

Book reviews

HANDBOOK OF AUSTRALIAN, NEW ZEALAND AND ANTARCTIC BIRDS

VOLUME 7: BOATBILLS TO STARLINGS

Edited by Peter J. Higgins, John M. Peter and Sid J. Cowling
2006. Published by Oxford University Press, Melbourne. Part A, 1055 pp.; Part B, 928 pp. Hardback, \$A675, ISBN-10: 0-195-53996-6 (Volume 7 set).

HANZAB is, quite simply, and without the slightest room for doubt, the most important scientific work ever published on Australasian natural history—and it is difficult to imagine anyone alive today seeing it superseded. The final volume is now published and, at the end of such an enormous project, it seems appropriate to review not only the final volume but also the entire series; this is what the editors of *Emu* invited us to do.

Reviewing a book objectively is not easy, and reviewing a complete series is even more delicate. First of all the mere figures themselves are impressive: seven volumes, providing full details for 957 species (almost 10% of the global avifauna) and running to over 9000 pages jam-packed with information; 413 colour plates; work carrying on over 25 years, involving over 500 contributors, most of them unpaid volunteers; and a final cost of some \$A8 million. But the figures do not tell the full story—indeed, they barely scratch the surface. The completion of *HANZAB* represents the dedicated efforts of a relatively small number of pivotal people over a large chunk of their working lives, against considerable odds.

In 1981, the Council of the RAOU (now Birds Australia) decided to undertake the handbook project, no doubt inspired by the ground-breaking example of the *The Birds of the Western Palearctic (BWP)*. It was originally intended as a purely Australian handbook, but subsequently New Zealand and Antarctica were included. At first it was planned as a total of four volumes to appear over ten years, but in the end it has amounted to seven (effectively nine) volumes and has taken 25 years, although the gap between first and last volumes has been merely 16 years—a remarkably short period to have to wait for a comprehensive guide to all of the birds of such a rich region.

The geographical scope of *HANZAB* can be defined as Australia, New Zealand, Antarctica and all their offshore islands; the sub-Antarctic islands; and an assortment of other associated islands, namely the Cocos-Keeling group, Christmas, Lord Howe, Norfolk, the Chathams and the Kermadecs. When taking any decision of where to ‘draw the line’, there are always those who say that the line should have been drawn a bit further afield. In this particular case, the ornithological world would have been delighted to have such a handbook covering the birds of the nearby Papuan sub-region, but, as we are already talking about a colossal undertaking, imagine how much more difficult it would have been to include New Guinea, the Bismarck Archipelago, the Solomons, New Caledonia, Vanuatu and so on—and then some might have complained about the exclusion of myriad South Pacific islands! If we recall that the handbook was originally planned to cover only Australia, we realise that the very welcome additions of New Zealand and Antarctica already had a huge impact on the work-

load, especially on the first volume, in which the vast majority of Antarctic species were covered; indeed, these changes are almost entirely responsible for the originally planned first volume outgrowing itself by so much. An uninformed guess suggests that including the Papuan sub-region and Oceania would have required at least three more volumes, involving additional experts—and might have sunk the entire project on logistics before it ever got going.

The taxonomy is based generally on Christidis and Boles (1994, *The Taxonomy and Species of Birds of Australia and its Territories*, RAOU Monographs 2) for macrosystematics and species, and Schodde and Mason (1999, *The Directory of Australian Birds*, CSIRO Publishing) for subspecies, which seems eminently sensible, as these are the standard regional works. Logically, in a series that spans 16 (25) years, it is impossible to achieve total taxonomic consistency, as some decisions taken at the beginning would surely have been different if matters in question had been examined at the time of publication of latter volumes.

The first volume grew so much from what had originally been planned that, to start with, the raptors had to be postponed to Volume 2, and subsequently even this was not enough to accommodate the flow of information, with the result that Volume 1 had to be divided into two tomes, A and B, both weighty volumes in themselves. There is no doubt that this splitting of a single volume into two was aesthetically unsatisfactory, but equally the quantity and quality of information provided was so astounding to those of us not involved in the project that this small niggle was quickly forgotten. On the basis of all that we had seen of what had gone before, we had anticipated something around a quarter of the amount that actually emerged. Instead, here was something to rival the ornithological literature on any part of the globe. The alterations to the original plans suggest that everyone was somewhat taken by surprise! It is perhaps fitting that the series ended as it began, with the last volume also having to be split into two parts, totalling almost 2000 pages.

Of course, quantity is one thing, but quality is quite another, and there is no doubt that ultimately the latter is the more essential. Happily, *HANZAB* scores extremely well on both counts. Indeed, even on text alone, it must be considered a great success. To start with, each order begins with an introductory text, as does each family. These sections give the essential information on what characterises each of these higher taxa, and in many cases these introductions provide considerably more than is found in corresponding texts in *BWP*. This is especially the case in Volume 5 and subsequent ones, in which behavioural aspects that are common to all members of a family are described in an expanded introduction, thus avoiding repetition of descriptions in series of species accounts. In Volume 1, family introductions ranged from about a third of a page to about one-and-a-half, with a maximum of about three (for Anatidae). By the time we reach Volume 7, these have become more exhaustive, with a minimum of some three pages even for the shortest family introductions. If we consider that, for example, such a distinctive group as Spheniscidae, with its own order, received only one-and-a-half pages in Volume 1, while the far less distinctive Oriolidae receives three pages in Volume 7, the difference is

noteworthy, even allowing for the aforementioned lumping of behavioural material.

The texts themselves were already lengthy in Volume 1, and their growth throughout the series has not been unbalanced, though certainly by the end of the series they have become a fair bit longer on average. Of course, it is impossible to make strict comparisons, as we are talking about different groups of birds with different habits, factors that frequently dictate the intensity with which each species is studied, but a random sample shows (Volume 1) *Casuarinus casuarinus* with some 7 pages of text, *Tachybaptus novaehollandiae* 8, *Dromaius novaehollandiae* 11, and *Pygoscelis adeliae* 16, as compared with (Volume 7) *Myiagra ruficollis* 6.5, *Coracina tenuirostris* 11.5, *Dicrurus bracteatus* 14, and *Rhipidura leucophrys* 24.

The individual species accounts contain an amazing amount of detailed information on topics varying from field identification and distribution to social organisation, breeding, diet and voice, and include highly detailed descriptions of plumage and bare parts, as well as geographical variation. The quality of these texts is admirable, and indeed it comes as a surprise that so much information is presented about species many of which were, we thought, poorly known. Nowhere is the hard work and diligence of the ornithologists involved better demonstrated than in the section on plumages and moults, which entailed a great deal of original study of museum specimens: this took full consideration of individual variation as well as that caused by age and wear, so the descriptions of geographical variation and the related reassessment of subspecies are particularly valuable.

Although identifications and descriptions are nowadays amongst the features of most interest to many ornithologists, it is undeniable that there has been a steady increase in numbers of people intrigued by ethological and other aspects of birds' lives. Such readers will not be disappointed. There is a wealth of information on breeding, social organisation and behaviour, among other topics, and one is repeatedly astounded by the amount of material amassed on even the less well-studied species. In these sections, the inclusion of numerous line-drawings facilitates the understanding of many explanations. The section on voice is likewise revealing, and the accompanying sonograms provide useful comparative material for students of vocalisations.

With handbooks of this kind, it is often the case that the text is written in such a way, frequently concise to the extreme, that it does not make easy reading. This is not so with *HANZAB*, which is relatively free of unnecessary jargon and is—it has to be said—less of a chore to read than are some other big handbooks. Furthermore, anyone who has ever published a large reference book knows just how hard it is to avoid typographical errors and, with an estimate heading towards c. 10,000,000 words in the series, one would expect large numbers; but the quality of writing and/or proof-reading has been high from the outset, and appears to have improved throughout the series, with the result that there are remarkably few 'typos', especially in later volumes.

One aspect we consider *HANZAB* has improved upon in relation to the *BWP* model is in the important matter of bibliographical references. Instead of these being all packed in at the end of each volume they are listed after each species, which makes them more user-friendly. As with the length of the texts,

the average number of references cited also appears to have increased throughout the series, with, for example, 69 for *Tachybaptus novaehollandiae* and 139 for the well-studied *Pygoscelis adeliae*, in Volume 1, compared with 556 in Volume 7 for *Rhipidura leucophrys*—but then perhaps any comparison with the Willie Wagtail is going to reveal an imbalance! One must also keep in mind that 16 years have gone by since the publication of Volume 1, during which much has been published (including 95 of the Willie Wagtail references). A minor quibble is that we think that there is a lot to be said for including the full title of each reference rather than just page and journal numbers, as titles give readers a fuller idea of whether or not a particular reference may be worth pursuing further.

The maps for each species, one for its world range and, when relevant, another for its range within the *HANZAB* region, may initially look a little odd and confusing, especially if one consults the work without reading the *Introduction*. Indeed, the fact that breeding distribution is shown in deep red and both non-breeding distribution and areas of vagrancy in lighter red can at first make the maps hard to understand, and with seabirds this is exacerbated by the fact that the ranges are shown entirely in light red. On the other hand, a particular characteristic of many species in the *HANZAB* region is that they are markedly nomadic, their movements being to a great extent dependent on unpredictable climatic factors such as rainfall, if any, and on the temporary presence of habitat elements and/or food. This being so, it is far more difficult to map the breeding and non-breeding ranges of, say, the Budgerigar, as they are so variable from year to year. Not just for the maps, but also for other aspects of the work, we strongly recommend that those consulting this handbook read the lengthy explanatory *Introduction* to the work as a whole, in Volume 1, as well as that at the start of Volume 5, which presents a revised version of that first *Introduction*.

Plates of bird images are 'obligatory' in modern bird books, and are often the first thing that a potential buyer looks at before deciding whether or not to purchase—not that anyone is likely to invest in the *HANZAB* exclusively for the plates! Plates do, of course, have an aesthetic appeal, but they serve also to present to the reader an accurate image of the species he or she is reading about. Those in this handbook are generally of a very high standard and are remarkably reliable and accurate. The plates are also generous with respect to number of figures per species, as not only do they show the important plumages, in relation to sex, age and geographical variation, but they often include flying birds as well. A specific, yet significant, example of the detail with which the plates have been prepared comes from the discovery, and subsequent description, of a new subspecies of Masked Booby, *Sula dactylatra fullagari*, by the artist J. N. Davies while he was examining museum skins for the plates for Volume 1.

As with the texts, so with the plates, there have been changes in comparison with the original planning, as it was initially intended that J. N. Davies would paint all of the plates. Already by Volume 2 three more artists had been added, by Volume 5 six artists were involved, and in the end a total of ten artists contributed to the series. Nonetheless, the inevitable differences in style are remarkably minor and not at all bothersome, but actually rather effective.

To close this look through the most important aspects of this handbook, and its development over the span of its volumes, our impression is that the quality of production has also followed the general tendency towards improvement, latterly attaining an extremely high standard and perfectly solving a few deficiencies that were present in the first volumes, above all in relation to the reproduction of some plates (some too dark), maps (pink and red areas too similar), and especially some sonograms (too faint). Thanks should also be given for the inclusion, in this last volume, of a complete *Index*, which includes scientific and English names of every species.

How does the *HANZAB* stand up alongside the other regional handbooks, such as *BWP*, *Birds of Africa* and *Birds of North America*? The most obvious comparison has to be with *BWP*, as the format is so similar. In our opinion, the vast majority of what are minor differences end up in *HANZAB*'s favour, particularly in respect of the inclusion of additional details, e.g. etymological explanations of scientific names, inclusion of a list of standard plant and animal names, a list of ectoparasites for each species, and, perhaps most importantly, the much higher profile given to conservation status. Perhaps this slight advantage is to be expected, as *HANZAB* was able to benefit in hindsight from the *BWP* experience, but *BWP* only offered *HANZAB* the template — the thousands of hours of hard work are the merit of the dedicated *HANZAB* team alone. This is not the place for a detailed point-by-point comparison with other regional handbooks, but suffice it to say that our experience with ornithological literature worldwide leads us to conclude that no region has a better or more complete handbook.

We judge the importance of the complete *HANZAB* to be enormous, both for the present and for years to come. This powerful and, no doubt, long-lasting impact is made directly upon the scientific community, where it has already proven itself amply worthy as an essential tool for research. Not only does it provide all relevant information on the region, drawn from an exhaustive variety of sources including theses, unpublished data and personal observations, but it also indicates what is not known, thus efficiently marking gaps in knowledge. In this way, the series serves as a roadmap for future research. Outside scholarly circles, it is also a powerful asset to environmental planners, and an essential reference for important work at administrative and governmental levels, meaning that it is crucial for the conservation of birds and their habitats. In fact, the *HANZAB* provides a considerable amount of conservation information, which has grown with the advance of the series, specific proof being the section established in Volume 5 under *Threats and human interaction*.

We must not overlook the colossal efforts put into the project by the RAOU. Like most ambitious endeavours of this sort, this one has not been without its tensions and difficult moments, especially since the project turned out to be so much larger, more complicated and more expensive than predicted. Now that the series is successfully completed, Birds Australia should feel very proud of what they have accomplished. They deserve an extra round of applause because while in other areas of the world, such as Europe or North America, the numbers of potential buyers would be enough to finance a project of this calibre this is not so in the *HANZAB* region. Birds Australia has earned special merit in obtaining a major part of the necessary

resources through persistent and dedicated fund-raising. Peter Higgins and co-editors and the long list of contributors must be heartily congratulated on their work, as must all who worked on the project at one time or another, or throughout the duration, with special mention of the late Stephen Marchant, first editor of the series. We also extend this appreciation to all members of Birds Australia who have supported the initiative and worked to raise funds for it, including the first principal fund-raiser, the late Norman Wettenhall, RAOU President when the project began. Last, but by no means least, we cannot forget the donors themselves, whose generosity has been a *sine qua non* of the entire project. We toast them all, and invite the world ornithological community to join us!

After all of this richly deserved praise, we should like to finish with a humble suggestion: that, once everyone has had time to rest and recover, it would be desirable to consider the possibility of having *HANZAB* on the 'web', of course with intellectual property protected. We say this as we should like to see the series permanently updated, rather than growing old on shelves. Finally we should add, as a small whispered thought: if, in years to come, the *HANZAB* were to take on some dynamic web form, and considering the importance of Australia and New Zealand in the whole of that sector of the globe, perhaps it could be expanded to cover adjoining regions, including New Guinea and those thousands of islands, in order to build a broader baseline of vital ornithological information. We appreciate that, for practical reasons, this may be out of the question. If so, we shall be quite happy to settle for the amazing work found within these most impressive seven volumes.

Josep del Hoyo, Andrew Elliott and David Christie
Editors, *Handbook of the Birds of the World*
Barcelona, Spain

Also received

BIRD CONSERVATION IMPLEMENTATION AND INTEGRATION IN THE AMERICAS: PROCEEDINGS OF THE THIRD INTERNATIONAL PARTNERS IN FLIGHT CONFERENCE

Edited by C. John Ralph and Terrell D. Rich
2005. General Technical Report PSW-GTR-191. Published by United States Department of Agriculture. 1294 pp. Available free of charge as two-volume soft-bound set or on CD-ROM from Richard Schneider, Rocky Mountain Research Station, 240 West Prospect Road Fort Collins, CO 80526-2098, USA; or by downloading from http://www.fs.fed.us/psw/publications/documents/psw_gtr191/Asilomar/.

The some 200 papers are divided and grouped as follows: *Introduction* (10 papers). *Bird Initiative Conservation Planning and Plan Implementation*: Setting population-based objectives for conservation (2); Measuring the success of conservation plan implementation (3); Planning of conservation actions (4); Pacific Coast – Mexico to Alaska (12); Interior western US,

western Canada and Mexico (3); Midwestern US and prairie Canada (3); Northeastern US and eastern Canada (6); Southeastern US, Caribbean, eastern Mexico (3). *Integration of Bird Conservation Actions-Projects, Management, Outreach, Education, Research and Monitoring*: Broadleaf forests (9); coniferous forests (7); Coast and estuaries (6); Grasslands (7); Riparian (9); Shrublands (7); Desert and mountain islands (2). *Migration*: Addressing conservation needs of birds during their migration (6); Networks for monitoring landbird migration (7). *New Methods of Analysis, Archiving and Data Taking*: Advances in statistical analysis (9); Formulating management strategies by modeling demographic parameters (3); Advances in surveys and monitoring (10); Program for regional and international shorebird monitoring (4); Regional monitoring programs (8); Monitoring and research programs for the 21st century (6); Using the internet for bird monitoring projects and information distribution (3). *Outside Factors Affecting Bird Populations*: Anthropogenic Causes of Bird Mortality (5); Fire and avian ecology of North America (6); Changing climate and bird conservation (5); Other factors affecting birds (1). *Conservation Implementation at all Levels*: Bird conservation in practice: strategies for multiple species and scales (5); Integrating bird objectives into federal land use plans (5); Private lands programs (5); Using geospatial information and models in regional bird conservation planning (5); Using important bird areas to conserve critical bird habitat (8). *Birds and the Public: Outreach of Bird-related Topics* (3). Although dealing with issues in the Americas, this publication obviously contains much of significance to bird conservation elsewhere, particularly the contributions under latter major headings.

TERRESTRIAL VERTEBRATES OF TIDAL MARSHES: EVOLUTION, ECOLOGY, AND CONSERVATION

Edited by R. Greenberg, J.E. Maldonado, S. Droege and M.V. McDonald

2006. Studies in Avian Biology No. 32. Published by the Cooper Ornithological Society. 339 pp. Paperback, \$US24 (including shipping and handling), ISBN 0-943610-70-2.

Results of a symposium held at Maryland, USA in October 2002. There are 20 papers, 11 of which are exclusively ornithological and 7 partly so (see titles), by 50 authors, divided and grouped as follows: *Introduction*: Tidal marshes: home for the few and the highly selected. *Biogeography and Evolution of Tidal-marsh Faunas*: Diversity and endemism in tidal-marsh vertebrates; Evolution and conservation of tidal-marsh vertebrates: molecular approaches. *Adaptation to Tidal Marshes*: Avian nesting response to tidal-marsh flooding: literature review and a case for adaptation in the Red-winged Blackbird; Flooding and predation: trade-offs in the nesting ecology of tidal-marsh sparrows; Osmoregulatory biology of saltmarsh passerines; Social behaviour of North American tidal-marsh vertebrates; Trophic adaptations in sparrows and other vertebrates of tidal marshes. *Regional Studies*: Breeding birds of northeast saltmarshes: habitat use and conservation; Impacts of marsh management on coastal-marsh birds habitats; Environmental threats to tidal-marsh vertebrates of the San Francisco Bay estuary; Are southern California's fragmented salt marshes capable of sustaining endemic bird populations? *Conservation Biology*: High tides and rising seas: potential effects on estuarine waterbirds; The impact of invasive plants on tidal-marsh vertebrate species: common reed (*Phragmites australis*) and smooth cordgrass (*Spartina alterniflora*) as case studies; Tidal saltmarsh fragmentation and persistence of San Pablo Song Sparrows (*Melospiza melodia samuelis*): assessing benefits of wetland restoration in San Francisco Bay; Multiple-scale habitat relationships of tidal-marsh breeding birds in the San Francisco Bay estuary; The Clapper Rail as an indicator species of estuarine-marsh health; A unified strategy for monitoring changes in abundance of birds associated with North American tidal marshes; An agenda for research on the ecology, evolution, and conservation of tidal-marsh vertebrates. There are numerous maps, figures and tables and a 40-page bibliography lists approximately 1,200 references. These American studies are of interest and value to students of avifaunas of the, rapidly disappearing, Austral tidal marshes. Available from Cooper Ornithological Society, c/o Western Foundation of Vertebrate Zoology, 439 Calle San Pablo, Camarillo, CA 93010-8506, USA.