

## Book Reviews

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### *Editorial*

*Folia Geobotanica* 48(2):291–292 (2013) published a review of the book entitled “A Handbook of the World’s Conifers” by Aljos Farjon. Book reviews convey personal opinions of their authors, so the editorial office modifies or comments on them only to the minimum extent necessary. In this case, however, we must declare that we consider the review by Roman Businský to be personally biased and regard his assessment of the book as incorrect, inappropriate and not in accord with scientific ethic. We are truly sorry for any inconvenience this situation may have caused the author of the book. We are also issuing an apology to him in a separate correspondence and hope that we will avoid similar situations in the future.

**Lawrence R. Walker (2012): THE BIOLOGY OF DISTURBED HABITATS. The Biology of Habitats Series; Oxford University Press, Oxford, New York, etc., 319 pp. ISBN 978-0-19-957530-5 (Pbk)**

This book marks the twentieth title in the Biology of Habitats series, the first having been published in 1996. The author is a leading researcher on ecological succession and has already (co)authored several other important books dealing with vegetation dynamics after disturbance – and the theoretical and practical consequences thereof (Walker and del Moral 2003; Walker et al. 2007) and I would recommend these books also for consideration.

The present book covers a wide range of specific habitats created both by natural and anthropogenic disturbances, and describes just what happens after a denuded surface has been formed. Within its ten chapters various kinds of natural terrestrial and aquatic habitats – and, separately, anthropogenic habitats – are thoroughly described. In the Introduction the author gives a basic explanation of disturbances from an ecological point of view. Several chapters are devoted to important ecological issues

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relating to disturbed habitats, such as: ecosystem processes; biodiversity; invasive organisms; spatial patterns formed by disturbances; the temporal dynamics which follows disturbances; and conservation and restoration management. The book closes with the important chapter *Global concerns and future scenarios* – where the impacts of processes which change disturbance patterns over the globe, such as climate change and overpopulation, are discussed, and some suggestions as to how we might mitigate expected negative impacts are presented. In particular, the author considers the possibilities for humans to reduce the vulnerability of society to disturbances in this nice chapter that synthesizes various elements. The book is completed by boxes presenting illustrative case studies and a brief but useful glossary. I very much appreciate the extensive list of references (51 pages) that includes literature from all parts of the world (not all books by American authors so thoroughly respect overseas literature). Zoological literature, however, is less represented but this is perhaps understandable for an author whose background is in plant ecology.

I must say, I enjoyed reading the book. It is full of useful information, easily readable, with a well-structured content. Only one small criticism: the author sometimes considers some severe anthropogenic disturbances as having too negative impact on biota – for example, in the case of military activities when he writes (p. 70), “where regular military exercises are practiced, the accumulated effects on habitats are negative” As we know from our own Czech military training areas, the ceasing of military activities has usually led to detrimental effects on organisms and their communities. Furthermore, mining can be seen in some cases in a more positive light than is given in its respective chapter; mining can provide habitats for various rare and retreating species that are vanishing from their much-altered surrounding landscapes.

I recommend this book for consideration to all ecologists who are interested in vegetation dynamics, from both its theoretical and practical (conservation, ecological restoration) aspects, and congratulate the author on another worthy book.

## References

- Walker LR, del Moral R (2003) *Primary succession and ecosystem rehabilitation*. Cambridge University Press, Cambridge  
 Walker LR, Walker J, Hobbs RJ (eds) (2007) *Linking restoration and ecological succession*. Springer Verlag, New York

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**Norbert Jürgens, Ute Schmiedel & M. Timm Hoffman (eds.): BIODIVERSITY IN SOUTHERN AFRICA, VOLS 1-3; Klaus Hess Publishers, Göttingen and Windhoek, 2010, xx + 801 pp., xii + 348 pp., xii + 226 pp. + CD. ISBN 978-3-933117-45-8**

This three-volume compendium brings together the results of a decade-long, international and interdisciplinary project called BIOTA Southern Africa. More than 200 scientists from several different countries participated in the project, which is a part of the larger BIOTA

AFRICA monitoring program (other parts being BIOTA Maroc – focused on biodiversity of the Mediterranean part of the continent, and BIOTA West Africa and BIOTA East Africa, dealing with those tropical areas). The monitoring system in Southern Africa consists of a network of 37 sites, each covering an area of  $1 \times 1$  km, distributed along a gradient of environmental conditions (reflecting mainly the amount and pattern of rainfall but also other variables, including intensity of land-use). While the longer south-north transect runs from the Cape peninsula of South Africa to northern Namibia, the shorter one stretches in the west-east direction from coastal to interior Namibia. Six different biomes (or major ecosystem types) are covered, including Woodland Savanna, Thornbush Savanna, Nama Karoo, Namib Desert, Succulent Karoo, and Fynbos. Each monitoring site (called a BIOTA observatory) is divided into 100 one-hectare plots, within which smaller quadrats for the sampling of vegetation, fauna, and ecological parameters are laid out.

The first and most extensive volume of the series (*Patterns at Local Scale – the BIOTA Observatories*) introduces the background of the project, spatial design of observatory sites, as well as sampling and analytical methods used for site description. The range of methodological approaches used to characterize the abiotic conditions is remarkable, involving as it does remote sensing, automatic weather stations and soil analyses. Various groups of organisms are treated in detail, including: biological soil crusts, lichens, vascular plants, millipedes, termites, true bugs, butterflies and moths, and vertebrates. In addition, information on land-use, the human population and socio-economic aspects is also provided for some sites. The second volume (*Patterns and Processes at Regional Scale*), which I consider the most interesting, provides a summary of the results gathered during the project. More than 50 topics (assembled into eight chapters) are covered, including patterns and dynamics along the BIOTA transects and at larger spatial scales, human impacts on biodiversity, and the reconstruction of past changes. Other chapters assess the value of modelling and experimental approaches for biodiversity monitoring, while some case studies are also presented. The third volume, entitled *Implications for Landuse and Management*, is tailored for conservation practitioners, resource managers and environmental educators. Its five chapters, representing the studied biomes, except for the Namib Desert, deal with the impacts of land-use and climate change on native biodiversity, provide risk assessment and summarize the lessons learnt from the BIOTA project. The land management recommended is also discussed.

Several of the strengths of this series should be noted. First, a uniform and meticulous system of data collection has offered opportunities for comparative studies and allowed major questions about patterns and drivers of biological diversity at macro-scale to be addressed. While some results have already been presented in the second volume, I assume that the forthcoming years will see additional research syntheses published in renowned ecological journals. In addition, all the books are visually appealing, with a number of attractive colour pictures, graphs, maps, and schemes. I also very much appreciated the selection of observatory sites, which well characterize each biome. The impressive amount of data will most likely deter many readers from reading the books from cover to cover, but this series does not have to be read through for it to be very helpful. I believe that readers of all backgrounds will be able to find at least one chapter or section pertinent for their own purposes. As might be expected for a multi-author book, the quality of individual chapters (and chapter parts) varies: while some are elaborated in great detail, others are rather short reports on preliminary results (particularly in the second volume). In addition, the selection of studied organisms in

the first volume clearly reflects the available taxonomic expertise: among others, several groups of invertebrates (surprisingly also beetles) remain untouched.

In summary, the series represents a milestone in long-term biodiversity monitoring and sets the standard for similar projects. The gathered data are very useful for practical management, land planning and nature conservation, but will undoubtedly also be appreciated by researchers from different fields. This book should not be missed by anybody interested in the biota of the SW part of Africa.

### **Jan Suda**

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**Hong Kong Herbarium & South China Botanical Garden (eds.): FLORA OF HONG KONG, Vol. 4; Agriculture, Fisheries and Conservation Department, Government of the Hong Kong Special Administrative Region, Hong Kong, 2011, 379 pp + colour plates. ISBN 978-988-98253-9-3 (hardcover)**

The Flora of Hong Kong has arrived at its fourth and final volume. It comprises Liliopsida (Monocotyledons) that include 40 plant families present in the flora of an area of about 1,000 km<sup>2</sup>. For Angiosperms, the system by Cronquist has been adopted. There remains relatively little to add to the reviews of previous volumes already presented in *Folia Geobotanica*. The same high standard and perfection also defines this fourth volume. Species are concisely described using clear English and a transparent terminology; the descriptions come with some brief data on collection locations, distribution and ecology. Most species are depicted in ink drawings and one or sometimes two colour photographs. The volume of colour plates makes up a third of the book's thickness; the quality of illustrations is excellent. The overall impression from the fourth volume of Flora of Hong Kong is more than satisfactory – it sets a high standard for monographs devoted to regional floras. It is ultimately both professional and comprehensible and as such can be recommended to any person interested in the flora not only of Hong Kong, but also the wider area of southern subtropical China.

### **Radim Hédl**

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**Milan Chytrý (ed.): VEGETACE ČESKÉ REPUBLIKY 3. VODNÍ A MOKŘADNÍ VEGETACE (Vegetation of the Czech Republic 3. Aquatic and Wetland Vegetation); Academia Praha, Praha, 2011, 828 pp. ISBN 978-80-200-1918-9**

There is a long tradition of floristic mapping and phytocoenology in some parts of Europe. In countries such as Germany, Austria, Great Britain or the Czech Republic, researchers and many volunteers have collated large datasets that can now be reanalysed using intensive computer methods. One of the outcomes of this sort of activity is the

series: “Vegetation of the Czech Republic”. The third volume of the series reviewed here is devoted to aquatic and wetland vegetation. This follows on from the volumes dedicated to grasslands and disturbed habitats; the forthcoming and last planned volume will focus on forest ecosystems. For the purpose of vegetation classification the authors have used almost 100,000 vegetation relevés covering the whole country. It is clear that the book is primarily devoted to a national readership and the whole classification system has been optimized on a scale appropriate for the Czech Republic. Nevertheless, several aspects make the book also of value to readers from neighbouring countries. Above all it should be noted that the system of vegetation classification used and the methods employed to obtain it are transferable to other regions. Thus vegetation ecologists and botanists can compare their data and their own systems to the Czech system. Despite the core of the book being written in Czech, there are many things that can usefully be of service to foreign researchers. For instance, at the start of the book, an exhaustive English summary of several pages gives a clearly-written introduction (with many references to original papers) as to how the authors designed the scheme they used and how they treated the field data to obtain the individual vegetation units. Further on, English summaries containing clear descriptions are attached to each classification unit. The captions of all figures, maps and tables are also bilingual. Another nice touch is that each unit is accompanied by several well selected and informative illustrative photos. The maps do not show the potential distribution of the units in the Czech Republic, but the real distribution based on the data in relevés. I have to say, even though I am not a field vegetation ecologist, that this book is a great and very useful compendium for most botanists, at least those from central Europe. Readers will find a description of each association divided into paragraphs devoted to species composition, habitat description, association distribution (at a global scale as well as the finer scale of the Czech Republic), management issues, and notes on the historical and present patterns of development (e.g. succession). This is all very informative, especially in the context of the vegetation of temporarily-flooded habitats such as pond bottoms. For each association, besides the ecological part, the reader will also find a paragraph devoted to some human perspectives on the community such as usage value, impact on human activities, and vice versa its biodiversity value and protection status, and any associated risks that might threaten the community. The book is a valuable source of information for field ecologists as well as for other researchers working on individual species or at the community level, and also for policy makers and the staff of, for example, nature conservation agencies – all can make use from this exhaustive compendium. (*Jan Pergl*)

**Lawrence R. Walker and Aaron B. Shiels: LANDSLIDE ECOLOGY;** *Cambridge University Press, Cambridge, 2013, 316 pp. ISBN 978-0-521-17840-2.* Landslides – such bad news if it should touch on human property, your friends or even yourself. But, on the other hand, landslides offer material rich for study by many ecologists and researchers: they can study succession, the development of species assemblages, physical aspects of soil structure and its behaviour, or more applied topics such as the prevention of landslides, how to build buildings or roads in risky areas, and how to restore landslide areas. This book brings together several views on landslides in a relatively compact form. Besides the text itself it can be used as a comprehensive source of literature on the topic. The book profits from the fact that it has been written by real authorities in the field.

The authors open the book with an introductory chapter which brings the reader up to speed as to what is the state of the art. Several following chapters are then devoted to individual aspects of landslides. Fortunately the book has been written by biologists for biologists, so it does not contain too many technical details and an understanding of even the “physical” chapter can be assumed for all readers. This technical chapter is needed in order to put landslides into context as regard their geology and soil physical properties, and furthermore to explain the causes of landslides. And, of course, this chapter is also needed for understanding what exactly shapes the plant and animal communities and how landslides might be restored (if restoration is indeed needed). The next chapters deal with the biological component occurring with landslides and the patterns that shape these communities. Of course, landslides also affect human well-being, and therefore the authors have devoted a separate chapter to the issue of living with the risk of landslides. Within this chapter the possibilities of prevention and restoration are also given. As in many books, the last chapter is devoted to new perspectives on the research into landslides in relation to global climate and land-use change. The whole book is full of helpful illustrations that aid an understanding of the topic. Beside many diagrams and graphs, there are also many photographs documenting many different aspects of landslides. I consider this book to be very valuable for the wider research community and I can fully recommend it to my colleagues for reading, as well as to students focusing on dynamic ecosystems. (*Jan Pergl*)

**Franco Pedrotti: PLANT AND VEGETATION MAPPING;** *Springer Verlag, Heidelberg, etc., 2013, 294 pp. ISBN 978-3-642-30234-3.* This book is a contribution to a relatively new series devoted to geobotany studies published by Springer. By the title of the book we can easily guess the target group of readers. Primarily it is aimed at those that need to present their vegetation data in maps. This book is a comprehensive overview of the possible ways of how to present different vegetation data. The scope of the book covers single species occurrences up to more complex presentations of vegetation including large and small scale maps. The book is a good source of many examples and the reader can easily find which map will best fit their needs. On the other hand, I would have welcomed more “bad” examples (poor presentations) along with explanations of what was wrong and what kind of maps should be avoided. I think this book could also be used as a textbook in, for example, courses of geobotany or cartography where the teacher can explain which maps are suitable and which are not, according to the given circumstances. Unfortunately, this is what I most missed in this book and, in my personal view, the book would have benefited by reducing the number of maps and giving more explanatory text and by showing some instructive negative examples. (*Jan Pergl*)