

# BOOKS, PAPERS AND LITERARY NOTES

Edited by ALLAN MCEVEY

## Reviews

### BOOKS

**Correction.** In the review of **Population Studies of Birds** (David Lack), by David Thomas, *Emu* 67: 80, the opening sentence of the second paragraph should read:

"Thirteen passerine species are discussed and in these, as in four other species of land birds, a wide range of types in terms of ecology, reproduction and feeding are included".

The Review Editor regrets his error which made the earlier text unintelligible.

**Waterfowl in Australia** by H. J. Frith, 1967. Angus and Robertson Ltd. Pp. xxi and 328; 5 full-colour plates of paintings with 63 figures, by Betty Temple Watts; 4 halftone plates of field identification sketches with 77 figures, by the author; 56 photo illustrations, by Ederic Slater and the author; 26 maps, by the author; 6½" x 9½". \$10.00.

The book is the first comprehensive published work on the nineteen species of Australian Anatidae by an author having appropriate breadth and depth of direct experience. The experience was obtained mainly as a biologist conducting waterfowl surveys for C.S.I.R.O., beginning in the early 1950's, and achieved with that affection which the appeal of waterfowl and their habitats arouses in the most different of men. Dr. Frith, who had field and laboratory assistance from colleagues and others, including comprehensive information on the Cape Barren Goose and White Pigmy Goose, not "worked on" by him, has been in charge of C.S.I.R.O.'s wildlife research since 1961.

The work is one of careful structure and balance. It may deservedly and suitably be regarded as the standard reference and should attract a constant interest that may achieve its reissue each five years or so as an up-to-date and continuing reference. Dr. Frith has co-ordinated his knowledge compactly, provided much that is new, and isolated much for pursuit by biologists and other field workers. These latter people are indeed fortunate in having available in Australian ornithology an orientation of such scope and authority to stimulate their work and its conversion into notes to the author, and papers for publication. It is from such response, if considerable, that the details of revision should arise rather than from scraps found within review notes of the present kind.

A large response will come from C.S.I.R.O. Division of Wildlife Research. Among its continuing work on Anatidae generally the Division is concerned currently with obtaining more detail of the life histories of the Black Swan, Freckled Duck Hardhead, Blue-billed Duck and Musk Duck.

The non-professional worker will continue to have a useful place in providing detail (and what a severe handicap it is for Australian ornithology that they are so few throughout our vast area beyond urban and rural development); but the real force and use of *Waterfowl in Australia* has to be with the conservation authorities of the states and territories. Science is extended by the publication of carefully observed and deduced detail as additional knowledge of life histories and distribution patterns. But this will become a bare achievement, a sad and conscience-probing reminder, if the best that authority and private ownership can do for conservation of watered habitat and its wildlife, is not done effectively within the next twenty years of accelerating and damaging change to freshwater and coastal habitat throughout rural and remote Australia. Dr. Frith makes this threatening "tempo of change" emphatically clear in the opening paragraph of his

**Introduction.** The book has a section on conservation, and each life history has comment on the "status" of the species—in the past, present, and likely future. This is particularly apt for those species for which appropriate conservation is lacking.

The book's many illustrations are an intentionally strong feature, with fitting impact in their usefulness and widening of appeal. They are all appropriate and show careful choice and control. The photo illustrations have real purpose, and thus are not incidental; they include three excellent underwater studies by Ederic Slater, who took most of the photographs used. The full-colour figures are well arranged in the plates and have a clean cut and vigorous style that is a delight, and is welcome in Australian painting of birds for reference books and journals. The printed reproduction has an apparent reliability for colour that is better than often occurs from platemaking and printing; these are difficult skills, and overall perfection in print is not usual. I suggest for the next issue that the colour plates be in one group, with the plate for four non-Australian species, now first in sequence, placed last, instead of being widely dispersed, and that they be placed with the field identification plates. I suggest also that the backgrounds be lightened in tone in both sets, particularly in the field identification plates. Here a major lightening should aid the contrast for portions which in life show light hues. The figures justify this, as they could be used for a field identification booklet to aid the study of Australian Anatidae; such sketches with text guidance are a strong and fitting encouragement to help the newcomer past initial bewilderment so that identification becomes an instinctive response to combination of sight, sound and habitat in the light of knowledge of a few key aspects. An overlooked detail is the shading of the breast of the female Hardhead in over-view (p. 42) as can be seen by comparison with the under-view (p. 43); and the photo illustrations of Water Whistle-duck (pp. 74 and 75) and Black Swan (p. 106) suggest the need for some changes of shading in the field identification patterns.

Life histories occupy four-fifths of the text. Each of the nineteen Australian species is described in a sequence of seventeen aspects; references (to original description of genus and species), common names, description, size, voice (including sonogram for eleven species), routine, field identification, relationships, habitat, distribution and movements (including map with breeding range and nomadic range), food and feeding, breeding, nest, eggs, clutch size, incubation, status. Here and there a subject is given specific attention, such as longevity, mortality, development of young, and flocking. Descriptions of anatomy are appropriately confined to those required for explanation of habit. Diseases are not described. Each life history is integrated with others by apt comparison with other species in particular aspects. Four non-Australian species are included, but with less description, i.e. the Mute Swan, Mallard, Northern Shoveller, and Garganey Teal. The first two have small, semi-domestic continuance here and there from introductions of many years ago, and the last two have occurred in Australia rarely as vagrants.

The remainder of the text is in four sections—The Family Anatidae, Distribution of Habitat, Conservation, Field Identification—grouped as a "lead" to the life histories. The Book closes with a bibliography of 101 references, and an index confined to scientific and common names of species. I would be inclined to have also an accompanying index of place names, preferably under the headings of states and territories.

The bookwork is excellent—a point that should be stated although there is a modern-day expectation that publishers should always excel in typography, paper, printing and binding.—J.J.

**Checklist to the Mathews Ornithological Collection of the National Library of Australia.** Canberra, 1966. Pp. 309 N. P. In 1939 Gregory Mathews presented to the National Library of Australia his great collection of books, manuscripts and pictorial material on Australian ornithology. During the next five years he worked at Canberra on a most comprehensive catalogue of the material which was completed in 1945 in manuscript form.

This catalogue has never been published but at last a checklist, which consists of photo-lithographic reproductions of the cards in the Library's

dictionary catalogue, has been issued. This has considerable value to ornithologists in indicating the material available in the collection, though the actual references to published material are, of course, largely available in Whittell's *Literature of Australian Birds* and in Mathews' supplement to *Birds of Australia, Bibliography of the Birds of Australia*.

The introduction, by Dr. D. L. Serventy, gives a succinct summary of the monumental work of Gregory Mathews in Australian ornithology and an assessment of his interests and influence.—JACK HYETT.

**Vertebrate Biology** by W. B. Orr, 1966. Saunders Company, Philadelphia and London. Second edition. Pp. 483, \$8.00.

First published in 1961, this second edition of *Vertebrate Biology* has been amended in accordance with ideas put forward by its users but still retains its original format. For proper understanding of any one class of animals it is necessary to have some knowledge of the rest, particularly those closely related to it, so this book which deals with the vertebrates as a whole is recommended reading for those who seek an understanding of the life of birds. One chapter is devoted to bird biology and though this is necessarily brief the basic facts are presented. A classification of birds, to the family level, is given. This appears to follow Wetmore's 1960 classification. There are chapters dealing generally, for the whole phylum, with Systematics, Distribution, Territory and Home Range, Population Movements, Dormancy, Reproduction, Growth and Development and Population Dynamics. Adequate references for further reading are given for each chapter. This is a useful book for a general understanding of the vertebrate phylum as a whole.—JACK HYETT.

## PAPERS

### In Brief . . .

(It is not possible for the Review Editor to check the bibliographical accuracy of all titles and references supplied by contributors.)

### Australasian Literature

**Species.**—"Foods of the White-faced Heron", by A. L. K. Carroll, *Notornis*, March, 1967, pp. 11-17. A study of the stomach contents of 89 White-faced Herons showed them to be primarily wetland-pasture and aquatic feeders. Although predominantly carnivorous, 65 birds had eaten plant material, usually in small amounts. "Nesting of the Codfish Island Fernbird" by A. Blackburn, *Notornis*, June 1967, pp. 62-66. The habitat of the Codfish Island Fernbird, *Bowdleria punctata wilsoni*, is described as to type and extent, and several nests with eggs are recorded. Some notes on voice are given. "Long-tailed Skua ashore at Muriwai" by R. B. Sibson, Pp. 79-81. The first and, so far, the only Long-tailed Skua, *Stercorarius longicaudus*, to be obtained in the South-west Pacific is described by the author from a specimen washed ashore dead at Muriwai on 10.1.1964. "Broad-billed Roller in Southland" by Maida Barlow, Pp. 82-83. The sighting of a Broad-billed Roller, *Eurystomus pacificus*, near Invercargill on 29.3.67 is the most southerly record of the species in New Zealand, and the first in this country since 1956. "An Auckland Island Rail" by R. A. Falla, *Notornis*, Sept. 1967, pp. 107-113. A small rail, captured in 1966 on Adams Island in the Auckland Islands group, is described and past records of rails from the group are discussed. "Snare Islands Birds" by John Warham, Pp. 122-139. The author gives a detailed account of the birds of this southern island group whose condition has not been modified substantially by introduced or alien animals or plants.

—A. G. MEDWAY.

"Breeding Biology of Californian Quail in New Zealand", by G. R. Williams, *Proc. N.Z. Ecol. Soc.* 14: 88-99. Contains information on clutch size and nesting success. Hatching starts later in the centre of the North Island than in Central Otago in the southern half of the South Island. "Some Features of Recent Research on the Takahē, *Notornis mantelli*," by Brian Reid, *Proc. N.Z. Ecol. Soc.* 14: 79-87. Records numbers now estimated at 370-420 on basis of banding and nidification data. The species population

is declining possibly because young birds do not find mates or form successive non-viable intra-family unions in sparsely populated parts of the habitat.—H.L.S.

### Overseas Literature

**Oceanic Distribution.**—"Notes on the winter distribution of birds in the Western Antarctic and adjacent Pacific Waters," by Laszlo J. Szijj. *Auk*, **84** (3) 366-378. New information on the winter distribution of a number of oceanic birds is given.—J. L. McK.

**Morphology.**—"Comparative Survey of the Anal Glands of Birds", by W. B. Quay. *Auk*, **84** (3) 379-389. The occurrences and characteristics of anal glands in birds were appraised by the study of serial histological sections of the anal-cloacal region from 86 specimens, representing 72 species and 42 families. The glands were found in most but not all groups of birds, and revealed differences in organization, structure and staining.—J. L. McK.

**Ecology.**—"Polynesian rat predation on nesting Laysan Albatrosses and other Pacific sea-birds", by Cameron B. Kepler. *Auk*, **84**: (3) 426-430, *Rattus exulans* is an important predator on nesting sea-birds.—J. L. McK.

**Phylogeny.**—"Main cervical and thoracic arteries of some flightless birds." *Ann. Zool. Agr.* 5: 1-8. "Material was examined of all genera of Apterygiformes, Rheiformes, Casuariiformes and Struthioniformes. It was considered that the last two orders were from a common stock, while the others were unrelated to them or each other.—J. L. McK.

**Behaviour.**—"Sideways-throwing and Sideways-building in Birds", by C. J. O. Harrison. *Ibis* **109** (4) 539-551. Sideways-throwing and sideways-building occur in the Struthionidae, Rheidae, Dromaiidae, Gaviiformes, Procellariiformes, Anseriformes, Meleagrididae, Phasianidae, Gruidae and Charadriiformes. Sideways-building only is recorded in the Sulidae and, for *Platalea leucorodia* in the Threskiornithidae.—J. L. McK.

"Feeding behaviour and Diving Rhythms of some New Zealand Shags, Phalacrocoracidae", by Bernard Stonehouse. *Ibis* **109** (4) 600-605. Records of the duration of dives and resting periods of two species of Shags, which fish in the coastal waters of New Zealand's South Island, show the existence of an ecological segregation whereby each species is working within the limits of its greatest physiological efficiency.—J. L. McK.

**Hybridization.**—"Interbreeding of *Larus novae-hollandiae scopulinus* and *Larus bulleri* in the wild in New Zealand", by L. Garr. *Ibis* **109** (4) 552-555. Five instances of interbreeding are described. Hybrids are fertile. It is suggested that interbreeding occurs only when isolated individuals with a strong readiness to mate are prevented from mating with conspecifics.—J.L. McK.

**Osteology.**—"Pneumatization of the cranium of the Zebra Finch *Taeniopygia castanotis*", by D. L. Serventy, C. A. Nicholls and Donald S. Farmer. *Ibis* **109** (4) 570-578. Full pneumatization of the cranium is usually attained between 138 and 153 days from hatching, though in some birds it may be retarded. A series of diagrams, representing 41 stages in the process, enables the ages of young birds to be established.—J. L. McK.

**International Ornithology.**—International Biological Programme, 1967. "International Studies of Sparrows", by Working Group on Granivorous Birds (ed. Dr. J. Pinowski, Warsaw). These are cyclostyled reports which outline the programme and methods for a co-operative international study of the biology of the sparrows *Passer domesticus* and *P. montanus*, arranged for the period 1968 to 1971.—H.L.S.

**Species.**—"The Patterns of Downy Grebes", by Robert W. Storer. *Condor* **69** (5): 469-478. The patterns of downy young grebes may be divided into three groups: those with a bare crown spot, those with one or more rufous patches of down on the top of the head and those in which the crown is striped with black and rufous buff. The first group contains eight species which are placed in two genera, *Podiceps* (seven species including *cristatus* and *Aechmophorus* (monotypic)). The third group con-

sists of two species which are placed in the genus *Rollandia*. The remaining species belong in the second group, which consists of the genera *Podilymbus* (two species) and *Tachybaptus* (three or four species including *novae-hollandiae*), plus three species (including *poliocephalus*), whose relationships are not clear. The downy young of *poliocephalus* has apparently not been adequately described. "Nocturnal feeding of *Sterna fuscata* and *Puffinus pacificus*", by Patrick J. Gould. *Condor* 69 (5): 529. Mixed flock of *S. fuscata* and *P. pacificus* seen feeding on small fish between 2330 and 2345 hours ca. 20 miles east of Johnston Atoll, Pacific Ocean.—J. L. McK.

#### LITERARY NOTES No. 10

**An Ornithologist's Library (Continued).** The following question was put to several ornithologists: "If, in the light of your *present* knowledge of ornithological literature and of your *present* experience in ornithology, you were just taking up the study of birds, which six books would you aim to purchase as the first in your ornithological library and why? (Approx. maximum price \$20.00 per book or total of \$120.)"

**Mr. Roy P. Cooper** (Past President, Melb.). (1) N. W. Cayley, *What Bird is That?* This book would give me a rough identification; vernacular and scientific names, including pronunciation and meaning; distribution and field-notes; calls; nest and eggs. A very good starting basis. (2) W. B. Alexander, *Birds of the Ocean*. A broader and more detailed book on sea-birds, showing not only the birds that frequent our seas, but those in other areas, enabling comparisons to be made. (3) A. J. North, *Nests and Eggs of Australian Birds*. Detailed descriptions, many field-notes; nests and eggs. Excellent for the more detailed information. (4) Serventy & Whittell, *Birds of Western Australia*. Good field-notes and descriptions. As suitable, in many instances, for the eastern States as for Western Australia. (5) R. Peterson, G. Mountfort, and P. A. D. Hollam, *A Field Guide to the Birds of Britain and Europe*. Many of these birds are found in Australia. The method of identification, voice and habitat are helpful. We cannot study birds in Australia alone. (6) Roger T. Peterson, *Field Guide to the Birds*, 2 Vols. Covers the birds of the United States of America, many of which are common to us; sea-birds, waders, terns, etc. With these six sets of books, valued at approximately \$70.00; membership of a bird society, and access to museum galleries, then one could learn much about birds.

**Dr. H. J. Frith** (Chief of Division of Wildlife Research, C.S.I.R.O., A.C.T.). This list refers to one born in 1921, remote from ornithologists, naturalists' clubs and birdwatchers, but among bushmen with no training but immense knowledge. (1) General reference. "*A New Dictionary of Birds*," edited by Landsborough Thomson, 1962, provides the answers to any question and gives family accounts and discussions of biology, essential to the beginner. (2) Field guide. The existing guides "*What Bird is That?*" Cayley, Angus & Robertson, and "*An Australian Bird Book*", Leach, Whitcombe & Tombs, are inadequate. Should one of the modern guides in preparation prove superior it would be chosen. (3) "Source" book. "*Nests and Eggs of Birds found Breeding in Australia and Tasmania*", 4 Volumes, North, 1901-1914, is the best source of descriptions and is an original source of many field-notes used in later works. The accuracy of its field observations is stimulating. (4) Local list. An account of the birds of the observer's "home range", e.g. "*Birds of Western Australia*", Serventy & Whittell, 1967. Many districts, particularly in the north and east, are not catered for by similar works. (5) Periodical. Current series of a journal publishing comprehensive reviews of literature and sound papers. Of several possibilities "*This*" would be chosen, and the balance of available funds devoted to this choice.