terminology for different fruit types. Also the use of some tables to present major differences between berry, nut, drupe etc. would have been useful. Another – maybe minor – problem is the fact that seeds and fruits are sometimes treated equally in the book because seeds and fruits can have similar adaptations for dispersal. It occasionally increases the dubious distinction between fruits and seeds.

The book offers a compelling story of plant diaspores and several subjects are treated with a large pinch of humour. For example, anecdotes about etymological origins of names (e.g. origin of the pumpkin or sycophants) are fascinating. Behind stories there is the fact that fruits are essential to humanity as the majority of vegetables are fruits or the seeds they contain.

The story about dispersal mechanisms of fruits and seeds is an interesting story of co-evolution, with lots of details about different adaptations. The story of anachronistic fruits is a sad one. The existence of oversized fruits that lack any obvious dispersal agent points to human extermination of a megafauna to which these fruits were adapted. It is the message that slow natural evolution cannot cope with human destruction with fruits waiting for a dispersal agent that is no more.

This is a marvellous book combining art with science. The message is very clear that the hidden and not so hidden world of plant structures is full of interest and should be investigated for its own sake, something that is not sufficiently recognized in our scientific world that has forgotten about what really matters.

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The Illustrated Moss Flora of Antarctica by Ryszard Ochyra, Ronald I. Lewis Smith & Halina Bednarek-Ochyra. Cambridge: Cambridge University Press, 2008. 704 pp. Hardback. ISBN 978-0521814027. £125.

This flora is the first fully comprehensive account of the mosses of Antarctica, representing the culmination of many years' research by the authors. Mosses form a major floristic component of the ice-free regions of Antarctica and this volume completes the floristic survey of Antarctic bryophytes (Bednarek-Ochyra *et al*., 2000) and lichens (Øvstedal & Lewis Smith, 2001), groups which dominate this landscape.

The preface section to the flora provides a summary of all new combinations, synonyms and typifications which are all cross-referenced to the main systematic accounts. A monographic approach has been taken. The authors have examined type material of all taxa described and all names have been typified. The first five chapters provide a comprehensive background to the subject matter, covering: an introduction to the climate and biogeography of the Antarctic zone; a history of bryological exploration; Antarctic moss ecology; diversity and phytogeography of the moss flora.

Early bryological exploration of Antarctica began nearly 200 years ago in the 1820s, with the first comprehensive collection of mosses made by Joseph Dalton Hooker in 1839–1843. Since these early beginnings, 52 species and 22 infraspecific taxa have been described as new to science from Antarctica, though continued taxonomic revision by bryologists over the years has reduced the number of accepted taxa considerably. The modern flora shows rather low levels of moss endemism with only ten species currently considered true endemics to the Antarctic biome.

The range of habitats available for moss colonisation in this extreme environment is remarkable. For example, the permanently warm and moist conditions provided by geothermal habitats provide profitable substrate for mosses; some survive in subpsammic habitats (buried or partially buried by sand), and several species have adapted to an aquatic life in the freshwater lakes. These introductory chapters are substantial in their own right and are well written and informative. A section of forty-two colour photographs illustrate landscapes, moss communities and a few species portraits. The photos serve to aptly portray some of the variety of habitats discussed in the text.

The main substance of the book is the systematic account of the taxa, detailed over 500 pages. The flora treats 17 families, 55 genera and 111 species. The meticulous attention to detail allows for almost five pages per species. Dichotomous keys to genera and species are provided. Species accounts are arranged systematically based on a primarily morphological classification outlined at the start of the section. For each species, a thorough morphological description is given, followed by additional information on reproductive status and ecology. Distribution maps indicate the range in both the Antarctic region and worldwide. The maps are well-produced, being both stylistic and informative, with the distribution data gathered from approximately 10,000 specimens collected from Antarctica. The flora is illustrated with detailed line drawings, often with more than one plate per species. These illustrations are superb and are one of the highlights of the book. Dr Halina Bednarek-Ochyra was the well-deserved recipient of the Jill Smythies Award for botanical illustration in 2009 for this work. The flora concludes with a glossary and an extensive bibliography. The overall production value of the book is very high, with a good quality binding which is so important for a reference tome of this size.

This book will undoubtedly appeal not only to bryologists but will provide a useful resource for anyone with an interest in Antarctic biology. In addition, the work has a contemporary relevance with the heightened interest in Antarctic biology as central to climate change research. Such an identification manual is required for the precise assessment of species distribution and for the ecological and physiological research which relies upon accurate identification. It is a shame that the academic price tag will doubtless be a barrier to many of the target audience; however, the *Illustrated Moss Flora of Antarctica* remains a highly recommended investment.

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