LITERATURE

Edited by G. W. JOHNSTONE

BOOKS

Birds of Australia by J. D. Macdonald, 1973. Sydney. A. H. & A. W. Reed. Pp 551, illustrated by Peter Slater with col. pll 24, figs 140, maps 333. 255 x 190 mm. $A18.50.

This book, subtitled 'A Summary of Information', is intended by the author first for identification. As well as giving descriptions, it briefly outlines variation, distribution, habitat, habits, breeding, voice, food, status and taxonomy of all birds recorded in Australia. In addition Dr D. L. Serventy contributes a lucid eight-page essay on zoogeography, which not only summarizes a lot of recent information, but also embraces challenging new views on the origins of the early Australian avifauna.

Seven hundred and forty-five species are treated, including 125 non-breeding visitors and 20 introduced species. If the latter two categories and breeding sea-birds are omitted, the resultant total of breeding land-birds is close to that arrived at by Mayr and Serventy (1944, Emu 44: 33–40) in accord with modern concepts of systematics. Of the 745 species, 467 are illustrated. Two hundred and forty-eight of these are in colour and the rest in black and white, often of part of the bird only. For many ornithologists the lack of illustrations of many species is likely to be a real drawback, in spite of 117 keys in the text for the identification of species within families or genera. The field characters used in the keys thus become very important. In many of them the treatment presents no difficulties, particularly for small families or genera such as the barn owls or the grebes (both with four species) or where there are striking differences between all members of the group as in the kingfishers. However, for the large groups and those containing rather similar species, some keys are awkward or lacking in sufficient diagnostic features recognizable in the field, for instance those for the honeyeaters and the cuckoo-shrikes. Sometimes they give the impression of being based too much on skins in the hand. On the other hand the descriptions given for each species (both sexes) are well detailed and accurate. They form a useful and up-to-date basis of reference.

Peter Slater's black-and-white illustrations are accurate, lifelike and delightful. His colour plates are also successful though the colours of some species are slightly too pale (e.g. Pink Robin), but this is not serious.

Distributions of 458 species are shown on maps, which have been placed together at the end of the book, instead of accompanying the species to which they refer. This leads to a lot of inconvenient leafing to and fro between text and maps. The remaining species are either distributed more or less widely across the continent or very restricted with easily described ranges. There are several omissions of published information in regard to distribution, e.g. of the regular presence of the Singing Honeyeater on Melville Island, of the Diamond Dove in places between Katherine and the northern coast, and of Magpie Geese at Townsville, where they breed. The criteria for the distributions are not spelt out in full.

There are some errors: for instance, in the key for the button-quails, which makes a division on the basis of the habitat in which they are found (often unwise), the Chestnut-backed Quail is separated from two other species because of sole occurrence in grasslands. In fact it also occurs in woodland, not uncommonly. The Tasmanian Native-hen has bluish grey legs, not 'dull yellow'. (Cayley (1931, What bird is that?) shows them as bright green (!) as do later authors; how one wishes authors would look at the live bird in mainland zoos). Male and female Emus are not alike (see Davies 1967, Emu 67: 23–26). The sections on food are inevitably cursory in the absence of specific studies on most species, but here and there published information could have been used in brief amplification. For example, the stated food of the Wedge-tailed Eagle, 'birds and other animals up to size of wallaby and lamb, also carrion', could easily have been amplified with the finding of Leopold and Wolfe (1970, CSIRO Wildl. Res. 15: 1–17) that nearly a fifth of its diet is reptilian in arid areas, and it would also have been worth mentioning that rabbits constitute an important part of its mammalian diet, even after myxomatosis.

This book has a lot of useful information, the production of which has clearly involved painstaking, and no doubt lengthy, labour by the author. However, it can be seen from what has been said that there are inaccuracies and gaps. Even if some of these details appear minor, it must be remembered that expensive reference books stand or fall on detail. The author appeals, in the introduction, for readers to point out faults and provide new information. The second edition could thus be much improved.

Could the book's faults have been remedied?

In reference works of this kind, it is common practice to list those who have provided significant contributions (including other literature), indicating in which parts they have been used. This lends more weight to the unavoidable generalizations in the text because it allows the reader some chance to evaluate them on the basis of their sources. This practice has been followed by Slater (1970. A Field Guide to Australian Birds, Non-Passerines), by Frith (1969, Birds in the Australian High Country), and by Witherby *et al.* (1938-41, The Handbook of British Birds), to mention only three. In fact it is noteworthy that all these works have been the products of editors or of several co-authors. Only in this way has it been possible to draw upon all the widespread and invaluable ornithological expertise available in their areas. Their undoubted successes must be attributed to their well-organized co-operative efforts, leaving few sources untapped. In his introduction the author acknowledges his debt to Slater and Serventy, and to many other ornithologists who helped here and overseas, but he does not name them. The evidence of the book suggests he would have done well to have made the venture even more co-operative. Good bird books these days are collective affairs.

But now we do have one modern, systematically arranged book of all Australian birds available when we welcome the world's ornithologists here in August.

M.G.R.

[A couple of generations of Australian ornithologists have had to do the best they could with successive editions of Leach's *An Australian Bird Book* (1911), Cayley's *What Bird is That?* (1931) and various books dealing with a State or geographical region of the country or with particular groups of birds. (One excludes Mathews' *The Birds of Australia* (1910-1936) which most people could see only in a State library or the like). These have all been useful, but none has been adequate in itself in providing for ordinary observers and birdwatchers a comprehensive review of the state of knowledge regarding the Australian avifauna as a whole. Because it may be claimed that Macdonald's is the first comprehensive and properly arranged book, presented in one cover at a price admittedly high but not absolutely beyond the means of most serious ornithologists, the question should be asked: does it represent a milestone in Australian ornithological publications?

Although, as the reviewer has indicated, the book suffers from a number of shortcomings (to which I would add the omission of descriptions of immature birds), and could have been made far more useful by the inclusion of much existing information, one must recognize that the author deliberately limited his scope to 'A Summary of Information'. And within this limitation, the book does represent the sort of sensible, straightforward and relatively complete account of Australian birds that has for so long been lacking. Similar books have existed for many years for other countries: Meinertzhagen's *Nicoll's Birds of Egypt* (1930), Smythies' *The Birds of Burma* (1953), Oliver's *New Zealand Birds* (1930) and Roberts' *The Birds of South Africa* (1940) spring to mind. On these terms, then, it seems reasonable to recognize the publication of Macdonald's *Birds of Australia* as an important event for Australian ornithology. While we may hope for even better things in the future, I for one am very glad to have Macdonald's book for the present.—*Review Ed.*]

A Catalogue of the Ellis Collection of Ornithological Books in the University of Kansas Libraries, compiled by Robert M. Mengel. Vol. 1, A-B, 1972. Lawrence, Kansas. Univ. Kans. Pub. Lib. Ser. 33. Pp xxix + 259. 254 x 171 mm. £6.47.

I was once told that if a book were rare the Ralph N. Ellis Collection would probably possess two or three copies. If it were very rare, the Collection would probably contain five! Tested for John Cotton's very rare 'Song Birds of Great Britain', five copies were duly produced. It is a very impressive library indeed, and there is every reason to believe that it has found a worthy bibliographer in Robert M. Mengel.

'Let us observe an imaginary bibliographer at work . . . he is flipping the leaves of a great early folio . . . Each times he comes to one of Pierre Gourdet's quaint woodcuts . . . he operates the counter . . . About midway . . . say at 85, a certain special providence unfailingly causes the telephone to ring or a companion to appear at his elbow. After a bit, he resumes . . . wait! Did he *really* count 85? Better start all over! At last, it seems that Belon contains 160 woodcuts. This is what makes a bibliographer an idiot. Now I'll tell you what makes an idiot a good bibliographer. The poor chap does it again!' (Mengel, 1966, Bibliography and Natural History: 121–122). If one were stranded on an island clutching a handful of reprints, one could easily hope that one of Robert Mengel's would be among them. Ornithology, generally speaking, has been fortunate in that it has fostered bibliographical study as either a twin love or a necessity, and to bibliography there are two facets—the bibliographer and the library he records. When each is worthy of the other the result blends knowledge, judgement and devotion.

In the present catalogue, wherein these ingredients are evident, a brief historical note gives a lively outline of the formation of the Ellis Library and of the spirited unconventional and tragic life of its collector. Volume 1, as shown above, covers only authors whose names begin with A or B. These authors have produced 454 works here described. Some 15,000 bound volumes, apart from pamphlets, letters, manuscripts etc. are held in this Collection, and in this volume of the catalogue such authors as Audubon, Aldrovandus, Belon and Buffon are well represented. One can only hope that the compiler will find the time, energy and concentration to continue his good work and apply it to the many gems that must still be to come.

The bibliographical methods and techniques adopted generally follow standard practice and difficulties concerning such aspects as sub-titles, multiple volumes and dates of publication are dealt with in much the same way as by Zimmer (1926, Cat. Edward Ayer orn. Library). The entries for works usually include title, collation, contents, discussion and a list of references. The conventions applied to the demanding subject of signatures are as described by Bowers (Principles of Bibliographical Description 1962) and are employed for most books published before 1800 and for many complex books published after that date. Finally, and I believe happily, the bibliographer has added a subjective and critical comment on the characteristics or the significance of most works 'chiefly for the benefit of non-ornithological users of this catalogue and for comparative beginners in the field . . .' Two examples are presented here. Under Broinowski's *The Birds of Australia* we read 'A comprehensive account of Australian birds, of little more than historic interest today' (plus 8 lines on dates of publication). Under Anthony Buxton's *Sporting Interludes at Geneva* Mengel writes, 'A handsome book containing some excellent photographs and written in a pleasing literary style (a delightful chapter on fishing, a subject generally represented by more bad writing than almost any other, is tribute to the author's skill.) The observations here described were made while Buxton served with the League of Nations.'

All ornithological bibliographies are different, each of the better-known ones 'doing,' as Mengel says, 'certain things better than any other.' The primary aim of Mengel's Catalogue is 'the full and orderly description of (Ellis's) Collection with appropriate attention to bibliographic, aesthetic, and historical detail.' The Australian user of bibliographies in ornithology will want to know how this one compares with Zimmer's and the answer is a very favourable one. A comparison of their entries for Stuart Baker's *Indian Pigeons and Doves*, without detraction from Zimmer's outstanding work, reveals an entry by Mengel of twenty-three lines, five of which refer to the particular copy, against Zimmer's ten. On the other hand under Bonaparte's *Conspectus generum avium* Zimmer gives one and a third pages against Mengel's less than a page, in which Mengel refers the reader to Zimmer for information on dating. This and other catalogues are thus admirably complementary.

The reward of the bibliographer is the affectionate gratitude of the user of his work. Robert Mengel's Catalogue promises to be a major contribution to ornithological bibliography and it will be very surprising indeed if it is not used with such gratitude and with admiration for its compiler as well.

A. R. McE.

Avifauna of the Eastern Highlands of New Guinea by J. M. Diamond, 1972. Publs Nuttall orn. Club (12). Pp vii + 438, figs 42, tables 19, maps 4. 235 x 165 mm. $US15.00: obtainable from Nuttall Ornithological Club, Mus. comp. Zool. Harv., Cambridge, Mass. 02138, USA.

Having already reviewed in detail this important contribution to knowledge of the New Guinean avifauna for *Wilson Bulletin*, I shall here outline only briefly its scope, contents, strengths and weaknesses.

It is a technical account of the avifauna of the central eastern sector of the main New Guinean cordillera, embracing the northern and southern scarps between Tari in the west and Kainantu in the east. It examines patterns of distribution, both latitudinal and altitudinal, mechanisms of ecological sorting, habitats and the composition of the faunas of major habitats, migrants, breeding seasons and the zoogeographical affinities of the region. The data on which these analyses are based are included in a comprehensively annotated list of all species recorded, which covers taxonomic affinities, breeding, ecological distribution, voice, native name and details of specimens taken. Though incorporating the published results of other studies in the Eastern Highlands of New Guinea since the war, many of the data come from two rigorous expeditions made by Dr Diamond and Dr J. W. Terborgh (first expedition only) to the Karimui and Okapa areas south and east of Goroka in 1964 and 1966.

The great strengths of the study are Dr Diamond's clear and comprehensive grasp of the biogeographical and ecological factors affecting the distribution of birds in the region, and the wealth of field information. Concerning the latter, Diamond and Terborgh have presented the most thoroughly documented account of the calls of birds of highland New Guinea ever published. Our understanding of the patterns of distribution, geographically and ecologically, are placed in new perspective. Patchiness in distribution, whether or not it is so consistent for so many species as the author claims, is interpreted in terms of historical disjunctions and re-meeting of populations, competition and extinction. Correlations between the age-structure of populations and altitude are revealed for the first time, and the local occurrence of birds (their altitudinal limits, particular habitats, vertical distribution within the forest), differences in food and foraging, and seasonal segregation are examined in detail not found in any other regional surveys of New Guinean birds.

As a whole, Dr Diamond's analysis significantly expands present knowledge of the ecological composition of the avifauna, and the processes that have formed it. Therefore it seems a quibble to draw attention to weaknesses but, because these often concern the data on which concepts are based, they need stressing. There appear to be three main grounds for criticism; balance, examples of distributional patterns and processes, and taxonomy.

Concerning balance, minor incongruities occur because the essentially lowland fauna of the Lake Kutubu area is included in the montane fauna of the Eastern Highlands, because Karimui birds rather than those of the Eastern Highlands are overtly emphasized as a whole in the annotated list and because contents of crops for each species from outside the region are given. Nonetheless, all the information is of value. Concerning distributional patterns and processes, Dr Diamond has often chosen misleading, superficial or too hastily conceived examples, notwithstanding that the concepts themselves may be valid. Thus, he cites *Pitohui dichrous–P. nigrescens* and *Sericornis perspicillatus–S. papuensis* as pairs of species in which one member replaces another altitudinally. In fact, members of both pairs overlap over much of their range and fill different niches. There are other all-too-frequent examples of such jumping to conclusions, several of which I illustrated in my review in *Wilson Bulletin*. Some false assumptions have also been made to bolster examples of supposed phyletic relationship and niche-filling. For example, *Quoyornis* and *Petroica* are included among the genera of thicket-flycatchers noted for perching sideways on trunks of trees. This trait is virtually unknown in *Petroica* whereas the two species of the former genus *Quoyornis* are now split into *Eopsaltria* and *Peneoenanthe*, only one of which (*E. georgiana*) consistently perches on trunks.

Some taxonomic assessments show remarkable insight, as in the separation of *Meliphaga auga* from *M. montana;* others a strange lack of perception, as in the association of *Rhipidura fuliginosa* with *R. brachyrhyncha* and *R. atra* rather than with *R. albolimbata* and *R. hyperythra.* The most radical revision (of the genera of birds-of-paradise) is also the most poorly contrived. A rather superficial re-hash of known data, it produces little new except a drastic lumping of genera – ten as against twenty in other recent revisions. Its effect is to obscure rather than to clarify their relationships and lines of evolution.

The book is finely bound and printed but there are numerous disconcerting blanks in cross-references, which probably reflect hasty proof-reading.

R.S.

The Birds of the Republic of Panama by Alexander Wetmore. Washington: Smithsonian Institution Press. Part 1: Tinamidae to Rynchopidae, 1965. Pp iv + 483. $US12.50. Part 2: Columbidae to Picidae, 1968. Pp v + 605. $US15.00. Part 3: Passeriformes–Dendrocolaptidae to Oxyruncidae, 1972. Pp iv + 631. $US15.00. Each ill 195, col. pll 3 (by Walter Weber). 235 x 160 mm.

These volumes are the first three of four instalments of a comprehensive study of the avifauna of Panama. They constitute a detailed description of what is known of the distribution, habitat preferences, natural history and morphology of 606 species from the tinamous to the sharpbills. The fourth volume, yet to be published, will complete the Passeriformes and contain an account of the author's fieldwork, a review of the work of other ornithologists in Panama, general discussions of the avifauna, a bibliography and a gazetteer.

Dr Wetmore has studied Panamanian birds for thirty years and predictably this monumental account will be the standard reference work on Panamanian birds for a long time. Although primarily taxonomic, the account contains details of breeding biology and natural history, which will interest a wider audience. Moreover, because many species discussed range well beyond Panama, the book will form a valuable source of information for ornithologists interested in Central America and the Neotropics.

Each family is introduced by a general description of the group throughout its range, followed where necessary by a key to the species in Panama. Accounts of species consist of descriptions of size, colour, plumage, distribution, habitats, habits and nesting. Where two or more subspecies occur in Panama, each is separately described and its colour, vital statistics, range and nesting behaviour outlined. Gaps in the author's knowledge of particular forms are filled with published information on the same (or other) subspecies elsewhere.

Wetmore's detailed morphological descriptions of species of which I have experience are accurate. The

measurements of wing, culmen, tarsus and middle toe are useful, particularly because the number of specimens measured and their origin are stated, enabling others to quote the statistics with confidence. An indication of the variation in these measurements would, however, have been welcome. Similarly, sizes and locations of samples are given with data for clutches and sizes of eggs, but the type and extent of data on which duration of breeding seasons is estimated are sometimes vague. Although maps will undoubtedly be included in the final volume, it would have been much easier for readers interested in distributions if each volume had maps pertinent to the species discussed.

The descriptions of behaviour and natural history are usually sound; testing this, I found I could often recognize a species I know well from the description of its habits without recourse to the morphological account. But for some the descriptions are rather verbose and contain irrelevant details, which an author of lesser reputation would have difficulty getting past any editor conscious of space and cost, e.g. frequent assessments of how skinned specimens appealed to Dr Wetmore's palate when on his menu, and detailed descriptions of the circumstances of shooting of a particular specimen, matters of little biological significance. At times the language is rather fanciful for a serious ornithological publication, e.g. on page 8 of the Great Tinamou: 'Though heard in daytime . . . their calls come also through the night, carrying to the human listener a feeling of the mystery that surrounds the nocturnal life of the darker hours'. Elsewhere the origin of dedicatory trinomials is presented in unnecessary detail, which can be of little interest to most readers. However, these are minor blemishes on a masterly work.

The coloured frontispieces to Vols 1 and 2 are pleasing and natural, but the plate of the Spiny-faced Ant-shrike prefacing Vol. 3 is rather flat and lacks animation. Weber's line drawings of typical species in each family and of morphological details are well done, with birds in natural postures and distinguishing features clearly shown.

Inevitably a work of this scale will generate wrangles among taxonomists interested in the Central American avifauna. But these three volumes constitute a significant and scholarly contribution to New World ornithology. The price may deter individuals not directly interested in the region from buying the books; but they are essential for all involved in this field and ought to find a place in the libraries of leading zoological institutions.

A.L.

Der Zug Europäischer Singvögel. Ein Atlas der Wiederfunde beringter Vögel 1. Lieferung (The migration of European songbirds. An atlas of the recovery of banded birds Part 1), compiled by Gerhardt Zink, 1973. Vogelwarte Radolfzell am Max-Planck-Institut für Verhaltensphysiologie. Pp 45, figs 4, maps 87. Unbound. 340 x 270 mm. In German. DM 48.00.

This is the introduction and first part of an atlas of the movements of passerine birds that have been banded in Europe, including the British Isles, since the Danish High School teacher, H. C. C. Mortensen, started bird-banding in 1899. Twenty-five species such as swallows, starlings and sparrows, for which a large number of papers illustrating their movements has already been published, will not be included; instead, bibliographies to these papers are given in the introduction.

Part 1 contains 87 maps for 30 species in the Turdidae and Sylviidae. For each species there is a page of text which synthesizes the available information on autumn migration, winter range and spring migration and gives the sources of the information used and a bibliography. About 70 species will be treated in parts 2 and 3, scheduled to follow after intervals of about two years.

The Australian Bird-banding Scheme is still too young to contemplate producing a similar atlas for our passerine birds; there are not yet enough long-distance recoveries for enough species. It might, however, be possible to produce an atlas for the non-passerine birds that have a significant number of long-distance recoveries in Australia, although many of these have already been published in various papers.

The European bird-banding schemes are to be congratulated for having pooled their data, and the author and publisher for an excellent presentation.

G.F.v.T.

The Visible Migration of Birds at Ottenby, Sweden edited by Carl Edelstam for the Swedish Ornithological Association (*Vår Fågelvärld*, Suppl. 7). Pp 360, line drawings of birds 110, b. & w. pl 1, maps 2, numerous graphs. 360 x 220 mm. Bilingual (English and Swedish). Price including overseas mail 95 Sw. cr.

This well-presented book is one of the results of counts of migratory birds made at the southern point of the island of Oland, off the south-eastern coast of Sweden, during the summers and autumns, 1947–1956. by a group of enthusiastic and determined ornithologists associated with the Ottenby Bird Station. During this ten-year period, almost four million birds of nearly 200 species were observed in passage through this Baltic region, between their breeding grounds to the north-east and their wintering areas further south.

The methods are clearly described and the text consists of explanations and commentaries under the following main headings: annual variation, seasonal rhythm, daily variations, diurnal rhythm, reverse migration and weather. The main part of the book is a series of clearly set-out tables and diagrams presenting the bulk of the data, species by species.

The editor, publishing sponsors, and the ornithologists associated with the Ottenby Bird Station are to be congratulated on making available for analysis such a wealth of data and information. If at some future date a group of Australian ornithologists were to contemplate a study of visible migration, particularly in the Bass and Torres Strait regions where it so obviously occurs, I strongly recommend they consult this publication. I feel sure they will find it a worthwhile model.

J. L. McK.

PAPER

An analysis of the population dynamics of selected avian species, with special reference to changes during the modern pesticide era by C. J. Henny, 1972. Wildl. Res. Rep. No. 1. Fish Wildl. Serv. U.S.

The indiscriminate use of pesticides has been blamed for the decline in numbers of several species of birds in the northern hemisphere. Best known of the species affected are the American Bald Eagle *Haliaetus leucocephalus*, Peregrine Falcon *Falco peregrinus* and Osprey *Pandion haliaetus*. In this paper, Henny reviews the status of sixteen species of North American birds, for

measurements of wing, culmen, tarsus and middle toe are useful, particularly because the number of specimens measured and their origin are stated, enabling others to quote the statistics with confidence. An indication of the variation in these measurements would, however, have been welcome. Similarly, sizes and locations of samples are given with data for clutches and sizes of eggs, but the type and extent of data on which duration of breeding seasons is estimated are sometimes vague. Although maps will undoubtedly be included in the final volume, it would have been much easier for readers interested in distributions if each volume had maps pertinent to the species discussed.

The descriptions of behaviour and natural history are usually sound; testing this, I found I could often recognize a species I know well from the description of its habits without recourse to the morphological account. But for some the descriptions are rather verbose and contain irrelevant details, which an author of lesser reputation would have difficulty getting past any editor conscious of space and cost, e.g. frequent assessments of how skinned specimens appealed to Dr Wetmore's palate when on his menu, and detailed descriptions of the circumstances of shooting of a particular specimen, matters of little biological significance. At times the language is rather fanciful for a serious ornithological publication, e.g. on page 8 of the Great Tinamou: 'Though heard in daytime . . . their calls come also through the night, carrying to the human listener a feeling of the mystery that surrounds the nocturnal life of the darker hours'. Elsewhere the origin of dedicatory trinomials is presented in unnecessary detail, which can be of little interest to most readers. However, these are minor blemishes on a masterly work.

The coloured frontispieces to Vols 1 and 2 are pleasing and natural, but the plate of the Spiny-faced Ant-shrike prefacing Vol. 3 is rather flat and lacks animation. Weber's line drawings of typical species in each family and of morphological details are well done, with birds in natural postures and distinguishing features clearly shown.

Inevitably a work of this scale will generate wrangles among taxonomists interested in the Central American avifauna. But these three volumes constitute a significant and scholarly contribution to New World ornithology. The price may deter individuals not directly interested in the region from buying the books; but they are essential for all involved in this field and ought to find a place in the libraries of leading zoological institutions.

A.L.

Der Zug Europäischer Singvögel. Ein Atlas der Wiederfunde beringter Vögel 1. Lieferung (The migration of European songbirds. An atlas of the recovery of banded birds Part 1), compiled by Gerhardt Zink, 1973. Vogelwarte Radolfzell am Max-Planck-Institut für Verhaltensphysiologie. Pp 45, figs 4, maps 87. Unbound. 340 x 270 mm. In German. DM 48.00.

This is the introduction and first part of an atlas of the movements of passerine birds that have been banded in Europe, including the British Isles, since the Danish High School teacher, H. C. C. Mortensen, started bird-banding in 1899. Twenty-five species such as swallows, starlings and sparrows, for which a large number of papers illustrating their movements has already been published, will not be included; instead, bibliographies to these papers are given in the introduction.

Part 1 contains 87 maps for 30 species in the Turdidae and Sylviidae. For each species there is a page of text which synthesizes the available information on autumn migration, winter range and spring migration and gives the sources of the information used and a bibliography. About 70 species will be treated in parts 2 and 3, scheduled to follow after intervals of about two years.

The Australian Bird-banding Scheme is still too young to contemplate producing a similar atlas for our passerine birds; there are not yet enough long-distance recoveries for enough species. It might, however, be possible to produce an atlas for the non-passerine birds that have a significant number of long-distance recoveries in Australia, although many of these have already been published in various papers.

The European bird-banding schemes are to be congratulated for having pooled their data, and the author and publisher for an excellent presentation.

G.F.v.T.

The Visible Migration of Birds at Ottenby, Sweden edited by Carl Edelstam for the Swedish Ornithological Association (*Vår Fågelvärld*, Suppl. 7). Pp 360, line drawings of birds 110, b. & w. pl 1, maps 2, numerous graphs. 360 x 220 mm. Bilingual (English and Swedish). Price including overseas mail 95 Sw. cr.

This well-presented book is one of the results of counts of migratory birds made at the southern point of the island of Oland, off the south-eastern coast of Sweden, during the summers and autumns, 1947–1956. by a group of enthusiastic and determined ornithologists associated with the Ottenby Bird Station. During this ten-year period, almost four million birds of nearly 200 species were observed in passage through this Baltic region, between their breeding grounds to the north-east and their wintering areas further south.

The methods are clearly described and the text consists of explanations and commentaries under the following main headings: annual variation, seasonal rhythm, daily variations, diurnal rhythm, reverse migration and weather. The main part of the book is a series of clearly set-out tables and diagrams presenting the bulk of the data, species by species.

The editor, publishing sponsors, and the ornithologists associated with the Ottenby Bird Station are to be congratulated on making available for analysis such a wealth of data and information. If at some future date a group of Australian ornithologists were to contemplate a study of visible migration, particularly in the Bass and Torres Strait regions where it so obviously occurs, I strongly recommend they consult this publication. I feel sure they will find it a worthwhile model.

J. L. McK.

PAPER

An analysis of the population dynamics of selected avian species, with special reference to changes during the modern pesticide era by C. J. Henny, 1972. Wildl. Res. Rep. No. 1. Fish Wildl. Serv. U.S.

The indiscriminate use of pesticides has been blamed for the decline in numbers of several species of birds in the northern hemisphere. Best known of the species affected are the American Bald Eagle *Haliaetus leucocephalus*, Peregrine Falcon *Falco peregrinus* and Osprey *Pandion haliaetus*. In this paper, Henny reviews the status of sixteen species of North American birds, for

which there are some population data from the pre-pesticide era 1925–45. These data on mortality, derived from recoveries of banded birds and reproductive success, as indicated by recruitment rates and age at sexual maturity, are compared with similar data from the pesticide years 1946–65.

It is of interest that most of the data on which this analysis depended were provided by amateur ornithologists, not only from the results of bird-banding, but also through questionnaires sent to banders, requesting information on clutch-size and fledging success. Other information was obtained from museums, egg-collectors, nest record schemes and, of course, the literature.

Henny found that there was no evidence of an increase in mortality rates for any of the species, but the Brown Pelican *Pelecanus occidentalis*, Osprey, Cooper's Hawk *Accipiter cooperi*, Red-shouldered Hawk *Buteo lineatus* and Kestrel *Falco sparverius* (known in the U.S. as Sparrowhawk) all showed declines in abundance, associated with decreased reproductive success for the period 1946–65. No change in status or reproductive success was found in the Red-tailed Hawk *Buteo jamaicensis*, Great Horned Owl *Bubu virginianus*, Great Blue Heron *Ardea herodias* or Barn Owl *Tyto alba*. Data on the other species investigated (Black-crowned Night-heron *Nycticorax nycticorax*, Barn Swallow *Hirundo rustica*, Chimney Swift *Chaetura pelagica*, Blue Jay *Cyanocitta cristata*, Black-capped Chickadee *Parus atricapillus*, Cardinal *Richmondena cardinalis* and Robin *Turdus migratorius*) were judged insufficient to reach conclusions regarding changes in status.

Including the American Bald Eagle and Peregrine Falcon, which Henny did not review, all the species with a reduced reproductive success are birds that feed primarily on fish, amphibians, reptiles or birds. No bird that feeds primarily on mammals is affected. Because food-chains involving fishes and birds are more likely to become contaminated by residues of chlorinated hydrocarbon pesticides than those involving small mammals, Henny concludes that the accumulation of these residues through the food-chain is the likely cause of the observed reduction in reproductive success and in numbers. This conclusion is reinforced by a brief but convincing review of the species under study, showing a high correlation between reproductive performance and change (or lack of change) in thickness of egg-shells. This effect has been positively linked, on both circumstantial and experimental grounds, to contamination by chlorinated hydrocarbons, and leads through breakage of eggs to reduced reproductive success.

The 1973 report of the Australian Academy of Sciences on DDT notwithstanding, we can expect Australian birds to have physiologies similar to those of North American birds and to be affected in a similar way by chlorinated hydrocarbons. Henny's report is, therefore, a neat guide to Australian ornithologists as to which Australian birds are most likely to be affected by pesticides and the data needed to demonstrate a change in status brought about by exposure to pesticides.

H.F.R.

AUSTRALASIAN ORNITHOLOGY

A continuing and selected catalogue of papers compiled by A. R. McEvey

New Guinea Bird Society Newsletter (94) February 1974
Preliminary list of species observed during the 1973 RAOU Congress and Camp-out: (W. Filewood) 1 and attachment

The Australian Bird Watcher 5(4) 1974
Some tern observations in north Queensland (R.A. Noske) 103
A Victorian record of the Asiatic Dowitcher (F.T.H. Smith) 111
The brush-tongued Silvereye (R. P. Cooper) 119
Seasonal fluctuations in waterbird populations on three lakes near Camperdown, Victoria (R. Missen and B. Timms) 128
Short Notes:
Birds and their association with bees (E. Rich) 135

Birds 8(5) 1974
Honeyeaters of Toongabbie Ck, Northmead (A. Colemane) 79
Short-tailed Shearwater on Lion Island (S. G. Lane) 81
Some notes on the Little Raven (D. Sawyer) 81
Lesser Frigatebirds at Comerong Island (C. Sonter) 83
Birds of the Murrumbidgee and Murray Rivers (M. Guppy) 85
Arctic Terns in Botany Bay (D. Sawyer) 89

Canberra Bird Notes 2 (9) 1974
Nest boxes for native birds (P. Ormay) 2
Rare bird records (M. Carins) 7
Notes on the breeding of Spotted Pardalotes (C. Green) 9
Wintering cuckoos in a Canberra pine forest (T. Gourlay) 11
Chestnut-tailed Heath-wren A.C.T. sighting (M. Chuk) 12
A Diamond Dove in the ACT (J. Porter) 14
Some behaviour notes on the Black-faced Cuckoo Shrike and a record of its breeding in immature plumage (T. Stokes) 15
Late autumn bird population in downtown Canberra (R. G. Beidleman) 17
Recent observations (various) 21
Bird status in the ACT (various) 22