BOOK REVIEW

Australian Birds: Their Nests and Eggs

Gordon Beruldsen, 2004. Author, Kenmore Hills, Brisbane, Queensland. Softcover, 424 Pp., colour plates. ISBN 0 646 42798 9. \$40.

This book is a self-published second edition of Beruldsen's earlier (1980) field guide. It is primarily a manual enabling observers to identify the nests and eggs of birds that breed in Australia and its continental islands. Its strengths are in the keys to nest types (by site and construction) and egg types (by colour and markings), photographs of the eggs of virtually all the species covered (arranged as plates mostly of congeneric or confamilial species), and the detailed descriptions of nests and eggs in the species accounts. A major plus is cuckoos' eggs illustrated alongside those of host species, including the different egg types of Brush Cuckoo populations according to their honeyeater, flycatcher or fantail hosts.

There are helpful definitions, photographs or commentary on egg shapes, intraspecific variation in eggs, and the structure and physiology of an egg. The book is liberally illustrated with photographs of nests and eggs of selected species *in situ*. There are also brief or anecdotal comments on nest predation, parasitism by cuckoos, finding of nests, egg size relative to bird, clutch size, and the effects of weather. Commendably, at the outset, the book discusses the ethics of, and legislation pertaining to, the study or photographing of birds' nests and eggs. Each species account covers the topics: distribution, breeding range within distribution, nesting season, breeding frequency, nest, eggs, and sometimes a 'Note' providing additional comment on identification or some other aspect.

The first problem with this book is that the publication date is given as 2003, but the author's 'Introduction' (really a preface) is signed January 2004, the year of release. The specifications page should therefore have been adjusted accordingly. This is one of many slip-ups in editing-in new material, or rearranging old material, in the new edition.

Another problem is the vague definition of 'nesting season', given as 'months of the year when nesting usually takes place'. Is this building, laying, incubation, or all of these plus nestlings? To be more useful and accurate, it should be specified as months in which eggs are laid or are present in nests.

More serious problems relate to the accuracy of information in the species-accounts sections on breeding season, and to some extent breeding range and breeding frequency. I can speak only for the raptors and owls, but it appears that the author has relied on hearsay or assumption, and has not consulted the literature. If this situation is symptomatic of the book as a whole, then one must take these sections with caution, and consult more authoritative sources such as the *Handbook of Australian, New Zealand and Antarctic Birds (HANZAB)* for more reliable information on these topics.

As an example, for many diurnal raptors Beruldsen claims that the breeding season is spring(-summer) in the south, autumn(-winter) in the tropics and any time after rain in the arid zone, but there is no published evidence in support of this claim, and much research to the contrary. Most are spring breeders, even in the arid zone; the few that breed in autumn in the tropics have a long laying season extending from autumn to spring, i.e. the dry season (cf. Olsen and Marples 1993; Olsen 1995; *HANZAB 2*). This problem was identified in Beruldsen's first edition (Debus 1984). Breeding seasons given for most owls also do not match *HANZAB 4* well, and the same could be said for the Torresian Crow and small *Corvus* species (cf. *HANZAB 7*).

Most falcons and accipiters are said to sometimes breed twice a year in good seasons, but except for the Nankeen Kestrel there is no published evidence for known pairs re-laying after fledging a brood (though of course all will re-lay after failure). Conversely, Beruldsen missed the published evidence for rare double-brooding in the Osprey and Square-tailed Kite (cf. HANZAB).

The Square-tailed Kite is said to breed 'throughout distribution range', but there are no acceptable published records of breeding on Cape York, the Gulf coast, the Top End (or indeed the whole Northern Territory), or in the Kimberley, to which northern regions the Kite is a non-breeding migrant. Several falcons are said to build their own stick nest, but falcons only appropriate ready-made nests. A scan of some other species accounts reveals, for instance, that the Regent Honeyeater breeds 'once per year, perhaps twice on occasions', and builds 'frequently in a *Banksia spp*. [sic]', but multiple broods per season are well known, and it nests mostly in eucalypts and mistletoes in grassy woodlands that lack a *Banksia* midstorey (cf. *HANZAB 5*).

Another problem with the book is that, for nomenclature (English and scientific) and taxonomic sequence it uses a 'Relational checklist of the birds of Australia ... by Richard Schodde' for the non-passerines. Aside from the questionable use of an unpublished list, this move introduces further instability and pre-empts the forthcoming revision of Christidis and Boles (1994) as the official checklist. The 'relational checklist' is that in the forthcoming Schodde and Mason Directory of Australian Birds: Non-Passerines ('Directory 2'). For passerines, Beruldsen uses Directory 1 (Schodde and Mason 1999). However, his egg plates (which were all re-done for the new edition) are in the old pre-DNA sequence, with unrelated families jumbled together in some of the passerine plates. Beruldsen's English names, and most if not all of the scientific names, apparently foreshadow Directory 2, although some do not match the CSIRO Aves checklist on the Web. For maximum benefit to birders, the book should have used the sequence and nomenclature of the latest Pizzey and Knight, Slater et al., Simpson and Day, and Morcombe field guides.

A consequence of the above is some sloppy dealing with the changes in names or sequence, and potential confusion to the reader. For instance, under Red-necked Avocet we read 'Eggs: like those of *Himantopus himantopus*', but the account for that species is headed *H. leucocephalus*. Similarly, Beruldsen has re-ordered the crows to come before the ravens (as in *Directory 1*), with the consequence that the species accounts say 'Nest: like that of *Corvus coronoides*...', 'Eggs: like those of *C.c.*', and 'Note: see under *C.c.*', but that species is now last (not first) in the sequence. The reader goes round in circles, because the *coronoides* Nest text says 'Like that of *C. orru*' (which looks like the *coronoides* text cut and pasted in, but is not strictly accurate for *orru*).

Introduced birds are excluded from the keys, plates and species accounts. They are relegated to a cursory mention on Pp. 9–10, yet they are now an integral (if undesirable) part of our avifauna and theirs are among the first nests and eggs urban- and rural-dwelling, beginner birders will come across.

The sections on predation, parasitism, cuckoos, clutch size and weather (Pp. 14–39) are the author's musings and speculation, without reference to (or apparently knowledge of) the substantial literature on these topics. For instance, he expresses the common surprise among amateurs that birds which lay large clutches are not much more numerous, but this view disregards the many factors affecting survival to adulthood, population stability, and ecological carrying capacity.

The use of scientific instead of English names throughout the species accounts is an affectation, and fails to confer authority on the text. The book contains many typographical errors, including scientific names, and illustrates the down side of self-publishing without scientific peer review or a publisher's editor and proof-reader.

Two of the egg plates have faulty numbering against clutches: for that on P. 105, No. 5 should be moved right (closer to the appropriate clutch), and No. 6 and No. 7 should be moved down a row to the next respective clutches; that on P. 140 has No. 6 duplicated and the remaining Nos 7-12 out by one so these clutches do not match the numbers in the caption.

The book finishes with indexes of English and scientific names, and a list, 'Selected reading', of books and journals. This brief list gives the standard field guides etc., and the national and regional journals, except that of *HANZAB* and *Corella* are conspicuous by their absence.

To sum up, this book is a useful tool for identifying birds' nests and eggs, but the other information in it must be supplemented (or indeed

corrected) by reference to *HANZAB*. I hesitate to criticise an amateur's life-long labour of love, but amateur needn't mean scientifically inaccurate. Egg enthusiasts would do well to read some basic ornithology or ecology.

- Beruldsen, G. (1980). 'A Field Guide to Nests and Eggs of Australian Birds'. (Rigby: Adelaide.)
- Christidis, L. and Boles, W. E. (1994). 'The Taxonomy and Species of Birds of Australia and its Territories'. RAOU Monograph 2. (Royal Australasian Ornithologists Union: Melbourne.)
- Debus, S. 1984. Breeding seasons of raptors. Australasian Raptor Association News 5: 70–71.
- Olsen, P. (1995). 'Australian Birds of Prey'. (University of New South Wales Press: Sydney.)
- Olsen, P. D. and Marples, T. G. (1993). Geographic variation in egg size, clutch size and date of laying of Australian raptors (Falconiformes and Strigiformes). *Emu* 93: 167-179.
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BOOK REVIEW

Herons, Egrets and Bitterns: Their biology and conservation in Australia

Neil McKilligan. 2005. Australian Natural History Series, CSIRO Publishing. Paperback, 133 Pp., colour illustrations. ISBN 0643091335. \$34.95 plus postage.

Herons, Egrets and Bitterns is the result of Neil McKilligan's longstanding interest in the Australian members of the Ardeidae. For decades, the author has undertaken research into the population dynamics of the Cattle Egret in south-east Queensland, and his intimate knowledge of Australia's herons (a term the author uses for all members of the Family Ardeidae) is evident throughout the book.

Chapters 1 and 2 present a worldwide overview of the Family Ardeidae, including discussions of the origin and taxonomy of the family, their characteristics and identification. Chapter 3 provides only the briefest discussion of the importance of herons, including their use as bioindicators and some species' pest status in the aquaculture industry. Subsequent chapters focus on Australian herons beginning with 'Distribution, movements and longevity' (Chapter 4), which draws heavily upon bird banding data and is a particularly interesting read. Chapter 5 looks at the food resources and foraging ecology of our herons, and Chapter 6 discusses the breeding biology. Chapter 7, 'Population numbers and conservation', although slightly biased towards the colonial members of this family, provides information on the conservation status and regional abundance of herons in Australia. The final chapters describe each of Australia's ten day herons (subfamily Ardeinae), the Nankeen Night Heron (subfamily Nyctocoracinae) and the three bitterns (subfamily Botaurinae), and there are brief descriptions of species, which have occasionally been recorded in Australia.

The book is peppered with 'information boxes' that provide brief and informative dialogue on general biological topics, such as 'taxonomy and classification' and 'feather structure', as they arise throughout the course of the book. Black and white photographs are provided throughout and eight pages of colour photographs form a photographic guide to all of Australia's herons. There are thumbnail sketches of each species in Chapter 8, and the distribution maps also show locations of breeding.

The book does not delve as deeply into the biology of night herons and bitterns as it does with the day herons, and there is far more information on the Cattle Egret in the species account section than of other members of the family. Although the author attributes this to the abundance of information available on the day species and the Cattle Egret in particular, I would have liked to see more biological information presented in the species account section. The reference list is comprehensive and it is presented in an alphabetical format rather than by chapter.

Apart from a few typographical errors and some mistakes in the formatting of the reference list, the book appears free of editorial errors. Although it contains a wealth of information, the small paperback format, simple layout and clear language make this book an easy and enjoyable read. It is aimed squarely at students and amateur bird watchers, but will make fascinating reading to all who are interested in these elegant Australian waterbirds. McKilligan's work is an easy to read, succinct, informative and timely text, which is a worthy addition to Australian ornithological literature.

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