

## Book reviews

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The aim of the Alexander Library is to build up a comprehensive collection of literature as a service to ornithologists. Its holdings include an extensive range of periodicals and a large number of reprints drawn from many sources: additional reprints of readers' papers are always welcome. The library has always greatly benefited from its close relationship with the BOU. For many years, all journals received in exchange for *Ibis* have been deposited in the library, as have most of the books sent for review, through the generosity of reviewers and publishers.

In return, as a service to readers, this review section of *Ibis* is organized and edited by Dr Richard Sale ([richard.sale@zoo.o.ac.uk](mailto:richard.sale@zoo.o.ac.uk)), with the help of a panel of contributors. We are always grateful for offers of further assistance with reviewing, especially with foreign-language titles.

Books for review: publishers are kindly asked to send two copies of each title to Richard Sale, IBIS Book Reviews, Alexander Library of Ornithology, c/c Sherardian Library, Plant Sciences Dept., University of Oxford, Parks Road, Oxford OX1 3RB, UK.

DEE, T. **Landfill**. 240 pages, some b&w illustrations, UK: Little Toller Books, 2018, hardback, £15.99, ISBN: 9781908213624

Reading a book starts with looking at its cover. The cover is a beautiful, artistic drawing by Greg Poole of angry-looking Herring Gulls *Larus argentatus*, of which one is eating something undefinable from, given the name of the book, presumably a landfill. Within the book, gulls are a running thread piecing together the chapters, connecting literature, philosophy, sociology and some of biology's larger questions such as speciation. I have learned a lot on topics outside biology of which my knowledge was lacking, and as such I would not classify this as a book about gulls. It is perhaps more a book about gull-watchers and how gulls are connected to humans.

Yet gull biology is covered by conversations with researchers and lifelong gull watchers. For instance, Dr Viola Ross-Smith tells how individual Lesser Black-backed Gulls *Larus fuscus* may differ in personality and habits, and explains how gulls are adapting to human-induced changes in the environment, with some birds now wintering in the UK instead of migrating to west Africa. Gull watching and catching on landfill sites is described in full colour and stench, with a focus on the behaviour of both gulls and gull watchers. During the long wait for dust-carts, an opportunity to canon-net gulls on the Pit-sea landfill, information on gull biology is provided by a conversation with the catching team about what they

have learned from colour-ringing birds. There is also a lively account on the actual catch.

The links with other disciplines makes the book an interesting and original read in many ways. The chapter I most liked described the mid-19th century in London, based on a voluminous survey by Henry Mayhew. Mayhew categorized the chaos of the streets into labour and labourers. The people without jobs were 'duffers' and they did what city-gulls do now, collecting rubbish – one group of duffers collected dog excrement for the tanneries, where it was used to 'purify' leather. The result was the absence of gulls. Such examples give us an interesting perspective on how much rubbish we produce nowadays, and how gulls have profited from our spilling behaviour. Black-headed Gulls *Chroicocephalus ridibundus* started moving into cities in winter during the last part of the 19th century, when working men and boys took their lunch to the Thames to feed the hungry gull mobs. Dee links this to the way gulls have been seen ever since as 'a hungry posse, downmarket incomers from elsewhere, rowdy in town, canny and opportunistic, physically strong and able to work hard, but given the chance, keen on hand-outs and loafing'. My neighbour feels threatened by gulls when eating a sandwich at the beach, even though compared with UK gulls, our Dutch gulls behave politely. Tim Dee puts the fear of gulls nicely into words – 'they live as we do, walking the built-up world and grabbing a bite where they can. At the moment, this largely disturbs us: we

have started fearing gulls for getting good at being among us, and we've begun to hate them for it. We see them as scavengers, not as entrepreneurs – as aliens not as refugees. They steal our chips and kill our chihuahuas.'

As this book is not aimed at biologists but at a wider audience, those who dislike gulls will hopefully appreciate their occurrence in cities more by understanding our own waste-full behaviour. For biologists it is also certainly interesting and entertaining to read.

**Rosemarie Kentie**

KAPLAN, G. **Australian Magpie, Biology and Behaviour of an Unusual Songbird**. 280 pages, numerous illustrations and photographs. Collingwood, Victoria, Australia: CSIRO Publishing, 2019, 2nd edition, paperback, AU\$45.00, (£38.50 NHBS), ISBN: 9781486307241, [www.publish.csiro.au](http://www.publish.csiro.au) and [www.nhbs.com](http://www.nhbs.com)

This detailed monograph, now in its second edition, focuses on one of the most well-known species of bird in Australia, the Australian Magpie *Cracticus tibicen*. The author describes not only the origins and biology of this much-loved species but also covers the long history and iconic status of the species, with the Australian public providing a wealth of knowledge in a single source.

The content is well researched, well referenced, including some of the most recent research into the species, and comprehensive, covering all aspects of the bird's history and biology. The first two chapters cover the evolutionary origins of the species and recent changes in classification, and describe the numerous subspecies throughout Australia. There are also references to the long connection the Aboriginal people have with the magpie.

The next three chapters discuss anatomy, the brain and cognition, and how these adaptations support the species' varied diet and hunting techniques. These chapters also contain useful comparisons to other members of the family Artimidae and other common Australian species, highlighting key differences and relating these to behaviour and diet for context.

Behaviour, social organization, breeding and survival are then discussed in detail, highlighting the very complex social interactions and hierarchies in the species. The extensive period of parental care and teaching that is invested in offspring is also discussed and the differing roles of the two parents during the breeding season is described. Song production and communication are also well covered with a wealth of information on the extensive repertoire of calls and how these form part of the species' social organization and its communication of hazards.

The final chapter discusses the long and complex relationship between magpies and humans. The threats faced by the birds as a result of human association are

covered along with the relationship, both good and bad, that the magpie has with the Australian public.

All chapters are well researched and detailed but easy to read and the references are extensive, allowing the reader to follow up on areas of interest. There are numerous plates and figures highlighting observations made in the text: even complex scientific matters are written in an easily understandable way with figures or plates to help describe the key points to the reader.

There is something of relevance for everyone in this book, from the casual observer just interested in their local magpies to researchers for whom this book forms a detailed source of knowledge on the Australian Magpie with many pointers to additional material.

**Jonathan T. Coleman**

PELLOW, M. R. (ed.). **Wildlife and Wind Farms, Conflicts and Solutions (4 volumes)**. Exeter: Pelagic Publishing, paperback, £49.99 each volume, also available as ebook and pdf.

*Volume 1 (Onshore: Potential Effects)*, 290 pages, 2017, ISBN: 9781784271190.

*Volume 2 (Onshore: Monitoring and Mitigation)*, 220 pages, 2017, ISBN: 9781784271237.

*Volume 3 (Offshore: Potential Effects)*, 290 pages, 2019, ISBN: 9781784271275.

*Volume 4 (Offshore: Monitoring and Mitigation)*, 330 pages, 2019, ISBN: 9781784271312.

In many places around the world, wind energy is increasingly part of efforts to reduce reliance on fossil fuels and facilitate a transition towards renewable energy. Concerns about potential ecological effects of wind farms, requirements for impact assessments before or after construction, and a need for ecologically sound solutions for potential conflicts have led to a wealth of research and a large body of literature across a broad range of topics. This four-volume series provides a much-needed overview of the potential effects of wind farms on wildlife and local ecosystems as well as potential solutions. Due to inherent differences between onshore and offshore wind farms, the series is divided into four volumes written by leading experts in the field, although the writing style is very accessible for a broad professional audience. The four volumes are similar in structure and topic coverage, and each can be read independently. Much attention has been given to creating a clear and consistent layout with a generally well-balanced number of tables, quantitative and schematic figures, photographs and boxes summarizing key topics and case studies. Each chapter has the same general structure, and each volume ends with a helpful subject index. Volumes 1 and 2 have been reviewed previously; see for example an extensive review by Skov (2019) and a review emphasizing the work on bats by Bogdanowicz and Danilo (2017).

### **Volume 1: Onshore: Potential effects**

Volume 1 has 11 chapters. Chapter 1 provides a brief and very informative introduction to wind farm design as well as legislative procedures related to planning and environmental impact assessments with a box devoted to the relevant European directives. Chapter 2 focuses on modelled impacts on climate from micro to global scales. Chapter 3 covers the effects on vegetation during both construction and operation due to changes to infrastructure and habitat quality, with Chapter 4 looking at how such changes influence species composition and the abundance of terrestrial invertebrates. Chapter 5 looks at the effects on water quality, hydrology, habitat fragmentation, etc., and potential changes on aquatic organisms – plants, macro-invertebrates and fish. Unlike birds and bats, there is little research on the impact of wind farms on reptiles and amphibians, as Chapter 6 notes before nicely summarizing the potential effects of access roads, increased fire risk, changes to microclimate and electromagnetic pollution. Chapter 7 focuses on the displacement of birds and the barrier effects of wind farms, integrating numerous studies across a wide range of species and addressing the lack of consistency in findings. Similarly, Chapter 8 synthesizes a wide body of literature on bird mortality and addresses the factors (and challenges) influencing collision assessment. Chapter 9 briefly addresses the similarities and differences between birds and bats, discussing why bats are killed by wind turbines. Chapter 10 concerns the effects of turbine noise, and increases in traffic and human activities, with Chapter 11 covering the need for a more integrative approach to assessing and understanding the ecological effects of wind farms.

### **Volume 2: Onshore: Monitoring and mitigation**

The nine chapters in this volume focus on birds and bats. The opening chapter provides a great overview of baseline methods and potential biases in bird monitoring, concluding that despite standardization of survey methods, potential biases in fatality estimates remain relatively large. The volume underlines the urgent need to develop standards for more robust and quantitative survey methods relying more on telemetry, radar and thermal imaging technologies than on visual observations. Chapter 2 focuses on bats. It illustrates how turbine impact studies are usually undertaken with inexpensive methods (e.g. acoustic and fatality surveys), but that there is a benefit in using thermal cameras and radar to gain further insights into bat activity. Such measurements can also provide input to collision rate estimation. Chapter 3 explains the different collision risk assessment models and their impact on population

viability, succeeding well in describing both model usage and limitations. However, developments since 2015 are not covered. Chapter 4 covers the statistical principles of fatality monitoring, showing how data from specific probability models and observed counts are combined to estimate the total number of fatalities at a site, nicely complementing the methods presented in Chapter 1, although newer models (e.g. R packages) are not covered. Chapter 5 describes the reduction of collision risks through the application of sensitivity maps, providing a broad overview of current mapping systems, mapping approaches and their limitations in spatial planning. Chapters 6 to 8 focus on mitigation efforts, Chapters 7 and 8 providing useful examples of the application of mitigation strategies for birds and bats. The final chapter focuses on future planning of environmentally sound wind energy development, with a review of current planning and mitigation measures, and suggests 11 priorities, which all seem highly relevant, but perhaps lack the use of predictive models in the planning process.

### **Volume 3: Offshore: Potential effects**

Volume 3 has an overview of the potential effects of offshore wind on ecosystems and environments. In terms of structure it mirrors Volume 1, which may be helpful for making comparisons between onshore and offshore sites. The volume begins with a comprehensive overview of the nature of offshore wind farms, discussing the technical aspects of construction, operation and decommissioning at an accessible level. Policy and legislation are also discussed, providing overviews of country-specific policies as well as global conventions. All subsequent chapters then provide reviews of the known effects of offshore sites on specific environmental or ecological groups. Chapters 2 and 3 review purely environmental effects, including physical (currents and wave movements) and chemical (chemical spills during construction and operation) effects. Subsequent chapters have an ecological focus, reviewing the impacts on seabed communities (Chapter 4), fish (Chapter 5), marine mammals (Chapter 6), migratory birds and bats (Chapter 7), and seabird displacements and collisions (Chapters 8 and 9). Overall, these chapters comprehensively summarize known science, disseminating it in an accessible way for the general reader. Key single potential effects are described (e.g. pile driving noise impacting marine mammals – Chapter 6) as well as some cumulative effects (e.g. the energetic impact of avoiding wind parks on certain seabird species – Chapter 8). The focus is on what is already known in the various fields, with comments on future research aimed at reducing uncertainties by improving models, collecting more data, and deepening fundamental ecological knowledge.

## Volume 4: Offshore: Monitoring and mitigation

The final volume considers monitoring and mitigation for offshore wildlife, with a similar structure to that of Volume 2. The volume begins with monitoring of the most important animal groups: invertebrates and fish (Chapter 1), mammals (Chapter 2), and birds and bats (Chapters 3–6). Of these groups, birds receive the most attention due to the available expertise and literature on the subject. For birds, a distinction is made between methods suitable for pre-/post-development monitoring (Chapter 3: Surveying and Chapter 4: Tracking) and tools specifically designed for monitoring avoidance behaviour and collision risk at operational wind farms (Chapter 6). Additionally, collision risk modelling and its inclusion in population-wide assessments is discussed (Chapter 5), although for a comprehensive overview of different collision risk models one has to refer back to Volume 2. Chapters 7 and 8 consider wildlife impact mitigation, focusing on noise effects during construction (Chapter 7) and bird-specific mitigations post-construction (Chapter 8), as these are the main sources of wildlife conflict. The volume concludes (Chapter 9) with the implications for marine spatial planning, discussing several examples of offshore wind farm planning schemes. At present the volume is the most comprehensive body of work regarding offshore wind energy and wildlife impact monitoring and mitigation, this being a still-developing field.

## Concluding remarks

We consider these four volumes to provide an excellent introduction and overview into the broad range of effects of wind farms on ecological systems, and on monitoring methodologies and potential mitigation measures. The volumes are highly recommended to anyone interested in the field – students, researchers, consultants, practitioners and policy-makers, even if their focus is only on a single taxonomic group. Due to the imbalance in research conducted worldwide, as explicitly mentioned by the editor and authors, Volumes 1 and 2 provide contributions mainly from North American and Europe and Volumes 3 and 4 have a stronger geographical bias towards research in western Europe. That understandable bias will hopefully be more limited in the future as data from other parts of the world become available. Several chapters would have benefitted from cross-references between chapters, but the final chapter of each volume generally integrates information well, highlighting gaps in our knowledge and providing some suggestions for the future. In this quickly growing field, where a great deal of work is not published in peer-reviewed journals, these highly informative and accessible volumes are a great place to start, as they are structured to facilitate both quick referencing and more in-depth reading.

## REFERENCES

BOGDANOWICZ, W. & DANILO, R. 2017. Book reviews. *Acta Chiropterol.* **19**: 452, 455–456.

SKOV, H. 2019. Wildlife and Wind Farms. *Conservation Biology* **33**: 486–488.

**Judy Shamoun-Baranes, Elspeth Sage, Jens van Erp & Emiel van Loon**

PENTERIANI, V. & DEL MAR DELGADO, M. **The Eagle Owl. 384 pages, 16 colour photographs and 121 b&w figures, London: T & AD Poyser (Bloomsbury), 2019, £59.99, ISBN: 9781472900661, <https://www.bloomsbury.com/us/special-interest/natural-history/birds/poyser>**

How exciting to be writing about the world's largest owl! This new book represents 30 years of research on a Eurasian species that is so much bigger than the North American equivalent. A wide distribution requires double the usual number of colour plates to illustrate the variety of nesting sites and habitats. Information drawn from about 1200 references, and many more personal communications, make this one of the most thoroughly researched books in the Poyser Series. The artwork at chapter headings and on the cover, by Tom Björklund and Giulia Bombieri, is exquisite, too.

The first four chapters handle the morphology, distribution, nest-sites and breeding densities, followed by two chapters on feeding ecology and interspecific interactions. All are important for the growing number of people who wonder whether this may be a key top predator for impacting populations of middle-sized raptors that take game and poultry. Like most other owls, the species clearly uses small mammals, which tend to be nocturnal, as its staple. Rodents are its main prey across much of its range, ideally rats, but voles as well if there are few rats available, whereas in southern parts of its range and especially Iberia, rabbits become important. However, it also tends to kill goshawks, buzzards and many other species of diurnal raptor, as well as smaller owls, and clearly reduces their breeding numbers. Whether Eagle Owls *Bubo bubo* also impact a large proportion of non-breeders among healthy raptor meso-predators remains to be seen, and hence just how much help this species could be for farmers and gamekeepers.

The volume will set the scene for such work by researchers who are holistic in their approach to species and ecosystems. It is very much a book for scientists, with a tendency to read like papers in journals: text, analysis and some diagrams are quite complex. Nevertheless, the lighter approach in recent Poyser books is there, too, such as the story of how an owl may have influenced the result of a football match in Helsinki. There are a few mistakes, but these won't mislead. For

example, in figure 75 it is clear that for a species hunting by night the records should be from sunset to sunrise and not vice versa. And the use of 'snow gale' for blizzard is rather delightful.

Chapters on the Eagle Owl calendar and breeding performance, based on a large number of nesting studies, are followed by two chapters in which radiotracking illustrates home-range behaviour and dispersal. Although data from studies of 1–34 owls are not large samples, imagine VHF tracking owls on foot at night before the advent of tags using a Global Positioning System to record their own locations! The quality and quantity of data from such GPS tags compensates for high cost and hence smaller samples of birds, providing good material to show preferences for hunting in more open and wetland-interspersed areas, that home-range relationships with those of other Eagle Owls change with age and stage of breeding cycle, and that dispersers clearly use more secluded perch positions compared with breeding pairs. GPS tags are excellent for dispersal studies, too, leading to fascinating findings of longer and more strongly unidirectional flights at such times, which occur especially on moonlit nights.

Who would have guessed, before reading the chapter on mortality, that the largest single cause of death registered for ringed Eagle Owls is electrocution? Electrocution accounts for nearly a third of deaths and with collisions (mainly with wires) accounts for nearly half. As in other raptors, there may be some finding bias in ring recoveries because natural deaths are found more frequently when birds are radiotagged. High proportions of rings are also recovered following illegal killing in some parts of France, Russian and Spain, accounting for another 27% of deaths among the ring recoveries.

One wonders a little why the chapters on vocal and visual signalling are the last two in the book, but in fact they make a good finale. The authors were able to relate calls in great detail to a number of factors, and to show that in a rich-prey environment they seem to be an honest signal of male quality. Other elegant findings concern how the location of calling points relate both to the nest and to the home-range during nesting. Did you know that Eagle Owls and owlets have large patches reflecting UV-light? Read the last chapter to discover why.

**R. E. Kenward**

**TOMS, M. *Garden Birds*. 452 pages, numerous tables, graphs, diagrams and colour photos. London: HarperCollins (New Naturalist No. 140), 2019, hardback £60, ISBN: 9780008164744, paperback, £35, ISBN 9780008164751, www.harpercollins.co.uk**

One is so used to lightweight anecdotal books or simple identification guides to 'garden birds' that this heavy-weight tome devoted squarely to the science of

anthrophilic avian visitors is almost a shock. Mike Toms has overseen the British Trust for Ornithology's (BTO) garden ecology team for over a decade, and this comprehensive monograph reflects this dedication. Although clearly aimed at the British market, and largely discussing the results of BTO projects and research, comparative material from all over the planet is brought in where relevant, and of course many of the principles of how and why birds use gardens, particularly urban and suburban ones, apply worldwide.

The text is set out in six subject chapters, followed by a long section of profiles of individual species that visit British gardens. The first chapter, 'Gardens and birds', is an overview of gardens and their various composition, which birds use gardens, their status, garden bird communities and urban impact, a bit on disease and the intriguing information that garden birds tend to have shorter telomeres than rural ones, an indication of poorer rearing conditions. Next comes 'Food and feeding', which covers both what foods birds find naturally in gardens and more extensively what is offered by humans, and its regional and temporal variation in provision and use. The massive increase in both the quantity and sophistication of feeder fodder in recent decades has had a big impact, witness the increases in Goldfinches *Carduelis carduelis* and wintering Blackcaps *Sylvia atricapilla*, and the widespread preponderance of Woodpigeons *Columba palumbus*, which used to be almost entirely rural.

The next section, 'Nests, nest-boxes and breeding', looks at the difficult question of estimating breeding populations in gardens, the relatively poor quality/range of insect food available for nestlings of several species and some general nesting biology. The issue of predation is mostly deferred to the following chapter, 'Opportunities and risks'. Urban lighting and a warmer microclimate bring forward the timing of feeding, breeding and moult, while disease and predation, primarily by corvids and cats, have negative effects, although different studies give varying results as to whether such predation is additive (reduces populations) or compensatory (removes weak/surplus individuals with no long-term effects). Disease is a problem where birds congregate and defecate (as around feeders): salmonella may lead to mortality, and the impact of *Trichomonas* on Greenfinches *Carduelis chloris* and Chaffinches *Fringilla coelebs* is explored. The influence of pollutants and pesticides in gardens remains unclear and understudied. A short chapter on behaviour follows, which mostly describes normal activities that birds perform in gardens, but retells the classic story of tits Paridae discovering how to rob milk-bottles, and the complex and often polyamorous mating systems of Dunnocks *Prunella modularis*. Garden birds are less wary of humans than rural conspecifics, and Toms briefly mentions hierarchies at feeders, without detail.

The final chapter before the species accounts, 'Birds, gardens and people', focuses on two aspects. First the

'ecosystem services' supplied by garden and birds – i.e. the benefits to human well-being of gardens and their birds, although some birds are perceived as 'disservice' agents – generally for nesting in/on buildings (e.g. House Sparrow *Passer domesticus*, Starling *Sturnus vulgaris*) or as predators (e.g. Magpie *Pica pica*). A depressing fact highlighted is that 'urban residents are largely unaware of the biodiversity around them', leading to 'extinction of experience' and a dislocation from nature. Where I live in Oxford this dislocation is particularly noticeable in two groups – many landlords and some immigrant communities prioritize car parking and no-work gardens (paved or lawn) over anything wildlife-friendly: television promotion of patios and decking cannot have helped either! Although influences favouring wildlife gardening are covered by Toms, there is nothing on the counter-influences. The main part of the chapter discusses the various citizen science projects past and present that have been used to gather much of the information presented in earlier chapters. The discussion again focuses mostly on BTO schemes in the UK with nods to the USA and Australia/New Zealand. The failure of the RSPB to publish anything significant from their annual January 'Big Garden Birdwatch' is noted – indeed (though I participate) it has always seemed to me to be more of a PR exercise than serious science. While the long-term monitoring projects produce very useful results, Toms avoids discussing some of the less well conceived one-off initiatives – I recall one on winter Blackcap behaviour which was confined to a single day, when in my experience what Blackcaps do in gardens and on feeders varies enormously depending on weather, particularly temperature, not to mention individual and, indeed, sex-related.

Finally, the species summaries. Forty-eight species are covered, including such relative newbies as Red Kite *Milvus milvus* and Ring-necked Parakeet *Psittacula krameri*, and birds of more rural gardens such as Pheasant *Phasianus colchicus*, Brambling *Fringilla montifringilla*, Bullfinch *Pyrrhula pyrrhula* and Yellowhammer *Emberiza citrinella*. The one- or two-page accounts include brief life-history data, a distribution map derived from the 2007–2011 BTO Atlas, a calendar wheel showing garden occurrence by month and percentage of UK gardens visited, and text with garden and general population trends, feeding preferences, behaviour and any particular species-specific idiosyncrasies.

This book is, in short, a state-of-the-art compendium on the ecology of garden birds and, to an extent, of the humans who feed and host them. It includes an extensive 51-page bibliography, and will no doubt remain the go-to reference for some years to come, although climate, agricultural and urban changes will mean the status of garden birds will continue to be in flux.

**Anthony Cheke**

SEATON, R., GILFEDDER, M. & DEBUS, S. **Australian Birds of Prey in Flight.** 144 pages, numerous colour photographs and maps. Collingwood, Victoria, Australia: CSIRO Publishing, 2019, softback, AU\$39.99 from [www.publish.csiro.au](http://www.publish.csiro.au), ISBN: 9781486308668, £35.50 from [www.nhbs.com](http://www.nhbs.com).

Birds of prey are primarily seen in flight and often at difficult angles, at a distance or in poor light. This, and the variation in many species between adult and juvenile plumages, as well as the existence of pale and dark morphs make this a difficult and challenging group for identification.

This photographic guide attempts to address this through a series of photographs of each species at different angles, various poses and plumage variations. The accompanying text highlights key identification features and confusion species, and includes a distribution map. The confusion species are further explored in a series of species comparisons where photographs of differing species are placed side by side so as to highlight the differences between them.

For anyone wanting to learn more about the identification of Australia's birds of prey the book will be an invaluable reference guide and it is small enough to use in the field as well as at home when reviewing photographs or field notes.

**Jonathan T. Coleman**

DOWSETT-LEMAIRE, F. & DOWSETT, R.J. **The Birds of Benin and Togo: An Atlas and Handbook.** 692 pages, 570 colour distribution maps, 62 colour photographs. Sumène: Tauraco Press, 2019, paperback, £34.99, ISBN: 2872250085.

The vegetation zones of West Africa are, in general, stratified latitudinally from rain forest at the coast to desert in the north. The strips are dented by two incursions: the 'Baulé V' extension of savannah into forest in Côte d'Ivoire, and the 'Togo-Benin Gap' in these eponymous countries where savannah vegetation reaches the Atlantic coast. Although re-named as such by some authors (e.g. Turner, B.D. & Cheke, R.A. 1983, *J. Nat. Hist.* 17: 379–404) to eschew the colonialist overtones, the term 'Dahomey Gap' is retained by the authors of the book under review and by others. This is a shame, as Dahomey was the colonial name for the Republic of Benin (known as the People's Republic of Benin from 1975 until 1990), based on the ancient Kingdom of Dahomey centred on Abomey. The Dahomey Gap name does little to reflect the full extent of the savannah incursion that also includes slivers of Ghana to the west and Nigeria to the east, but it is fundamental to the ecologies of the two countries. Togo, advertised as *Africa*

in miniature, and Benin therefore have diverse habitats that are reflected in their avifaunas, a combined total of more than 650 species. Togo birds have been documented before in the BOU Check-list no. 14 (Cheke, R.A. & Walsh, J.F., 1996, *The Birds of Togo*), which is out-of-date given the severe environmental degradations that have taken place since the 1990s. A similar volume was being prepared for Benin, but did not reach fruition. So, the new volume under review is a welcome addition to current knowledge of Africa's birds.

The book begins with an extensive and thorough introductory section covering physical features, history of ornithology, vegetation and major bird habitats, biogeography, the composition of the avifauna, conservation, and an introduction to the systematic list that follows and forms the bulk of the text. Some of this is a very depressing read, as extensive reserves in Togo that used to harbour much rare wildlife have been overrun and destroyed in the wake of political upheavals begun in the 1990s. Each of the introductory chapters has a French summary. Following the authors' initiative of mapping species' geographical distributions according to tetrads in their *The Birds of Zambia* (2008), *The Birds of Ghana* (2014) and other publications, most species accounts are accompanied by maps with presences denoted according to 30' × 30' squares. This is a very useful addition to current knowledge and reflects the authors' extensive fieldwork, also documented with a map, as an adjunct to earlier records. The systematic list includes rejections of numerous records, often well justified, but sometimes only done on geographical grounds based on where a particular taxon ought not to be in the view of the authors. Although alluded to in some cases, such dismissals pay scant attention to the massive habitat degradation that has occurred, in Togo at least, since this reviewer first visited in 1979 and the authors' first trip in 2009. The book ends with an appendix that summarizes ringing recoveries, a gazetteer, extensive bibliography, and indices of scientific names and the common names of birds in both French and English.

The printing has some faults. Some of the figures (e.g. figure 4) are not as sharp as they might be and the photographs are not numbered as separate plates, making references to them difficult; in addition, the outlines of photographs on following pages are visible. Also, photographs from Benin are mixed with others from Togo without any country specification, so readers unfamiliar with the territories will need to look elsewhere in the text to confirm the country of origin. This is also a minor irritant in the species accounts which combine records from the two countries. These criticisms aside, the volume represents the culmination of a huge amount of work in the field and in libraries and museums by the foremost protagonists of African ornithology who, unlike most other observers such as the authors of the Togo check-list eeking out observations in their

spare time, were able to devote full-time to their task. The book is a monument to their perseverance, for which congratulations are due. The book will be the standard work on the birds of Benin and Togo for many years to come.

**Robert A. Cheke**

INSKIPP, C., GRIMMETT, R., INSKIPP, T. & SHERUB. **Birds of Bhutan & the Eastern Himalayas**. 416 pages, 152 colour plates, numerous colour photos and maps. London: Helm Field Guides (Bloomsbury), 2019 (3rd edition), paperback, £24.99, ISBN: 9781472941886, [www.bloomsbury.com](http://www.bloomsbury.com)

In a country of immense natural beauty and charm, this comprehensive guide to the diversity of avifauna in Bhutan and the Eastern Himalayas is an indispensable field asset for budding naturalists and experienced ornithologists alike. The first detailed guide to birds in the Kingdom was published in 1999 and was the only resource of its kind for the historically insular region. As both a visually stunning and functionally valuable resource, the first edition inspired people of all ages in Bhutan to look closer at the avian world.

Now, the 2019 Helm Field Guide, authored by Tim and Carol Inskipp, Richard Grimmett and Bhutan's premier ornithologist, Sherub, not only provides easily referenced information and stunning illustrations, but also a number of critical updates, exactly 20 years later. The regional geographical scope has been extended to include Sikkim & Arunachal Pradesh, local bird watching hotspots in Bhutan are identified, and emerging conservation issues and management measures are nicely detailed and appropriately inclusive.

In addition to an expanded species list of 809, denoting the uptick in birders observing new in-country records, seasonal range maps accompany every listed species across 152 plates. A useful appendix of vagrants and alternative English and generic names is also included. A future edition would benefit from an appendix of names for bird species within the many local languages of Bhutan, including Dzongkha, Shar chop, Bumthap and Khengkha, documenting the richness and encouraging the tradition of Bhutan's folk taxonomy.

Conservation efforts to protect Bhutan's varied avifauna have a strong legacy and a bright future in the country, as more enthusiasts take it upon themselves to observe and record species within a broader community of amateur and expert ornithologists. This beautiful field guide should be in every field vehicle's glove compartment, tourist's suitcase, student's knapsack and ornithologist's hand, alongside a trusty pair of binoculars.

**David Hecht**

SMITH, L. (ed.) **The Birds of Shropshire**. 544 pages with many photographs, maps and diagrams. Liverpool UP for Shropshire Ornithological Society, 2019, hardback, £44.99, ISBN: 9781781382592

REECE, J., CROUCH, N., PARKIN, D., DU FEU, C., & ELLIS, B. **The Birds of Nottinghamshire**. 594 pages, with many photographs and maps, illustrated throughout by M. Warren, Liverpool UP for Nottinghamshire Bird-watchers, 2019, hardback, £44.99, ISBN: 9781789620092.

Offered as a pair in *British Birds* at £50.00.

These two substantial works, each long awaited, have appeared simultaneously. They are presumably the last avifaunas to incorporate tetrad atlases derived mainly from data collected for the 2007–2011 national Atlas. They enhance the high reputation of the publishers for their design and presentation of local ornithologies.

*Shropshire* is the largest of the inland counties of England and has a distinguished history of bird recording, which began with the clergy and squirearchy of the 19th century, was continued by the regular reports from the Caradoc Field Club from 1869 to 1956 (energized from Shrewsbury by Herbert Forrest), and then passed into the hands of the present Ornithological Society. This is an avifauna in the grand manner. Solidly bound, it begins with an excellent history by John Tucker of bird recording in the county. The account of habitats that follows is accompanied by a series of fine photographs, all exactly dated. Shropshire consists almost entirely of the basin of what might be termed the Middle Severn. At the centre, its ancient capital looks west to Wales, north to traditional diary hills, and east to the cradle of the Industrial Revolution around Ironbridge and the former coalfield, where the new Unitary Authority around Telford now holds more people than Shrewsbury itself. At the core of the book are the species accounts, written by a wide variety of authors. There is always a problem here: how much background is needed for readers who are likely to know much of it already? Most detail given here is necessary, has been thoroughly researched and has special local relevance, particularly where the reasons for decline are discussed. The whole book is pervaded by a sense of history: it is good to know that the churchwardens of Ludlow made war on Jackdaws *Coloeus monedula* in 1569, and that Raven *Corvus corax* bones were abundant in the rubbish pits of Roman Wroxeter.

The many maps deal in carefully selective and economical ways with distribution and abundance from 2007 to 2013, and with losses and gains since the previous atlas. For about 30 rare and scarce species the record is completed up to the end of 2017. Shropshire is not twitchers' ground. Even north-westerly gales seldom bring petrels, auks or skuas, and there is little open water beyond the meres in the north and a single modern reservoir at Chelmarsh, in

the south-east. Yet, surprisingly, the county added four species of the British List before 1900 (Little Bittern *Ixobrychus minutus*, Grasshopper Warbler *Locustella naevia*, White-rumped Sandpiper *Calidris fuscicollis* and Short-toed Lark *Calandrella brachydactyla*) and another in 2005, when a Magnificent Frigatebird *Fregata magnificens* crashed in a field near Whitchurch. There are many seasonal-occurrence histograms, even for scarcer species. For commoner birds, graphs are presented of BBS results for 1997–2007, which help to place Shropshire records in a national context.

The key message of the book is in Appendix 1, which is a summary of fieldwork and results, and a comparison with the earlier atlas, which did not deal with winter records. Coverage of the 870 tetrads was completed in both seasons, and the bold attempt to promote universal 2-h visits was nearly successful, with a total of 85% achieved. Confirmed breeding results fell short of those in the earlier work, as is clear from a pair of comparative maps. Several reasons for this are suggested, including the loss of nest-finding skills and the marked decline in the numbers of a surprising list of species. The honest appreciation of the many factors that affect coverage can be recommended to atlas-makers in any county.

The overall effect is depressing. In a rapid run-through of tables of losses and gains, declines of more than a third of occupied tetrads were found in about 30 species. As elsewhere, a few raptors have prospered. Siskins *Spinus spinus* and Goosanders *Mergus merganser* have descended from the north. However, all waders except Oystercatchers *Haematopus ostralegus* have declined; Dippers *Cinclus cinclus* and Grey Wagtails *Motacilla cinerea* have nearly halved, as have Tawny Owls *Strix aluco*. Some upland specialists have declined even to extinction: there is little good news from the intensively studied Long Mynd, the home-beat of the main author. And, of course, a number of species which give an impression of success by being found in most tetrads have in fact declined in actual numbers. An average of about three species have been lost for every tetrad. We do not have to look very far back to find a different world: John Owen (1877–1959), an Essex schoolmaster who retired to Llanymynech on the Montgomery border, found 143 Spotted Flycatcher *Muscicapa striata* nests in 1 year of the 1950s, although his skills were slipping: in this atlas, the species was recorded in his own tetrad, but may not have bred.

I found what, to me, were two slight defects. The first was the lack of a large key map of the whole county, with towns, main transport lines, the hectad system and major birding sites. As so often, the blank-end papers cry out for key maps, and there is no better place to put them. There is a full glossary, but no accompanying hectad map, which can be found at the start of the previous chapter. The second omission is a table of tetrads with scorecards for breeding categories and winter occurrences. The native finds this fascinating, and much easier to understand than blobs on a map, yet fewer than a



third of atlases print it. A pattern is provided by Gwent (Venables *et al.* 2008).

Nottinghamshire is a mid-sized county, with 551 tetrads dwarfed to the north-west by Yorkshire, and to the east by Lincolnshire. Its boundaries have barely changed since Norman times. A useful map (on p. 21) defines seven 'National Character Areas', of which two are not only by far the largest but also the most important in the quality and variety of their birds. The first is the Vale of Trent, which fills the eastern half of the county and is largely arable farmland. The motorist driving through this on the A1 arrives at the giant roundabout at Apleyhead, where the first exit will instantly lead them into the second, the startlingly different western area of the Dukeries and Sherwood Forest, with ancient woodlands and park lakes, although much of the former heathland has now gone.

The county's early avi-history was dominated by the cheerful figure of Joseph Whitaker, the squire of Rainworth, sportsman and conservationist, who shot Partridges but put up hundreds of nestboxes, saved an Egyptian Nightjar *Caprimulgus aegyptius* from his keeper's rubbish tip, and had an estate list of 157 species. His death in 1932 was followed by the foundation of the Trent Valley Birdwatchers, who issued annual reports from 1943, sponsored Dobb's avifauna of 1975, and (after a slight name-change) have now produced this fine volume. It is illustrated throughout by the drawings of Michael Warren, in a distinctive style of colour-wash, and by many species-maps, photographs and diagrams. The varying size, shape and positioning of these illustrations are an object-lesson in design. The county has had a long and profitable association with the BTO, and full use has been made of the results of national and of many local surveys.

Nottinghamshire has not avoided the losses which depress the Shropshire reader. Autumn sowing, farm machinery, drainage and pesticides have taken their toll, Sherwood Forest has almost lost its Hawfinches *Coccothraustes coccothraustes*, and there are hardly any breeding chats. However, much has been gained over the last 50 years. Most raptors have recovered, but the outstanding county feature is the extension of its waters. The most famous site was formerly Nottingham Sewage Farm (the Midland 'Fair Isle'), where Stilts bred in 1945. More recently, the flooding of many former extraction sites has left the county with 1300 hectares of waters. Infilling of pits has fortunately now become difficult, and the County Council, the Wildlife Trust and latterly the RSPB have converted diggings into managed reserves on a scale unequalled elsewhere in England: the closest parallels are in Berkshire and Bedfordshire. Many birds that have passed over the Midlands on regular migration, or have been driven off-course by gales, have descended to these waters to rest and feed. Since 1940 there have been sightings of 126 Shags *Phalacrocorax aristotelis*, 104 Red-necked Grebes *Podiceps grisegena* and 51 Gannets *Morus bassanus*. Seven breeders

have been lost, largely from woodland, but 32 have been gained, chiefly along the Trent and its largest tributary, the Idle. This book deals at length with the findings of the greatest rarities, which always makes good reading: an American Nighthawk *Chordeiles minor* sensibly chose to circle the garden of the County Recorder.

The excellent introductory sections on history and habitat and the thorough species accounts can hardly be faulted for content, although the thin, greyish typeface with red captions make them rather hard going for the reader. However, the atlas seems not wholly satisfactory, and must puzzle readers used to the coverage in recent works on other counties where observers were tightly organized and instructed to enter breeding categories and to find everything possible, if necessary in an extra year. Here, the authors did not at first envisage a full atlas, although they did wish to use an incomplete survey for the 1988–1991 national Atlas as the basis of a comparison with later work. This was possible for 320 tetrads and is shown on the valuable change-maps, but it was achieved only by adapting the simple division into 'breeding' and 'presence' of the 1988–1991 Atlas for use in its successor, which returned to the original triage of 1968–72. The same long-service BTO representative directed both these surveys, but without the delegation to local controllers which has become customary. A variety of local and national surveys were used, many of which did not include the assignment of breeding categories, and it was not possible to show the number of observers involved, although we are told that all tetrads were visited. I think adequate coverage in a tetrad might be indicated by the sum of the 'confirmed' and 'probable' species totals being at least twice the total of 'possibles'. Most county atlas-makers have achieved this in all but a few hectads, and often in 70–90% of all tetrads. In a sample of three adjacent hectads in East Nottinghamshire, I reduced the 'present' records by a standard 12% to allow for what is now termed 'FMU', assumed that the resulting totals could be classed as 'possibles', and found that this target was met in only 19 of the 75 tetrads. The scores were somewhat higher in four hectads around Nottingham.

However, the maps clearly form an adequate basis for the conclusions reached in the text. My criticisms are those of a devoted tetraddist who would have liked to find the perfect county breeding atlas at the beginning of the 21st century. There is still a broad band unatlased after 2000 (or at least unpublished in hard copy) from Staffordshire to Peterborough, apart from limited contributions by Leicestershire and Rutland.

One last query – winter maps are always simpler to compile and to accept as a through coverage – why are there none for Kestrel *Falco tinnunculus*, Coal Tit *Parus ater*, Treecreeper *Certhia familiaris*, Bullfinch or Tree Sparrow *Passer montanus*?

David Ballance

*Also received*

KENEFICK, M., RESTALL, R. & HAYES F. **Birds of Trinidad and Tobago, 3rd Edition.** 272 pages. *Several colour maps and numerous species drawings*, London: *Helm Field Guide (Bloomsbury)*, London, 2019, paperback, £24.99, ISBN: 9781472941527, [www.bloomsbury.com](http://www.bloomsbury.com)

This third edition of the guide to one of the most popular places for wintering birds in the Caribbean is significantly updated, with superb illustrations, many of them new, and text. The coverage is extremely comprehensive, covering almost 500 species, about 200 of which are vagrants (the closeness of mainland South America allowing easy passage and being one of the reasons for the islands' popularity). Overall, an excellent guide.

BARNAGAUD, J.-Y., ISSA, N. & DALLOYAU, S. **Where to Watch Birds in France.** 336 pages with dozens of coloured maps. Exeter: *Pelagic Publishing*, 2019, paperback, £24.99, also available as ebook and pdf, ISBN: 9781784271541, [www.pelagicpublishing.com](http://www.pelagicpublishing.com)

For the Francophile birdwatcher this book will be an absolute boon. Dividing the country into 14 regions, the authors highlight the best places to go in each and what will (perhaps) be seen at identified birding hotspots. Each hotspot is given a GPS reference, so there will be no more struggling with paper maps in bad weather in a, sometimes vain, attempt to locate a chosen place. The book is also a gold mine of useful information regarding the French attitude to private property, the hunting season, how to avoid confrontation and where not to arrive carrying high-magnification cameras and binoculars – military areas and airports, as might be expected and industrialized harbours, which might not. Excellent value.

MACKRILL, T. **Ospreys.** 128 pages, numerous colour photographs. *RSPB Spotlight/Bloomsbury Publishing*, 2019, paperback, £9.99, ISBN: 9781472956033, [www.shopping.rspb.org.uk](http://www.shopping.rspb.org.uk)

This latest edition to the excellent Spotlight series maintains the quality of both the words and photos of its

predecessors. As the author is the ex-manager of the Rutland Osprey Project it is no surprise that the history of raptor decline and then re-establishment in Britain is covered, although there are also comments on how the species is faring in mainland Europe as well. The author is now working towards a PhD on Osprey *Pandion haliaetus* migration, which explains the fine section on wintering movements and migration hazards. The section includes a description of a juvenile called Stan who, migrating from Scotland, was blown off-course and finished up 8 days later in Cape Verde. Look out, too, for the historical section which includes the idea of one 16th century clergyman that Ospreys had one hawk-like foot for grasping fish, the second foot being goose-like to aid swimming. Thoroughly recommended.

HUME, R., STILL, R., SWASH, A., HARROP, H. & TIPLING, D. **British Birds: A Pocket Guide.** 272 pages, Numerous photographs. Oxford: *Princeton University Press*, 2019, flexicover, £9.99, ISBN: 9780691181677, [press.princeton.edu](http://press.princeton.edu)

There are a great number of pocket-sized guides to the UK's birds on the market so that any new edition to the throng really needs to stand out. And this new guide from Princeton UP does exactly that. It is not just the superb array of photos (the claim is 1600 and there is no reason to doubt it), distinguishing the species in various age plumages, but also the organization. The book starts with a combination of profile silhouettes, accompanied by smaller photos to distinguish 'birds on water', 'larger standing and perched birds', 'small landbirds' and 'birds in flight', and then moves onto habitats with lists of what might be seen where, before getting to the species themselves. There, the 'standard' UK list is augmented by regular migrants/vagrants. With the wipe-clean and hard-wearing flexicover, this is most definitely suitable for use in the field. Excellent, and well worth a look at the price.