

# UC Merced

## Frontiers of Biogeography

### Title

Books noted with interest

### Permalink

<https://escholarship.org/uc/item/74r9747c>

### Journal

Frontiers of Biogeography, 7(3)

### Author

Eichhorn, Markus P

### Publication Date

2015

### DOI

10.21425/F5FBG28991

### Copyright Information

Copyright 2015 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/>

Peer reviewed

---

## Books noted with interest

---

### **Mammals of Mexico**

Gerardo Ceballos (editor)

2014, John Hopkins University Press, 984 pp.

\$150.00 (Hardback)

ISBN 9781421408439

<https://jhupbooks.press.jhu.edu>

544 species of mammal occur in Mexico—the second highest total of any country—and almost a third are endemic. This comprehensive, authoritative account neglects none of them, from manatees to the tiny volcano rabbit. The synthetic chapters are impressive in themselves, covering national patterns of diversity and conservation status. Species accounts include notes on taxonomy, natural history, associations with habitat types, elevational range, and distribution maps (with historical range when known). A dense, 80-page bibliography supports the text. An outstanding source of information for biogeographical research, and the photographs make it a pleasure to browse. Highly recommended.

### **Biogeography and Biodiversity of Cacti**

Wilhelm Barthlott, Kerstin Burstedde, Jan L. Geffert, Pierre L. Ibisch, Nadja Korotkova, Andrea Miebach, M. Daud Rafiqpoor, Anke Stein & Jens Mutke

2015, Schumannia 7, 205 pp.

€39 (Hardback)

ISBN 978-3-7308-1144-3

<http://www.kakteen.org/schumanniae.shtml>

Although cacti are (almost) restricted to the New World, their 1438 species span 100 degrees latitude from boreal Canada to Argentine grasslands. Characteristic desert plants they may be, but species occur in habitats including high mountains and rain forests. A modern biogeographical treatment is long overdue. Seven centres of diversity are identified, yet no sign of a latitudinal diversity gradient is evident; instead two peaks occur at the tropics. Ranges of almost all species are mapped, in addition to richness at higher taxonomic and functional levels. The text is in both English and German, with sources drawn from both literatures.

### **The Evolution of Life**

Graham Bell

2015, Oxford University Press, 496 pp.

£39.99 (Paperback)

ISBN 9780198712572

<http://oup.com>

Many of us struggled through interminable undergraduate courses which required memorising the features of obscure invertebrate phyla. This textbook is an antidote, focussing directly on the process of adaptive evolution and its effects upon populations. Given the broad sweep it is admirably concise, focussed and approachable. Each chapter follows a clear narrative thread, reinforced throughout. Two take a different approach, tackling the diversity and ancestry of life by working outwards from humans. Plants and fungi are barely mentioned, alongside other omissions, but if you want your students to gain understanding rather than simply rote learning then this comes highly recommended.

### **Discovering the Deep: A Photographic Atlas of the Seafloor and Ocean Crust**

Jeffrey A. Karson, Deborah S. Kelley, Daniel J. Fornari, Michael R. Perfit, Timothy M. Shank

2015, Cambridge University Press, 430 pp.

£60 (Hardback)

ISBN 9780521857185

<http://www.cambridge.org/>

Given that the majority of our planet is covered in water, scientific sampling of the seafloor to date has been paltry. The frontiers of discovery in the abyssal depths pose as many technical challenges as extra-terrestrial space. This lavishly-illustrated book provides an introduction to deep sea discoveries, with a particular focus on mid-oceanic ridges and hydrothermal vents, which captivate geologists and biologists alike with their bizarre formations and associated species. This book functions as both coffee-table entertainment and entry-level textbook. It would be useful in tutorials as a source of illustrations, and will hopefully inspire a new generation of explorers.

### The Great American Biotic Interchange: A South American Perspective

Alberto Luis Cione, Germán Mariano Gasparini, Esteban Soibelzon, Leopoldo Héctor Soibelzon & Eduardo Pedro Tonni

Springer Briefs in Earth System Sciences: South America and the Southern Hemisphere 2015, Springer, 97 pp.

£44.99 (Paperback) / £34.99 (eBook)

ISBN 978-94-017-9791-7 / 978-94-017-9792-4  
<http://www.springer.com/>

A monograph documenting the extinction of mammalian megafauna in South America following the Great American Biotic Interchange. The earliest evidence of arrivals from North America lies in the late Miocene (c. 7 Mya), but the real exchange only began around 2.6 Mya and movement of taxa was predominantly southwards. The authors focus on chronostratigraphy and describing the geological record, omitting much contextual information regarding the habitats and communities within which these species were found and the wider repercussions of their loss. Despite its relatively short length the text is often repetitive and perhaps merited publication in a different medium.

### Basic Steps in Geostatistics: The Variogram and Kriging

Margaret A. Oliver & Richard Webster

Springer Briefs in Agriculture

2015, Springer, 100 pp.

£44.99 (Paperback) / £34.99 (eBook)

ISBN 978-3-319-15864-8 / 978-3-319-15865-5  
<http://www.springer.com/>

Geostatistics is an alternative tradition to those measures of spatial autocorrelation more typically used in ecology and biogeography, and perhaps underused as a consequence of relative unfamiliarity. Spatial covariance in a parameter is described using a variogram, which can be used to make predictions via kriging. This is particularly valuable when projecting in space from restricted sampling data, for example with environmental variables. This text provides a condensed introduction to the fundamental principles, albeit better suited to readers from a mathematical background than complete novices. No software tools are introduced and its greatest value may be as a concise reference.

Markus Eichhorn

University of Nottingham, UK

## The SAGE Handbook of Biogeography

Edited by **Andrew C Millington, Mark Blumler and Udo Schickhoff**

This text is a manual for scoping the past, present and future of biogeography that enable readers to consider, where relevant, how similar biogeographical issues are tackled by researchers in different 'schools'.

Usual price ~~£110.00 / €139.35 / \$181.23~~ Now\* **£55.00 / €69.67 / \$90.61**

Quote the code **UK14AF72** at checkout on our website to receive your discount. This discount is valid until **31 December 2015**. \*For customers in Australia and New Zealand, please get in touch at [lucia.sweet@sagepub.co.uk](mailto:lucia.sweet@sagepub.co.uk) to place your order.



**SAGE**