Book Reviews

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CAMPBELL, M. O'Neal. (2015). *Vultures: Their evolution, ecology and conservation*. CRC Press, Boca Raton. 364 pp. ISBN 978-1-4822-2361-3.

There are very few books on vultures worldwide, i.e. both those in the New World (7 species) and those in the Old World (now 16 species). The first was Fischer's *Die Geier* (1963 and 1974). There are more books on birds of prey of the world, the first being Sharpe's (1874) listing of the specimens in the British Museum, of which the new total of 23 species is but a small proportion (about 7%). This book by Campbell is the latest for vultures worldwide, and is to be commended for its comprehensive coverage, particularly in the area of the vultures' evolution – straightaway on page 2 he suggests calling them Cathartid and Accipitrid vultures because fossils of both types are found on the other side of the Atlantic Ocean. Yes indeed, a good point, but thereafter he consistently uses New World and Old World!

Straightaway, too, one sees that there is no Acknowledgements section – how strange, did no one help the author in any way? From his References list (p. 287), he is a social scientist who 'discovered' the Hooded Vulture in Ghana (just as I discovered the same vulture in northern Nigeria in 1969). Did no one help him get into vulture biology? In this day and age the absence of Acknowledgements is unique. Also no deference is made to any editors at CRC Press (in the Taylor & Francis group), and quickly one finds that there is no editorial overview of this book, surely an indictment of T & F? Especially in Part 1 which portrays all the species one by one, admittedly quite comprehensively, there are spelling and grammatical errors by the tonne. For example, the spelling is "rectrices", they are the tail and not the wing; Figure 1 (p. 9) has several errors; there is confusion between fledging (verb) and fledgling (noun); the author can't get "where" and "were" correct (just like my undergraduates!); many Latin names are not in *italics*; but the most outrageous mistake is "British Colombia" (p. 82) from somebody in a British Columbia university (title page)! Perhaps more seriously, *Gyps tenuirostris* has no authority; Rüppell's Vulture is correctly named *rueppelli* and thereafter as *rueppellii*; *himalayensis* is wrongly spelled; the species' Latin name and authority for Lappet-faced Vulture are wrong; and no flying vulture weighs 0.8 kg (p. 79). There is a laudable attempt to depict all the species in both adult and juvenile plumages (presumably the author drew or painted these himself?) but there are too many mistakes in the juvenile plumages. To me the best artist at these, though not perfect, is Kim Franklin in *Raptors of the world*.

A very serious problem is shown immediately on pages 2 and 3 – references used in the text may not be listed later. The References list (pp. 271-359) is an astounding 89 pages long; the author has brought in lots of references, thank you, which are probably outside the ken of most vulture biologists (me included). "Mm, I don't know this reference, let's look it up, oh no it's omitted!" I daresay this happens to at least 100 omitted references! Worse is to come – six references are listed in triplicate, and 95 references are duplicated. The blame is first on the author and then on the (absent) editor.

Finally, in the Preface on page *v*, Campbell writes of the "already murky knowledge" on the differences between Old and New World vultures, and later that "so little [is known] about the background of

vultures"! Well really, what on earth is murky about our knowledge? And particularly since 2000 and the Asian vulture crisis, vulture studies have boomed (see Allan, 2014, *Vulture News* 66: 3-15). So by the time I got to page 103 of this book my irritation was well and truly up.

Fortunately things improved thereafter, very much so.

Part 2 is headed "Vulture ecology and evolution", beginning with chapter 4 on evolution. This is long and interesting for New World (= Cathartid) vultures, but brief for Old World vultures. Oh dear, the author reverts, with spellings of Aegyptiinae (pp. 129 and 131), Aegypinnae (p. 130) and Aegypinae (p. 131) for a subfamily long since discarded. In the end he decides to support a new Order for the Cathartidae. The results so far have been dominated by the cytochrome b gene (one gene only!), but in the nature of research no final conclusion has yet been reached as to where the Cathartidae belong. What is "murky" about this convoluted trail? On page 131 he states that the *Gyps* vultures have a common ancestor from half a million years ago – no, no, no, much further back than that.

The other two chapters in Part 2 deal with vultures and their competitors, and vultures in landscapes. These are a great attempt at putting vultures into their full context. The author likes to address hypotheses, and argues from basic principles as when explaining thermals, and even has a figure of a structured forest (p. 169). A favoured hypothesis (or opinion) is whether vultures that once fed on "mastodons prepared by sabretoothed tigers" can adapt to "rats, road kills and garbage" (p. 134). He certainly emphasizes the idea that vultures feed on predators' kills, even though David Houston showed the far greater importance of non-predated carcasses many years ago (at least in the Serengeti).

Part 3 has four chapters under "Vulture ecology and conservation". Chapter 7 focusses on the adaptations of vultures to urbanization and agricultural changes. Also included are collisions with aircraft, wind turbines, electric power lines, and hunting, in sections which are heavily documented. He deals at length with the human-vulture conflict – predation – particularly by Black Vultures in USA and by Eurasian Griffons in Spain. For the latter, compensation payments of nearly €300 000 were paid out between 2004 and 2010. These incidents were made "murky" due to the EU's response to mad cow disease. Chapter 8 deals with chemicals and diseases, but focusses on lead and diclofenac. On the one hand the California Condor is highly vulnerable to lead poisoning, and we all know the awful and near-total impact of diclofenac on *Gyps* vultures of the Indian subcontinent. Interestingly, the Turkey Vulture seems to be immune to the effects of diclofenac! In concluding this chapter, the author notes that "New World vultures [and the condors?] are better off than the Old World vultures". He finishes with the teasing question – "are vultures from a bygone era, now to be fed like captive animals?" (referring to vulture restaurants). Again, this chapter is heavily documented.

Chapter 9 is an interesting and very comprehensively documented account of human attitudes to vultures. There is much mention of various Acts and Regulations promulgated in the 20th century, that could help vultures (and many others) to survive. But there are no studies that have monitored their influences. In concluding this chapter, the author notes that "In Africa, only South Africa has a serious conservation policy"! Well noticed, but there are some recent positive initiatives from elsewhere at least.

And so finally to the last chapter 10 – "The future of vultures". The author starts by again asserting that "vultures are relics from the past" (p. 258). He has an unusual couple of pages on academic research, noting that human society and nature are in permanent coevolution. Here we are introduced to five principles for an enabling structure, and seven forms of human participation; these latter are relevant to

the various community-based natural resource management (CBNRM) initiatives being followed. I was surprised however that the author makes no mention of Vulture Safe Zones, started in Nepal in 2006. In his Conclusions (p. 269), the author notes (complains?) that most of the articles he has used "called for more research, more research, more research, then more suggestions and solutions, followed by more action, more action, more action." This is probably quite apt, and one wonders how the recent Multi-species Action Plan (MsAP) for vultures might measure up against this implied criticism.

Overall, Campbell has produced some searching questions that should concern us all as vulture biologists and conservationists. Therefore, I seriously recommend the book for reading and digestion, coming as it does from the 'left field' of mainstream vulture studies.

CHANCELLOR, R.D. & MEYBURG, B.-U. (eds) (2004). *Raptors worldwide*. World Working Group on Birds of Prey and Owls and MME/BirdLife Hungary, Berlin and Budapest. 867 pp. ISBN 963 86418 1 9.

This is the published proceedings of the 6th World Conference on Birds of Prey and Owls, held in the Hotel Agro in Budapest, Hungary, in May 2003. It is a stunning achievement to have presented the book only a year or so later, and Robin and Bernd are to be heartily congratulated on such a fine job finished. These two (and nameless others behind the scenes) are indefatigable, long may their longevities last, and I for one take off my hat (and feathered cape) to them. (Regretfully Robin is late, but I saw Bernd in South Africa in 2018). Raptorphiles remain in their debt - thank you!

The book is of the now familiar size and format in this series, and has a colour photo of a flying [Indian] Long-billed Griffon (called Vulture here, *Gyps indicus*) on the front cover, and a Short-toed Eagle on the back. This is appropriate because vultures occupy about one-third of the pages. Even so, at least 16 papers on vultures do not appear in the book, simply having abstracts in the "72-page booklet" that was given to the participants. Considering that the booklet has "the most up to date survey of current raptor and owl research worldwide" (p. *vii*), then it is a pity that not even the abstracts were published in the book.

I note, perhaps with some relief, that these sixth proceedings are shorter than the fifth volume, and indeed much shorter than I predicted in my brief review of the latter (*Vulture News*, 2002, 47: 68). Out of the 81 papers in this book, no less than 23 concern vultures: Part 1 is titled "Old and New World vultures" with 12 papers, mostly of good news, but Cyprus is sad. And have we recovered from BSE ('mad cow disease') in Europe? Perhaps shortly to be followed (but not in this volume) by a diclofenac saga in Europe. Part 2 is titled "Vulture decline in southern Asia" with eight papers, largely of bad news but of some herculean efforts to remedy the situation. Later on there is one on vulture restaurants, one on electrocution in South Africa, and lastly one on molecular analysis of diurnal raptors. Altogether quite a feast! This last paper on "Phylogenetic relationships" uses only the cytochrome b gene, in spite of what the title says. I look forward to more genes being analysed. Anyway, the paper says that the Cathartidae do not have a close relationship with the storks.

Only two aspects of the book were not perfect: the Tables and Figures are 'squeezed in' to a page, and some of the Figures are not entirely legible, and the text suffers here and there from poor or no editing.

The very first paper on the California Condor in Arizona, by Tom Cade and colleagues, perhaps grabbed my interest the most. It shows how even eminent critics can get the wrong end of the stick; this programme is of course wonderfully visionary and executed by its participants. (It reminds me of a fight

on another topic at the Sacramento conference in 1985, but not mentioned in our review in *Vulture News*, 1986, 15: 29-39).

Sorry to the organisers for taking so long over this review – something to do with climate change?

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