

BOOK REVIEW

DUDGEON D. & CORLETT R.: HILLS AND STREAMS. AN ECOLOGY OF HONG KONG. Hong Kong University Press, Hong Kong, 1995, xv + 237 pp. ISBN 962-209-357-4. Price USD 18.00.

As far as most animal and plant taxa in the area of South-East Asia are scarcely known, the territory of Hong Kong is an exception. Despite centuries of human impact and one of the highest population densities on Earth (total population increased from about 3,000 to nearly six million during the past 150 years), most of Hong Kong is still rural in character and diverse in terms of flora and fauna. This book, illustrated by three full-colour maps and 68 colour photographs is intended to contribute to the conservation of the Hong Kong countryside by providing the scientific basis for its management and raising awareness of its value.

The authors are ecologists in the Department of Ecology and Biodiversity at the University of Hong Kong. D. Dudgeon has specialized in the ecology of freshwaters while R. Corlett has worked mostly on plants and their interaction with animals. That is why this book is comprehensive, systematically integrating rather different points of view and methodical approaches.

The volume consists of nine chapters. The first three chapters are introductory (Evolution and Adaptation, Environment and History, and Climate and the Hong Kong Biota). They are devoted to general ecological concepts (natural selection, conflicting demands and the flexible phenotype) as well as to a short review of Hong Kong's current abiotic (climate, geology, soil, environmental history) and biotic (vascular plants, fauna) environmental components. The following chapter describes seasonality of plants (leafing, reproduction), bird migrations, seasonality and breeding of terrestrial and seasonality of aquatic animals, both invertebrates and vertebrates. The next two chapters summarize the effect of land and water factors

(stream valleys and physical conditions, zonation and the river continuum concept) on succession and climax. Except for highly-managed areas like the largely urban and agricultural coastal flatlands, all types of biotopes are treated: montane woodland, secondary forests, special formations called *feng shui* (literally, "wind-water" woods), streams and the artificial lakes. Chapters 7 and 8 are devoted to food and feeding relationships (primary production, herbivores, detritivores, coprophages, carnivores and foraging theory) and to the impact of alien species on the original fauna and flora. The last chapter, perhaps the most important one, deals with conservation and environmental impact assessment. It summarizes protected areas (so-called Country Parks now covering more than 40% of the total area), protected animals (the list of protected plants contains more than 80 species, that of animals more than 50 species of mammals, all birds, 13 reptiles and 3 amphibians but only a single species of invertebrates – *Troides helena*, a bird-wing butterfly), restoration problems and current questions of modern management of the environment. The book is completed with a glossary defining some technical ecological terms and with notes on further reading, a bibliography and a combined subject and taxonomic index.

Although the book has been written primarily with undergraduate students in mind, the text is not aimed only at those specializing in ecology. Ecological concepts and theories are introduced only where they are necessary to understand the features of Hong Kong's ecology. Moreover, this book is not a mere compilation, but, in many respects, an original scientific publication on South-East Asian biotopes and biota the knowledge of which is mostly fragmentary. Consequently, tropical ecologists, hydrobiologists and naturalists will find this book very useful and enjoyable.

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