

Book reviews

OWLS (STRIGIFORMES): ANNOTATED AND ILLUSTRATED CHECKLIST

By Friedhelm Weick

2006. Published by Springer-Verlag, Berlin. 350 pp., 63 line drawings, 23 colour plates. Hardback, €128.35, ISBN 3-540-35234-1.

This is a global list of owl taxa in systematic order by subspecies. Weick is a professional wildlife artist, and amateur ornithologist (with a professional approach). This list is that of a classical museum taxonomist, though selectively taking into account some recent DNA data. The *Foreword* by Wolfgang Scherzinger is largely a justification of the need for taxonomic studies, and a defence of Weick's classical (morphological) approach. The *Foreword*, *Introduction* and plate captions are in English and in German.

The contents' list provides a tabulation of owl species recognised, and their generic allocations. A list of terms, abbreviations and acronyms provides a key to those used in the text. The *Introduction* provides the rationale for the checklist and its features, and a plan of the book. The section *Owls: a brief overview* canvasses a few taxonomic problems, mainly certain genus or species limits, and notes a mystery *Ninox* specimen; it concludes with a table of owl families, subfamilies, tribes, genera and subgenera (as recognised by Weick).

Part II is the main body of the work: a full taxonomic listing of owl species and their subspecies, with author and date for each taxon and synonyms for each. For each species, its length, body mass, distribution and habitat are given. For each subspecies or monotypic species, the type locality and abbreviated reference to its description are given, along with its distribution, locations of specimens, remarks (taxonomic or morphological), relevant measurements, sources of published illustrations, and references.

Part III is a series of line drawings of a selection of species, from most genera, in flight to show wing shape. The accompanying Part IV is a tabulated selection of measurements illustrating intrageneric variation in wing-tip shape, with diagrams illustrating owl topography and how the wing formula is calculated. However, the discussion of wing formulae could have included a commentary on wing-tip shape or length in migratory versus resident congeners, or perch-hunters versus flight-hunters, or owls of open versus closed habitats (cf. Part III), to give it ecological relevance and context.

Part V is a series of colour plates illustrating owls described or rediscovered in the past 20 years, each with one or two related (mostly sympatric, similar) species for comparison. The most intriguing is *Ninox dubiosa* sp. nov. Weick, 2006, dubbed (unfortunately) 'Dubious Hawk Owl', from a specimen with no data. Almost certainly of Australasian and possibly Wallacean origin, one might suggest that it is a dark morph of a described species except that its bodily proportions do not match any known *Ninox*. Clearly, this specimen requires DNA analysis to establish its closest relatives. Part V finishes with plates showing the range of variation (morphs and subspecies) in the Great Horned Owl complex. The book finishes with a list of references (mostly cited in the text, though some not), comprehensive indexes of owl scientific and vernacular names (English, German, French and Spanish), and geographic locations.

A current checklist of this nature is of great value to taxonomists and to enthusiasts interested in the global variation and zoogeography of owls. However, the value of such would be greatly increased if the author placed more weight on recent DNA evidence. Weick is a splitter at the species level, based largely on his opinion from morphological comparisons, and many of his generic (and some higher-level) allocations contradict DNA evidence. Thus, this checklist is in some respects a backward step. To take some overseas genera, the DNA evidence reveals that, for instance, *Megascops* is generically distinct from *Otus*; that *Ptilopsis* is asionine not otine; that *Scotopelia*, *Ketupa* and *Nyctea* are nested within *Bubo*; that *Phalaenopsis* is generically distinct from *Glaucidium* (and so, too, probably is *Taenioglaux*); and that *Ninox supercilialis* belongs in *Athene* (see Wink and Heidrich in König *et al.* (1999) *Owls, A Guide to the Owls of the World*; Penhallurick in Newton *et al.* (2002) *Ecology and Conservation of Owls*; Wink *et al.* in Chancellor and Meyburg (2004) *Raptors Worldwide*). Yet Weick has none of this, and asserts that *superciliaris* is a *Ninox*. Furthermore, if these genera are correctly allocated according to DNA, some interesting zoogeographic and phylogenetic patterns emerge, such as the radiation of various sections of the Strigidae on different Gondwanan continents.

To take the Australasian species, the Australian Barn Owl is correctly separated as *Tyto delicatula* (including *javanica* and *sumbaensis*, cf. Wink *et al.* 2004), but Weick raises the form *crassirostris* of the Bismarck Archipelago to species rank on purely morphological grounds while pronouncing that most other forms in Melanesia and Polynesia are, or probably are, inseparable from *delicatula*. Higgins (1999, *HANZAB* vol. 4) is not cited except on *Ninox natalis*, and was apparently ignored on taxonomic aspects of other species, with the result that Weick speculates, on inadequate evidence, that *Ninox rufa meesi* is just a pale morph of *N. r. queenslandica*, synonymises *Tyto novaehollandiae melvillensis* with *T. n. kimberli* without justification, and keeps *Ninox connivens occidentalis* separate when it is synonymous with *N. c. peninsularis*. On the other hand, he missed or ignored the DNA evidence that the sooty owls are one species (cf. Norman *et al.* (2002) *Proceedings of the Royal Society of London, B, Biological Sciences* 269, 2127–2133). On the boobooks, Weick gives *Ninox leucopsis* (Tasmania) and the *novaeseelandiae* (trans-Tasman) forms species rank separate from mainland boobook, *contra* *HANZAB* and Penhallurick (2002). As the message about this misinterpretation of the DNA evidence is not getting through (e.g. see Olsen and Debus (2006) *Corella* 29, 97–98), it is worth quoting Penhallurick (2002, footnote xii, quoting L. Christidis) here, in the hope that it finally reaches an international audience:

'In these papers the Tasmanian Boobook Owl samples were included to represent the Australian Boobook. There was never any suggestion that the mainland and Tasmanian Boobooks were different species. We are in the process of writing up our data on variation in the Australian forms of boobook, mainland and Tasmanian, and there is no suggestion that they are different species. So far as the molecular data [are] concerned, Australia (including Tasmania), Norfolk Island and New Zealand share one species of Boobook Owl, *Ninox novaeseelandiae*.'

Nowhere does Weick cite or list Newton *et al.* (2002) although it contains several taxonomic papers. Part of the problem with Weick's treatment of Australian owls is that he doesn't provide or review the extensive mensural data, by subspecies, from *HANZAB* or acknowledge its comprehensive sections on geographical variation. A related problem is that it is not clear whether, at least for well-known species, Weick's mensural data include published sources, or whether for all taxa they are only data Weick gleaned from (only or mainly Northern Hemisphere?) museum specimens. One suspects the latter, because there are published data (sometimes extensive) where Weick often gives few or no data. Furthermore, for Australian owls there are specimens in many more Australian capital-city museums than Weick lists for the respective species. The weights he gives for the Barking and mainland Masked Owl are too low, being for tropical specimens, because he missed the published weights for southern birds; and *Ninox rufa queenslandica* is not the same size as *meesi* (cf. *HANZAB*).

On some other Australasian taxa, Weick missed that photographs of most Melanesian taxa are in Coates (1985, *Birds of Papua New Guinea*), and that photos of *T. (novaehollandiae) castanops* and *T. longimembris papuensis* are in Fleay (1968, *Nightwatchmen of Bush and Plain*). He attributes a Hollands (1991, *Birds of the Night*) photo of a Masked Owl to *castanops*, but it is a dark morph of mainland *novaehollandiae*; Hollands' photos of the Rufous Owl are *queenslandica*, not *rufa*. Weick treats *T. castanops* and *T. longimembris* (cf. *T. capensis*) as full species, but Wink *et al.* (2004) do not provide a definitive statement on what the DNA evidence actually shows. Surprisingly, Weick missed the opportunity and justification to split *Ninox scutulata* into three species (cf. King (2002) *Bulletin of the British Ornithologists Club* **122**, 250–257).

A quick scan of the text for overseas taxa reveals various problems. The Barn Owl taxon *furcata* is said to have 'long legs and powerful feet' and to be 'much larger than *pratinctola*', but this claim is contradicted by Weick's own mensural data that show *furcata* is within the range of the latter for wing, tail and tarsus but lacks data for bill and mass. Thus, one wonders how many others of Weick's taxonomic decisions are similarly subjective; for instance, elevation of several Barn Owl island taxa to species rank. It is high time that issues such as these, and on Wallacean *Tyto* taxa, canvassed for nearly a decade now since previous global treatments, were settled by DNA comparisons.

Occasionally, it is not clear what Weick is referring to in his 'Remarks' section; for instance, on *Sceloglaux* he says 'The wings are too short, and tail projection too long in this image', but is he referring to his own drawing on that page, or to the last-mentioned illustration (in del Hoyo *et al.* (1999) *Handbook of the Birds of the World* vol. 5) listed in the preceding paragraph? In the electronic age the reference list seems not fully up to date, except that Weick's own works up to 2005 are cited.

I hesitate to be so critical, but Weick's treatment of Australasian taxa is unsatisfactory at times. The book would have benefited from a check and edit by an owl scientist. Nevertheless, it makes an invaluable contribution to knowledge of owls and is indispensable to owl biologists, particularly those dealing with taxonomy.

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WATERBIRD POPULATION ESTIMATES – FOURTH EDITION

Compiled and edited by Simon Delany and Derek Scott
2006. Published by Wetlands International, Wageningen, The Netherlands. 239 pp., distribution maps, colour photos. Paperback, £25.00, ~\$A60, ISBN 10: 9058820319.

The Waterbird Population Estimates (WPE) series aims to summarise geographical distribution, population size and trend of all world waterbirds. This edition incorporates taxonomic changes and revised population estimates made since the 2002 third edition. Format and layout remain unchanged. The book is dominated by 193 pages of tables that summarise population estimates of all species considered 'waterbirds'. The 20 introductory pages provide helpful summaries (regionally and by family) and instructions on how to interpret the tables. Data tables (.xls format) and introduction (.pdf format) are available for free download from the Wetlands International website (<http://www.wetlands.org/event.aspx?id=318e62d4-b171-4f99-b77f-fda289041f6a>).

'Waterbirds' are defined as birds belonging to 33 families, which are essentially the Grebes, Loons, Pelicaniiformes (excluding the exclusively pelagic families), Ciconiiformes, Anseriformes, Gruiformes (excluding the completely terrestrial families), Shorebirds, Gulls and Terns, and Skimmers. This definition has led to the inclusion of a small number of pelagic species (mostly cormorants and terns), and the exclusion of some birds with a stronger claim to be considered waterbirds, e.g. many reed warblers.

The distribution maps are an important element of the book as they provide quick visual information. They are reproduced from the Handbook of the Birds of the World (HBW), and even though this was probably the best choice available, it sometimes leads to messiness. For populations that have been recognised as full species since the publication of HBW, no maps exist or those presented are potentially misleading: e.g. the map for the Black-throated Diver shows the combined range of the Black-throated Diver and the Pacific Diver, and there is no map for the Pacific Diver at all. Generating new maps should have been simple in cases where good distributional data exist.

Most of the taxonomy follows HBW, in which taxonomic treatments were patchy. For some families taxonomic status fell back on Peters' Check-List, which is long out of date and leads to errors. Sometimes this might have been unavoidable, as population-level taxonomy of large waterbirds is a rather neglected field. In some cases a better job could have been done, and the advice of a taxonomic consultant would probably be worth obtaining for future editions. For example, the book treats the subspecies of Gull-billed Tern (*Sterna nilotica*) occurring in north-western Australia as *affinis* (following Rogers *et al.* (2005) *Emu* **105**, 145–158), but it treats the subspecies occurring in north-eastern Asia as *addenda*. These two treatments are contradictory, as Rogers *et al.* showed that migrant Gull-billed Terns in north-western Australia (and Indonesia) come from north-eastern Asia; they did not treat them as *addenda* as they argued this name is a synonym of *affinis*.

The tables are reasonably clear, but the use of colour-coded title bars to indicate the conservation status of a species is a poor

choice. It means that the page is likely to be misinterpreted by anybody who does not read the introduction carefully, and by those consulting photocopies. There is ample space in the title bars to provide the conservation status of each species in clear, unabbreviated form. This would make life easier for the writers as well as the readers. We suspect the title bar convention may be the cause of the otherwise inexplicable listing of the Australian Painted Snipe as 'not threatened'. The authors of WPE were clearly aware of the real status of the bird, as they note that its population trend is 'declining' and specifically mention that the Australian government (which rigorously follows the IUCN criteria used in this book) listed the species as Vulnerable.

The geographical break-ups are given by Ramsar regions (Africa, Europe, Asia, Oceania, Neotropics, North America). This works well for sedentary waterbirds, but for conservationists and researchers working on migratory birds it is more important to have a flyway population estimate; this is often difficult to extract from this book.

The conservation status is not given for individual populations. Although for many populations this would undoubtedly be a difficult thing to assess, especially those for which there is a good deal of taxonomic uncertainty, there are many populations for which the data must have been readily available. For example, for *Sterna nereis davisae* (the endemic New Zealand subspecies of Fairy Tern), the book blandly lists the population size as 25–30 and notes that it is increasing, without mentioning that the population is critically endangered and only showing minor population increases with the assistance of intensive management. Listing the conservation status by population would not only have been useful, it seems that it would also be easier to assess the conservation status by population, as on the species level conflicting trends have to be weighed up against each other. It is unfortunately not possible to see whether the listing or trends of populations have changed since the last estimate. Table 7 lists all species in the Globally Threatened Category that have changed since 2002. But it would have been worthwhile to add any information on changed listings to the species tables as well.

The population estimates are as good as the estimates the authors had to draw on. In general they appear to have done a thorough job of tracking down the available literature. Lots of waterbird estimates are based on unpublished reports, as many population estimates do not get published in peer-reviewed journals. There were relatively few changes in the Globally Threatened Category for Australasia and eastern Asia: the species affected were Falcated Duck, Blue Duck, Far Eastern Curlew, Black-tailed Godwit, Spoon-billed Sandpiper and Black-billed Gull.

For many species, categories had to be used to indicate population size as no population estimates were available. The book presents 1% thresholds for waterbird populations wherever possible – i.e. the number of birds a site needs to hold to be recognised as holding 1% of a population. In this edition, for the first time, 1% thresholds are given for populations for which the population size is not known, but can be assigned to a category (e.g. <10 000; between 10 000 and 25 000, etc). In calculating the 1% threshold, the authors have taken the conservative step of presenting only the upper value of the potential range. Whereas this

seems reasonable, it would be best if this could be qualified in some way in the tables; we would have preferred to see a range, with the conservative value highlighted. For example, the population size of Royal Spoonbill was estimated to be between 25 000 and 100 000. Following the authors' convention, a particular site would only be regarded as internationally significant for Royal Spoonbill if >1000 birds were present. It is unlikely that there is any single wetland with so many Royal Spoonbills. However, the lower limit of the range for the 1% threshold for Royal Spoonbill could be as low as 250 birds. There are a few sites that are likely to have Royal Spoonbills in those numbers (e.g. Corner Inlet in Victoria), but unqualified use of the 1% threshold may result in their conservation value for the species not being recognised.

Summarizing the population trends provides some sobering statistics. The fourth edition of WPE recognises 2293 biogeographic waterbird populations. Of these, 3% are (probably) extinct, 21% are (probably) declining, 20% are (probably) stable or fluctuating and 9% are (probably) increasing. For 48% of populations no trend data are available. These numbers highlight the importance of waterbird population estimates that are updated on a regular basis. Documenting changes in waterbird population numbers is crucial for waterbird conservation. The fact that for half of all waterbird populations worldwide we still have no idea of population trends shows that we still have a long way to go. However, Morrison *et al.* (2001, Occasional Paper 104, Canadian Wildlife Service, Ottawa) called assessing global population sizes of all waterbirds 'the process of attempting to know the unknowable'. Considering the enormity of the task, having just reached the halfway-mark might not be a bad thing.

As WPE is an ongoing project our comments are intended to be constructive, but as improvements could be made they may appear rather critical. We therefore stress that our response to this book is overwhelmingly positive: it is a compilation of a huge amount of valuable information and is an essential resource for anybody interested in ecology and conservation of waterbirds.

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GLORIFIED DINOSAURS. THE ORIGIN AND EARLY EVOLUTION OF BIRDS

By Luis Chiappe

2007. Co-published by University of New South Wales Press, Sydney (Australia) and John Wiley & Sons, Hoboken (elsewhere). 263 pp. Hardback, \$A59.95, ISBN 0-471-24723-5.

Few topics in vertebrate palaeontology are more contentious than the question of the inter-relationship of birds and dinosaurs. While the weight in supporter numbers is clearly in the 'birds are dinosaurs' camp, a small but vocal minority ensures that contrary opinions are not allowed to fade away quietly. This subject has generated considerable press in recent

years but more detailed information has usually been buried in the scientific literature. For the more general reader, there has been a limited choice of easily accessible texts since Alan Feduccia's 'The Origin and Evolution of Birds' (1999). The considerable new information that has accumulated in the intervening eight years means that this book's section on Mesozoic birds is now somewhat dated. (It is also worth noting the very different perspective towards Mesozoic bird evolution expounded in that book compared to the one reviewed here.)

There is more to the early evolutionary history of birds than just what their relatives were. The first Mesozoic bird discovered, and the oldest known, is the iconic Late Jurassic *Archaeopteryx lithographica*, described in 1861. It was followed in 1872 by *Hesperornis* and *Ichthyornis*. These three birds formed the bulk of what was known about the Mesozoic diversification of birds, with the total number of species sitting at less than ten until about 1980. In the past 25 years, described species have rocketed to almost 70, more than seven times that of the previous 120 years. An overview of this expanding field for the interested non-specialist is harder to come by than those on the bird–dinosaur debate.

This book, 'Glorified Dinosaurs' succeeds in presenting current ideas about the early evolutionary history of birds in a manner directed to an audience not composed of palaeornithological specialists. Luis Chiappe is an active participant in the current debate and continues to be a major player in the accelerating field of Mesozoic birds, having studied and described a significant number of those known to date. This puts him in an ideal position to write such a book: no one else has his level of hands-on experience with so many Mesozoic birds. Chiappe is firmly in the bird–dinosaur camp, and the presentation in the book is from that perspective. It contrasts strongly in this regard with the considerably shorter treatment, but very much opposing view, by Feduccia's (1999) book.

The first chapter, 'Mesozoic Birds and Their World', establishes the background for the remainder of the book. It addresses a range of subjects, such as the climate and configuration of the landmasses during the Mesozoic, and some of the other animals that shared the world. The evolution of dinosaurs and diversification of the theropods, the dinosaur group of which birds are a part, are treated to set the groundwork for subsequent sections dealing with avian relationships. There is a presentation on bird anatomy, with an extended discussion on the flight mechanism.

Some, if not most, of the strongest supporters of the bird–dinosaur connection are those using the method of systematic analysis known as cladistics. (Most of the critics of this connection are strongly non-cladistic in their outlooks.) Chiappe is very much a cladist. Relationships presented throughout the book are those determined by cladistic analysis, and this chapter usefully contains a section on the method and why it is deemed superior to alternatives.

The second, and by far the longest, chapter is 'The Ancestry of Birds and the Origin of Flight'. Here Chiappe presents the advocacy for the intimate connection between birds and dinosaurs. Not a new idea, it was proposed as far back as 1869 and was accepted for some period after, before falling out of favour. It was revived in the early 1970s, starting when a close examination of the small bird-like dinosaur *Deinonychus*

revealed numerous similarities. Only two alternatives for the origin of birds have been seriously considered in recent years, but these lack anything to compare with evidence for the bird–dinosaur connection provided by a host of new discoveries. Not all are morphological in nature; some provide hints of bird-like behaviour, such as brooding and sleeping.

Chiappe presents the arguments raised against a dinosaurian ancestry of birds, but unhesitatingly dismisses these, pointing out their flaws from a cladistic viewpoint. Among these is what may be the biggest objection: the apparent discrepancy in the homology of manual digits among early theropods, *Archaeopteryx* and modern birds. The response to this is a well developed hypothesis, but one that still relies extensively on a speculative component.

A most unexpected find, yet one of extreme importance in supporting current ideas, was the discovery of feathered dinosaurs. Feathers or feather-like structures are now known from several groups of the small carnivorous dinosaurs on the lineage leading to birds. Considerable space is devoted to two topics that, together with bird origins, are among the most controversial in vertebrate palaeontology: the origin of feathers, and the origin of avian flight. The latter, in particular, has been the stimulus for a range of often contradictory theories.

One chapter is deservedly devoted to *Archaeopteryx*. From the time of its discovery, this animal has played an important role in understanding the early history of birds, and remains one of the most significant fossils in vertebrate evolution. *Archaeopteryx* is now known from a number of specimens, each providing additional information as to what can be discerned about this animal. Recent studies, using novel techniques, have extended interpretations about its sensory capabilities, mode of locomotion including the degree of its flying skills, and other facets of its lifestyle. Aspects of several topics remain contentious, as does the question of how many taxa are represented by fossils assigned to this species.

One of the most important fossil locations anywhere is Liaoning, north-eastern China. Somewhat younger than *Archaeopteryx*, the remains found here encompass an entire fauna, including invertebrates, non-avian dinosaurs (feathered and otherwise), mammals and assorted primitive birds of several different groups. By far the most numerous bird is *Confuciusornis*, known from several hundred specimens. It has been studied in detail by Chiappe and his colleagues. Although on its own side lineage, the significance of *Confuciusornis* includes being the first bird that lost the long, bony tail that characterised *Archaeopteryx* and a few other species. *Confuciusornis* also acquired a toothless beak, in contrast to the toothed jaws possessed by most birds until the end of the Mesozoic.

This Chinese fossil revolution was preceded by another major event in avian palaeontology, the discovery of the enantiornithine birds. When first announced in 1981, the bones were considered so odd that few workers accepted them as avian. Since then, additional specimens, from all continents except Antarctica, have led to the recognition of the Enantiornithes as the major Mesozoic avian radiation. Chiappe has published a number of studies on these birds, illuminating their morphologies and relationships. Enantiornithines were numerous, with diverse morphologies implying a range of occupied habitats and

lifestyles. Details of wing feathering in some document the evolution of sophisticated flight by the Early Cretaceous.

Two short chapters discuss the bizarre short-limbed alvarezsaurs, first described as secondarily-flightless birds, but now considered to sit a short way outside the avian tree, and the few long-tailed birds other than *Archaeopteryx*. The final four chapters cover parts of the avian lineage leading to the birds we know today.

Precursors of the modern radiation include several early side branches that did not lead much further. After *Archaeopteryx*, perhaps the most famous Mesozoic bird for many years was *Hesperornis regalis*, an almost two metre long aquatic bird with a long toothed bill and almost non-existent forelimbs. The hesperornithiform group has been found to be widespread and diverse in the Northern Hemisphere; the original species remains one of the archetypal fossil birds. Closely associated with *Hesperornis* historically, and described at the same time, is another toothed bird, *Ichthyornis*. The relationship between these was rather distant, with the gull-sized *Ichthyornis* having a strong flight capability. What modern groups of birds first appeared in the Mesozoic is debated. A range of isolated bones has been assigned to living families but almost none of these can be accepted at present.

One of the strongest points of the book is its excellent illustrations, including large colour photographs of a large number of the fossils. Many will not have been previously available or have been restricted to the primary literature. Because more often than not, the fossils are disarticulated to various degrees, some readers might wish for 'road maps' of these fossils to explain what element is what – not always obvious – as well as more reconstructions of the birds. Family trees are presented throughout to show relationships of groups under discussion. Throughout, selected topics mentioned in the main text are expanded in greater depth in side boxes.

The writing is clear and engaging, without being either overly technical or dumbed down. It is aimed at the non-specialist and should satisfy this audience, but is substantial enough to reward readers with stronger backgrounds in zoology or avian palaeontology. For anyone wanting to consult the primary studies mentioned in the text, a section on Further Reading gives the key references for each chapter. The author should be commended for producing such a pleasing and informative addition to the fossil bird literature. Highly recommended.

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FIELD GUIDE TO THE ALBATROSSES, PETRELS AND SHEARWATERS OF THE WORLD

By Derek Onley and Paul Scofield

2007. Published by Christopher Helm, London. 240 pp., 45 colour plates, 26 text illustrations, 133 distribution maps. Paperback, \$A55, ISBN 978-0-7136-4332-9.

The first thing we do when we pick up a field guide is look at the pictures. So the major contributor is the illustrator and increasingly, as in this case, this is recognised by placing the name of the artist ahead of the wordsmith. Through books such

as Heather and Robertson's (1997) *Field Guide to the Birds of New Zealand* where his contribution was third in line as 'illustrator', Derek Onley has built an excellent reputation for detail and accuracy. The artwork in this volume continues that excellent standard. For the most part, familiar species are immediately recognisable as the images impart a natural reality because their shape, proportions, attitudes and plumage patterns are correctly depicted. I'm not quite so enamoured by the text and some maps are just awful.

The book is a convenient size (octavo) and, as it is printed on water resistant, heavyweight glossy paper, is suitable for use at sea although the guppa percha binding could affect durability. The cover of mine has already parted from the first page. A white background for the plates and illustrations was a poor choice: As so many Procellariiformes are white or pale grey, they fade into the background. The albatross head on page 14 is almost invisible. In this regard it compares unfavourably with the aqua backgrounds for Brett Jarrett's seabird illustrations in Hadoram Shirihai's *A Complete Guide to Antarctic Wildlife* (2002, Alula Press).

The taxonomy follows Dickinson's *The Howard & Moore Complete Checklist of the Birds of the World* (2003, Christopher Helm) except that the authors have raised to species level several taxa treated therein as subspecies. This results in 137 taxa having their own account compared with 113 Procellariiformes in Enticott and Tipling's *Photographic Handbook of the Seabirds of the World* (1997, New Holland). I have no quibble with this. If a taxon is sufficiently distinctive it deserves its own account whether or not an accepted 'species'. Using the authors' classification, there would be 20 species of albatross in Australia but the about-to-be-released revised Christidis and Boles checklist, *The Systematics and Taxonomy of Australian Birds* (2007, CSIRO), accepts only half that number. Obtaining consensus on taxonomic matters these days seems impossible.

One innovation is the splitting of Subantarctic Little Shearwater (*Puffinus assimilis elegans*) from Little Shearwater (*Puffinus assimilis*). The at-sea distribution of the former is not shown to include Australian waters, whereas that of the latter is shown to embrace Australia south of the tropics extending well to the south of Tasmania. With respect to southern Australia, I believe both forms occur.

The table of distinctions between the similar Sooty (*Puffinus griseus*) and Short-tailed Shearwater (*P. tenuirostris*) is excellent and a great advance on anything previously published but in this case the accompanying diagram does not adequately portray distinctions elucidated in the table. The wings of the Short-tailed appear too long and the projection of the body and tail behind the wings too short in the Sooty. I would like to see added that the more attenuated wings of the Sooty results in more flexibility so that the wing tips curl slightly upwards. However, several other useful identification features are not discussed. For instance bill profiles of albatrosses and undertail patterns of prions.

Particularly pleasing to the few opposed to the inclusion of Trinidad Petrel (*Pterodroma arminjoniana*) on the Australian list is the authors' treatment of the identification of that species versus Herald Petrel (*P. heraldica*). The distinctions are well illustrated and expressed just as Godman did in his *A Monograph of the Petrels* (1907). Somehow the world overlooked

Godman's work for almost a century so lumped these species. Recently, however, the Department of the Environment and Heritage included Trinidad Petrel on the Australian list on the false assumption that any Herald-type Petrel in the Indian Ocean must be Trinidad; a proposition, which on the basis of their stated and mapped distributions, the authors of this book erroneously support. It should now be possible to convince everybody that the purported reason for its inclusion, a bird found on North Keeling Island, actually was a Herald Petrel (see photograph in Stokes and Goh's (1987) paper in *Australian Bird Watcher*). More recent reports from the Pilbara and Christmas Island were also Herald not Trinidad Petrels. The presence of the species on Round Island in the mixed colony with both Trinidad and Kermadec (*P. neglecta*) Petrels and the recovery from there of a banded bird from Raine Island must surely silence proponents of that idea.

One advertising blurb states that 'accurate' distribution maps accompany the plates. I wish they were. Luckily there is also a heading 'Distribution' and this text seems to be more accurate, in some cases conflicting with information on maps. The distribution of White-bellied Storm-petrel (sic) (*Fregetta grallaria*) is shown as embracing the whole of Tasmania, Bass Strait and the coasts of Victoria and South Australia. I know of not a single reliable record for any of those states or the pelagic waters in those regions and none are listed in *HANZAB*. The map for Broad-billed Prion (*Pachyptila vittata*) purports to show it inhabits almost the whole of the Indian Ocean from waters south of Heard Island almost to the equator but I know of no evidence to support this. Moreover, an orange dot indicates a breeding island in the region of St Paul not mentioned in the text. The confusion is obvious. The map represents a crude distribution of Broad-billed Prion before MacGillivray's Prion (*Pachyptila macgillivrayi*), which breeds on St Paul, was split from Broad-billed. MacGillivray's Prion is given its own account and map.

Some errors in the maps are the fault of people like myself who don't publish enough about what they see at sea. But as indicated above, we are not entirely to blame. For instance, there are enough peer-reviewed papers, published decisions of Birds Australia Rarities Committee, and annual trip reports available on the internet and by private distribution to show that Jouanin's Petrel (*Bulweria fallax*), Tahiti Petrel (*Pseudobulweria rostrata*), Hutton's Shearwater (*Puffinus huttoni*) and Swinhoe's Storm-Petrel (*Oceanodroma monorhis*) are regular in the austral spring at sea off north-western Australia but this is not reflected in the maps. They have been seen on almost every one of the ten ornithological cruises between Broome and Ashmore Reef conducted since 1996. In some years the latter two species have been numerous. The text mentions their occurrence in the area as vagrants but those waters are traversed by experienced seabirders for only a few days each year and then on a narrow transect. Repeated observations within restricted temporal opportunity shows that it is the observers that are the vagrants, not the birds.

The statement under Tristram's Storm-Petrel (*Oceanodroma tristrami*) (page 231) that the 'Single record from waters off Sydney, Australia probably more likely dark-phase Leach's or Polynesian Storm-petrel' is ridiculous and offensive, casting doubt on the veracity and identification skills of the authors. The tail was too long, too deeply forked, the pale covert bar too

broad for either species, it was much too big for a Leach's, too short in the legs, etc., etc., to be a Polynesian. The bird was seen and photographed by eminent and experienced observers, assessed and accepted unanimously by the eight-member Birds Australia Rarities Committee. It was typical of the species with a greyish back contrasting with a black head, grey sides to the rump, etc., all as shown in Figure 4a plate 43 of the book under review. They are so similar in posture and plumage that one of the photographs of that bird could have been used as a model for that plate. The record is published with photographs (Palliser 2002, *Australian Bird Watcher*, p. 215), so others can make their own assessment. Perhaps it was thought that the occurrence of Tristram's in Australia too unlikely to contemplate. However this reviewer saw another in the Coral Sea in August 2005.

As instructed on page 30, I have followed the authors' advice and 'written all over' the book. In any case it is my wont but here my scribbles are more numerous than I would have wished. As implored, I will pass these comments to the authors for inclusion in future editions. However, before contemplating updating this tome, I'd like them to produce a similar volume to cover the other orders generally included in seabird guides, the Sphenisciformes, Pelecaniformes and the marine Charadriiformes.

This is an important reference for all ornithologists and essential for seabird enthusiasts. As it is reasonably priced, it should be in every pelagic venturers backpack. It contains much information that is new or not readily available elsewhere. Pictorially, it is a huge advance on all national field guides and the previous standard reference, Peter Harrison's *Seabirds*. It is on a par with the work of Jeff Davies in *HANZAB* and Brett Jarrett in Shirihai's *Antarctic Wildlife*.

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THE FIELD GUIDE TO THE BIRDS OF AUSTRALIA, EIGHTH EDITION

By Graham Pizzey and Frank Knight, updated and edited by Peter Menkhorst

2007. Published by Harper Collins, Sydney. 580pp., 2500 illustrations, 750 maps. Trade paperback, \$A45, ISBN 0-2071-9935-3.

Since the publication of *A Field Guide to the Birds of Australia* by Graham Pizzey and illustrated by Roy Doyle in 1980 (reviewed in *Emu* 85, 274–275), 'Pizzey' has been a well-regarded field guide. Frank Knight's illustrations added considerably to Pizzey's text with the publication of *The Field Guide to the Birds of Australia* in 1997 (reviewed in *Emu* 97, 335–336). That book, and its subsequent editions, has been voted preferred Australian guide in surveys conducted through Birding-Aus. This 2007 eighth edition is welcome and timely.

The essential function of a bird guide is to present illustrations and text in a manner that facilitates quick and accurate identification of birds seen in the field. It is superficial to suggest that this outcome is achieved merely by the presentation of accurate information. Accuracy of information, clarity of illustration, and appropriate colour rendition are obviously all required for a guide to achieve its purpose. But a good field guide goes beyond that: the selection of bird poses, decisions

whether to depict birds in flight and age variations and subspecies to show, and what are the distinguishing characteristics of birds are all vital to the creation of a successful guide. This new edition of Pizzey and Knight shows a continuation of the fine touch shown in these areas in earlier ones, but with 820 species now covered. The birds illustrated appear natural and take one's eye to their essential 'appearance'. The text is economical, but easily comprehended, and serves to distinguish between similar species. The use of italics for key distinguishing characteristics allows more experienced birders to go quickly to the essentials of any identification.

The arrangement of the description, illustration and distribution map in juxtaposition has become the standard among the four principal Australian field guides. Three of the four show text and distribution maps on the left hand page and illustrations on the right while the fourth, Michael Morcombe's (2004) *Field Guide to Australian Birds: Complete Compact Edition*, integrates all three on each page. The layout of Pizzey and Knight allows for larger illustrations and a generally uncluttered look. It is streets ahead of the others in this respect.

One innovation in this edition is a 'Quick reference guide to bird groups' on its front endpapers. Unfortunately this is cluttered, as there are too many illustrations. The approach to this in Morcombe's compact edition works much better. Another innovation is the use of two-tone shading in the distribution maps to distinguish between core and peripheral areas. This is a useful innovation (that could have been further refined to show subspecies distributions as in Morcombe's guides).

The editor of Pizzey and Knight had the good fortune of access to a preliminary draft of a new edition of the *The Taxonomy and Species of Birds of Australia* by Christidis and Boles due for publication in late 2007. This enhances the present volume enormously as 'new' species acknowledged by Christidis and Boles include Carpentarian Grasswren (*Amytornis dorotheae*), Kalkadoon Grasswren (*Amytornis ballarae*), Western Wattlebird (*Anthochaera lunulata*), Kimberley Honeyeater (*Meliphaga fordiana*) (from the NT resident White-lined Honeyeater), Pacific Robin (*Petroica multicolor*) (Norfolk Island population split from mainland Scarlet Robin (*P. boodang*)), Buff-sided Robin (*Poecilodryas cerviniventris*) (from White-browed Robin); and Arafura Fantail (*Rhipidura dryas*). The Paperbark Flycatcher is shown as a species that I understand is not acknowledged as such by Christidis and Boles. While having the advantage of this advance knowledge it is much to the credit of Menkhurst that he chose not to follow Christidis and Boles' treatment of the albatrosses. He instead adopted the taxonomy adopted by the Taxonomy Working Group as presented at the 2006 meeting of parties to the *Agreement on the Conservation of Albatrosses and Petrels*. Given that this working group widely canvassed international opinion, and published quite detailed reasons for their recommendations, I suggest that there is much to be said in favour of the course adopted. Good science should not be subjugated to international hegemony; however, there is a case to be made for seeking international agreement on taxonomy while more work is done to clarify relationships between groups of birds.

Peter Menkhurst states that he has chosen to illustrate those vagrants that have appeared at least twice in Australia, a rule applied with some inconsistency. Grey Headed Lapwing,

Isabelline Wheatear and Blue Rock Thrush are not shown, for instance, whereas Eurasian Golden Plover is shown notwithstanding that it has never been seen in Australia according to Menkhurst – who has shown considerable prescience in anticipating the recent sighting of the second Red-legged Crake in Australia! Inconsistency is also apparent in the application of the epithet 'vagrant': the Blue-and-white Flycatcher is not considered here to be a vagrant (when with only two mainland records clearly it should be), whereas the Tahiti Petrel, a not uncommon annual visitor, is. A third area of inconsistency is due, I suspect, to a desire to avoid resetting artwork. The Lesser Sooty Owl has been lumped with the Sooty Owl but still has its own full text in the guide. The Pacific Robin has been split from the Scarlet Robin but only appears as a 'Note' at the bottom of the Scarlet Robin text.

Earlier editions of Pizzey and Knight only covered birds on the Australian continent and surrounding seas. This eighth edition has been expanded to include Norfolk and Lord Howe Islands, but none of the further distant islands that are politically part of Australia. While this is understandable it is unfortunate that we do not have a single volume guide to all areas covered by Christidis and Boles. It is regrettable that this work has reached its eighth edition with numerous references to 'Papua New Guinea' or 'PNG' retained when what is actually meant is the, significantly different, entire island of 'New Guinea'.

The number of species covered by this volume (considerably more than any other Australian bird guide) and the relative generosity of layout highlights the essential compromise in a field guide – it needs to be small enough to be conveniently taken into the field. Larger size (now 238 × 160 × 30 mm) and weight (1250 g) have been the principle weaknesses of Pizzey and Knight. Perhaps the editor should take the word 'field' out of the title and accept that this is the pre-eminent small identification guide for the house, camp, car, or study. It will always be easier to slip a copy of *The Slater Field Guide to Australian Birds* (217 × 113 × 18 mm, 460 g) or Morcombe's compact edition (227 × 110 × 27 mm, 650 g), into a pocket or rucksack than a Pizzey and Knight. A definitive identification guide covering all birds seen in Australian political territory (even once) would be welcome. It would play to Pizzey and Knight's strengths while acknowledging its weakness.

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Also received

THE FEROCIOUS SUMMER: PALMER'S PENGUINS AND THE WARMING OF ANTARCTICA

By Meredith Hooper

2007. Published by Profile Books, London. 299 pp., 3 maps, 4 satellite images, 23 colour photographs. Paperback, \$A32.95, ISBN978-1-84668-034-2.

The subtitle justifies a brief review, but it could have done without 'Palmer's' as it begs the questions: who is Palmer, why are penguins apparently hers or his, is Palmer's Penguin a taxon? While global warming is topical the pedantically objec-

tive, if eternally optimistic, could argue that it remains to be proven that warming of the Antarctic Peninsula is other than natural: indeed Hooper notes that some scientists worry that its warming could be 'within the range of past climate variability' (p. 268).

Hooper states she is no scientist and that her book is based upon diaries, observations, and interviews made during her, atypically warm, wet, 2001–02 summer at Palmer Station when Adélie Penguin pairs produced far lighter and fewer offspring than usual. To me it reads like an inadequately organised and edited diary, albeit supported by scientists' data. A book about penguins is indicated but the chapter *The life of a penguin* falls short of four pages! The 10-page *Collecting birds* deals poorly with this topic in less than two pages, the remainder waffling on about station staff, domestic issues, weather, ice, bird numbers, study methods (all oft-repeated elsewhere). Laboured sentences and paragraphs about irrelevant, peripheral, or trivial subjects, issues, or musings distract from story lines. Fifty-year plus Hooper had me convinced of her zoological inexperience, if not background, before I read 'I had never handled a wild animal in my life, except a duckling briefly scooped out of a dawn river, punting one May morning in my ball dress, a long time ago' (p. 106).

I found this a disjointed, poorly constructed, read with many sentences obscure or telegraphic (e.g. 'Shortcut this season is another disaster.' [p. 211] or the paragraph 'At start, and finish, Palmer's penguins as indicator species.' [p. 268]). Much descriptive text struck me as distracting padding: the whole could have been more if a great deal less. The penguin and 'global warming' content could have occupied but few of the, excessive, 32 chapters (or have been summarised in a couple of tables of climate and penguin productivity data). In fairness, the book was not written for ornithologists, but in writing for them I am bound to say that many would likely be disappointed to have purchased it because of its subtitle: better they consult papers by Dr Bill Fraser and colleagues for their important results than this frustrating summary.

BROLGA COUNTRY: TRAVELS IN WILD AUSTRALIA

By Mitch Reardon.

2007. Published by Jacana Books of Allen & Unwin, Sydney. 174 pp., 120 colour photographs, 7 maps. Paperback, \$A39.95, ISBN 978-1-74114-991-3.

This easy and pleasant read describes 2004–5 travels in search of Brolga (and Sarus) cranes, their past and present status, loss of wetland habitats with pleas for their retention, and captive breeding; all illustrated with wildlife photographs in an attractive format. Reardon is a wildlife photographer and writer: his pictures are adequate, some evocative, while at least six animals portrayed appear to be captives. A four page *Introduction* precedes chapters *Cromarty Wetlands, Townsville to Daintree, Lakefield National Park, Mareeba Wetlands, Cranes in the Mist* (Atherton Tablelands) (all in north Queensland), *Desert Brolgas* (in the NE of South Australia), *In the Riverina* (central New South Wales/Victoria border country), *Beneath the Grampians* (SW Victoria), and *Bool Lagoon* (extreme SE South Australia).

The following caught my eye: it is not the Paradise Riflebird between Townsville and the Daintree but Victoria's Riflebird (p. 33); bowerbirds' bowers are not 'woven' (p. 59); while Gavin Blackman did important brolga work (p. 121) his unpublished thesis is of 1977 vintage and significant later works (i.e. P. Johnsgard's *Cranes of the World*, 1983; *Handbook of Australian, New Zealand & Antarctic Birds* Volume 2, 1993; *Handbook of the Birds of the World* Volume 3, 1996) might have also been cited. While it is true that Brolgas occur in 'Papua New Guinea' what Reardon meant is 'New Guinea' the island and not just its eastern half. A photograph caption describes a flock of Grey Teal, but it also contains nine Pink-eared Ducks (p. 150). These minor points distract not at all from a well-written enjoyable read of some, if superficial, significance to the status and conservation of Australian cranes and their habitats.

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