

## BOOK REVIEW

Warham, John. 1996. *The Behaviour, Population Biology and Physiology of the Petrels*. 613 pages, 238 figures, 42 tables and 2 appendices. Academic Press, London. ISBN 0-12-735-4158. Hardback, 172x250x30 mm. Price Stg.60.00.

This book comprises 12 chapters: populations; distribution at sea, dispersal and migration; feeding and foods; general behaviour and vocalizations; albatross behaviour; behaviour of petrels; physiology and energetics; biochemistry; locomotion; anatomy; evolution; petrels and man. One appendix lists 47 fossils (Cretaceous to Recent) named as procellariiform (20 of them being *Puffinus* spp.); the other, some (14) references to parasites of Procellariiformes. There are 1604 references. Though there are no colour plates (except the cover), a number of good black-and-white photographs are reproduced.

Warham has provided in this book a highly perceptive overview of the present state of knowledge on these aspects of procellariiform biology. Together with its preceding, companion volume *The Petrels* (1990), these works are a major achievement that will be valued by seabird biologists for decades.

The content of this book is based on extensive literature review. Each chapter is divided into well-ordered sections, further sub-divided, so that the reader can soon locate any section of interest. Good indexes, to both subject and species, further aid the search for a particular topic. Within subsections the material may, if necessary, be arranged more or less taxonomically. Sections and/or chapters may conclude with a brief review, often with questions posed. Rather than hypothesizing, the author has chiefly aimed to present a summary of the available information, for the reader to make whatever use she or he requires of it.

Coverage of the fields is very good. The chapters on behaviour and breeding biology are particularly good, as might be expected from the strengths of the author. However, the whole book is a mine of information. Virtually all references one expected to see (and even more than one knew little or nothing of) are present. I was surprised that Pilgrim, R.L.C. & Palma, R.L. (1982) *Notornis* 29 (*Supplement*) was missing from the references in Appendix II for feather lice.

The taxonomy followed is quite up-to-date. The use of *Pseudobulweria* for this well-defined group of tropical petrels is to be commended, though this seems to have occurred at a later stage of the book's 5-year gestation, as *Pterodroma* still lurks here and there (pp. 205, 524). There are a few errors in those parts of the text with whose subject I am very familiar, sufficient to cause readers to mind the advice in Warham's introductory remarks about passing on errors like an heirloom, and to be advised always go to the original source when it really matters. For example, the common large petrel on Macauley Island is *Pterodroma cervicalis* not *P. neglecta*; reference to rabbits affecting petrels on Kermadec Is., where there are no rabbits, is presumably meant to refer to Philip I. at Norfolk I.; the Leach's Storm Petrels at Rabbit I., Chatham Is. were two birds but not a pair; Black-winged Petrels were first recorded on Mangere I. in 1987, not 1980. But these are minor quibbles.

This is an excellent book which will be invaluable to all who study the procellariiforms, both as a backgrounder and an introduction to the literature. It should be in every library of seabird books.

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