

UC Merced

Frontiers of Biogeography

Title

book review: A truly colourful inter-continental tropical kaleidoscope

Permalink

<https://escholarship.org/uc/item/04k2f6dt>

Journal

Frontiers of Biogeography, 3(1)

Author

Sheil, Douglas

Publication Date

2011

DOI

10.21425/F5FBG12387

Copyright Information

Copyright 2011 by the author(s). This work is made available under the terms of a Creative Commons Attribution License, available at

<https://creativecommons.org/licenses/by/4.0/>

plenty of clear colour diagrams that would lend themselves well to undergraduate teaching. However, it is probably pitched at a level most appropriate to postgraduate students, expert practitioners, academic researchers, or to undergraduates doing research projects. There is good cross-referencing and linkage among chapters and thus, in contrast to some edited books, this reads like a coherent piece of work rather than a collection of individual chapters. One of the stand-out features of this book, though, is that the 'bread-and-butter' chapters are crowned with the final chapter ("What of the future?") written in uniquely flamboyant style by Brian Moss. This provocative chapter pools the thoughts and experience of experts in the field to take the reader on a journey through the climatic ecozones of Europe to imagine what the future will be like. The settings for this chapter are the River Erehwomos in the arctic/boreal ecozone, the River Gutflave in mid-continental latitudes, the island of Hibscotia representing peninsulas and islands and the River Graecerina in the Mediterranean region. The resulting chapter is limnological marmite. The descriptions of the future focus largely on the nega-

tive impacts of future warming and are likely to antagonise those optimists who advocate technological innovation as the answer to climate warming. However, the material in this chapter builds on a sound scientific base and when considered in the context of the error margins of some numerical models, there is no reason to consider that these models of the imagination are any less realistic a scenario. Whether you agree with the interpretation or not, this is a fun approach to science that makes the book all the more enjoyable.

Suzanne McGowan

School of Geography, University of Nottingham, UK. e-mail: Suzanne.McGowan@nottingham.ac.uk; <http://www.nottingham.ac.uk/geography/people/suzanne.mcgowan>

References

George, G. (2009). The impact of climate change on European lakes. Aquatic Ecology Series, Volume 4. Springer.

Edited by Markus Eichhorn

book review

A truly colourful inter-continental tropical kaleidoscope

Tropical Rain Forests – An Ecological and Biogeographical Comparison (second edition), by Richard T. Corlett and Richard B. Primack

Wiley-Blackwell, 2011, 336 pp. ISBN: 978-1-4443-3255-1

Price: £55.00 (Hardback) / £34.95 (Paperback)

<http://www.wiley.co.uk/>

On Sunday 21 October 1492, Christopher Columbus wrote of the Caribbean Island that he calls "Cabo de Isleo" that

"The trees are of many kinds, each with its own fruits, and all have a marvellous scent. It grieves me extremely that I cannot identify them, for I am certain that they are all valuable".

Columbus was no botanist but he paid attention to plants —he was keen to find the Asian spice trees he had promised to his sponsors. His diaries show his recognition that the plants of the West Indies were different to those in Africa and Europe.

As Columbus was aware, forest communities differ depending on their continental context. Far from being uniform formations, where valued resources known from one location such as the nutmeg, cinnamon and cloves of Asia can be anticipated in similar settings elsewhere, forests are diverse and their communities differ markedly with location. Observations from one site may or may not apply to another. Seeking Asian spice plants in Caribbean forests only seemed reasonable while these islands were judged to be Asia.

While few actually set out to argue that all tropical forests are similar it is often a default as-

sumption. How frequently do we see research conclusions from one region applied unquestioningly to another? It is common and each is a possible error. Every tropical region has its own characteristics and we generalise at our peril. In *Tropical Rain Forests* the authors explore and summarise many differences among the rain forests of Africa, the Americas, Madagascar, New Guinea (and Australia) and Southeast Asia. They also consider a host of island forests.

The authors stated in the preface to the first edition that they hoped that their readers

“will come away with an appreciation that our planet is host to not one monolithic tract of rain forest, but many unique tropical rain forest habitats, all worthy of study and protection.”

It was a simple idea and they succeeded with style. Now they are back with more. This second edition is extensively updated throughout — indeed it is a substantially different book to the first. It is available as a paperback. It includes a new chapter on island ecosystems. There are now even more illustrations and the entire book is printed in colour.

The book's nine chapters focus on the global setting and history, plants, primates, vertebrate carnivores and plant eaters, birds, fruit bats and gliding vertebrates, insects, island forests, and threats (“the future”). Chapters are packed with examples and most conclude by posing intriguing questions and offering suggestions for comparative studies.

The book offers a well-judged balance between many details of natural history and more general ecological summaries. I enjoyed the stimulating selection of facts and ideas. It is hard to capture the flavour, but by opening the book at random and browsing for a moment I can offer some illustrations. One example (p. 155) concerns the dietary overlap and complementary diversity patterns of parrots and squirrels—is it perhaps that a high diversity of one necessitates a low diversity for the other? Another (p. 172) notes that Madagascar's bizarre aye-aye (*Daubentonia madagascariensis*)—a wood excavating lemur—and New Guinea's striped possums (*Dactylopsila* spp., also excavators but marsupials) occur in re-

gions lacking woodpeckers. Is this a coincidence? Want some more? OK, let us compare the manner in which different regions' fruit bats feed (p 189): only the paleotropical pteropodids regularly spit out fibrous material after prolonged chewing—the neotropical phyllostomids are more likely to swallow seeds. But apparently such differences cannot explain (p. 193) the low reliance of Asian pioneer vegetation on bat dispersal when compared to otherwise similar American vegetation—when neotropical pioneers have been introduced to Asia they are effectively spread by Asia's pteropodid bats. Another? The close relationship between oil gathering bees and oil providing Malpighiaceae plants is entirely neotropical—though these plants have colonised the paleotropics these species have adopted other pollinators and no longer provide oils (p. 231).

Yes there are minor quibbles. For example, one or two graphics lack adequate explanation, e.g. in Figure 9.6 we remain uncertain what is meant by the distance that an “edge effect” penetrates, as no clarifications are provided (perhaps more importantly given the book's theme the idea that such patterns may differ with location and among continents also remains unexplored). A few more references to link key facts to sources would have been welcome too. I'd also have preferred more consideration of variations within continents and what these might tell us—but of course that would have required a substantially larger book. Perhaps the third edition...

In summary: this is a fascinating book. I enjoyed it, I learned from it and I recommend it. It will be of value to academics, researchers and students, and, due to its accessible style and illustrations, it will appeal to many others too. Columbus would have found it helpful—but over half a millennium later so might many of us.

Douglas Sheil

Institute of Tropical Forest Conservation, Kabale, Uganda and Center for International Forestry Research, Bogor, Indonesia. e-mail: douglassheil@itfc.org; <http://www.itfc.org/>

Edited by Markus Eichhorn