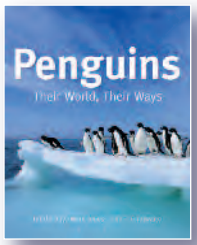
REVIEWS



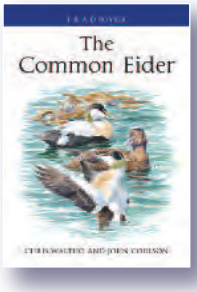
Penguins: Their World, Their Ways By Tui De Roy, Mark Jones & Julie Cornthwaite. Christopher Helm, London. 2013. ISBN 978-1-4081-5212-6. Hundreds of colour photographs, distribution maps. Hardback. £35.00.

I've long passed the age where I expect much from birthday presents, but earlier this year I dropped a subtle hint to the wife well in advance, and on the day was delighted to unwrap and flick through this book; reading it properly had to wait until the summer field season ended! The format follows that of *Albatross: Their World, Their Ways* (reviewed in *SEABIRD* 22). First, the 18 species of penguin recognised here are described in a series of essays covering the different taxonomic groups (e.g. *Island Dandies: The Crested Penguins*) in which Tui De Roy's evocative text is almost lost among a multitude of stunning photographs, covering penguins in habitats ranging from mangroves of the Galapagos, New Zealand's rain forests, cactus-strewn islets off Chile, stupendously remote Gough Island, and (of course) Antarctica's ice shelves and rocky coastline. The photo captions are all informative, behaviour is described, and locations are given in virtually all cases.

An interesting chapter by Mark Jones (*Penguins and People: A Retrospective*) begins the second section, in which 15 penguin experts are given double-page spreads to summarise their research into different aspects of penguin evolution, physiology, ecology, population monitoring and conservation. It would already have been obvious to the reader that this book is no mere 'coffee-table' production, but these articles are a master-class in the communication of scientific research to a much wider public than published papers would normally reach. All the contributors are to be congratulated on the clarity and readability of their accounts. I'm not going to pick out any for particular comment, although it was appropriate that it was given to Conrad Glass (the 'Rockhopper Copper') to describe the unfortunate events of the 2011 MV *Oliva* oil spill at Tristan da Cuhna.

The final section (Species Natural History), compiled by Julie Cornthwaite, gives each species a double-page spread summarising facts and figures, and even these accounts average 8–9 colour photos. The only references in the book appear for each species under *Taxonomic source* and *Conservation status*, but these are not listed in full, although there is a short section on further reading and a very useful list of websites where the reader can find out much more information. There's not a lot more I can say or enthuse about this book. It is memorable (does it always blizzard at Brown Bluff?) and inspiring (I really must add that sub-Antarctic islands of New Zealand pelagic to my bucket list, to hell with the cost!). It is also beautifully produced and a credit to all involved, not least the publisher - not a square cm is wasted and the layout works perfectly. Books like these don't come along too often and if you don't already have a copy, drop a heavy hint, get lucky, stick your feet up late in the day with a glass of something, and simply enjoy!

Martin Heubeck



The Common Eider By Chris Waltho & John Coulson. T. & A.D. Poyser, Bloomsbury Publishing, London, 2015. ISBN 978-1-4081-2532-8 (print) ISBN 978-1408-1-5280-5 (epub). 352 pages, 31 colour photographs and two distribution maps, numerous illustrations, graphs and tables. Hardback. £50.00.

This book is a recent addition to the Poyser series, complete with its reputation for rich production values. The book follows a logical sequence of a detailed introduction to the Common Eider *Somateria mollissima*, its distribution, movements and abundance and food and feeding. The lion's share of this book is made up of descriptions of the species' breeding activity, much of it based upon the authors' own research in the Firth of Clyde and coast of Northumbria. This section includes research not published previously. The latter chapters cover mortality and survivorship, human exploitation of eiders and their conservation and management. The final chapter by Diana Solovyeva compares the similarities and differences between the four recognised eider species. Six appendices provide detailed information to support the preceding chapters.

I focussed my attention on the chapters that made greatest use of the authors' own research, especially as they were presenting new material. The chapter on food and feeding was an interesting one for demonstrating that their diet, although usually dominated by the Blue Mussel *Mytilus edulis*, is much more catholic than acknowledged in the literature. There is a good description of the different prey items found to have been consumed by the species and a brief account of the energetic value of their prey (fairly similar between food types). I found it interesting to read about the difference in biomass of potential prey in different habitat types used by Common Eiders, with mussel beds and sublittoral sandbanks with the bivalve *Spisula* being the most important. A section of this chapter describes the main habitat types used by eiders; six of them apparently. I wasn't sure how much I learned in reading these, as they re-compiled information provided previously in the same chapter, but I guess it is useful in this format. A further sub-section on carrying capacity of habitats for eiders led my thoughts to starvation events in the Waddensee. Unfortunately, this chapter (nor the chapter on Exploitation, Management and Conservation) made no reference to this issue and the potential problem of competition with fisheries, which would appear to be a major problem for the species in some parts of its range.

Chapters six to eleven contain considerable detail about Common Eider breeding and the breeding season, covering timing, egg laying, clutch size, incubation and hatching, colonial nesting and finally the ducklings. This is where the strength of this book lies, because there is great detail from the authors' own research and reference to studies in other parts of the breeding range. I could not see any obvious gaps in the breadth of topics covered within these chapters, although the balance was weighted inevitably towards their own research in the UK.

This book is not big enough to cover every detail of the Common Eider's life history, the main gap in my mind being the sparseness of information about what this species does when it is not breeding. This is my perpetual grumble about all monographs I read, and is a reflection of the lack of research in this subject area (although this is changing rapidly with the advent of new tracking methods). The authors could have done more to address this shortcoming, for example by including a map of the species' wintering distribution; even the UK Winter Atlas map would have helped. The appendices contain a list of important sites (breeding, wintering and non-breeding) but nothing to support what makes them important. More information about the diving behaviour of Common Eider would also have been helpful (there is a bit of research material available on this subject).

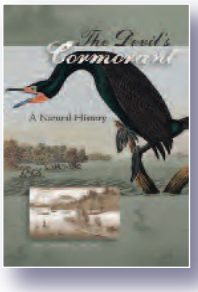
Poyser always used to be synonymous with high quality production, but the rest of the

publishing world appears to have stolen a march on these publishers now. The book is well written and edited. If I searched hard enough, I'm sure I could find mistakes, but that's true of any book. I found the text to be too cluttered on the page, and more could have been done with the figures to convey the story they are telling. The clustering of colour photographs (mostly John Anderson's excellent material) in the centre pages is an old format and more colour within the body of the book would have improved the appearance greatly. Each chapter is headed by a beautiful vignette but with no obvious credit; you have to search hard to find that they were drawn by Tim Wootton.

I thought that the full price for this book was expensive, but probably comparable to former times if inflation is accounted for. Bloomsbury are probably aware of the price, because I saw substantial discounts available when I looked online. I recommend buying this book, if for no other reason than it is worth obtaining a copy for its in-depth research on all aspects of Common Eider breeding behaviour in the UK.

Andy Webb

The Devil's Cormorant: a Natural History By Richard J. King. University of New Hampshire Press, Lebanon NH. 2014 (paperback edition by Oxbow Books Ltd, Oxford). ISBN 978-1-61168-699-9. 352 pages, 22 b/w figures. Paperback, £18.00.



The Devil is in the Detail

I enjoyed reading this book. Richard King is a senior lecturer in the 'Literature of the Sea and the American Environmental Movement' at Williams-Mystic, a maritime studies programme based in Mystic, Connecticut, USA. King writes well, stitching together scientific 'facts', general interpretations thereof, peoples' and institutions' stories and histories, and vignettes of the natural world. Furthermore the comprehensive quotes given throughout the book offer a voice to many of those whose experiences and knowledge King collates here - be they academic researchers or real people. Very like the maritime studies programme itself, this book is clearly an interdisciplinary endeavour. Whilst all the careful stitching offers us a rich tapestry of many things cormorant, the extensive (but unobtrusive) footnotes and a selected bibliography allow us to follow individual threads - be they literature sources or the extensive interviews and conversations conducted by the author.

The book's twelve chapters are each book-ended with a short description of cormorant life from the author's perspective as he follows the trials and tribulations of cormorants breeding on nearby Gates Island, "just by the mouth of the Mystic River at the far eastern edge of Long Island Sound" and close enough to King's office for him to be able to hop in a boat and visit. In fact, he's done this for over a decade, sometimes as often as twice a week. These monthly book-ends, across the cycle of a full year, keep the reader nicely grounded (or should that be 'watered'?) in the elemental world of cormorants, reminding us of their naturalness and the geographic expanse of their world. King's birds are Double-crested Cormorants (*Phalacrocorax auritus*, one of maybe 39 extant cormorant species - the family has a much-debated taxonomy and the book offers a helpful Appendix) and these particular individuals breed in Connecticut and spend the winter amongst the Florida Keys, journeying south in the autumn and returning north in the spring.

Within the main chapters, the diversity, geographical distribution, numbers and movements of some of the world's cormorant species are described. These chapters also contain numerous nuggets and insights into many of the other cormorant species, including the almost mythical (if, sadly, recently extinct) Spectacled Cormorant *P. perspicillatus*. Much is also told about humans' relationships with, and feelings towards, cormorants. Each chapter is centred

on a geographical location from where another part of the cormorant tapestry unfolds. Thus, from Gifu City we hear about the tradition and skills (and not insignificant tourism opportunities) of cormorant fishing in Japan - undertaken on rivers at night using trained, tethered birds (Japanese Cormorants *P. capillatus* mostly) to catch fish drawn close to boats by the light of fires tended in iron baskets. We travel to South Georgia to visit the world of the Blue-eyed Shag *P. georgianus* and to hear of life in the Antarctic - how cormorants feed in such inhospitable environments and how people on many previous expeditions have survived there too - often it appears by dining on the apparently rather tasty cormorants. Off the coast of Peru we learn about the global guano trade based on the massive quantities deposited by the Guanay Cormorant *P. bougainvillii*. This resource, accumulated for many decades in these cormorant colonies, located in an environment where any cleansing rain is exceptionally scarce, was used as fertilizer and exploited intensively in the latter half of the nineteenth century, although the practice was known since the time of the Incas. Some millions of tons of guano - worth billions of dollars at today's prices - were once exported to the United States and Europe. We visit Bering Island in the north Pacific where the Spectacled Cormorant introduces us to both the population-scale horror of global extinction and the individual-scale beauty of the various colours of cormorants' eyes, amongst other things. Further chapters take us to Cape Town in South Africa and the Galápagos Islands off Ecuador (initially, at least, in the company of Bank Cormorant *P. neglectus* and Flightless Cormorant *P. harrisi*), and then to Tring in the UK for an encounter with a veritable host of *Phalacrocorax*es.

As his starting point for an exploration of some key cultural issues, including ones of superstition, associated with cormorants, King takes us to the Aran Islands off the Irish coast. He begins with a short story from these islands concerning the European Shag *P. aristotelis* to show how we rank animals "characterising [them] based on a fluid interchange between direct observation and cultural influences" (think of big bad wolves, cunning foxes and wise owls). Cormorants do not fare too well in our overt and subconscious determinations of which animals mean more (or less) to us, being very often used to evoke evil or greed, or both.

In many ways it is this psychological phenomenon (my term) that fuels both the remaining chapters of King's book and the conflicts he discusses within them - each set in a different location within the United States. Here, cormorant-fisheries conflicts are described and discussed specifically around the birds' (*P. auritus*') predation of sport (angling) fish species in the Great Lakes, their depredations at Mississippi fish farms - extensive, shallow ponds teeming with Channel Catfish *Ictalurus punctatus*, a species "always called 'U.S. farm-raised catfish,' even in casual conversation" apparently, and their predation on the juveniles of several species of Pacific *Oncorhynchus* spp. salmon as they try to negotiate the combined hazards of hydro-power dams and turbines, the change from fresh to salt water as they undergo their downstream migrations as 'smolts,' and the myriad of environmental issues, including predation by fish-eating birds (not all of them cormorants!). These are powerful stories - so much so that you need to read them for yourself but a brief summary might go something like this: a growing cormorant population; debates over their diet, daily food intake and potential consequences for local fisheries; incomplete scientific understanding; the sheer emotion of this 'debate'; demands for action; differences in values; the illegal mass killing of birds and nest destruction; the legal mass killing of birds and nest destruction; attempts at evidence-based policy and management. But what constitutes evidence?

To those readers who know about the cormorant-fisheries issues a little closer to home, in the UK and the rest of Europe (involving Great Cormorant *P. carbo* and, most commonly, the *P. c. sinensis* race), as well as being powerful, these stories are familiar ones. And here's my only gripe with this eloquent and expansive book - I would

have liked to have seen just a little bit more of Europe in it - but that's a purely personal opinion. In the concluding chapter King brings us back to 'his' cormorants on Gates Island and, in summarising his "studies to examine the human relationship with cormorants across cultures, across time, and across academic disciplines," he offers "six distilled lessons about these birds and what [he's] learned about our larger connections to the natural world." One of these - and, perhaps, the most powerful and pervasive to this reviewer - is that cormorants are a scapegoat for much larger, more difficult environmental concerns. We have found this, too, across Europe - with Romanian fisheries in the Danube Delta, Greek ones in Lake Kerkini, Lithuanian ones in the Nemanus Delta and English ones in a tributary of the River Thames to mention only a handful. Many a page of King's entertaining and thought-provoking book details how humans have dramatically altered habitats, affected ecosystems, eradicated or overharvested whole populations right across the globe. These details suggest strongly that the real Devil in all this is very probably not an avian one at all. This understanding should, perhaps, have at least some influence on how we view - and address - our so-called 'cormorant problems' in the dazzling variety of habitats and aquatic systems in which these fascinating birds occur.

Dave Carss

Fish atlas of the Celtic Sea, North Sea, and Baltic Sea By Henk J. L. Heesen, Niels Daan & Jim R. Ellis (eds.). Wageningen Academic Publishers/KNNV Publishers, Wageningen. 2015. ISBN 978-90-8686-266-5 or 978-90-5011-537-7. 572 pages, numerous colour photographs, colour maps and figures. Hardback, €80.

An interactive atlas (ICES-FishMap) was launched on the internet in 2005 but it was not maintained and after some years the data were deleted. In 2009, the editors of this book took the initiative to produce an atlas. This is the result of hard work by them and the hundreds of scientists and crew who made the trawl hauls and identified and measured millions of fishes on what were not always the most stable working platforms. This book is far more than a traditional atlas since it not only presents distribution maps of over 200 fish species but also summarises spatial, depth, size and temporal data in extremely readable accounts of their biology. The standard of writing and overall presentation is first-class and the text is broken up with large numbers of pictures, graphs and maps. The quantitative information is derived from trawl data from 72,000 stations fished by research vessels during the period 1977–2013. The area covered includes the northwest European shelf from west of Ireland to the central Baltic Sea and from Brittany to Shetland. Although the surveys extended beyond the shelf edge, only species reported from waters less than 200 m deep are included.

This is a serious labour of love and the editors have made every effort to make it of interest both to scientists as well as readers just wanting to know more about the distribution and biology of fishes and, in our case, their availability to seabirds as prey. They successfully transmit some of their own joyful experiences in being on board research vessels. A book of this type can all too easily end up on an office shelf only to be consulted in case of doubt of some specific question (and I have shelves of such volumes). However, this book is in a different league. I read my copy from cover to cover, learnt an immense amount, laughed out loud at some of the passages and have marked some of these to be read aloud to friends; it still remains within easy reach of my armchair to pick up and browse a species account or two each evening.

Most readers will home in on the species accounts that run from large and ugly fish such as hagfish *Myxine glutinosa* (*catching one is not particularly pleasant for a crew of scientists sorting a catch, because of the*

amount of sticky slime that a single specimen can produce) to small and attractive species such as solenette *Buglossidium luteum* (*that will never grow to marketable size, not even a size [maximum length 15 cm] that could be sold on the black market for undersized sole* [Solea solea]). Each species account presents a wealth of data on taxonomy and identification, spatial and depth distribution, size, changes in numbers and on biology (habitat use, age, growth, maturity, reproduction and larval stages, migrations) and its commercial exploitation. An exhaustive bibliography of each species is given towards the end of the book.

Having read a few species accounts, the reader should turn to the introductory chapters to learn how the data were collected and the enormous care taken to validate the results and weed out inconsistent identifications and length measurements. The warts are exposed to view, but then dealt with in an exemplary manner. Few of us would have been so diligent and honest.

Forty-eight text boxes cover major topics such as ageing of fish, the plaice box, measuring, reporting and processing size information, and 'Mackerel midges' (the pelagic juvenile stages of rockling that are fed in large numbers to young seabirds). Many of these text boxes have a personal touch but convey a serious message. That on the fecundity of pogge *Agonus cataphractus*, a rather insignificant small (2–24 cm), armoured, bottom-living species that is occasionally eaten by seabirds, gives a flavour. *During the IBTS in February 1976, RV* Tridens *made a haul of 236 pogge which comprised large number of individuals ready to spawn. Estimating fecundity of most fish species requires a tedious procedure of sub-sampling and microscopic work, but a female pogge with ripe eggs offers an ideal subject for fecundity studies, because neither sub-sampling nor a microscope is required, just a total count. A sample of 33 females was stored in the freezer and all eggs in the ovaries counted at odd moments, thanks to the fact that time management had not yet been introduced at the institute. So for the Guinness Book of Records, Niels Daan counted 44,092 pogge eggs by the naked eye to learn that after reaching 10 cm [the maximum length is 26 cm], a female increases its egg production on average by 323 for every length increment of 1 cm*. Then there is a neat graph to show the relationship. Obviously, fish biologists can become as engrossed in their work as any seabird ornithologist and few can write so evocatively about their work.

Here is a goldmine of information, insights and lessons to be learnt for anyone interested in fish or birds. We learn that identification of sandeels *Ammodytidae* is far from easy and many records in trawls were identified only to the genus or even family level. But even then, peculiar length measurements and irregularities in annual reporting suggested that some generic identifications were not to be trusted. Therefore the account is at the family level, although details of species are given in the text. Surprisingly, hardly any sandeels were reported before 1991 even though the seabirds were certainly feasting on them. The box 'Identification of sandeels: a lottery?' could usefully be read by those of us who are perhaps sometime too dogmatic in our description of seabird diets.

A two-page spread of maps documents the rise and fall in numbers of snake pipefish *Entelurus aequoreus* that caused such grief to young seabirds around northern Britain in the mid 2000s. Numbers in the northeast Atlantic increased during 2004–8, initially in deep water but later almost everywhere including inshore waters but after 2009 declined just as dramatically. The box concludes *that scientists jumped too easily to the explanation that the outburst might reflect a major transition in the marine ecosystem in response to climate change ([references to some papers…]), even though cause and effect could not be elucidated. The subsequent downfall indicates that climate change does not offer a plausible explanation. As yet the rise and fall of snake pipefish remains one of those unexplained events that just happen now and then*. Nothing could be more clearly stated.

Mike Harris