

## BOOK REVIEWS

EDITOR: K. T. KISS

DAS, D. and KESHRI, J. P. (2016): *Desmids of Eastern Himalaya*. – *Bibliotheca Phycologica*, Vol. 119, J. Cramer in der Gebrüder Borntraeger Verlagsbuchhandlung, Stuttgart, 260 pp. (ISBN 978-3-443-60046-4).

DAS and KESHRI have recently published the present book, which extends our knowledge about the bio-geographical distribution of desmids in the Eastern Himalaya region. The book is a very useful summary of the doctoral dissertation of DAS, entitled “Investigations on the Desmid biodiversity of certain regions of Eastern Himalayas” supervised by KESHRI, University of Burdwan, Department of Botany.

The book details three years of phycological studies in the Sikkim, and NW-Bengal (Kalimpong, Lava, Lolegaon) regions, in which 1,000 samples from accessible habitats have been analysed. The authors describe more than 270 desmid taxa at species level including 34 new ones to science. Additionally, more than 70 taxa are new to Indian desmid flora, and more than 150 are to the Eastern Himalaya region.

The book begins with a short “Introduction”, covering the systematic position and general representation of desmids, their geographical distribution, climate preferences and literature review in the geographical area studied. In this section, a very detailed table summarises all desmid taxa formerly recorded in the Eastern Himalayas. The section “Material and Methods”, besides standard information, includes photographs of major habitat types; followed by a brief summary about the “Ecology” of desmids. The “Systematic” section includes keys to genus, then to taxon level under the main divisions of Zygnematales (saccoderm desmids) and Desmidiales (placoderm desmids). Additionally to systematic details, authors provide a “Discussion” section about the proportions of desmid taxa to other algal groups in the region. At the end of the book, 30 high quality plates illustrate the desmid taxa studied based on both light micrographs and drawings. According to the cover text, authors recommend the books for both scientific studies and environmentalists.

We highly recommend this book for any study on the desmid flora of the Eastern Himalayas and for all phycologists in general.

A. ABONYI

LISKA, I. (ed.) (2015): The Danube River Basin. – In: BARCELÓ, D. and KOSTIANOV, A. G. (eds): The Handbook of Environmental Chemistry. Vol. 39. Springer-Verlag GmbH, Berlin, Heidelberg, Germany, 523 pp. (ISBN 978-3-662-47738-0).

This book contains a review of the chemical, biological and hydro-morphological quality elements of the Danube River by several authors. The most of the presented fact comes from the data collected in the frame of the two Joint Danube Surveys organised by the International Commission for the Protection of the Danube River (ICPDR) in 2001 and 2007. In the course of the Danube surveys, the team collected several thousands of environmental samples along the 2,600 km long river stretch at close to a hundred of sites from the main river channel and the main tributaries and side arms.

The first part details the chemical pollution of surface waters, focusing on organic compounds, heavy metals and nutrients. Special attention focused on the pollution of groundwater and drinking water resources by hazardous substances and to radioactivity in the Danube. The identification of point and diffuse nutrient pollution/sources is the priority of the first part. Based on the investigation published in this book approximately 65% of the Danube River length was categorised at risk due to the nutrient pollution.

The second part highlights the biology in each chapter with special emphasis given to EU Water Framework Directive and hydro-morphology of the Danube. This second part focuses on benthic macroinvertebrates, phytobenthos, macrophytes, fish, phytoplankton as well as microbiology, with chapters dedicated to gaps and uncertainties in the ecological status assessment and to invasive alien species. Some chapters, such as phytoplankton, phytobenthos and fish chapters detail important historical overview of the past studies and use these datasets to better understanding the distribution, population dynamics of species. Further chapters dealing with the hydro-morphology, sediment management and isotope hydrology complete the overall picture of the status of the Danube.

In some chapters both in the first and second part, the authors use datasets to explain the long-term changes will play important role in ensuring the management objectives for nutrient management to meet the Water Framework Directive and it is important in decisions about land use planning and natural resource management.

This is also perfect book for scientist, managers, stakeholders who are interested in water quality of Danube River Basin.

I. GRIGORSZKY

MISCOE, L. H., JOHANSEN, J. R., KOCIOLEK, J. P., LOWE, R. L., VACCARINO, M. A., PIETRASIAK, N. and SHERWOOD, A. R. (2016): The diatom flora and cyanobacteria from caves on Kauai, Hawaii. – *Bibliotheca Phycologica*, Vol. 120, J. Cramer in der Gebrüder Borntraeger Verlagbuchhandlung, Stuttgart, 152 pp. (ISBN 978-3-443-60047-1).

This book summarises the taxonomic details of diatoms and cyanobacteria from the underrepresented habitat type of caves. Furthermore, the geographical region of Kauai, Hawaii has been also understudied according to its relatively isolated geography. The authors present their findings in two separated chapters, (i) Investigation of the cave diatom flora of Kauai, Hawaii: an emphasis on taxonomy and distribution; and (ii) Novel cyanobacteria from caves on Kauai, Hawaii. Among the 80 diatom taxa presented in the first chapter, four are new for science; while the second part of the book presents four cyanobacteria genera new for science: *Kovacikia*, *Stenomitos*, *Goleter*, and *Pelatocladus*. The chapter about diatoms is well-illustrated with excellent LM and SEM micrographs, the cyanobacteria chapter illustrated with high quality color LM micrographs.

We recommend this book for taxonomic and biogeography-related studies on diatoms and cyanobacteria.

A. ABONYI