

with much earlier data, the results up to 1968 of all the ornithological work sponsored and assisted by the NSF and carried out from the USNS *Eltanin*, other vessels, and shore stations.

The overall size of 44 x 28 cm ensures that the 14 distribution charts are large enough to define the known breeding localities and recorded total distribution of some fifty taxa of birds. The difficult decision of where to draw the line in coverage has been made by plotting only those species breeding south of the Antarctic Convergence or on the islands just north of it yet clearly within its influence, such as Marion, Prince Edward, Crozet, Kerguelen and Macquarie.

An introductory section of ten pages of text includes chapters on the physical environment, distribution with accompanying tables and diagrams, followed by species accounts presented under family groupings. The discussions under this last section indicate considerable research and are generally constructive. Even a wordy recent correspondence in this Society's journal has been cited to justify not recognising records of Macaroni Penguins from Cape Hallet, Balleny Islands, and the New Zealand Subantarctic. Perhaps the excessive length of the correspondence confused the authors, for all that was at issue in it was the identification of a single specimen from the Snares: other records have not been challenged. The section is followed by a reference list of 125 titles, and the 713 data sources used in compiling the distribution charts. As the charts are large enough to carry the reference numbers legibly all the sources of records can be easily found, which is no small advantage. A few of the data derived from nineteenth century records are of doubtful accuracy, such as the acceptance of Buller's statement that *Pterodroma mollis* breeds at the Kermadec Islands, but generally the evaluation is more careful.

For good measure Plate 15 carries photographs of 31 species. The reproduction is not crisp enough to show plumage characters clearly in all of them, and at least one error of identification has slipped through, with a Giant Fulmar masquerading as a White-chinned Petrel.

The publication provides a valuable base-line for all subsequent distribution studies, while the method of analysis and of presentation sets a new and high standard.

R. A. F.



Grzimek's Animal Life Encyclopedia. Editor-in-chief, Bernhard Grzimek. New York, &c.: Van Nostrand Reinhold Company, 1972. Vol. 7, Birds I. Tinamous to Quail. Pp. 1-580, illus.; Vol. 8, Birds II. Grouse and Pheasants to Mousebirds. Pp. 1-630, illus. Each vol. UK £10.75; US \$29.95; NZ & AUS approx. \$30 (the set c. \$390).

These are sumptuous volumes, representing two of the three proposed volumes on birds within a 13-volume set of Grzimek's *Animal Life Encyclopedia*, originally published in German in Zurich during 1968 and now appearing in English along an international production line, the type being set in Canada, printing and binding in Italy and publication in New York and London. These two volumes weight 4½ lbs each and measure some 10" x 7" x 3", the

whole 13-volume set eventually occupying, therefore, over three feet (or closer to a metre) of the bookshelves of anyone financial enough to be able to afford them at around \$30 each.

Bernhard Grzimek, the overall editor of the series, is a distinguished wildlife conservationist and is well known as Director of the famous zoo at Frankfurt-am-Main. He has spent many years in Africa and his films *Serengeti Shall Not Die* and *No Room for Wild Animals* will be vividly recalled by those who have seen them. His other books, not yet made into films so far as I know, include *Rhinos Belong to Everybody*, *He and I and the Elephant* and, especially interesting for "down under" readers, *Four-legged Australians*; they are eminently readable accounts of wildlife interests and problems beyond our own horizons. Now we have this magnificently-presented set of encyclopedic volumes to associate with the name "Grzimek" (pronounced ZHEE-mack).

This work, the result of editorial collaboration with over 200 specialists on animals, lends itself to comparison with other encyclopedias and treatises on animal life on a broad scale such as the Larousse, Urbana and, perhaps, the Grasse volumes. The great merit of "Grzimek" is, however, that it is in English, the original German edition which appeared in 1968 having been translated, in a generally competent but occasionally curious manner, by a special staff of 11 to form an attractive English edition. Of the 13 planned volumes, Mammals I (Vol. 10) and IV (Vol. 13) [reviewed in *Science*, N.Y. 177: 1184, Sept. 1972] and Birds I & II (Vols 7 & 8) are already published. Volume 1 will comprise the "Lower Animals"; Vol. 2, the insects; Vol. 3, the molluscs. The other 10 will cover the vertebrate animals: Vols 4, Fishes I; 5, Fishes II, Amphibians; 6, Reptiles; 7-9, Birds I-III; 10-13, Mammals I-V. Truly an impressive set of volumes, each likely to be as handsomely printed, bound, and lavishly illustrated as the four so far available.

"Birds I" (ranging from Tinamous to Quail) is of particular interest since several New Zealand-domiciled authors have contributed to it. It is edited separately by a panel of five including the German ornithologists Gunther Niethammer and Joachim Steinbacher. A general introduction to modern and primitive birds running to 65 pages opens the volume and is followed by systematically-arranged descriptions of the orders and major families and notable species of the world's birds. The "Distinguishing Characteristics" of each group is given but there is no further consistency of treatment throughout the book. Some orders have their behaviour or breeding biology discussed in detail or perhaps a single species is described at length to illustrate an example for a particular family. The reader will, therefore, not necessarily find this work a *handbook* of birds of the world giving a Witherby *et al.* compendium of what is known of each. The three volumes will, then, deserve a direct comparison with the 10-volume set of *Birds of the World* edited by John Gooders and recently published in full by IPC Magazines, London.

The first New Zealand-based contribution is that by R. A. Falla on the moas and kiwis. It is evident from what we know of this author's literary and scientific style that his account has been submitted in English, translated into German for the 1968 edition, and now translated back to English for the new 1972 version. Something has

certainly been lost in this and the other contributions from English-writing authors. The account of the moas opens — “. . . gigantic flightless ratites also once lived on the large islands of New Zealand; they reached their peak in the Glacial Period and were able to survive almost to the present. These very plump moas (family Dinornithidae) were very similar to the much smaller kiwis. We therefore combine both into a single order (Apteryges), but some zoologists divide them into two orders.” There is some curious reading — “Moas, like kiwis, have four toes, their sense of smell is good, and their eyes are small. The clutch is only one or two eggs.” We meet the “Giant Moa” (*Dinornis maximus*) and the “Dwarf Moa” (*Megalapteryx hectori*) and are told that the “Elephant Foot” (*Pachyornis elephantopus*) and the Plumpfoot Moa (*Euryapteryx gravis*) had especially heavy feet.” In striving presumably for the common touch with newly-coined vernacular names, there results the “Common Kiwi” (*Apteryx australis*) divided into three subspecies, “Southern, Northern and Stewart’s Common Kiwi.” On the coloured plate opposite page 89 (the plates are not numbered but are included within the text pagination, i.e. this plate is p. 88), we are introduced to “Little Owen’s Kiwi” (*A. owenii owenii*) and “Greater Owen’s Kiwi” (*A. owenii haastii*). I am sure Sir Richard Owen would not feel flattered. A tiny distribution map set in a wide internal or “back” margin tries hard to show the “Original areas of distribution of kiwis . . . today they are extinct in parts of their former range.” Such minute marginal maps are set out against most species or groups discussed, with side headings also set here in place of the more conventional centre heads. Cupid’s bow-like symbols mark “endangered species or subspecies” and other small marks point up the location of colour illustrations. On each of some 400 pages a margin of 2" x 8" is left; truly a great amount of “white” for which the reader must pay in the interests of art, certainly not of convenience or practical use. In almost every case the maps need the application of a magnifying glass (unlike the new Oxford Dictionary one is not included by the publishers). Perhaps the showy colour plates compensate and it is true that the marginal figures of birds displaying and so on are somewhat better.

Chapter 5 is entitled “The Penguins” and is by Bernard Stonehouse who has also written the introduction to Chapter 6, “The Tube-nosed swimmers,” as well as the “procellariids” and “diving petrels.” John Warham has contributed “Albatrosses” to this chapter; and, in Chapter 7, “Pelecaniformes,” Stonehouse wrote on “Tropic-birds and frigate-birds” while Warham contributed the section on “Gannets.” Each of these articles, of particular interest to Southern Hemisphere bird folk, is again illustrated with tiny maps and figures. Various inconsistencies and oddly-thought-up vernacular names appear — see, for example, the “Dwarf Penguins” of the genus *Eudyptula*, the distribution of which is microscopically illustrated in Fig. 5-8 as the “Little Penguin.”

The general treatment is shallower than one might expect from the bulk of the three volumes, but to compress 8,500 species of birds into some 2,000 pages would not be easy. An example can be made of the contribution on albatrosses by John Warham occupying five pages of text, one colour plate (showing Wandering Albatross, Waved,

a Royal chick, Black-footed, and Light-mantled Sooty), five marginal figures (showing display of Wanderers and of Waved, Buller's in "flight intention posture" and copulation, and a Royal feeding its chick). A number of misprints such as "Snare Island" and "Tairoa" Heads are evident and a new species of Shy Albatross "*Diomedea caudata*" appears on pp. 142 and 499. A list is given of the species within each of the major size and geographic groupings of albatrosses, followed by a general consideration of feeding and of reproduction (based on Richdale) and, in particular, on the courtship of the Waved Albatross (based on Eibl-Eibesfeldt) with some comments on dispersal movements. Literature references (pp. 562-3) for "Birds covered in this volume" include neither Murphy nor Jameson nor Alexander let alone any of the papers of Richdale, Tickell, H. I. Fisher or any of the others who have written on albatrosses. There is nothing, therefore, for the reader who wants to know more about these impressive birds so well eulogised by Sir William Jameson. By contrast, in *Birds of the World* (Part 2, Volume 1) the section on albatrosses written by Sir Hugh Elliott (Wandering), Dr W. R. P. Bourne (Laysan and Black-browed) and Anonymous (Yellow-nosed, Grey-headed, Sooty) yield, perhaps, more detailed information on each species with colour photographs of courtship in the Wanderer, an illustrated discussion of how they fly (based on Sir William Jameson's book) and a guide to albatross identification. Readers will be able to decide which approach satisfies them according to their needs, and the same technique could be applied to the Petrels also.

An appendix to each volume of "Grzimek" gives the systematic classification and an animal dictionary cross-referenced from English to German to French to Russian with the four combinations of this multilingual sequence. There is some fascination in seeing how familiar names have become transformed. Who would guess that the "Million-ensturbacher" was the Short-tailed Shearwater? The Fiordland Penguin has no French name but is known to the Germans as "Dicksnobelpinguin" and to the Russians as "Tolstoklovny Peengvin." The Black-browed Mollymawk is just as impressive a bird when called "Schwarzbrauenalbatross" or "Albatross a sourcil noir" but "Schwarzbuch-Sturmschwalbe" seems a mouthful for a very small bird, the Black-bellied Storm Petrel. The "Common Kiwi" (known to us as the North Island Kiwi, South Island Brown, or Stewart Island Kiwi, depending on where they occur) is called by the Germans "Streifenkiwi," by the French "Kiwi austral" and by the Russians "Obiknovenniy keevce." Owen's Kiwi becomes "Fleckenkiwi" to the Germans and "Kiwi d'owen" to the French; how much better to have translated them into the text from streifen (= striped or striated) and flecken (= spotted or speckled). A conversion table of metric to U.S. and British systems, also in the Appendix, is useful beyond the confines of the book and many readers will want a copy for their walls. Supplementary reading references including general books on birds and books (rather than articles in journals) specifically on the birds covered in each volume, together with a comprehensive index, completes each volume.

Doubtless this work will be a source of reference and introduction to birds on a broad scale to those, wherever they live in the world, who want a handy, though bulky, volume on the shelf. The

"in-depth" treatment of some species and groups matched against the impossibility of writing much about everything, coupled with the frustratingly-useless maps, will limit the value of this otherwise fine treatise. For myself, I am more pleased to have subscribed to a set of *Birds of the World* (despite its limitations of authoritative authorship) but everyone to his taste. For those who like the "consumer" approach, value for money or best buy, 3 volumes of "Grzimek" at, say, NZ\$30 = \$90 while 108 weekly parts of *Birds of the World* at 55c each = \$59.40. Nevertheless I wouldn't mind a set of "Grzimek" on my shelf and I would certainly recommend it as a necessity for the National Library and the major public and university libraries throughout the country (even if only to acquaint the curious with the wonderful diversity of animal life). A coloured brochure on the series is available from Technical Books Ltd, P.O. Box 5174, Wellington, who will supply single volumes or sets to order.

E. W. D.



MCPHERSON, L. B. *Sounds of New Zealand Birds*, Vols 2 and 3. Two 45 r.p.m. extended play records, PR 629 and PR 641. Christchurch: McPherson Natural History Unit, 1972. \$1.50 plus postage.

Les McPherson, who operates the McPherson Natural History Unit at P.O. Box 21-083, Edgware, Christchurch, has produced two more discs in his series of sounds of New Zealand birds; and, according to information on the disc envelopes, he intends to go on with the programme.

This should please bird students who, for a reasonable price, might wish to acquire actual recordings of bird songs in preference to trying to figure them out from descriptions in field manuals.

Mr. McPherson's new discs contain the following:

Volume Two

Goldfinch	Paradise Duck
Tui	Canada Goose
South Island Fantail	Peafowl
[Rock] Pigeon	California Quail
Erect-crested Penguin	Spotted Shag

Volume Three

Budgerigar	Chukor
Blackbird	Yellowhammer
Crimson Rosella	Mallard
Black Swan	Black-billed Gull
Grey Partridge	Grey Warbler