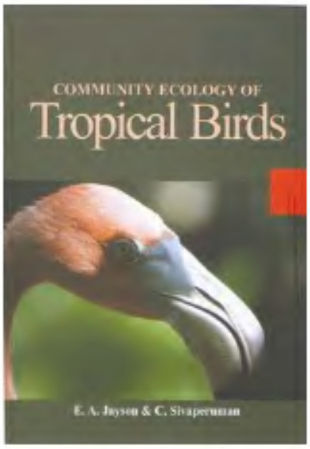

Community Ecology of Tropical Birds. E. A. Jayson and C. Sivaperuman. New India Publishing Agency, 101, Vikas Surya Plaza, CU Block, L.S.C. Mkt., Pitam Pura, New Delhi 110 088. 2010. 282 pp. Price: Rs 1150/US$ 48.00.

Community ecology is one of the most fascinating branches of biology. It is a science that has in the past 60 years made great strides in the quantitative study, analysis and interpretation of biological diversity within and across ecosystems by bringing together ecologists, mathematicians, theoreticians and evolutionary biologists. Simple questions like what determines the number of species, why are some species more abundant than others, what happens when one or more species are removed from a closely knit biological community, how does competition between two or more species locally enhance the opportunities for a number of species to co-exist, how does environmental disturbance influence species diversity, and others have kept the science of community ecology alive and vivid.

The great diversity of tropical birds soon caught the attention of naturalists and ecologists that the quest to study bird communities in tropical ecosystems, 30–60 years ago, was almost like a second gold rush. Early works of G. E. Hutchinson, Robert H. Mac Arthur, Martin L. Cody, Jared M. Diamond, Daniel Simberloff, John Terborgh and their numerous students have contributed enormously to our understanding of bird community ecology and biological diversification in the tropics in general.

Community ecological study of birds, in the strict sense, was for the first time launched in India in 1983. The credit goes to Madhav Gadgil. The pioneering study that Gadgil set in motion was funded by the Department of Environment and Forests, Government of India through the Centre for Ecological Sciences, Indian Institute of Science, Bangalore. It focused on the Western Ghats district of Uttara Kannada. Several outstanding publications emerged from the study that over the next 20 years, these and others (of research carried out elsewhere in the Western Ghats and Himalayas) have together placed Indian bird community ecology on a higher platform and at par with that of the West.

This book focuses on community ecology of tropical birds. The authors have made an attempt to bring out a book, for the first time in India, on the subject. The book begins with a set of 18 plates that depict various birds and habitats. The text is divided into two parts; Part I – Forest bird communities and Part II – Wetland bird communities. The 12 chapters that deal with the various topics are distributed six each in the two parts of the book.

It is indeed commendable that the authors have felt the need for an Indian reference book on community ecology of tropical birds. However, the contents of the book are generally narrow in focus and may well disappoint the serious student. First of all, the title is misleading. The book discusses birds of the Silent Valley National Park and the adjoining Mukkali in Part I, and in Part II it covers the famous *kole* wetlands of Kerala. Skimming through the references cited in the book and listed at the end, and the overall tone of the text, it is evident that Part I is extracted from the Doctoral Thesis of the first author and Part II from project reports that the two authors have together prepared in the past.

The second major shortcoming is the total lack of review of the subject. One of the most well-researched topics in ecology and one in which Indian ecologists have made a real headway has not been showcased in the book. Whether one might call it ignorance, the authors have gone on to make the most demeaning claims. For example, while discussing the relationship between foliage stratification and birds in the Silent Valley (p. 72), the authors have stated 'even though many studies have been reported on the forest bird communities from South India, relation between foliage abundance and bird diversity have not been dealt with in detail'. Having said that, it will be interesting for the readers of the review to note that the authors have used vertical poles to measure canopy (in classes of 5 m) up to a height of 31 m and above! Little wonder the authors have observed that the foliage abundance is negatively correlated with height in the Silent Valley (p. 82).

Brahminy Kite – *Haliastur indus*

In Part II (pp. 182–190), the authors have described the way in which they have assessed the prey size of selected wetland birds. 'Direct observation method was used for studying the food and feeding patterns of five selected species of birds. . . is an effective technique for studying the diet of wetland birds. . . this method does not require capture and killing of birds and is unaffected by different digestion rates of different prey species. However, it depends on the ability of the observer to correctly identify and estimate the size of the prey items consumed by the bird. The birds quickly accepted the observer, often feeding within 200 m from the observer' (p. 182). Presumably, the authors observed the feeding from a distance of 200 m and the result is that the estimated size of the prey of a Little Cormorant is 6–55 cm, an Indian Pond Heron is 2–40 cm, Little Egret and Large Egret 5–60 cm and that of a Whiskered Tern 1.2–5 cm (pp. 184–189). Incidentally, the total length of a Little Cormorant is 51 cm, Pond Heron 42–45 cm, Little Egret 55–65 cm and Large Egret 90–102 cm.

For those interested in knowing the birds of the Silent Valley or *kole* wetlands of Kerala, there are lists included in the book. The book also includes 79 tables and graphs in Part I, and over 100 in Part II. Information on rainfall for the Silent Valley and the *kole* wetlands is available in some of these tables. A few tables list common birds and their abundances. The various indices that estimate species diversity are also described. On the whole, the book falls short of being a reference book as the contents do not match the generality of the title.

R. J. RANJIT DANIELS

Care Earth Trust,
No. 5, 21st Street, Thillaiganganagar,
Chennai 600 061, India
e-mail: ranjit.daniels@gmail.com