

Book reviews

INVISIBLE CONNECTIONS: WHY MIGRATORY SHOREBIRDS NEED THE YELLOW SEA

By Jan van de Kam, Phil Battley, Brian McCaffery, Danny Rogers, Jae-Sang Hong, Nial Moores, Ju Yung-Ki, Jan Lewis and Theunis Piersma

2010. Published by CSIRO Publishing, Collingwood, Vic., Australia. 160 pp., colour photographs, colour illustrations, line drawings. Paperback, \$49.95, ISBN 9780643096592.

When earlier this year people were stranded at airports around the world because the Icelandic volcano Eyjafjallajökull erupted after laying dormant for centuries, we suddenly realised how interconnected our lives are. The eruption momentarily made us very aware of the interdependencies in our aerial transportation system, and of what happens when one link is removed.

Long-distance aerial migration, although still relatively new for our own species, has been a way of life for migratory birds for eons. Many of these flyways between birds' breeding and wintering grounds are only recently being identified, facilitated by advances in GPS-telemetry. Some of these flyways are comparable in size to human flyways, and can cover up to 10 000 km. Consequently, we are becoming increasingly aware of the dependencies of birds on stopovers sites along the way. The book *Invisible connections: why migratory shorebirds need the Yellow Sea* describes such interdependencies along the East Asian–Australasian flyway, and warns that the Yellow Sea might be the avian equivalent of Eyjafjallajökull.

The book is illustrated by photographer Jan van de Kam and written by an international group of biologists that have been studying the migration ecology of these shorebirds for many years. The book was originally published in 2008 on the occasion of the Ramsar conference on the protection of wetlands, held in South Korea. The original version included English, Chinese and Korean text, but in this revised version the Korean and Chinese text has been omitted, and the English text has been expanded. Notwithstanding, the book is still primarily a photographic journey along the flyway, interspersed with eight short intermezzo's (four pages each) about key aspects of the migratory shorebirds and their habitat. As such, except for the soft-cover, the book has a classical coffee-table book design in both contents and layout.

As with any coffee-table book, the reading experience is primarily determined by the quality, choice and presentation of the images. And the book really delivers on this point. The hundreds of photographs range from striking landscape views to beautiful close-ups of flying, foraging and nesting shorebirds. The ecology of shorebirds is a challenging topic to photograph, as their appearance can be somewhat dull – especially by Australian standards – and they primarily live in grey-brown-bluish environments, such as intertidal mudflats. Nonetheless, the overall appearance of the book is colourful and the many 'action-photos' of birds give a very dynamic feel that fits well with the topic of migration.

One aspect I particularly appreciate is the fact that in contrast to many nature books, the book also includes some beautiful pictures of birds in environments that are less than pristine.

Shorebirds have been quite unlucky in that the human species happens to share many of their preferences: we also like to live and work in coastal habitats and have a similar fondness of seafood. This competition between humans and shorebirds is nicely illustrated by Jan van de Kam's images of birds and humans searching side-by-side for their food, each with their own specialised tools. Another illustration of this are photographs of the well known enormous flocks of shorebirds, only to be outnumbered by the humans living in the skyscrapers rising in the background.

The accompanying text in the eight short chapters gives an overview of key aspects of the ecology and life-history of migratory shorebirds in general, and those of the East Asian–Australasian flyway in particular. These topics include an introduction to the species involved, a description of the flyway with specific focus on the tundra breeding grounds and their southern wintering grounds, and an overview of shorebirds feeding ecology on intertidal flats. These chapters do not aim to give a thorough introduction to the field of migration ecology of shorebirds (e.g. no references and figures), but aim to tell a story 'David Attenborough'-style to fascinate the reader.

The first and final chapters address the subtitle of the book: 'why migratory shorebirds need the Yellow Sea'. The Yellow Sea, which lies in between China and both Korea, is one of the world's largest intertidal areas, where the conflict between humans and shorebirds is at its most severe. About two million shorebirds annually pass through the Yellow Sea during northward migration, and over 10% of the human world population live along the shores of the Yellow Sea. Over the years, land reclamation has halved the amount of available intertidal habitat, and the remaining areas are overfished and subject to pollution and erosion.

Clearly, one does not need to be a rocket-scientist, or even a shorebird ecologist for that matter, to understand that conditions must have strongly deteriorated over the years for shorebirds that use the Yellow Sea as a stopover site. It also seems evident that this is not only going to affect the numbers of birds that can be seen in that region of the world, but also affect the numbers of birds overwintering in Australia and New Zealand, as well as the numbers breeding in Siberia.

Regrettably, the authors do not take the reader much further than this on their quest to raise awareness of the importance of the Yellow Sea for the flyway. For example, other than a summing up of how many individuals of each species use the Yellow Sea, it remains unclear what the population trends are, or if such data are available at all. Furthermore, little is stated about how much of the remaining habitat is under direct threat and how much is (starting to be) protected by each of the countries directly involved. Finally, one wonders whether some species have or will be able to change migration routes using alternative stopover sites (can they fly around Eyjafjallajökull?).

In conclusion, this book provides a visual journey across the East Asian–Australasian flyway and also raises awareness of the enormous ecological pressure on one of the main stopover sites in this flyway. The scientist in me (having worked on shorebirds) was left feeling a bit unsatisfied after reading this book because it does not give detailed answers to several key questions about the

future viability of the Yellow Sea as a migration stopover. However, the book did get me very interested in the problems that shorebirds face at the Yellow Sea and gave plenty food for thought, which is what coffee-table books are meant for in the first place. Therefore, I have no hesitation in recommending this book to anyone looking for a beautifully-illustrated book about a multifaceted problem, which will also be very accessible and worthwhile for some of our less ornithologically-obsessed friends and family members.

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FARMLAND BIRDS ACROSS THE WORLD

Edited by Wouter van der Weijden, Paul Terwan and Adriaan Guldemond

2010. Published by Lynx Edicions, Barcelona, Spain. 138 pp., colour photos, maps. Hardback, \$55.00, ISBN-13: 9788496553637.

The displacement of bird habitat by various forms of agriculture may be the single most significant cause of species declines and extinction globally, but of course, birds are also a core part of many agroecosystems. This book explores the diversity of agricultural habitats used by birds around the world, with hundreds of examples of alliances and conflicts between birds and farmers. These include Brazilian coffee made from beans found in the droppings of the Rusty-margined Guan (*Penelope superciliosus*), monitoring of critically endangered Northern Bald Ibis (*Geronticus eremite*) by Bedouin herders in Syria and the lengths to which farmers in the UK will go to provide Skylark (*Alauda arvensis*) nesting habitat in cereal crops. The book's appeal rests largely in its mostly high-quality photographs and thorough global coverage of the diversity of how birds interact with agricultural systems. Those with an interest in bird conservation on privately managed lands, agri-environmental policy, and community interaction with wildlife will find this book an interesting and valuable overview of an important issue.

The book is sensibly divided into nine chapters, six of which focus on a particular type of agricultural habitat: grasslands, arable land, rice fields, orchards and the like, coffee and cacao, and farmyards. The latter is a short chapter examining birds that live most closely with humans, and nest in human-made structures such as barns and the eaves of houses. Each themed chapter begins with figures and a map indicating the extent of land to which the theme is relevant, and concludes with a list of bullet points under the heading *Challenges and Opportunities*. Beyond this, the organisation of the chapters varies, with the bulk of the text on grasslands, rice field and coffee and cacao organised by region. Fifty-six case-study boxes are included, which expand on how particular species or taxonomic groups interact with agriculture. Many of these boxes outline a policy or community response to a conservation challenge.

One of the most interesting features of the book is the collection of (brief) case studies outlining efforts by NGOs

and government policies encouraging farmers to live more harmoniously with birds. It is encouraging to read of the diversity of approaches being used to reduce conflict between birds and farmers. The inclusion of some critical evaluation of the success or otherwise of these policies would have added to the interest of these case studies, but the book does not attempt to present in-depth analyses of particular issues.

All the chapter authors are based in Europe or the UK, where one might argue that farmland birds have had the most research attention. Yet the book is certainly not Eurocentric, with each chapter presenting a global perspective fleshed out with examples from all continents. Indeed, the broad geographic scope of this work is one of its strengths, and the authors have consulted regional experts to assist. Nevertheless, the text describing the more local examples with which I am most familiar is occasionally inaccurate or ambiguous. For example, on p. 39 it is claimed that Australia's productive pastures are home to 'several cisticolas', something I am thankful is not the case given my largely unsuccessful attempts to wrestle with identification of this group elsewhere. Other ambiguities perhaps arise more from careless expression: the intended interpretation of the statement that Bush Stone-curlews (*Burhinus grallarius*) are 'now restricted to grassy woodland and farmland in south-east Australia' is unclear. Partly because of such ambiguities, but also because much information is presented in a very brief form, I would find the book more useful if there was a referencing system allowing the reader to trace the information to the source. Instead, there is a reference list ordered by chapter and subheading, which appears to be a small subset of the sources consulted in preparation of this book.

One issue I had hoped to see addressed in a book such as this, and that many may consider the central challenge in attempts to reconcile agriculture and biodiversity, is that of land-sparing versus wildlife-friendly farming. The dilemma is that, although farming with reduced intensity may improve local biodiversity outcomes, a larger area must be farmed to maintain production at the same level. Thus, it may be better in some cases to farm a smaller area more intensively, particularly where this may reduce pressure to convert more land to agriculture. This important issue is only mentioned briefly in some chapters (for example with respect to shade-grown versus intensive coffee plantations) although it earns a small case-study box in the final chapter. In the latter, the discussion concludes that the desired approach depends on the region and its level of contrast between farmland and non-farmland habitats. A more in-depth discussion of this complex issue, acknowledging the global interconnectedness of agricultural commodity markets, may have been a useful addition to the book.

This book attempts to demonstrate the importance of farmland habitats for birds, and in this it is successful. Yet in Chapter 2, it is stated that 'farmland is the third most important bird habitat after forests and shrublands' on the basis that 37% of all bird species globally are considered to utilise farmland in some way. This is a fairly simplistic way to judge importance, particularly since it is also stated that 40% of the earth's land surface not covered by permanent ice is farmland. Many of the birds recorded in farmland are there because of the small pockets of natural habitat remaining. Although I agree with the general message that farmland is an important bird habitat, it is important because it

is all there is, but can hardly be considered more ‘important’ than the other natural habitats listed alongside it including wetlands, natural grassland and savannah. A graph representing endemism within each habitat type, or the number of species compared to the global extent of each habitat type, may have been more informative.

Photography features strongly throughout the book. With most pages dominated by several, generally high-quality, images, the book is visually enjoyable, and it is tempting to skip ahead and browse through the images. Although photographs are mostly close-up images of the various birds discussed, there are images of the different farmland habitats and some interesting aerial views, such as that of the skylark plots on p. 52. The layout is like that of a small textbook, and although it does not delve deeply into specific issues, the book is too informative to be considered simply a coffee-table book.

In Australia, there is still a perception that in agricultural regions, bird habitat equates to remnant native vegetation. Yet it is increasingly clear that farmland contributes significantly to the provision of habitat for birds. Therefore, land-use changes including urbanisation and agricultural intensification can negatively affect birds, even when such changes don’t involve the clearing of native vegetation. This book does an admirable job of collecting and synthesising information to make the case for better recognition of the bird habitat values of farmland globally.

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BOOM AND BUST: BIRD STORIES FOR A DRY COUNTRY

Edited by L. Robin, R. Heinsohn and L. Joseph
2009. Published by CSIRO Publishing, Collingwood, Vic.,
Australia. 312 pp. Hardback, \$39.95, ISBN: 9780643096066.

Some years ago Steve Morton pointed out how very different Australian deserts are to other arid zones around the world – desperately infertile, wildly diverse in ants and reptiles and, above all, climatically variable. It is the response of birds to this variability that is the subject of this book. Though, in a sense, the boom and bust of the Australian deserts is life writ large; at a less extreme scale all species hope to capitalise on the good times the better to ride out the bad. So this book helps illustrate issues far wider than droughts and flooding rains.

It is a book I thoroughly enjoyed, a book on serious science written, one suspects, not just for the readers’ pleasure but the authors as well. A dippy book, each chapter is an independent lens through which to examine some aspect of arid zone life. What comes through is an affection and respect for the different birds. Even poor, long-gone *Genyornis*, waddling to mournful graves in the drying swamps among the chenopod shrublands of central Australia, get a chapter. Mike Smith’s reconstruction of this giant bird’s ecology, and of how it went bust ca. 40 000 years ago, is one of the highlights of the book. It also demonstrates the range of scales at which booms and busts can operate.

Steve Morton’s chapter on Zebra Finches examines the other extreme. He describes how the Finches, thought to be unusual in the speed with which they breed after rain, are now known to track food sources through time and space. Such sophisticated neural mapping allows finches to ride out mini booms and busts, almost on a daily basis. This discovery raises new questions about how the finches develop and maintain these ‘maps’, and how it is that some individuals manage to breed regardless of seasonal conditions. Morton is right that this most well-known of birds, whose desert-bred durability has made it the perfect cage bird, still has much to teach us.

Like those of Smith and Morton, the best chapters revisit the original research of the authors, but in an accessible style that brings the reader closer to both the birds and the people who study them than did the scientific papers on which the research is based. For instance Leo Joseph, an actively practicing geneticist, discusses evolutionary booms and busts. He demystifies some of the puzzles of genetics like the strange case of the White-browed and Masked Woodswallow ‘species’ (whatever that means). Joseph explains that genetics can currently find no difference between the two, which are alike in all but plumage. Even their calls are indistinguishable.

Likewise, Deborah Bird Rose brings to life the detailed regional knowledge of Aboriginal people with whom she has worked. Through Rose’s engaging quotations, individual species tell their Aboriginal interpreters different stories in different places. Such locally specific knowledge also casts light on the birds that tell the stories. In real life these same species of birds may need different adaptations to cope with regional variation in seasonality of rainfall and temperature, food, soil and predators.

Certainly some of David Roshier’s Grey Teal could have done with more local knowledge. Like Burke and Wills, they scoured the deserts around Innaminka (north-east South Australia) for new sources of water. I particularly liked the way Roshier brought to life both individual Grey Teal and his own research experience. One bird he encounters on a protected wetland in South Australia a year after he had fitted a transmitter. Another is found after Roshier rang to ask a station manager along the Birdsville track if he could check the birds on his house dam. The diversity of individual responses to shifting water availability tells a story that contrasts starkly with the migrations of Palaearctic migrants.

Of course one has to be careful not to make birds into humans. I think Rob Heinsohn may go a little too far with his metaphor drawn from White-winged Choughs (not exactly a desert bird but perhaps illustrating that booms and busts in Australia are not confined to the arid zone). Though the research he documents is fascinating and first class, humans fortunately have a wider range of potential responses to bust years than the societal meltdown experienced by stressed choughs.

Some chapters are a little disappointing in that there is little new to tell. The heyday of observations in the 1950s and 1960s, as portrayed by Smith, Joseph and ornithological historian Libby Robin in their introductory chapters, has not blossomed into a wealth of new studies. One suspects that part of the problem is time – booms and busts of the arid zone take too long for the modern research funding cycle. As a result there is, remarkably, still neither photograph nor recording of the Night Parrot, though its persistence is undeniable. This leaves Penny Olsen with little more to do than reiterate the stories of those who found them in

the past – with few new insights. The lamentably late Graham Pizzey, in a chapter that seems a little out of place, is left to tell the tale of a Black-tailed Native-hen irruption from the 1970s. Graham's chapter is written exceptionally well but is there no contemporary author who can shed new insights? Similarly, Julian Reid can but restate the mystery behind pelicans' amazing capacity to detect when inland lakes fill. His rough calculations on the intake of breeding pelicans is novel but he can only repeat longstanding speculations on how birds detect habitat suitability (and for some reason he dismisses volatile compounds carried on the wind). Although these chapters are written well, and are therefore accessible, they lack the immediacy of the other contributions.

Perhaps these additional chapters were needed because most of the authors of *Boom and Bust* live and work in Canberra, or are close working colleagues of those that do, limiting the number of potential authors with arid zone experience. This leaves some obvious gaps – Western Australians like Allan Burbidge and John Blyth have had personal experience searching for ephemeral arid zone parrots. The book could also have featured the excellent recent work by Peter Dostine on the Flock Bronzewing and Mark Ziembecki on the Australian Bustard as well the new insights of wader specialists into that most enigmatic of desert waterbirds, the Banded Stilt. But, in this book's defence, little of this new work has yet been formally published. Perhaps these tales can be told in a second volume. By then we may be able to read the mind map of *nyii nyii*, the Zebra Finch, in its land of extremes and understand just how pelicans find floods and fish.

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ETHNO-ORNITHOLOGY

Birds, Indigenous Peoples, Culture and Society

Edited by Sonia Tidemann and Andrew Gosler

2010. Published by Earthscan, London. 368 pp., 20 tables, 17 figures, 15 coloured plates. Hardback, £60.00, ISBN 9781844077830, \$144.00.

Sometimes a book arrives that rather questions the whole business of book-making. With the arrival of Sonia Tidemann and Andrew Gosler's *Ethno-ornithology*, the average ornithologist (if there is such a species) is being invited into a world of different knowledges. Not only is postmodernism beating its wings at the window, distracting us from our hitherto scientific reading, but indigenous knowledge is being shared, in various media. Roger Jungala King's elegant bird sculpture on the cover, slightly offset, begins our subtle destabilising.

The book is bold, claiming to be the 'first edited collection' of 'indigenous ornithological work from a number of different countries', as well as from indigenous knowledge bases. The book is complex, combining ornithologists, linguists, conservationists and anthropologists, who are described as 'immersed in indigenous knowledge'. At this point, the reader might be wondering whether a book is what is needed. There are enough plates and figures supplied to suggest that the knowledge

of birds that is sought, or shared, does not nest comfortably in printed text.

Three introductory essays deal with these problems of 'knowing' birds, avoiding philosophy but confronting us with indigenous claims to knowing birds in ways beyond our Western paradigms. The opening salvo by Sonia Tidemann, Sharon Chirgwin and Ross Sinclair defines ethno-ornithology in such a loose, sweeping way that I was left wondering what could not be included (pp. 3–12). We are told it covers 'the study of birds', 'portrayals of birds through art, patterns of utilisation, language, life from creation to death, bearers of messages and interactions in everyday life' (p. 5). They say ethno-ornithology 'refers broadly to the complex of inter-relationships between birds, humans and other living things and non-living things, whether in terrestrial or extra-terrestrial spheres or in body or spirit' (p. 5). I'm sure even the publication of *Emu – Austral Ornithology* fits within this generous definition somehow, but one of the gifts of this book is that it leaves the reader to work on such teasing questions.

Then we move straight into hunting birds, a section of four essays designed to set conservationists' teeth on edge, but which opens new perspectives on the allure of birds world-wide. Who killed the huia; the Maori or the scientific collectors? The following section of three essays returns to our knowledge of birds, but specifically the troubled borders between scientific and indigenous ways of knowing. It turns out that those who regularly eat megapode eggs can also generate respectable data on the birds, superior to that collected by scientists' surveys.

The five articles in the fourth section suddenly tip us into indigenous bird names and bird stories. Frustratingly brief and incomplete, it provides windows into relationships and partnerships with birds, where the birds play active roles. Not only does it explain why Raven climbed down the Bull Kelp, it begins to stir those emotional links with birds that readers of *Emu* would acknowledge, but would not expect to pop up in the prose of *Emu* articles, as it were.

Then, in the final section, we return to conservation, but in an atmosphere charged with the awareness that the languages and cultures of many indigenous groups are as directly threatened today as are so many birds. There is even an article based on a Western culture (Chapter 20: 'Can beer bottles save the bitter?'), and some steps towards the revival of older practices within newer contexts. The caged-bird industry in Indonesia may yet create a conservation ethic; Costa Rican birds may yet talk the locals into preserving their forests.

With that, this venture into ethno-ornithology ends, leaving this reviewer crying: Is that all? Tidemann and Gosler are to be congratulated on opening the topic, even launching the discipline, with this collection. They have 'reframed' ornithology as a shared enterprise; they have given indigenous voices some space; they have pushed conservation of birds deeper into the murky area of cross-cultural dialogue and post-colonial politics; they have challenged the hegemony, in ornithology, of Western rational discourse; they have even let the birds speak. There is plenty for ornithologists and bird-lovers to enjoy in this book, if they can accept that plenty of others on the planet share their enthusiasm, in radically different ways.

One article holding particular riches for readers of *Emu* is by Tidemann and Whiteside on Australian Aboriginal wisdom about birds (Chapter 12, pp. 153–180). This article is of interest not least

because the Emu emerges as the second commonest subject in the 447 Aboriginal stories surveyed. Is this a happy coincidence? Tidemann and Whiteside open channels for all Australians, so ubiquitous are birds in the country, and so appealing to most. In fact, there could be a fascinating survey of how birds transcend the cross-cultural and neo-colonial boundaries in Australia, acting as some sort of mediators. The Emu supporting the Australian coat of arms could well be a starting point for such ethno-ornithology, as could possibly be the giant Emu straddling the Milky Way, visible in certain places at certain seasons.

I found the book's treatment of birds and bird knowledge uneven. The specialisations of the authors fragmented narratives that indigenous peoples would probably have performed in a more coherent way. The sprinkling of places explored (Indonesia (three times), New Zealand, Papua New Guinea and Kenya (twice each), Solomon Islands, Melanesia, Honduras, Costa Rica, Tlingit (Alaska and Canada), Australia, India, Europe) and languages (Maya, Malay–Polynesian) is dazzling, but only a sampling. At times the tone of articles objectifies the very people whose opinions and contributions were being sought. In all such inter-disciplinary and cross-cultural work, issues of

sensitivity, ethics, authority, protocols, and intellectual property will have to be faced, in a way that mere scientific enquiry may still be somewhat innocent about. It is in such negotiations that the real work of ethno-ornithology may be done.

The experience of birds as subjects, not just objects of study, which is common to many of these Indigenous accounts, is not as far removed from scientific processes as we might imagine. Anyone who has accompanied ornithologists in the field, to say nothing of bird-watchers, knows the excitement, the passion and the pleasure birds afford us. We don't have to attribute a personality to birds to say they 'inspire' our efforts and our writings. The field of ethno-ornithology may take us further. What if the birds benefit, in some way, from our writing? The theme of conservation runs through this book. Are the birds contributing, through their allure and their appeal to us, to their own survival? This is a scary thought, perhaps, or a delightful one. Ethno-ornithology, as introduced by this book, opens such vistas.

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