## ORNITHOLOGY

## Raptors: The Curious Nature of Diurnal Birds of Prey

By Keith Bildstein. 2017. Cornell University Press. 336 pages, 52.50 USD, Cloth.

Reading this book on raptors was like reading Lady Diana's biography. We have seen the pictures and much of the text before. Pulling all the many reports together in one place provides a clarifying perspective on a very complex subject. This is the case with *Raptors*. I have heard much—but not all—of the information before,

in bits and pieces and separated by years. Bildstein has done a great job of combining all the information into one volume. The author has excellent credentials for this undertaking. He is the Sarkis Acopian Director of Conservation Science at Hawk Mountain Sanctuary in Pennsylvania. He organises the conservation and education programs and runs the graduate, international, and visiting scientist programs. He has authored many peer-reviewed publications including several books on raptors.

Many years ago, I was confused by the question of what is a raptor? Is it a meat eater? American Robin (Turdus migratorius) and Golden Eagle (Aquila chrysaetos) eat meaty worms. Mergansers and Osprey (Pandion haliaetus) eat fish. Clearly robins and mergansers are not raptors. How about birds that catch prey in their talons? Where does this leave vultures? I am relieved to note I am not the only one confused. Even the mighty taxonomists seem to be in a quandary. This author notes that the American Ornithological Society (AOS) lists woodpeckers, falcons, and parrots in sequence. However, he says it should be tyrant flycatchers, parrots, and falcons. Similarly, the AOS has hawks, owls, and trogons together, while the author quotes molecular research as grouping owls, North American vultures, and the Cuckoo Roller (Leptosomus discolor). Our own Turkey Vulture (*Cathartes aura*) is another enigma. It is not a buzzard and is not related to the raptors of Europe, Africa, and Asia. While the New World vultures look like their old-world counterparts and perform the same ecological role, it is the result of convergent evolution, not family ties. Taxonomists seem to have difficulty deciding who the Turkey Vulture's closest relatives are: ibis, owls, or the enigmatic Cuckoo Roller; no wonder I am confused. I will stay happy to count all the hawk-like birds as raptors.

For me the author has two achievements. Aside from bringing an over-arching outlook, he also brought a global perspective. He does a really fine job of covering raptor biology, at least what we know so far. He has researched how a raptor is put together and the effect on feeding, breeding, flight, distribution, and migration. He notes the many deficiencies in our knowledge and the possible ways we can fill the gaps (with webcams, satellite tracking, miniature transmitters, etc.).

I thought I understood migration, but Bildstein shows it is way more complex than we ever knew. The recently-discovered meanderings of Turkey Vultures are confusing. The amazing migration of Amur Falcons (*Falco amurensis*) is truly startling. I have seen these delightful little raptors breeding in Mongolia and wintering in Africa without realising how tough they are.

There is a small section of photographs. While they are good quality, I suspect they were chosen to illustrate a point rather than provide heart-stopping photos.

I found the chapter on "Raptors and People" the most enlightening and disturbing. The list of offences, both deliberate and unthinking, we have committed against these birds makes for unsettling reading. It is remarkable how they have survived this onslaught, but they still need our help. Despite taking four trips to India, I have seen just over 150 vultures of all species in a country where there used to be 40–50 million birds. In North America, the number of times bounties have been paid for raptor heads is horrifying. We are still not over the anti-raptor hurdle and it is comforting to know there are still people working to save these magnificent birds.

While most avid birders will be in familiar territory, the book reveals some interesting twists. It is easy to read, yet still maintains a very high level of scientific objectivity. I learned a lot, as well as refreshing some of the grey zones in my aging brain. Most importantly, I enjoyed reading this book.

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