

species is further illustrated, as if the profusion of photographs used were not already enough, with a drawing done in dorsal view. One wonders what additional information these drawings are supposed to impart. Much more useful are the distribution maps given for each species. The accompanying text provides a good deal of information on species characteristics, habitat, diet, distribution, conservation status and so forth, but falls short in the description of breeding habits. Given that one has a far greater chance of hearing frogs and toads than actually seeing them, it would have made a lot of sense for the authors to include a description of the breeding vocalizations of every species. Better still, why not include a CD-ROM of anuran calls, to be sold with the book? This would have represented a clear advance on the previous *Hong Kong Amphibians and Reptiles*.

Part Five of the book contains a worthy discussion of conservation issues facing Hong Kong amphibians. Indeed, it is clear that much earnest effort has been put into the entire book, and I take little pleasure in writing such a negative review. To finish on a high, therefore, *A Field Guide to the Amphibians of Hong Kong* represents an important improvement on its afore-mentioned predecessor in three regards: it is written in Chinese as well as English, it covers an additional species, *Amolops ricketti*, for the Hong Kong list, and it brings the nomenclature of several species up to date. It is certainly good value for its HK\$80 price tag, and I recommend it to non-epileptics as a useful addition to their libraries on Hong Kong wildlife.

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## **Tropical Rain Forests: An Ecological and Biogeographical Comparison.**

by Richard Primack & Richard Corlett,  
hardback. Blackwell Publishing, 2005.

It is probably true to say that most biologists unacquainted with tropical rain forests tend to think of them, in the abstract, as more or less homogeneous ecosystems aggregated around the world's equatorial regions. I certainly shared this over-generalised conception (although several weeks in the jungles of northern Borneo had begun to discline me to it), before the advent of *Tropical Rain Forests: An Ecological and Biogeographical Comparison*, and it was with great fascination and delight that I was able to read much of this illuminating book during a recent field trip to Sarawak.

Regular readers of *Porcupine!* will need no introduction to Richard Corlett – surely the most prolific and stimulating contributor to this newsletter since its inception – and will be aware of his long-standing interest in tropical Asian forests. Co-author Richard Primack is himself a distinguished botanist, based at Boston University, and author of *Essentials of Conservation Biology* (1993) – reputedly the first introductory text on this discipline. The two of them have combined their skills to produce a lively and absorbing

challenge to the orthodoxy that tropical rainforests are essentially similar the world over, by explicitly emphasizing the manifold ways in which such forests differ, floristically, faunistically and ecologically, from region to region. The underlying comparative theme is continued throughout the book, sustaining the reader's interest and inviting one to delve deeper.

The authors set their stall out in Chapter 1, identifying the areas of the world in which tropical rain forests occur, their geological histories and meteorological regimes, the reasons why there are differences (as well as the acknowledged similarities) in rain forests from region to region, and flagging up the functional consequences of such inter-regional differences. Less emphasis is given to differences in forests within the same region, although such differences certainly occur (one thinks of the various forest types – mangrove, kerangas, peat swamp, alluvial swamp, mixed dipterocarp and montane – and the different associated range of species, which may be found even within the tiny sultanate of Brunei).

The following chapter explores the different kinds of plant communities which characterize tropical rain forests in different regions – the familiar dipterocarp forests of south-east Asia, the bromeliad-rich forests of the neotropics, the relative abundance of the families Dichapetalaceae and Olacaceae in Africa. Clear regional differences in species diversity are also highlighted: forests in the neotropics coming out on top with on average just under 200 species per hectare, and Africa coming bottom with approximately half of that figure. Forest structure and timing of fruiting and flowering events also vary regionally, with concomitant effects on faunal assemblages.

These effects on key elements of the forest fauna (primates, carnivores and forest floor herbivores, birds, bats and gliders, and insects) are discussed at length in the ensuing five chapters, with particular reference to the ways in which the ecological roles of these groups vary regionally as a consequence of forest structure and floral composition. These chapters contain much revelatory information of absorbing interest to floristically-challenged rain forest neophytes (this reviewer included), who may be familiar with the fauna but have a slender grasp of how it relates to the flora.

The book rounds off, as all such books must do nowadays, with a discussion of threats to the various rain forests around the world. One emerges at the other end with a renewed concern for, and fascination with, these vibrant ecosystems, and I heartily recommend this book, while at the same time admitting that my knowledge of rain forests is inadequate to detect flaws which may seem evident to others. Perhaps the best recommendation I can make is that I have compared this book with T. C. Whitmore's 1998 offering, *An Introduction to Tropical Rain Forests*, and found that, to my mind at least, Primack & Corlett's book benefits by the comparison.

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