
This book is published by Springer under the series Fascinating Life Sciences. Written by Dr. Gerhard Zotz from the University of Oldenburg, it clearly reveals his eloquence on the subject of vascular epiphytes. Epibiota are unique organisms which amuse ecologists and life science researchers. This book is in the line of the work of Vascular Epiphytes: General Biology and Related Biota by David H. Benzing (2008). However, Dr. Zotz’s book includes the latest developments and taxonomic revisions and is supported by more vivid photographs.

The book helpfully begins with a summary of the usage of taxonomic names and abbreviations. Further, appropriate photographs and pertinent information are presented in boxes, which breaks up the text and makes for easy reading. This is a small book, with 11 chapters followed by a glossary and index. Although the author has not classified the book into sections, Chapters 2–4 deal with the botanical concept of epiphytes (taxonomy, biogeography, morphology), and Chapters 6–10 focus on population biology and ecology of epiphytes. Chapter 5 focuses on the physiology of the epiphytes in the context of ecology and can be considered a linking chapter between the sections. For beginners, the first and the last chapters are a good introduction to epiphytes. The unusual photographs and illustrations in Chapter 1 fully explain the theme of the book.

Among the families of vascular plants, there is an uneven distribution of epiphytes. For instance, Cycadidae has only a single epiphytic representative (Zamia pseudoparasitica J. Yates). This is an interesting phenomenon, which increases our curiosity about epiphyte evolution. It is covered in Chapters 2–3, which focus on evolution and biogeographical spread of epiphytes. The previous, classic work by David H. Benzing (2008) lacks detail in those areas, and that information gap has been filled by the present book. Chapter 4, devoted to anatomy and morphology of epiphytes, concisely explains some of the basic adaptations and modifications. For example, seed structure was explained excellently. The author also points out that information pertaining to seed dispersal has not been included in this book.

The physiological ecology of epiphytes is covered in Chapter 5, followed by population biology (Chapter 6) and community ecology (Chapter 7) of epiphytes. Relations of epiphytes to the main ecological factors (water, light, mineral nutrition, temperature) are also presented. The biology of epiphytes is unique, and pertinent information on all life-cycle stages, from seeds to reproductive plants, is covered as subchapters in Chapter 6. The inclusion of certain little-studied phenomena of epiphytes, such as survival on the ground, makes this work even more interesting as does the subchapter on applying the metapopulation model to vascular epiphytes.

One of the main highlights of this book is the information on the ecological role of epiphytes and their interactions with other living organisms, particularly arthropods. Chapter 7 starts with community ecology. Relations of epiphytes with host trees of different sizes and different taxonomic and phenologic groups are discussed. Detailed data on structure and dynamics of epiphyte communities are provided, supported by expressive photographs of epiphYTE communities. Chapter 8 describes the interactions of epiphytes with animals, host trees, and other epiphytes. The data on epiphyte-animal interactions are presented with a level of detail that makes this book extremely valuable for researchers. Chapter 9 also uses data to explain the environmental role of epiphytes in carbon and nutrient cycles. The interaction between humans and epiphytes is covered in Chapter 10, which also introduces new areas for researchers to work on, such as global change and epiphytes, the economical utility of epiphytes, etc.

The book ends with an epilogue in which the author attempts to answer the main question of the book: “What makes an epiphyte, an epiphyte?” The author explains the phenomenon of being an epiphyte, supported by an excellent table in which the major traits typical for epiphytes are listed. That table has many empty cells, which are waiting for future researchers to fill them. This is a good motivation for naturalists to further explore epiphytes. This book can be used as a textbook...