Tickell, W.L.N. 2000. *Albatrosses*

Pica Press, Sussex. ISBN *1-673403-94-1*
448 p.; 225 figures, 69 tables, 15 appendices. 19 × 26 × 3 cm.
£Stg40

This is the first full-length book devoted to the comparative biology of all the albatrosses. It summarises most of the considerable knowledge of these birds and draws on material published up to 2000 with some cited as *in press*. It is clearly and concisely written. and, for a work of this kind, almost devoid of 'typos'. There are many maps and clear figures. It is good to see the author rubbishing the habit, still encountered, of using 'albatross' as a plural noun, so that one reads of 'these albatross'. Tickell follows Coues and the Americans in writing of 'Albatrosses and Petrels' *contra* Godman's *Monograph...* and Lance Richdale who persisted in referring to *Albatrosses and other petrels*. I'm a Richdale man, myself!

After a brief introduction to tubenoses in general the work is divided into two main parts: 70% of the text examines the species and their habitats in 12 chapters; the 2nd (24%) in 4 chapters covers the comparative biological aspects, while 2 short chapters cover albatrosses and man as well as myths and poems around the birds.

Tickell solves the tricky problem arising from recent proposals based on DNA evidence that would raise many currently recognised subspecies to full species level, e.g., instead of 1 wandering albatross with 6 subspecies we would have *Diomedea antipodensis*, *D. exulans*, *D. gibsoni*, *D. chionoptera*, *D. dabbena*, and *D. amsterdamensis*. To avoid confusion he uses only vernaculars like Antipodes wandering albatross, eastern yellow-nosed albatross, and so on.

The treatment in the chapters dealing with the species or groups of species (e.g., the mollymawks) follows a consistent pattern. Each is preceded by brief accounts of the hydrology of the seas they exploit, descriptions of the breeding islands, and the history of their discovery and occupation by man. Thereafter, for each form, we get accounts of their plumages, histories of the birds' discoveries, maps of oceanic distributions and of each island showing approximate locations of the colonies plus tables of their numbers at these various sites. Then follow the main facts about their breeding! foods and feeding places, these latter illustrated by recent satellite tracks. These sections end with brief accounts of parasites and predators.

Comparative biology is dealt with in chapters entitled "Moult', "Flight", "Behaviour", and "Ecology". Of these "Behaviour" is the longest, covering 46 pages and is notable for the drawings of display sequences taken from ciné films, including some from the little known Steller's albatross. The author does not introduce a complete new terminology to describe behaviours, earlier ones mostly having been based on those of Richdale's. Vocalizations are described briefly with examples figured as sonagrams – mostly from this reviewer.

Ecological aspects covered include recent techniques and aspects of breeding not already dealt with under the species accounts (breeding seasons, fecundity, the hormone cycles and annual and non-annual breeding). There is a section on population dynamics, another on foraging and feeding with more satellite tracks, and a general discussion on the energetics of feeding and breeding.

The penultimate chapter looks at some of the hazards the birds encounter at sea, particularly from long-liners and pollutants, and measures to reduce mortality there, while the final chapter deals with myths and poems made around the bird.

The appendices cover 33 pages and summarise a great deal of information. They include tables of standard measurements of birds and eggs; of foods identified from the stomachs of a range of species; how to age black-browed, grey-headed, and wandering albatrosses on state of moult, bill colour, and plumage; social and stereotyped actions and vocalizations and their various names from different studies; a French model of sooty albatross behaviour and a demographic one for the wandering albatross, the last appendix being a 10 page listing of the counts of breeding birds at all known islands. These data are drawn from many sources, some unpublished.

There are 15 pages of colour photographs but many in this reviewer's copy are disappointing, lacking the sparkle that we expect in modern colour printing and for which albatrosses make such attractive subjects. The fault here lies not with the author but with the printer.

Encyclopaedic as it is, *Albatrosses* does not cover every aspect of their biology, something impossible in just 448 pages even when tightly written as this is – and publishers often insist that manuscripts are cut down to their size, which means excisions. For example, there is little here on anatomy – no figures of typical skeletons, blood vascular, pulmonary, excretory, digestive or muscular systems – virtually nothing on embryology or the energetics of hatching in all of which there are peculiarities with albatrosses. Nonetheless, this is a major achievement, highly recommended. For a book of this kind it is quite easy reading, partly owing to the author's scholarship in digging out much useful historical detail and quotations from mariners, pirates, and other seafarers. Get it.

JOHN WARHAM