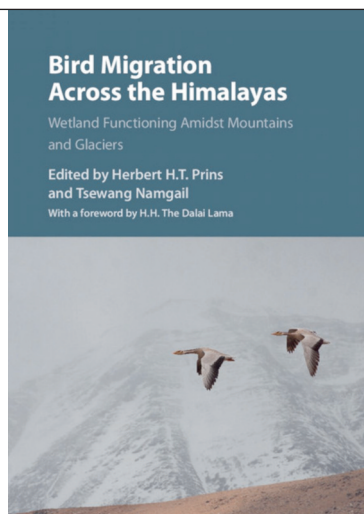


Herbert H.H.T & Namgail T. (eds) 2017. Bird migration across the Himalayas. Wetland functioning amidst mountains and glaciers. Cambridge University Press, Cambridge. 440 pp. ISBN 978-1-107-11471-5. €82.



Between the vast taiga and the tundra of north central Siberia in the north and the lowland grasslands and wetlands of the Indian subcontinent in the south, the respective breeding and potential wintering areas of birds who count seasonal migration as their prime survival strategy, sits the 2400 km long Himalayan Mountain range. The shortest migration distance for these seasonal migrants would involve crossing the Himalayas, but with no route below 5500 m above sea level, they must contend with flights at very high altitudes. This book maps out the challenges that these migrating birds face and sketches some of the ways that they cope with them. The book, edited by the Dutch animal ecologist Herbert Prins and his Indian PhD student Tsewang Namgail, now director of the Snow Leopard Conservancy – India Trust, provides an eclectic mix of accounts of the birds, the geography of the Himalayas and the Tibetan plateau, and aspects of high altitude physiology and conservation of birds.

The book was clearly born out of passion and admiration for the region and for the birds there. The editors also convey that it was born out of frustration with the paucity of studies on bird migration across the Himalayas, and the scattered nature of the evidence. In this book no fewer than 58 authors take the readers through accounts on migratory routes (eight taxon-specific chapters summarizing the evidence for trans-Himalayan migrations), the ‘physiography of the highest barrier on Earth’ (five chapters on geomorphology, hydrology and vegetation), high altitude

migration strategies (seven chapters on various ecological aspects of mountain crossings), people in the Himalayas (six chapters ranging from archaeology to Ramsar Convention criteria of wetlands), and finally a summary chapter on ‘the need for better conservation and management of a natural wonder’. All the chapters are readable, but also a little idiosyncratic and technical, so I wished that the editors had endeavoured résumés of the chapters, telling us the gist of each in a standardized way. The previous synthetic work of McClure (1974), based on one of the largest ever focussed ringing study (1.65 million birds ringed), was cited in just two chapters and in one case as McLure.

As all I have seen of the Himalayas myself are distant airline views of the majestic peaks and valleys, I used the book to get a ‘feel’ for the place. The development of this ‘feeling’ relies on many different parts of the book, and the integrative maps of physical geography, migration flight patterns of birds and the photos (all usefully reprinted in colour in a separate section) help a lot. Nevertheless, this may be a book that will be consulted more at the chapter level than being read from cover to cover.

The satellite tracking studies on large species of geese, ducks, cranes and large raptors migrating across or around the Himalayan height barrier are usefully brought together in the opening section of the book. It is nice that these individual migrations set the scene. One gets the impression that, with the exception of many raptor species, the Himalayas may not be such an enormous barrier after all, or at least that it is being crossed by many migrating birds, some of which cunningly follow the passes and use the weather. What it would be like, to be a soaring migrant and cross the mountain range, is illustrated in two chapters written from the perspective of glider pilots. Klaus Ohlmann even gives advice to the birds: “If I were a ‘gliding bird’ and had to cross the Himalayas from India to Tibet, I would use the daily thermal development by starting etc.” As a muscle-powered bird, Ohlmann would use his ‘motor’ (i.e. the muscles) “flying as low as possible, in order to avoid any extra effort and also the ‘punishment’ caused by lack of oxygen.” This is exactly what Bar-headed Geese *Anser indicus* appear to do; during their seasonal migrations they hug the mountains (Hawkes et al. 2013).

The subtitle of the book, ‘wetland functioning amidst mountains and glaciers’, puzzles me, as this book is much more about the description of a geographic barrier, and its crossing by migrant birds, than about the functioning of habitats that birds stopping short could use during the crossing. Yes, there is a

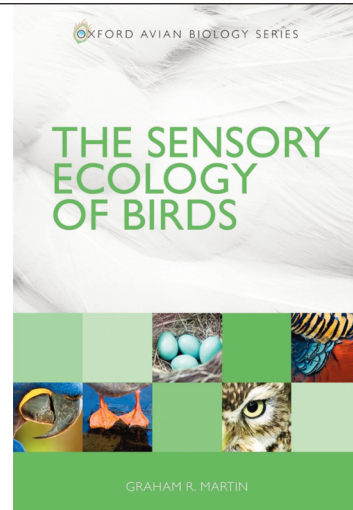
chapter on the abundance of the macroinvertebrates in high altitude wetlands (a resource for waterbirds), and a chapter discussing whether migrants crossing the Himalayas should be concerned about their own safety from potentially predation by raptors (which misses citing the perhaps single most relevant reference by Thiollay 1979). A chapter on elevational gradients in bird diversity, implicitly sketches what 'wetland functioning' could yield in terms of avian summer visitors. Nevertheless, when it comes to conservation of the natural values of the Himalayas, birds that simply cross the 'barrier' high in the sky (just like airline passengers passing by at heights of 10 or 11 km) will be of least concern. The concerns are either with the birds that make a living on the mountains and the plateaus, make survival stops for shorter or longer times, or with the birds using the Central Asian Flyway in its entirety. These are the concerns developed in the last chapter; the editors hope that the book will help their conservation. This is also the message from the Dalai Lama, who in his foreword to the book states his hope "that this book ... would help the readers to understand the lives of tens of thousands of birds across the Himalayas, and inspire them to extend their compassion towards other living species as well".

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Martin G.R. 2017. The sensory ecology of birds. Oxford University Press, Oxford. Paperback, XVI + 296 pp. ISBN 978-0-19-969454. €40.99.



Each year millions upon millions of birds collide with glass, wires, cars and what not. These are the same organisms that use their acute vision to forage on tiny, well-hidden insects, avoid natural obstacles in the field, detect predators, migrate between continents and, in short, have survived several serious bottlenecks during their evolutionary past. Why then do these feathered jewels, endowed with such sensory capacities, apparently 'fail to see' wires or window panes? Are the senses of birds perhaps less superior than we think? Or not yet adapted to something which entered their world only very recently (especially seen in the light of the 350-million-year period since the camera type of eye – capable of spatial vision – evolved)? These and many other questions are tackled in the present, hugely informative yet entertaining, book. It can be, and indeed is, argued that the evolution of eyes changed the world for animals, and especially birds (for insects and their pheromones, another story could be told). The eye takes therefore pride of place with some 60% of the text devoted to the multifarious aspects of vision alone (birds are described as 'wings guided by an eye'). The other chapters are about touch, taste, hearing, olfaction and magnetoreception.

The senses of birds are described in great detail, but always mechanistically (i.e. describing what is possible/impossible given the limits set by, for example, lateral vision, photoreceptors in the retina, sound pressure levels, size and shape of olfactory bulbs, and so on). Comparisons are often made with the sensory capacities of humans, which brings home the message that