Nightjars, Potoos, Frogmouths, Oilbird, and Owlet-nightjars of the World

By Nigel Cleere. 2010. Princeton University Press 41 William Street, Princeton, New Jersey, USA. 464 pages. 45.00 USD, Cloth.

Before I review this book I would like to comment on this odd group of birds – the caprimulgids. For the most part their plumage is a mixture of browns and greys. Many have white throats, wing and tail spots. Most are similar in size and shape. The combination of colour and shape makes it very difficult to "see" these birds among dead leaves and branches where they live. I once spent 40 minutes getting a group to "see" a nighthawk asleep on a branch about 20 metres away and in clear view. The word used most often is cryptic – secret, tending to conceal or camouflage.

When you get to see one, these birds have an elegant, understated beauty in their soft brown feathers. Yet they are also odd. They look somewhat like owls, but are clearly not. They also look a little reptilian. They are nocturnal or crepuscular and this, coupled with their camouflage means they are rarely seen. I worked out in a typical year I go out birdwatching at night maybe two percent of the time. I see most local owl species [the other big group of nocturnal birds] most years because they can be found roosting in trees during the day. This year I have seen over two dozen owls so far of seven species, yet only one caprimulgid sleeping in a tree.

Depending on the source there are well over 100 species of caprimulgids, this book says 135. Handbook of Birds of the World lists 118. Comparing this book's list of species to other sources was difficult because the author has switched some groups of birds to new genera. For example, he has moved a large swatch of species from *Caprimulgus* to *Antrostomus*. He has also used different English names for several birds. Much of the difference in numbers is because this author recognizes several birds as full species whereas others still consider them subspecies [e.g. Little Nightjar, Caprimulgus parvulus and Todd's Nightjar, Caprimulgus (parvulus) heterurus] Of the species listed, five are only known from a single specimen. The calls of nine species are unknown. The eggs of twenty species are undescribed. Many have not been photographed in the wild. I doubt we have heard the end of the taxonomic convolutions of this perplexing family.

Finding a book that will improve my knowledge of these enigmatic creatures was therefore wonderful. The book starts with sections on distribution, general biology and taxonomy. Bulk of the book is devoted to individual species accounts and is followed a glossary, photo credits, the index etc. I found the introductory sections interesting and educational, well worth the read

For the species section the author has collected the best photographs he could find. He has collected material from a large number of contributors, so the photo credits occupy 16 pages. Where no photos of live specimens exist he has used photos of museum specimens. All the photos of live, wild birds are really good quality. Presumably, if you find a bird that believes its camouflage is invincible it will sit for its portrait! These are accompanied by a small world map showing the locality and a large [quarter to half page] showing the bird's distribution. The distribution maps are excellent and so much easier to use than those in most other guides.

The text notes habitat, calls, breeding, status and a description. It is in this last section that this books shows a weakness. These look-alike birds call for an extremely detailed description like those used in shore-bird guides. The identification notes are very short. For example the author states that a Lesser Nighthawk has "White band toward the wing tip" and a Common Nighthawk has "White band mid-wing." This is a critical field mark and this description is hardly as specific as it needs to be. Fortunately the flight photos of these birds clearly shows the slight, but discernable difference in this field mark. Most descriptions a similarly short.

In July this year the AOU split Whip-poor-will into the Eastern Whip-poor-will and the Mexican Whippoor-will. The authors has anticipated this change and include them as separate species.

In addition to its value as an in formation source, I enjoyed re-visiting the photos. There are frogmouths with bad hair days and grumpy stares, potoos that look more like a branch than the real branch and quaint babies emerging as puffballs from a nearly invisible mother. All are quite delightful. This is a good, and fun, source book for avid naturalist. Now if I could only understand why the ancients called the birds goatsuckers in the weird belief that a pointed beaked bird would suck milk from tender parts of a goat.

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Raptors of New Mexico

Edited by Jean-Luc E. Cartron. University of New Mexico Press, 1312 Basehart Road, SE, Albuquerque, New Mexico, USA. 710 + xvi pages. 50.00 USD.

This six-pound, 726-page book – with 663 colour photographs – is both massive and sumptuous. As Richard L. Glinski says in his Foreword, it "sets a new

standard for state and regional raptor books. Without doubt, it is the best one out there. ... As an attractant, a visual aid, an educational display, a work of art, this

collection of photos is unmatched." Cartron, a French immigrant who abandoned a promising medical career in favour of raptor ornithology, has done a masterful work in compiling and presenting this landmark study, and is well supported by the observations and writings of thirty-seven contributing authors,

The nest photos and habitat photos are outstanding, with a full-page but not numbered photo at the start of each species account. Even non-birders will marvel and gush over the photos of nestlings, especially the Northern Saw-whet Owls and Boreal Owls; cuter and more appealing bird photographs are hard to imagine. Some photos of birds in the hand show special features to good advantage, even if a bit overdone for several common species including the Northern Goshawk and Harris's Hawk (6 each), Cooper's Hawk (5), Red-tailed Hawk and Northern Harrier (4 each).

New Mexico, in area the fifth largest state in the USA, has extremely varied topography. The text and stunning photographs emphasize how steep-faced cliffs produce breeding sites for Prairie Falcons and Golden Eagles. Helpful maps display the main mountain ranges and rivers, the main urban centres and roads, the six main floristic zones, and eleven vegetation communities. The species accounts, for each of the 24 diurnal raptors and 13 species of owl, contain detailed maps, augmented by two additional maps of the American Kestrel and one of the Aplomado Falcon. Commendable is the use of question marks to mark areas, especially for the Zone-tailed Hawk and the Northern Saw-whet Owl, that require additional field work to confirm or reject whether breeding occurs. Appendices list museum egg sets of eight species of interest, and provide prey delivery rates and mark-recapture results for Flammulated Owls. A Glossary explains words that apply particularly to raptors.

Cartron occasionally uses long-outdated terminology. Most regrettable is his use of "returns," a term largely replaced by Mabel Gillespie in the initial issue of the journal *Bird-Banding* in 1930; Gillespie pointed out that "returns" should be used only for birds that return to be re-caught at or near the banding site in a year subsequent to their banding. "Recoveries" re-

placed it, but recent usage prefers this term for the terminal event, a dead bird. With the development of mist-netting and bal-chatri traps for capturing raptors alive, "encounter" is the best term for those still alive. Another shortcoming is the book's failure to name specific pesticides or biocides other than DDT. Monocrotophos, the cause of up to 20 000 Swainson's Hawk deaths in Argentina, is not named. Dieldrin is also not named, although in a referenced paper (Houston and Hodson 1997), it was the explanation for most Merlin mortality in Saskatchewan. The legend for Cooper's Hawk photograph 10.14 says "Copper's Hawk" and the final "ed" is omitted from Great Horned Owl on page 540. Regrettably, county names, used throughout the book, are present on only one map (M.2) and in tiny 6-point type, a detriment for older readers especially. The legend for map M.3 uses the word "towns" loosely to apply to the 29 cities, 11 towns, and a number of villages. The above flaws, however, are minor blemishes in a work of such beauty.

Cartron begins his book with a discussion of the first ornithologists to use the term "raptor" — Johann Illiger coined the term "raptatores" in 1811 and Nicholas Vigors in 1825 changed the name slightly to "raptores," — and Cartron ends on a positive note: "Birds of prey are doing better today than they were in the early and mid 20th century, when shooting and pesticides caused many raptor populations to plummet... raptor populations are at least fortunate enough to be regarded as ecologically important, charismatic, or simply enriching of people's lives."

This well-researched and superbly illustrated reference book belongs in University and college libraries, and will become a proud possession of many raptor enthusiasts. Contributions from 16 "sponsors" and three "collaborators" have helped to keep the sale price only a quarter to a half of what otherwise would have been the case. While its weight makes it inappropriate for reading in an automobile or aeroplane, or in bed, it will command a place of honour on a solid desk.

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BOTANY

Carbon Sequestration and Transformation in Bamboo Forest Ecosystem

By Zhou Guomuo, Jiang Peikun and Xu Qiufang. Science Press, 2010. 216 pages. 60.00 CNY.

Bamboo is a group of most beautiful and useful woody plants belonging taxonomically to the subfamily Bambusoideae of the family of Gramineae. Bamboos are evergreen, monocotyledonous plants, and amazingly adapted to hundreds of different locations and climates. Most of bamboo species are relatively fastgrowing (some species can even grow almost 4 feet a

day), attaining stand maturity within around five years, but flowering infrequently. Like most other grasses, bamboos grow and flourish until they are ready to flower; then they produce seeds and die. Bamboos produce primary shoots without any later secondary growth, and usually spreads by horizontal, multi-culmed rhizomes.