

descriptive study such as this, hypotheses generated inevitably remain untested.

Synthesis is provided in a series of brief essays at the end, including a comparison of thrush habitats, the case for the importance of floodplain cottonwood forests, and a statement of the habitat stability provided by spruce forests, in addition to a conclusion–summary. Some interesting points are raised in these sections, although one is left feeling slightly short of satiation at the end.

In general, this book has the feel of a long paper rather than a book. It could easily and beneficially have been condensed. However, a wealth of vegetation and bird distribution data is presented and it would serve as a useful overview of boreal habitats at a good level for ornithologists. The book may be too quantitative for most birders and not embedded within a firm enough theoretical framework to be of general utility to scientists. However, it has much information that might be useful to conservationists, teachers, and those with management responsibilities. (Chris Hewson, Department of Zoology, University of Cambridge, Downing Street, Cambridge, CB2 3EJ.)

GLACIER ICE: REVISED EDITION. Austin Post and Edward R. LaChapelle. 2000. Seattle: University of Washington Press in association with the International Glaciological Society. Xii + 145 p, illustrated, soft cover. ISBN 0-295-97910-0. US\$27.95.

Glacier ice was initially published in 1971. I first discovered a copy in the library of the Scott Polar Research Institute and since then have requested it periodically from libraries. It has long been out of print and has been extremely hard to obtain second-hand; this new edition will gladden many glaciologists. *Glacier ice* is a classic; it is also a very beautiful and evocative book. The majesty and splendour of glaciated environments is presented in a sequence of stunning air- and land-based photographs. Each photograph is carefully chosen to depict a chosen feature or process. Several are annotated to aid the uninitiated in identifying the feature depicted. Many will stimulate discussions among glaciologists on the processes occurring in glaciated environments. Yet each photograph is also a beautiful and soulful image. All of them are sharp, clear, and high-contrast black-and-white photographs. Invariably someone picking up the book examines these photographs first and reads the figure headings. The text usually is not read until a later visit, when it is discovered to be clear and precise, providing additional explanations to the figure headings. In a very few places it is a little dated, but the majority reads well and will not confuse, despite being originally written 30 years ago.

The first chapter covers the fundamental concepts of glacier mass balance, stressing alpine environments. The emphasis is on the visual, and so there is particularly good coverage of the surface textures developed on glacier ice, which form the basis of the second chapter. The semi-regular patterns of nature produce beautiful and intriguing images. Glacier dynamics and fluctuations form the theme

of the next five chapters. The phenomenon of surging follows naturally from a chapter on moraines, and the photographs show stunningly well the differences between normal steady and unsteady flow. The last of this group of chapters depicts ogives and explains their formation. A chapter on meltwater follows. This is a rather difficult theme to cover pictorially, because of the importance of the inaccessible basal water system. This chapter is the least thorough of the important glaciological themes covered by the book.

Glacier ice also includes some rather intriguing surface features, many of which were new to me. These include ice worms, sun cups, ice pillars, and ice ships. These photographs stimulated many discussions among our group of glaciologists. Calving glaciers, glacier outburst floods, and the interactions between glaciers and volcanoes are the topics of the next two chapters. These are followed by a series of stunning photographs of the effects of ice on the landscape. The final chapter depicts a range of glaciers, emphasizing the differences between polar and temperate glaciers. The book ends with a glossary of terms, and a useful and up-to-date bibliography has been added since the first edition.

Most but not all of the examples pictured in this book are taken from Alaska. There are also small groups of photographs from the Himalayas and from the North American Arctic and Greenland. There are, therefore, many glaciated areas of the Earth that are not covered. This bias reflects the interests and field experience of the authors.

There are few improvements that could be made to this book. However, one simple aid for the lay reader would be the addition of an approximate scale for each figure. This is particularly true for those photographs that show surface features of glaciers, such as crevassing. For the glaciologist, the examples shown are so classic that many may be tempted to visit the sites shown. For this reason a useful addition would be for each photograph to be dated. Finally, a location map for each photograph would be useful.

Overall this is a very visually exciting and appealing book. It could easily be regarded as a coffee-table book to entertain and delight anyone generally interested in landscape or mountain regions. However, it is also much more, being both informative and stimulating to professional earth scientists. Who should look at this book? It is likely already to be well known to most glaciologists, many of whom will be delighted to be able to buy their own copy at last. It will be equally as attractive to anyone interested in alpine environments and mountain scenery, or the grandeur of nature. For readers of *Polar Record*, there are relatively few Arctic or Antarctic examples. However, it is a must for anyone interested in Alaskan scenery. I will be asking my university to buy this book and will be recommending that students taking my modules on glaciology look at it for inspiration and background information. (Tavi Murray, School of Geography, University of Leeds, Leeds LS2 9JT.)