

THE INNER BIRD: ANATOMY AND EVOLUTION

Kaiser, G.W. 2007. Vancouver: University of British Columbia Press. xii + 386 pp. with 65 figures, 12 tables. Hard cover. ISBN 978-0-7748-1343-3. CA\$85.

The Inner Bird is a rather surprising book by a very surprising author. Gary Kaiser, for most of his working life a biologist with the Canadian Wildlife Service, is something of a polymath: expert on folk music, Asian ceremonial daggers and the Second World War, one of the authors of the monumental *Birds of British Columbia*, and perhaps best known in the seabird community as the first person to successfully trap Marbled Murrelets at sea, making possible numerous subsequent studies. This current book is a solid piece of scholarship, but as befits someone of Kaiser's eclectic talents, it throws in tantalising asides on all manner of topics.

The Inner Bird is a general account of avian anatomy and evolution with particular attention to the skeleton, the "inner bird" of the title. This topic is not a very fashionable one, and there is much about the history of anatomic investigations in birds that may not enthrall every reader. At the same time, the book contains a great deal concerning the ancestry of birds among the theropod dinosaurs, and this topic is likely to be more popular. Kaiser covers the topic of Jurassic and Cretaceous birds and near-birds in some detail, without espousing any particular systematic arrangement. For someone relatively ignorant on that topic, the book provides a wide-ranging introduction.

The first part of the book defines what makes modern birds different from other contemporary vertebrates, and it also discusses similarities to and differences from the dinosaurs. The second section deals with taxonomy and systematics among surviving bird families, stepping lightly through the various taxonomic controversies and giving a fairly selective account of the recent molecular evidence for phylogeny. In the third and final section,

Kaiser describes the ways in which birds are moulded by flight, their most defining characteristic. Here we learn even more about *Archaeopteryx*, which is the real star of the book. The last chapter, dealing with the adaptations of seabirds to marine life, will be the one most likely to interest readers of *Marine Ornithology*. A useful glossary of ornithology terms is also included.

The book is nicely produced (on post-consumer recycled paper) and excellently illustrated with figures and sketches, mostly by the author and Brett vander Kist. There are few pictures of birds or fossils in the book because, as the author explains, these are readily available on the Internet. They are, of course, but the lack of visual embellishment does give the casual page-flicker a drier impression of the book than the actual writing warrants.

I personally enjoyed most of the book, although there were places where I found the amount of unsummarised detail a little oppressive. On the other hand, I am probably more interested in avian anatomy than the average ornithologist. Unfortunately, the text is not sufficiently organised and referenced to provide a really useful textbook. Anyone with an interest in avian anatomy and evolution will definitely find much to stimulate their thinking here, because Kaiser has a very agile mind and provides plenty of food for thought. That aspect is probably the book's greatest strength, and I recommend *The Inner Bird* to all readers interested in birds who are in need of a serious but stimulating book to settle down with on a long journey.

Tony Gaston, Environment Canada, Ottawa, Ontario K1A 0H3, Canada (tony.gaston@ec.gc.ca).