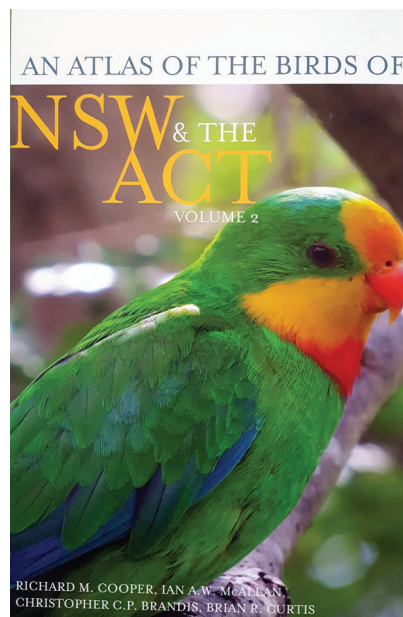
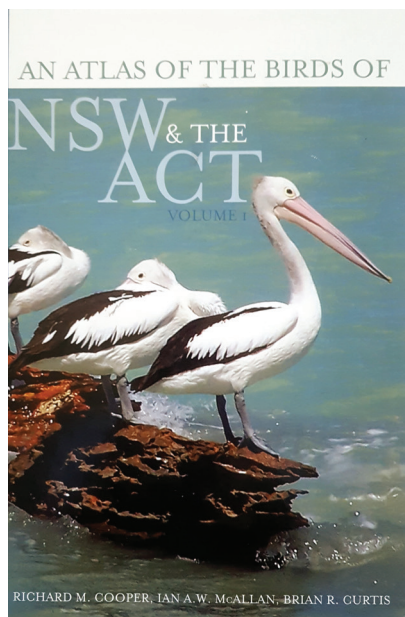


Book Review



An Atlas of the Birds of NSW and the ACT, Volumes 1-3. Richard M. Cooper, Ian A.W. McAllan, Brian R. Curtis, Christopher C.P. Brandis 2014, 2016, 2020. NSW Bird Atlassers Inc. Hard cover. 2,156 pp. in total. Colour photographs, b/w illustrations. ISBN: 9780957704732, 9780957704749, 9780957704756. RRP Volumes 1 and 2 \$A135, Volume 3 \$A170.

This atlas is such a seminal contribution to Australian ornithology that it warrants an extensive review. It comprises three volumes: Volume 1 Emu to Plains-wanderer, Volume 2 Comb-crested Jacana to Striated Pardalote and Volume 3 Eastern Spinebill to Common Greenfinch. The mainland area covered is divided into 10-minute grids and the western Tasman Sea out to Lord Howe Island is also included. Nomenclature and taxonomy follow Christidis and Boles (2008).

Volume 2 won the prestigious Royal Zoological Society of New South Wales (RZSNSW) Whitley Award for Best Zoological Resource published in 2016 on any Australian fauna or flora. Volume 3 won a RZSNSW Whitley Award for Best Book in the category Highly Commended in 2020. The senior author, Dick (R.M.) Cooper, was awarded the John Hobbs Medal by BirdLife Australia in 2019 and Ian McAllan the John Hobbs Medal in 2021. The Atlas has received many complementary reviews and appraisals by ornithologists, other scientists and conservation advocates e.g. Sir David Attenborough, the acclaimed documentary maker, natural historian and conservationist, acknowledged the expertise, scholarship and fieldwork on which the Atlas is based.

From the moment one opens any volume of the Atlas, examines a few pages to check the style and layout, and later returns to read more of the detailed information that the book contains, one is deeply impressed. When Volume 1 was launched in 2014, it was immediately obvious that the Atlas was the kind of report on the status and distribution of birds in New South Wales (NSW) and the Australian Capital Territory (ACT) that was

sorely needed. This degree of reporting resolution had not been seen before in Australia at state level. The fine scale used means that there are 2,853 10-minute blocks or grids across mainland NSW and the ACT and 2,794 across the western Tasman Sea. Thus, there are about 36 blocks within each of the 1-degree grids of the earlier national atlas, *The New Atlas of Australian Birds* (Barrett *et al.* 2003). A contributor could survey a whole block around their home and fit the surveying into a 'normal' daily routine of recording birds. The Atlas is based on almost six million records collected between 1971 and 2006. Compared with other similar major Australian ornithological works, it represents extraordinary value for the detail that it contains.

All volumes have a broadly similar opening section presenting background information on how data were collected, are presented and can be interpreted, and on the geography and climate of the region surveyed. It includes a list of financial supporters. In Volume 1 this section has a foreword by Richard Major of The Australian Museum; in Volumes 2 and 3 it includes a list of the NSW Bird Atlassers' Objectives. The Acknowledgements in Volume 1 list the many people who supported the authors during its production, and a segment about contributors mentions approximately 1,500 people and 16 organisations that spent thousands of hours recording the birds, building the database and collaborating on the writing.

In each volume the opening section also lists the contributing photographers and the bird species illustrated. The 274 excellent colour photographs in the three volumes (including those on the covers) are grouped in batches over three or four pages spread throughout the volumes. This placement has drawn some criticism because the species accounts consequently do not have a picture of the bird immediately next to them. About half the species covered are illustrated, but it is difficult to match the text with the illustration of the species as there are no cross-references to page numbers. Whilst experienced ornithologists will know most of the birds and will quickly achieve this matching, other readers will find this a bit more difficult.

This first section of each volume has an Introduction, which is much more detailed in Volume 1 because it contains a discussion of, and precise explanations for, various decisions and inclusions that apply to the entire Atlas. At least 24 topics are covered in this section, the most important being: Collection of data; Geographic scope; Data collection scale; Atlas period and historical records and field work; Filling in an Atlas sheet; Changes over seasons; High altitude map; Reporting Rates and the Unusual Records Report Form; Coverage - a map of the number of species in each block and those where birds were found breeding; Map of topography and the area of the western Tasman Sea; Climate map and seasonal rainfall; Bird habitats; Threatening processes: table of woodland vegetation remaining by 1995 and climate change.

All volumes contain an index of the birds reviewed. These lists are alphabetically arranged by full species name e.g. Australian Magpie, Superb Fairy-wren etc. This listing can be a bit awkward because if, for example, one was looking for the entry for 'Magpie' or 'Fairy-wren', it would be difficult to find it using this index. Volume 3, however, includes a directory for all volumes, with an Index of Scientific Names and an Index of Common Names at the back. The scientific names are in alphabetical order, whilst the common names are grouped by family from Albatross (17 species and subspecies) to Yellowlegs.

The main content in each volume is the species accounts in taxonomic order. A summary of the entry for the first-appearing bird in the Atlas exemplifies how accounts are presented:

001 Emu, *Dromaius novaehollandiae*

A description of the Australia-wide distribution (not just that in NSW and the ACT) is followed by sections on: Breeding notes; Seasonal movements; Early records and changes in distribution, and Status (which for some species will inform the status of the species' population in Australia and, if it is found internationally, the International Union for Conservation of Nature [IUCN] rating of population status). Maps, graphs and tables inform the reader about the Emu's presence in the surveyed area from 1971 to 2006, and provide historical records back to 1770. The species' Reporting Rate (RR), Reported breeding distribution, Months in which it breeds, Monthly Reporting Rates, Annual Reporting Rates, and number of RR records are included.

The fieldwork, research and assembling of the immense volume of data needed to produce such entries is apparent in every species' account. The facts are reliable, making these accounts the best datasets to cite in conservation efforts when considering likely future trends in bird populations and movements and reporting known history. The amount of information in a species account depends on where the birds breed. Ocean-living birds that do not breed in NSW have only a very brief account, showing just the locations along the NSW coast and around offshore islands where they have been reported. However, the location of breeding is also mentioned e.g. Cook's Petrel, *Pterodroma cookii*, which visits NSW shores in very small numbers, breeds in New Zealand and the estimated population is 1.3 million birds. In contrast, some freshwater birds, such as the ducks which breed in NSW and the ACT, are much more frequently recorded and extensively documented e.g. the account for the Pacific Black Duck, *Anas superciliosa* is based on 60,424 records and extends over three pages.

The volumes provide hard evidence of population trends for bird taxa in NSW and the ACT up to 2006. Examples include:

- Diurnal raptors - of 24 species checked, 17 are in decline and seven stable or increasing in numbers. The IUCN rating for many raptor species shows them to be of Least Concern because of their wide geographic range.
- Cockatoos and parrots - 16 species are stable or increasing in numbers, 19 are in decline and, as we all know, a couple, the Swift Parrot, *Lathamus discolor* and Orange-bellied Parrot, *Neophema chrysogaster*, are now rare.
- Seven of the 14 species of Australian owls occur in NSW and the ACT. Three species have increased in numbers there, but four have decreased. The loss of woodlands, especially old growth trees with substantial hollows, must surely be a factor contributing to the decline of some of these species. Continued monitoring of owls is essential, as they suffer secondary poisoning from rodenticides.
- The Superb Lyrebird *Menura novaehollandiae* has declined in NSW.
- Some woodland birds, such as gerygones, thornbills and pardalotes, are also declining in the numbers reported.

Volume 3 includes most of the Passerines and has correspondingly large numbers of bird species that are in trouble. For example:

- Of 37 honeyeater species checked, 20 are declining in numbers, some significantly, and a few are now rare.
- The Jacky Winter, *Microeca fascians* and the robins, except for the Eastern Yellow Robin, *Eopsaltria australis*, are now scarce.

In many accounts the Millennium drought is mentioned as a factor contributing to the declines mentioned above, and if there is to be a published update of the Atlas it will quite likely mention recent bushfires as a further cause of decline.

After the species accounts in each volume there is further helpful information, such as a list of Abbreviations, a Glossary, a list of the Plants and Other Animals mentioned and a Gazetteer giving the names and the latitude/longitude of all blocks surveyed. Appendix 1 in Volume 1 lists the literature and manuscript sources for the historical data, numbering about 70 plus a few electronic references. Appendix 2 in this volume contains a key 21-page discussion, a Biogeographic Analysis of the NSW Bird Atlas Dataset by Julian Reid. It dissects extremely finely the scope, methods of collection and interpretations of the NSWBA data. All species described in this and the two (then) future volumes are used to provide diagnostic evidence for nine biogeographic regions in this part of Australia. It is an atlas within an Atlas!

Each volume contains approximately 30 pages of references; the work involved in assembling these bibliographies must have been immense. Well-known ornithologists appearing in these references include: S.J.S. Debus, H.J. Frith, J. Gould, K.A. Hindwood, R.T. Kingsford, A.R. McGill, A.K. Morris, J. Olsen and A. Stuart.

The general sections of Volume 2 repeat some of the information in Volume 1, but also include some original articles. Appendix 2 is an eight-page History of Ornithology in NSW

and the ACT by Ian McAllan that includes discussion of First Nations peoples' understanding and use of birds, with a table detailing species identified in indigenous languages. Mention is also made of the contribution of universities and museums to Australian ornithology.

Volume 3 has a section on Supplementary Species, which include about twelve recorded since 2006. Most have been seen often enough to facilitate mapping of their distributions. There is also a section on Endemic Lord Howe Island Birds by McAllan and Ian Hutton. Vagrant Species are covered by McAllan and David James and there is a section listing 53 species whose presence in the surveyed area is currently unconfirmed. There is also mention of 20 bird species that were introduced by Europeans, but which have become locally extinct.

Apart from a few minor quibbles, there is no doubt in my mind that *The Atlas* is a magnificent guide to the places in which the almost 700 bird species recorded in this area since recording began are found. Every Australian library, university, museum and government/non-government agency should have this Atlas

in their collection. It is not available in digital format, but as NSW Bird Atlassers continue to collect data, this may eventuate. The price structures and cost of posting within NSW and Australia are available on the website: www.nswbirdatlassers.org.au. Considerable discounts are available to all NSW Bird Atlassers members or by buying a full set of the volumes.

References:

Barrett, G., Silcocks, A.F., Barry, S., Cunningham, R.B. and Poulter, R. (2003). *The New Atlas of Australian Birds*. Birds Australia, Hawthorn East.

Christidis, L. and Boles, W. E. (2008). *Systematics and taxonomy of Australian Birds*. CSIRO Publishing, Melbourne.

Ian G. Bailey

(Declaration of interest: Ian Bailey has been a voluntary distributor of copies of the Atlas in the Sydney region, provider of payment services, and proof reader for Volume 3).