

UNIVERSITY OF HAWAII

Journal

JUN 30 1991

of The Bromeliad Society



ep in
304
SS
1976

41

•

JANUARY - FEBRUARY 1991

•

NUMBER 1

Book Review

Vascular Epiphytes, by David H. Benzing.

If there were a literary hero of epiphytes, it would be David H. Benzing, professor of biology at Oberlin College, who has carried out and communicated scientific and horticultural research on epiphytes for decades. In his 1990 volume, *Vascular Epiphytes* (Cambridge University Press), he has not let down those who have long awaited a synthesis of the current state of knowledge about these diverse and fascinating plants that grow upon other plants.

Dr. Benzing presents a thorough and well-organized treatment of vascular epiphyte biology, physiology, mineral nutrition, ecology, and evolutionary biology. He precedes the body of the text with an interesting historical perspective on epiphytes, including the fact that Columbus was credited with the first recorded comment on canopy-adapted vegetation. The eight chapters are arranged logically, and integrate existing knowledge culled from the scientific and horticultural literature, unpublished data from a large number of researchers, and his own vast experience on the subject.

This book is targeted at a mainly academic audience, rather than for the casual hobbyist. Unlike his former book, *The Biology of the Bromeliads* (Mad River Press, 1980), in which he tried to find a middle ground between academic and hobbyist audiences, *Vascular Epiphytes* is unabashedly designed to compile and convey results of scientific research to scientists and others with botanical backgrounds and interests. In contrast to many so-called scientific books, however, the text is beautifully written and explains such complex concepts and processes as photoinhibition and crassulacean acid metabolism in clear and understandable terms.

Although few photographs are presented (this is NOT a coffee-table book!), the graphics and figures are clear and illustrative of points made in the text. They are well referenced, and sufficient citations are presented throughout for the reader who wishes to follow up on a certain study or subject area.

My only major criticism of the book is that although the author emphasizes the diverse nature of epiphytes, the temptation to generalize about the nature of epiphytism too often overpowers him, and we are given an oversimplification or overgeneralization about the epiphytic habit. This is no doubt in large part owing to the nature of the current state of knowledge about epiphytes: there are few rigorous studies on epiphytes, and on only a tiny representation of the vast number of species of epiphytes. Any generalization, consequently, is subject to a raised eyebrow or an obvious exception. In general, however, Dr. Benzing has done an excellent job of incorporating and integrating the existing data, which are especially few and scattered in the field of epiphyte ecology.

I have found the book extremely useful in my work as an epiphyte biologist in several ways: to gain an overview of epiphyte-related topics outside my own expertise; for putting together seminars for a variety of audiences, and simply as a source book for academic pursuits. I particularly delight in the extensive and carefully prepared bibliography.

The glossary could have been more complete, especially for the nonbotanist who reads the book; the term "indumentum," for example, was not included. The unfortunately high price (\$60.00 retail) is the consequence of publishing with a university press, but will, I hope, not restrict access of the book to academics and the public. We owe a large debt to our hero for completing the monumental task of compiling so much scattered data into such a readable and interesting account.

Dr. Nalini M. Nadkarni
Director of Research
The Marie Selby Botanical Gardens
811 South Palm Avenue, Sarasota, FL 34236

Regional Reflections

A Natural Synthesis:

The Tropical Garden Bromeliad and Its Cousins

In the past, this column has emphasized bromeliad-related subjects as well as a host of nonrelated topics. The range has been wide, indeed. In some cases, the scope has been not only somewhat farfetched but also possibly too broad for a bromeliad society newsletter. Whatever its shortcomings, this column will delve into a subject that, to some old-timers, will seem trivial but to the newcomer a useful guide.

The bromeliad is one of nature's crown jewels and as such takes back seat to no family of plants. I must admit that this is a conceited and biased statement. Collectors and fanciers, both neophytes and veterans, concur that, while the bromeliad is truly a magnificent giant among its fellow plant comrades, it cannot stand distinctly alone and aloof in any garden of lasting and permanent value. The accumulation of bromeliads in a garden setting exclusively composed of bromeliads, while most interesting, is far from being a superior symphony of beauty and effectiveness.

The bromeliad can boast of some very important comrades or first cousins as we shall call them. These cousins: the orchid, the cactus, and the succulents, deserve a place in the spotlight of beauty and glory along with the bromeliads. The bromeliad and its cousins form a natural community of closely related beauties. Each plays an important role in the permanent tropical garden. In their