

## Book reviews

### AUSTRALIAN BIRDS – THEIR NESTS AND EGGS

By Gordon Beruldsen

2004 (dated 2003). Published by the author, 47 Broadmoor St, Kenmore Hills, Qld 4069. 424 pp. Paperback, \$A39.95, ISBN 0-646-42798-9.

This is a revision and enlargement of Beruldsen's out-of-print *Field Guide to Nests and Eggs of Australian Birds* (1980, Rigby) that includes entirely new colour plates. Birds breeding on offshore islands 'excluding Christmas and Lord Howe [and also Norfolk] Islands' are included. Taxonomy and nomenclature are updated to those of Schodde and Mason (1999 and in preparation).

The book is divided into three parts: the first consisting of *How to use this guide* (4 pp.), *General information* (on nidification, and the effects of weather upon it, 21 pp.), and *Conservation* (2 pp.); the second of a *Key to nest identification*, a *Key to egg identification* and 60 colour plates of sample egg clutches; and the third of individual species accounts each with text under headings *Distribution*, *Breeding range within distribution*, *Nesting season*, *Breeding frequency*, *Nest*, and *Eggs* (some with an additional *Note* on odd topics). Three additional colour plates show examples of variation in eggs within three species and of two others, one shows extreme examples of variation in egg colour and the other in shape. Some 90-odd colour photographs scattered throughout the book show various birds at or on their nest or close-ups of nests or nests with eggs *in situ*, and two additional ones of habitat scenes.

This book is for the most part admirable, but I find the lack of indentation of paragraphs, unseparated by a line space, of Part 1 visually awkward. Oft-repeated scientific names throughout Parts 1 and 2 (contrary to none in the plate captions) seem unnecessary given that they all appear in Part 3 and the *Index*. The word 'genus' is often used where 'genera' is applicable. Although common bird names are correctly capitalised (e.g. Golden Bowerbird) so too are collective ones (e.g. Raptors, Falcons, Honeyeaters). Numbers printed on the egg plates, identifying clutches, are appropriately located except on pages 105 and 140 where some are repeated or misplaced. Most photographic plates of eggs adequately fulfil their useful purpose (only those showing numerous smaller eggs being less useful), but the timber edging of a drawer/cabinet visible at the bottom of all might have been cropped out.

A less trivial and unavoidable concern is, however, the obvious gross differences in egg-plate colours between the two 'editions' of this work: those of the present book showing eggs as much bluer, and thus 'colder', and those of most species as far darker, than in the previous book. Given dif-

ferences in eggs, lighting, film stocks, processing, and printing used, direct comparison between plates in the two books is inappropriate. Moreover, photographing eggs in this way is difficult and technically testing and no criticism is made of the photographer's work. Given the apparent differences between plates in the two books, however, an explanation of these and some guidance as to which are the more accurate/useful would have been appropriately helpful.

Pagination of the species accounts is not cross-referenced in the colour-plate captions. Unfortunately, the egg plates are not numbered for cross-referencing within species accounts and in their absence the pagination (atypically applied to colour plates in this book) is not cross-referenced. In the plate caption on page 140 'Tooth-billed Catbird' appears whereas 'Tooth-billed Bowerbird' (correctly) appears elsewhere in the book. Whereas some photographs within Part 3 are captioned others are not (because they appear within the body of text of a given species) and in a few cases this inconsistency leaves potential confusion for the casual reader (e.g. pp. 366–367).

Readers are informed that average egg sizes are based upon 'the best material and information available' but it would have been useful to know the origins and sample sizes of these data, and also where the illustrated eggs are housed. As species account text under *Breeding range within distributions* so often reads 'Throughout distribution range' and under *Breeding frequency* 'Once each year' these headings might have been omitted, with a note to that effect in Part 1. Within the Marbled Frogmouth text the author usefully cites his publication on nidification; it would have been helpful had similarly significant papers by others been cited.

Several of the eight book and six journal titles constituting the *Selected reading* lack their year of publication and, save but the first, their publisher. Conventions for citing pagination in the *Index* (i.e. normal typeface indicates the location of a mention of a species, italics an illustration, and bold face where a species account begins) are not explained.

Small maps of Australia showing the *breeding range* of each species would have been particularly useful, and would have set this guide apart from others in a pertinent way. The inclusion of incubation periods would have been appropriate, particularly in drawing attention to unknown ones and thus potentially stimulating the gathering of new data.

Professional editing might have resulted in the above trivial editorial, and other, weaknesses being avoided. These notwithstanding this book is, however, a useful and attractive field and study tool. It represents much fine 'professional' work by a leading 'amateur' ornithologist, who has boldly underwritten his long-term personal commitment by self-publishing this work. To have achieved this and to offer it at a most reasonable price, despite a printing of but one thou-

sand copies, is commendable. Anyone with any interest in the nidification of Australasian birds should obtain a copy of this book, surely destined by its limited edition to become 'collectable'.

Schodde, R., and Mason, I. J. (1999). 'The Directory of Australian Birds: Passerines.' (CSIRO Publishing: Melbourne.)

*Clifford B. Frith*  
Malanda, Queensland

## AUSTRALIAN MAGPIE BIOLOGY AND BEHAVIOUR OF AN UNUSUAL SONGBIRD

By Gisela Kaplan

2004. Published by CSIRO Publishing, Melbourne and UNSW Press, Sydney, Australia. 152 pages. Paperback, \$A39.95, ISBN 0 643 09068.

In the fledgling colony of New South Wales, the Australian Magpie was among the first native non-game bird species legally protected under the original *Birds Protection Act 1881*, primarily because the settlers greatly appreciated its song. Magpies are now so widespread, common and noticeable that almost all of us relate to them in some way. They are among the first birds that most Australians learn to recognise, by sight or call, and even to be cautious of. They respond to people and, being one of the most abundant and conspicuous species in urban areas, their activities and family antics are readily observed. Not surprisingly, people want to understand and interact with them. For these reasons, Magpies have been excellent subjects for nurturing and stimulating human curiosity, both privately and scientifically. The species engendered one of Australia's first systematic studies of bird behaviour (Robinson 1956). In the late 1960s, Robert Carrick, who pioneered bird-banding in Australia, intensively studied about 650 marked Magpies around Canberra (Carrick 1972). His findings were used in the Senior Science Biology textbook (the 'green book': Birch *et al.* 1966) in NSW and the ACT to show high-school students that bird behaviour could be observed and interpreted in evolutionary terms. Since then, the species has been the subject of many studies and has often been described as being 'the best studied bird in Australia'. Indeed, the account about to appear in Volume 7 of HANZAB (Higgins *et al.* in press) runs to more than a hundred pages of text and the huge list of references provides clear evidence of just how much information exists on this species. The Australian Magpie has done much for ornithology, and a new book purporting to summarise this history and contribution will be eagerly – and critically – received.

The author, Gisela Kaplan, shows great enthusiasm for and devotion to these birds. Aware of the many person-

decades of research devoted to these birds, her Introduction describes the book as 'the very first attempt to bring together what we know about magpies to date', promising that the book will 'make claims about magpie biology and behaviour that will stand up to scrutiny' and that research findings 'raise many new questions'. The book's explicit aim, she states, is 'to make this special Australian more accessible to the many people who have an abiding interest in magpies'. So, does the book review existing knowledge of Magpies fully and efficiently; does it present and interpret substantiated research data; and is the account it gives coherent and 'accessible'?

The book's chapters are *Introduction, Origin and classification, Anatomy, Diet and feeding habits, Territoriality and dispersal, Bonding and breeding, Physical and social development, Agonistic and cooperative behaviour, Song production, Communication and mimicry, Magpies and humans*, and an *Epilogue: the success of magpies*. Unfortunately, the book lacks an index, which reduces its use as an easy reference. Its many attractive black-and-white and colour plates are mostly not referred to in the text and their legends have been sloppily proof-read (one of the book's weaknesses); e.g. the legend to Fig. 10.4 describes the bird as 'weary' when the author probably meant 'wary', and describes this bird as 'being persuaded into a truce', which illustrates another weakness: over-interpreting the birds' behaviour and imputing human feelings and motives to them. The legend to a picture of the author with hand-reared Magpies refers to 'the gentle and loving nature of magpies', inconsistent with descriptions elsewhere of a dominant female that 'disciplined' another, Magpies killing an 'unacceptable fellow magpie', and of 'rogue' males 'that seem to have learned to attack humans regardless of their breeding status' (sic). These lapses into anthropomorphism have no place in a scientific account and mislead a lay audience. Such unsupportable statements inevitably undermine the book's worthy aims.

Some illustrations are puzzling or confusing; e.g. why do the maps of the distributions of Magpie subspecies (Fig. 1.2) and of Magpie plumage patterns (Fig. 1.3) not match? In Fig. 2.2 the skeleton and feathers of a Magpie's wing are on different scales, and cannot be related to each other; so what is this figure for? The same question can be asked of many illustrations: what is the reader meant to get from them? Are the sonograms easily interpretable for most readers? Is it enough to refer to only the highest frequencies in each call without mentioning the spread of frequencies? Is sound intensity really measured in kHz (legend to Fig. 9.6)?

Overall, the coverage of the extensive material presented is quirky and idiosyncratic, some topics being covered in considerable detail (e.g. the order of presentation of bird families in field guides; the general morphological adaptations of birds for flight; forebrain nuclei involved in bird song; the matching of neck length to foot length in birds)

whereas more significant evolutionary and ecological issues (such as the dispersal of young, population dynamics, and – critically – regional variation in social organisation (e.g. see Hughes *et al.* 1996)) appear to be ignored or skimmed. Chapters mix material about birds in general with text specific to Magpies, sometimes separable only when the references are checked. Topics are often incomplete (for example, the fascinatingly variable incidence of cooperative breeding) and not linked to other topics. Facts are produced without any well developed context, so that a sense of narrative or argument is missing.

The author tells us that the book is based on her observations and ‘research results of over eight years’ averaging ‘1200 h per year observing aspects of magpie behaviour’ with observations ‘based on 42 hand-raised magpies, 36 free-ranging magpies in 10 research sites around and in the inland town of Armidale’ and ‘an additional 110 birds in 32 groups’ between Armidale and the coast. If properly organised, such time and effort should have produced a wealth of data; but it has not, except perhaps for information on calls, song and mimicry (although those data are not presented here). Despite use of scientific terms, the commonplace methods of science are not followed. Quantification is largely foregone (even when samples of ‘hundreds’ are mentioned) or ignored, such as when the author prefers her own unreported clutch-size records over quantified data from other studies. The only original quantitative dataset, on physical development of 36 young Magpies, is presented so unconventionally that the unstable growth and even shrinkage (in beak width) that it shows cannot be verified by inspection of the data. Some supposed phenomena are stated without data or references (e.g. feeding of offspring ‘equally and consecutively’; genetic determination of rate of maturation) and are not always confirmed before the author suggests an adaptive explanation (e.g. her claim that nesting Magpies ‘tend to build downwind’ (possibly an interesting observation but, as worded, simply too obscure to understand) and ‘where monitor lizards are numerous... [Magpies] tend to shift nests to outer branches’). Phenomena claimed without published evidence (e.g. the association between type of alarm call and type of predator) spoil the author’s presentation of her observations.

Unclear writing also mars this book. Some conventional scientific terms are used in novel ways; e.g. cuckoos are described as predators of Magpies rather than nest parasites, and social hierarchies are confused with simple dominance and submission. However, the major problem is that the sentences can be simply hard to understand; the book is not an easy read, and may not hold the interest of a lay audience. It is not a complete enough review, nor original enough, to serve scientific ornithologists well. It surprises us that UNSW Press included this book in their usually admirable Australian Natural History Series, and that CSIRO Publishing supported its publication. Our comments on the

book may appear harsh; but we believe that publication of poor and poorly expressed science does harm at a time when belief in science and understanding of scientific method are in public decline. Unfortunately, we are obliged to conclude that the book does not live up to its own aims and claims. The definitive summary of knowledge of the iconic Australian Magpie remains to be written.

- Birch, L. C., Adamson, D. A., Mitchell, Mother J. B., Meyer, G. R., and Stock, J. E. (1966). ‘Senior Science for High School Students. Part 3: Biology.’ (The Nuclear Research Foundation, The University of Sydney: Sydney.)
- Carrick, Robert. 1972. Population ecology of the Australian black-backed magpie, royal penguin, and silver gull. In ‘Population Ecology of Migratory Birds: A Symposium’. Wildlife Research Report 2. pp. 41–99. (US Department of the Interior, Fish and Wildlife Service: Washington DC.)
- Higgins, P. J., Peter, J. M., and Cowling, S. J. (Eds) (in press). ‘Handbook of Australian, New Zealand and Antarctic Birds. Volume 7. Boatbills to Starlings.’ (Oxford University Press: Melbourne.)
- Hughes, J. M., Hesp, J. D. E., Kallioinen, R., Lange, C. L., Hedstrom, K. E., Mather, P. B., and Wellbourn, M. J. (1996). Differences in social behaviour between two populations of the Australian magpie (*Gymnorhina tibicen*). *Emu* 96, 65–70.
- Robinson, A. (1956). The annual reproductive cycle of the Magpie, *Gymnorhina dorsalis* Campbell, in south-west Australia. *Emu* 56, 233–336.

Peter Jarman

University of New England, Armidale

Darryl Jones

Griffith University, Brisbane

## TRACKING OCEAN WANDERERS: THE GLOBAL DISTRIBUTION OF ALBATROSSES AND PETRELS

Results from the Global Procellariiform Tracking Workshop, 1–5 September 2003, Gordon’s Bay, South Africa 2004. Published by BirdLife International, Cambridge, UK. 100 pp. Paperback, ISBN 0-946888-55-8. Also available online: [http://www.birdlife.net/action/science/species/seabirds/tracking\\_ocean\\_wanderers.pdf](http://www.birdlife.net/action/science/species/seabirds/tracking_ocean_wanderers.pdf)

In the introduction we are told that albatrosses and petrels are potentially excellent indicators of the state of oceanic marine systems, which are increasingly becoming recognised as among the least known yet the most imperilled, and that albatrosses have become the bird family most threatened with extinction (19 of 21 species are globally threatened and the remainder near-threatened). The main problems that albatrosses face are interrelated with fisheries, particularly long-line fishing. Such concerns led BirdLife International to hold this workshop.

The workshop was attended by ornithologists whose remote-tracking studies could enable Important Bird Areas (IBAs) in the marine environment to be identified.

Albatrosses and giant petrels are the marine species most studied by remote tracking. The participants listed comprise most of those involved in these studies. They had agreed to their data being incorporated into a database from which density-distribution appraisals could be calculated using the same analytical method. The method of kernel analysis is described, with cautions on interpretations outside the designed purpose. Extensive data from satellite tracking (PPTs) and the lesser amount of data from geolocation (GLS loggers) were analysed.

The results occupy 38 pages, each with impressive density-distribution maps and a covering text by the scientists who collected the data. The distributions of breeding birds are arranged by the stage of the breeding cycle, sex, year and colony. These are followed by regional summaries of breeding and non-breeding birds for the south-western Atlantic and southern South America region, the Indian Ocean, the Australasian region, and the northern Pacific Ocean. The sources of the data are given for each species: the colony, the breeding stage, the year, the type of data, and the contributor.

Data from different species of breeding bird show the varying oceanic density distributions and the value of the approach. Composite maps for each region show well core areas where the presences of different species overlap. There is, however, a limited amount of data from non-breeding birds because such studies usually result in expensive equipment being lost as they eventually fall off the bird. Thus, there are few data from immature birds, which may well disperse more widely than the presented information suggests.

This publication is mainly about albatrosses and giant petrels (11 other species of petrels, for which there are some studies on tracking, are mentioned). The quantity of data available is remarkable considering that such studies only commenced 15 years ago. Clearly, core areas of density distribution can be detected. It should be borne in mind, when appraising the maps, that these birds have the potential to fly rapidly from one area to another (flights of 500–1000 km a day are not uncommon; they can fly across an ocean in a few days).

An extensive discussion follows on marine IBAs and their interactions with fisheries. This section reveals the complexities of a problem where even a breeding bird may travel over the waters of several nations and over seas that may be controlled by the authority of several Regional Fishing Management Organisations (RFMOs). How the distributions of core areas can be related to this complexity and the responsibilities that can be defined are shown. It would appear that no one nation has a sole responsibility for the welfare of a single species of albatross or giant petrel. Gaps in data are openly discussed, and outlines of desirable future work are given. Included in the 10 Annexes are lists of the participants, the data submitted and sources, relevant publications and a gap-analysis of the data.

It is concluded that there are sufficient biological data to define marine IBAs, and, therefore, the responsibilities of nations and RFMOs. The participants agreed that the database should be maintained and regularly updated to enable future access to available data and its sources, for rapid analyses of potential threats and formulations of appropriate conservation policies.

This publication is an excellent example of what a group of ornithologists, who are greatly concerned about the plight of the birds they study, can do to show what data exist, how to obtain further data, and from whom they may be obtained. That so much information has been packed into 100 pages is an achievement for which the participants are to be congratulated. The producers of this book are to be thanked for the compact style that made this possible: Frances Taylor, assisted by Janet Silk, for creating the database, for the analyses, and for the resultant density-distribution maps that adorn so many pages with a functional beauty worthy of the birds; and John Croxall as editor.

A cursory reading of the report soon reveals the enormous effort made to obtain data. Careful study leads to a full appreciation of the breadth of the concepts and discussions. A copy should be on the shelves of all ornithological libraries and libraries concerned with marine interfaces and conservation. It should be studied by ornithologists and others who are interested in the oceanic welfare of seabirds. There is now no place for dismissals of the existence of or access to data.

*Durno Murray*  
Pymble, NSW

## **HANDBOOK OF BIRD BIOLOGY SECOND EDITION**

By S. Podulka, R. W. Rohrbach Jr, and R. Bonney (Editors)  
2004. Cornell Laboratory of Ornithology and Princeton University Press. 1287 pp. Hardback, \$US99.50 or \$A160, ISBN 0-938-02762-X.

The title of this huge volume (282 × 222 × 65 mm, 3.25 kg) is misleading as it deals with far more than the biology of birds. Much of the introductory *Birds and humans: a historical perspective* is North American orientated (as is much of the rest of the book) with 22 subheadings covering *Birds as food, Use of skins and feathers, Birds in literature, culture, and religion* and *The evolution of North American ornithology*. The subsequent 10 chapter titles (each with numerous subheadings) are: *Introduction: the world of birds; A guide to bird watching; Form and function: the external bird; What's inside: anatomy and physiology; Birds on the move: flight and migration* (includes *Evolution of birds and avian flight*); *Understanding bird behaviour; Vocal behaviour; Nests, eggs, and young: breeding biology of birds; Individuals, populations, and communities: the ecology of birds; Bird*

conservation. Following these are: a *Species table*, in fact an index of the common names of birds mentioned in the book followed by their scientific name (16 pp.), which unfortunately lacks pagination cross-referencing; *Glossary* (44 pp.); *About the authors* (4 pp. and 16 authors); *References* (15 pp.); and *Index* (29 pp.).

The book is illustrated with more than 1000 text figures, including photographs and artwork, and a CD of bird sounds is included (attached to inside back cover). This volume also serves as the textbook for a popular college-level home study course in ornithology that is available to anyone (see [www.birds.cornell.edu/homestudy](http://www.birds.cornell.edu/homestudy)).

Although substantial parts of this book do have a strong North American bias, other parts contain numerous examples from the avifaunas of elsewhere. It contains a wealth of biology and other ornithology-related information and provides a comprehensive, well designed, and clearly presented, handbook that is at the cutting edge of the science. This is an admirably authoritative and well produced textbook for students that will also be a useful addition to any ornithologist's library. It will undoubtedly prove particularly invaluable to colleges and universities offering courses in ornithology, if able to obtain funds to cover the price.

Clifford B. Frith  
Malanda, northern Queensland

### NONCOOPERATIVE BREEDING IN THE CALIFORNIA SCRUB-JAY

By William J. Carmen

2004. *Studies in Avian Biology* No. 28. Published by the Cooper Ornithological Society. 100 pp. Paperback, \$US15 (including shipping and handling), ISBN 0-943610-59-1.

To my confusion, the title refers to the California Scrub-Jay, the caption for the cover photograph to the California Western Scrub-Jay, and the *Abstract* first to the Western Scrub-Jay and subsequently to the California Scrub-Jay! The study was in fact of a population (nearly 800 banded individuals) of the nominate subspecies (*Aphelocoma c. californica*) of the American corvid previously known as the Scrub Jay, *Aphelocoma coerulescens*, (now split by some authorities into three allospecies – hence the confusion).

As cooperative breeding is considered ancestral in *Aphelocoma* jays, Carmen studied his non-cooperatively breeding population because of the phylogenetic, social, and ecological comparisons he might make in the light of results of long-term studies of closely related but cooperatively breeding populations. His fundamental finding was that 'models for the evolution of delayed dispersal and group living in birds fail as general explanations when floating is

ignored or treated as a one-dimensional phenomenon' ('floaters' are non-territorial, non-breeding, individuals).

This is an impressive, intensive, tightly written study (29 tables, 41 figures), which presents and discusses much data on food resources, foraging, territorial behaviour, territory quality, dispersal, reproduction, and survivorship over five years within 83 ha (1981) and 197 ha (1982–1985) of a most interesting (and acorn-caching) species. The near 200 cited references, including several Australian studies (i.e. by H. L. Bell, H. A. Ford, R. Carrick, R. G. Heinsohn, S. G. Pruett-Jones, M. J. Lewis, I. Rowley, and R. Schodde), reflect a global approach. This well edited, well produced, publication will prove an asset to all interested in avian biology, long-term monographic life history studies, ecology, reproductive strategies, productivity and recruitment, passerine demographics in general and the corvids in particular. Available by advance payment from: Cooper Ornithological Society, c/o Western Foundation of Vertebrate Zoology, 439 Calle San Pablo, Camarillo, CA 93010, USA.

Clifford B. Frith  
Malanda, northern Queensland

### BIOMETRICS OF BIRDS THROUGHOUT THE GREATER CARIBBEAN BASIN

By W. J. Arendt, J. Faaborg, G. E. Wallace and Orlando H. Garrido

2004. *Proceedings of the Western Foundation of Vertebrate Zoology* 8(1). 33 pp. Paperback, \$US25 (including shipping and handling). ISSN 0511-7550.

This publication presents, on an enclosed CD requiring Adobe Reader 6.01 (provided), defined external biometrics (body mass and eight appendicular measurements, the most numerous being body mass and wing chord) for almost 30000 individuals within 15 orders, 45 families, 144 genera, and 276 species from 29 islands. For ease of use 'bookmarks' are incorporated for non-passerine orders and all passerine families. Data can also be browsed by species (alphabetically listed). The data are considered germane to studies of avian genetics and evolution, energetics, aging and sexing, morphology and ecomorphology, conservation and management, avian biogeography, and population and community ecology. A dense six-page text includes *Introduction*, *Study areas*, *Methods*, *Results* and *Discussion*, followed by a 19-page bibliography. This is a valuable tool for future Greater Caribbean Basin researchers and provides an example of how large sets of raw data might be published. Available from Western Foundation of Vertebrate Zoology, 439 Calle San Pablo, Camarillo, CA 93010, USA.

Clifford B. Frith  
Malanda, northern Queensland