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Book review

CONTRIBUTIONS TO THE HISTORY OF AUSTRALASIAN ORNITHOLOGY. VOLUMES 3 AND 4

By William E Davis Jr, Walter E Boles and Harry F Recher (Eds)

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In 1959 CP Snow, a distinguished novelist and bureaucrat who had trained as a physicist, published an important book that attracted much attention. His thesis concerned the unnecessary divergence between the humanities and the sciences in Britain. He condemned the anti-humanities bias of some scientists and the anti-scientific attitude of some literary scholars.

Sixty years later I cannot recall evidence of such divisiveness in Australia. I have noticed, however, different approaches and emphases in the writing of environmental history. Historians interested in this topic lack technical and scientific training and understanding, and are unacquainted with relevant literature, whereas ecologists make inadequate reference to social, cultural, and economic history when explaining historical changes in species distribution and abundance following European settlement.

The editors of these two volumes characterise the content of these historical reviews as 'having a strong descriptive rather than interpretive basis'. My reading of them is that all blend these two elements, but the role of social, cultural, and economic factors is more hinted at than being developed explicitly.

For the purposes of my assessment, the reviews (\sim 1100 pages in total) are for convenience considered under four themes: regional surveys; museums; important ornithologists; and specialised sub-disciplines.

Regional surveys

Tasmania. This review (56 pp.) considers the key collectors of knowledge of the avifauna and their contribution, as well as the role of government agencies in conserving bird species and the contribution of societies run by interested amateurs. It is puzzling why the authors chose to exclude gifted amateurs who have contributed in ways that did not involve publishing research in scientific journals. Surprising omissions include discussion of the extinct emu populations of Tasmania and King Island, and the knowledge of birds by Aboriginal people.

Western Australia. This review (85 pp.) is similar in scope but includes a section on Aboriginal knowledge about birds. It is not widely realised that the first recorded observations by Europeans of Australian birds took place on the western coast of Australia in the 1600s; this theme is discussed in some detail. The hiatuses in the acquisition of ornithological knowledge are outlined (based on the framework established by DL Serventy and HM Whittell in 1948), and there is a useful identification of the prominent amateur and professional (government, university-based) contributors. The isolation of Western Australia in the past resulted in a high degree of fruitful interaction and mutual respect between local students of birds, resulting in numerous contributions published in first class local journals, especially *Western Australian Naturalist* and *Western Australian Bird Notes*.

Northern Territory – Top End (122 pp.). This review includes an interesting comparison between John Gilbert's 1840s species list with one made 120 years later, revealing the expected high degree of similarity. Reasons for the few differences are not explored, except for the casting of doubt on the later list. This and other analyses in this review seem tendentious, involving use of legal or emotive terms such as admit, debunked, flawed, alleged/ly, and claimed. This review correctly states that current knowledge indicates that errors were made in papers published by Dudley Le Souëf, and usefully points out that many mistakes and misconceptions are now embedded in the literature. The assessment of Glen Storr's contributions is overly harsh, glossing over his formidable skills of discovery and synthesis, both of which provided a baseline for later studies by resident ornithologists. Also discussed are the contributions by military staff interested in birds and stationed in the region during the 1939-45 war.

New Guinea (206 pp.). This is a monumental analysis of the ornithological exploration of Earth's second largest island and largest tropical island. The extensive appendices include a detailed gazetteer, a comprehensive time-line of bird study from 1818 to 2013, and the same information presented in terms of the 14 regions that comprise New Guinea. The format is so excellent that one hopes for similar analyses of other large and well studied islands, including Great Britain, New Zealand, and Madagascar.

The deficiency common to all of these reviews is the lack of graphical content. Graphs of the cumulative number of published papers per decade, the number of bird species previously unknown to Europeans and discovered by decade, and the cumulative number of specimens collected and lodged in the World's museums per decade would have provided a sound basis for the reader to understand trends, hiatuses, and periods of enhanced activity.

Museums

Volume 4 includes two assessments of the role of museums in gathering and curating knowledge via the collection and storage of bird specimens (as skins, bones, eggs, and tissues).

Queensland Museum (83 pp.). Beginning in 1862 (soon after Queensland became a distinct colony from New South Wales), this museum shows the usual bursts of activity (often attributable to particular persons) and quiescence (usually caused by lack of funding provided by government as a result of economic depression).

South Australian Museum (216 pp.). This review, despite its length, focuses on the period 1856–1939 and the principal people involved. It makes excellent use of records in the early newspapers and archives. A minor defect is the inclusion of

irrelevant detail about family matters involving staff and field collectors.

Several themes are common to the early management of these museum collections. By modern standards, early staff were unqualified and strategic planning was rudimentary. Museums were too willing to exchange specimens of Australian birds for species found elsewhere. In this way, Australian museums lost specimens that have since become more valuable for the study of those species that have declined in distribution and abundance. The discarding of original labels was commonplace, resulting in irreplaceable loss of clues for later researchers. Poor control of beetle pests damaged bird specimens, resulting in many being thrown out. Mean-spirited governments failed to adequately fund the functions of these museums.

Important ornithologists

Allen Keast (1922–2009), 164 pp. Keast made significant contributions to taxonomic and biogeographic knowledge of Australian birds from the 1950s, and showed initiative in undertaking doctoral research supervised by Ernst Mayr at Harvard University. Dissatisfied with lack of appreciation of his qualifications, Keast left the Australian Museum in 1962 for a lectureship in Ontario, Canada. There he became renowned for studies of fish in Canadian lakes. Nonetheless he retained his interest in Australian birds (and southern hemisphere matters generally). As a boy I watched his TV program on Channel 9 in Sydney and later met him four times (in Canada, Canberra, and Perth) and was always impressed by his *bonhomie*, modesty, and vast knowledge. His skill in obtaining and synthesising information was admirable.

Sadly, his self-effacement led him to not giving sufficient time to write his autobiography, which forms the basis of this chapter. Numerous footnotes by Harry Recher help clarify omissions, correct errors, and explain allusions likely to be unfamiliar to many readers. There is a book waiting to be written about this remarkable man and his broad interests, especially if it were to be based on oral history provided by his numerous graduates.

Gregory Mathews (1876–1949), 61 pp. This review is a fair and balanced assessment of the most controversial researcher in Australian ornithology. Unqualified but wealthy and enthusiastic, Mathews' output was prolific. His influence is generally now regarded as not useful. By founding his own journal he effectively avoided peer review. Obsessed with the law of priority, he assembled a fine collection of relevant historical books and proceeded to change the names of species. An early adopter of trinomials, he erected subspecies based on inadequate material but often changed his mind in his numerous subsequent checklists of species. Although he left a magnificent mess, some of his genera and trinomials have recently been revived based on the application of molecular techniques.

John Cockerell (père) and James Cockerell (fils), 92 pp. These two naturalists were active collectors from the 1860s to the 1890s. They have poor reputations in the literature. This account attempts a forensic analysis of where and when their collections were made, and concludes that slovenliness and self-promotion, rather than malign intent, were responsible for their defective labelling of specimens. A global tabulation of the species collected by them and where they are now deposited provides a useful synopsis. A chronological tabulation of their collection localities would have been helpful to the reader.

Specialised sub-disciplines

Palaeontology (97 pp.). The discovery of fossils frequently results from chance, and when combined with the small number of ornithologists interested in the subject, progress has been slow and uneven. However, it is a sub-discipline of great interest to the general public because of its fascination with large flightless birds (moa, dinosaurs). This review discusses the fossil record from the Cretaceous, oral Aboriginal knowledge, European discovery of fossils, and the principal researchers who named species. Other than an interest in natural history, some early workers had no scientific qualifications, and the large number of synonyms created illustrates this. It was not until the 1950s that genuine scientific study began.

My only criticism is that a graph showing the cumulative number of valid species and invalid species described by decade would have more clearly demonstrated the hiatuses and productive periods.

Volumes 3 and 4 each conclude with meticulously prepared indexes, a rare commodity in most modern books. Because of the length of each chapter, a table of contents in each would have facilitated the navigation of those who prefer to browse. Apart from lapses on p. 134 of Volume 4, no other editorial errors were noted, a sure indication of the great care taken.

What, then, is the legacy of the four volumes in this series? First, 25 comprehensive reviews are now available to benefit future research. Second, coverage of the various sub-disciplines has been wide-ranging and prepared by experts. Third, a fair and balanced evaluation of those researchers who have advanced knowledge and those who have hindered the development of understanding is now available. In summary, we now have definitive histories of:

- Important enrichers of ornithological knowledge (J Gilbert; A, W and WJ Macleay; W Colenso; A Keast; G Mathews; the Cockerells).
- (2) Repositories of ornithological knowledge (Auckland Museum, New Zealand; Western Australian Museum, Perth; Australian National Wildlife Collection, Canberra; Museum (now Museums) Victoria, Melbourne; Australian Museum, Sydney; Canterbury Museum, New Zealand; Queensland Museum, Brisbane; South Australian Museum, Adelaide).
- Regional activity (Tasmania, Western Australia, Northern Territory – Top End, New Guinea).
- (4) Government-conducted research (CSIRO, Australian Museum, Australian Antarctic Division).
- (5) Society-based activities (RAOU).
- (6) Impact of new techniques of study (molecular systematics, palaeontology).
- (7) Threatened bird species (Australia, New Zealand).

I understand that Volume 4 completes the series and concludes the involvement of the publisher (the Nuttall Ornithological Club of Cambridge, Massachusetts) and the editors (William Davis Jr, Harry Recher, Walter Boles, Jerome Jackson). However, there remain many histories still to be written, and I suggest the following to be worthy of consideration, categorised by the same numerals as in the preceding paragraph:

- (1) EP Ramsay, AJ Campbell, AJ North, HM Whittell, DL Serventy, JR Ford, GM Storr; there is also a need for oral histories to be prepared for the older generation of ornithologists (aged 60 years or more). Otherwise, future students of historical ornithology will have to second guess the personal and institutional reasons behind the research undertaken. Alternatively, these 'elders' should write their autobiographies now.
- (2) Tasmanian Museum, Hobart; Queen Victoria Museum, Launceston; and other museums in New Zealand. Also, significant oological collections and their value.
- (3) South Australia, New South Wales, Victoria, Northern Territory – southern portion, Queensland. Also, studies focused on avifaunas of islands, forests, woodlands, urbanised landscapes, etc.

- (4) Government agencies charged with the management of nature reserves, national parks, and State Forests and consequently the conservation of avifaunas.
- (5) Naturalist and ornithological clubs in Western Australia, Victoria, Tasmania, Queensland, and Northern Territory (to complement those histories already available for New South Wales, South Australia, and New Zealand).
- (6) Databasing and atlasing.
- (7) Regional studies with emphasis on the role played by friends groups and other community-based groups (e.g. Sherbrooke lyrebird dawn surveys, Victoria; Great Cocky count and Great Western Woodlands surveys, Western Australia).

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