

Reviews—

***Essential Ornithology* by Graham Scott**, Oxford University Press, Oxford, UK, 2010. Softcover, 19 × 24.5 cm, colour plates and black-and-white figures, 162 pp. RRP \$84.95.

Graham Scott, a senior lecturer in biological sciences at the University of Hull, UK, prefaces his book by admitting that there are topics on which he could have provided more depth or breadth, but his aim was to produce a relatively short, useful text that would provide the reader with a ‘way in’ to academic ornithology. The back cover describes the book as a ‘must read’ for degree-level students studying bird biology, but adds that it will also appeal to a broader audience, including professional and amateur ornithologists seeking a scientifically rigorous, but clearly presented, overview. It is this latter appeal that has most relevance to readers of *AFO*.

The book has chapters on: The Evolution of Birds; Feathers and Flight; Migration and Navigation; Eggs, Nests and Chicks; Reproduction; Foraging and Avoiding Predators; and Population, Communities and Conservation. The chapter on avian evolution starts by outlining the two main schools of thought about the origins of birds and the importance of the *Archaeopteryx* fossils. There is a useful discussion of avian phylogeny, and the author summarises three differing theoretical examples of the phylogeny of modern birds, one based on morphology and two on DNA analysis. The chapter concludes with a discussion of speciation and adaptive radiation, using waders’ bills and Darwin’s finches as examples. Chapter 2 contains detailed discussions of feather types, tracts, colour, damage and maintenance, followed by interesting accounts of moult, moulting strategies and flight dynamics. There are also special boxes dealing informatively with the energetics of formation flying and adaptations for flight.

I found the chapter on eggs, nests and chicks a little disappointing. Firstly, the coverage of nests and chicks is quite minimal! However, there was also little mention of the elegant stories that have emerged about regulation of egg temperature and gas flux, and the great clutch-size debate that has featured so strongly in modern ornithology is relegated to one special box. On the other hand, there is an interesting section on eggshell coloration and patterning, which includes some of the recent research on how egg coloration can signal the condition of the laying female. The section on foraging and avoiding predators is a competent account that touches on most of the key topics associated with these behaviours (e.g. information sharing, risk-sensitive foraging, distraction displays and anti-predator alarm calls), but this is not the sort of book to turn to if you want a detailed theoretical evaluation of, say, the concept of optimal foraging, a topic that is assigned only one page. The final chapter deals with population regulation, community composition and conservation. The coverage of competition in bird communities is traditional, but sound, and illustrated with interesting examples. The final section of the chapter is really a token treatment of extinction and conservation, important issues that deserved more consideration.

With regard to the style of presentation, the book has positives and negatives. The quotations at the start of each chapter are rather pointless and often not particularly apposite, and the chapter summaries are too brief and general to have much value. Boxes in the margin outlining key concepts and giving critical references will be very helpful to students, but I did not find the other type of marginal box that provides cross-references to topics in other parts of the

book particularly useful, and labelling such boxes 'Flight paths' is rather corny! Within the text, as previously alluded to, each chapter has one or more boxes covering special topics. The content of these boxes is usually really interesting and informative, although it is a bit disappointing to find the entire coverage of some important topics confined to just one such box (e.g. sperm competition) or covered by a single, if detailed, boxed example (e.g. helpers at the nest covered just through Komdeur's elegant work on the Seychelles Warbler).

The black-and-white drawings and graphics, virtually all adapted from other sources, are of a good standard and they support the text well. There are eight pages of colour photographs, mostly of reasonable rather than outstanding quality; some provide useful information, whilst others are really just species depictions. There are quite a few typographical and spelling errors in this book, the most unforgivable for an ornithological text being the misspellings of the names of bird taxa (e.g. Charidriiformes, Glaucus gull, Prothonatory warbler, Pipidae, *Centrocercus urophasionus*, Pied babler, Geospizid finches and Trochillidae). The author's writing style is clear and the content mostly easy to understand and absorb, but here and there he lapses into a rather 'familiar' style that is a little irritating, e.g. 'I am confident that there is not a single reader of this book who, when watching birds fly, has not asked the question "how do they do that?"'

How well does this book meet its stated aims? As a text for university students, I would rate it as worth having in the library for reference by second-year students in Australian universities; it lacks sufficient depth and theoretical perspective for most of our third-year courses. I cannot see it being of more than occasional reference value to professional ornithologists. It has a rather European and American bias in its choice of examples, and Australian readers will find only a few with which they are familiar. However, Scott has researched and understands his material well and generally presents it quite attractively. Notwithstanding some of the caveats that I have raised, I recommend this book as a good introductory text for amateur ornithologists who decide that they want to add a scientific framework to their pastime.

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