

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Cartron occasionally uses long-outdated terminology.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 “raptors,” — 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 fast-growing (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.

Bamboo has been used by about 2.5 billion people, mostly for fibre, food and for handicrafts and building material, or for providing aesthetic and functional purposes to create good landscapes, especially in Asia, for thousands of years. Yet, its potential contribution to sustainable natural resource management has not been specially stressed. Bamboos are very important plants, both ecologically and economically. Bamboo forest is considered one of the best renewable resources on the planet, and is a sustainably-used resource once established. Its biological characteristics make it a perfect tool for solving many environmental problems, such as soil erosion control, water purification and conservation, carbon sequestration, recreation and so on.

Compared with other tall flowering plants, the pattern of bamboo growth may give an impression of high productivity, however, in fact, sometimes the "rapid growth" is a process of re-distribution of previously stored reserves. The entire bamboo sub-family have C3 photosynthesis lacking the C4 pathway and anatomy, thus the maximum possible productivity of bamboos is theoretically unlikely to be very high. Furthermore, the growth rate of bamboo is dependent on local habitat quality and climatic conditions.

Understanding the ecology of bamboo is unquestionably important, especially under the present global background of advocating low carbon economy and the potentially large ecological restoration works in many degraded tropical and subtropical areas, yet, so far, literature on the ecology of natural bamboo stands is meagre, and reports from plantation stands are rare. Bamboo has been neglected or ignored in the past by tropical foresters, who tend to concentrate on timber trees. Bamboo may have potential as a bioenergy or fiber crop, although some reports of its high productivity seem to be exaggerated. So far, literature on bamboo productivity is scarce, with most scattered reports coming from various parts of some Asian countries. Most bamboo currently has not been used scientifically and sustainably, since the rate of harvest from forest stands usually exceeds that of natural growth, and since the users usually do not have sufficient knowledge.

Bamboo resources in China are most abundant in the world. China is one of the earliest countries using the bamboo resources. It has long been the important forest resources in tropical and subtropical regions of China. According to the 6th National Forest Resource Inventory of China, the present bamboo forest area in

China is about 500 million ha, accounting for 2.5% of forest area of China, and 39% of the total area of bamboo of the world. There are 38 genera and 500 species of bamboo plant species in China, accounting for 36% and 39% of the bamboo species of the world, respectively. Various aspects of bamboo have been studied in China relatively early and for the long-term, yet, these research results have not been summarized over time. The publication of the book *Carbon Sequestration and Transformation in Bamboo Forest Ecosystem* meets such a demand. The book is mainly based on the authors' research data in Zhejiang Province.

The book is divided into two parts. The first part reviews the main previous research results on carbon fixation and transformation in bamboo forest ecosystems. The second part is divided into 11 chapters. Chapter 1 summarizes the latest progresses in research on the carbon pool, carbon cycle, and carbon balance of forest ecosystems; Chapter 2 summarizes progress in research on the cultivation, management and biomass of bamboo; Chapter 3 and 4 deal with the spatial distribution of bamboo forests, and estimate the total biomass and carbon storage of bamboo in Zhejiang Province; Chapter 5 and 6 reveal the carbon accumulation and dynamics of bamboo forest with different management modes and different ages; Chapter 7 analyses the impacts of fertilization and floor cover on the evolution of soil organic carbon in bamboo forests; Chapter 8 compares soil active organic carbon pool of bamboo forests in subtropical area with those of other forest stands; Chapter 9 discusses and compares the abilities of soil carbon sequestration of bamboo, fir, and pine forests; Chapter 10 analyses the impacts of floor cover in winter on the rates of soil respiration in bamboo forests; Chapter 11 summarizes the main results of the present research on carbon fixation and transformation in bamboo forest ecosystems.

This book is suitable for scientists, teachers, students or other persons who are engaged in or interested in forest science, ecological science, soil science and relevant fields.

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Pitcher Plants of the Old World

By Stewart McPherson, 2009. Redfern Natural History Productions, 61 Lake Drive, Hamworthy, Poole, Dorset BH15 4LR, England, UK. xiii + 631 pages. (Volume 1); 768 pages (Volume 2). £34.99 (\$79.99) per volume plus shipping. Cloth.

Pitcher plants are intriguing in term of not only unusual forms, but also unique ways of nutrient acquisition. Pitcher plants include the largest and most spectacular of all carnivorous plants. They produce

highly specialized foliage that takes the form of hollow, liquid-filled "pitchers", forming the extraordinary prey-trapping mechanism to lure and prey upon insects, arthropods and other small animals. Contrast to most

Erratum The Canadian Field-Naturalist 126(4)

In response to the review of *Contributions to the History of Herpetology*. CFN 126(3): 344-345, the book's editor Kraig Adler pointed out (personal communication to FRC 12 May 2013): "Only one small correction. Mrs. Martof used a kitchen knife, not a gun. She told the police she slipped while cutting some pizza. But Bernie was stabbed up under his rib cage several times!"

Erratum The Canadian Field-Naturalist

It has come to our attention that sections of many of the book reviews by Li Dezhi and Qin Aili were copied from sources without attribution. The journal and the authors apologize for this oversight.