arctic lakes, shallow High-Arctic ponds devoid of fish, guano-enriched or ultraoligotrophic sites, permanently ice-covered Antarctic lakes, and so on. Clearly, it is difficult to come up with some very generalized, common properties of these water bodies that set them apart from, say, alpine water bodies. Likewise, the various chapters do not always cover in depth the various organisms or processes involved for the full range of freshwater localities that are found within the Arctic and Antarctic. As always in such edited books, some authors succeed well in their attempts to present the broad perspectives while others are more biased toward own localities and merits. Certainly, the page limit must have put some constraints on the coverage of the various topics.

Nevertheless, in spite of these challenges, this book offers a very enlightening and updated overview of Arctic and Antarctic limnology, and the editors, along with John Hobbie, set the stage nicely in the introductory chapter, which presents both the geographical stage as well as the outline of what, despite the huge variability, justifies the publication of a book on this topic.

As a limnologist who has been working for several years in the High Arctic, I have certainly gained new insights from this book, and it is definitely recommendable not only for colleagues but also students with an interest in limnology or biology in the polar regions.

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