

BOOK REVIEW

PHYTOTELMATA. TERRESTRIAL PLANTS AS HOSTS FOR AQUATIC INSECT COMMUNITIES. Edited by J. H. Frank and L. P. Lounibos. 1983. Plexus Publishing, Inc., 143 Old Marlton Pike, Medford, NJ 08055. 293 pp. \$24.95, plus \$2.00 postage.

Phytotelmata are small bodies of water held by plants. The term includes aquatic habitats found in treeholes, bamboo stumps and internodes, fallen fruits and nuts, fallen leaves and spathes, leaf axils, flower bracts, and pitcher plants. All phytotelmata are inhabited by communities of aquatic organisms. The insects of these communities are the main subjects of this volume. Mosquitoes are regular inhabitants of most phytotelms and, in fact, they often dominate the insect communities. It is not surprising, then, that mosquitoes are mentioned in every one of the 11 chapters that comprise this volume and are the primary objects of discussion in several.

As is often the case in a volume of essentially autonomous papers centered on a particular theme, there is considerable variation from paper to paper in subject matter, approach, and scope of coverage. Chapters by Fish (Phytotelmata: Flora and Fauna) and Corbet (Odonata in Phytotelmata) are general reviews; those by Frank (Bromeliad Phytotelmata and their Biota, Especially Mosquitoes) and Pajot (Phytotelmata and Mosquito Vectors of Sylvatic Yellow Fever in Africa) are summaries centered on the authors' interests and previous work; those by Kurihara (The Succession of Aquatic Dipterous Larvae Inhabiting Bamboo Phytotelmata), Beaver (The Communities Living in *Nepenthes* Pitcher Plants: Fauna and Food Webs), Istock, Tanner and Zimmer

(Habitat Selection by the Pitcher-Plant Mosquito, *Wyeomyia smithii*: Behavioral and Genetic Aspects), and Kitching (Community Structure in Water-Filled Treeholes in Europe and Australia—Comparisons and Speculations) combine new and old data from the continuing studies of the authors; and, finally, the chapters by Bradshaw (Interaction between the Mosquito *Wyeomyia smithii*, the Midge *Metricnemus knabi*, and their Carnivorous Host *Sarracenia purpurea*), Lounibos (The Mosquito Community of Treeholes in Subtropical Florida) and Machado-Allison, Rodriguez, Barrera R., and Gomez Cova (The Insect Community Associated with Inflorescences of *Heliconia caribaea* Lamarck in Venezuela) are largely reports of previously unpublished research. Six of the papers were presented at the symposium entitled *Phytotelmata: Terrestrial Plants as Hosts of Aquatic Insect Communities* at the XVI International Congress of Entomology (Kyoto, Japan, August 1980). Ecological topics covered in one or more chapters include: succession, population dynamics, colonization, competition, predation, habitat selection, biogeographic comparisons, evolution of insect-host plant relationships, food webs and community structure. Several chapters include extensive tables or appendices of the plants that form phytotelmata or the kinds of organisms or insects found in particular phytotelmata.

This book would be a valuable addition to the library of anyone interested in mosquitoes, aquatic insects, ecology or phytotelmata. The reference value of the volume is enhanced by the excellent taxonomic, subject and author indices.—Thomas J. Zavortink, Walter Reed Biosystematics Unit, NHB Stop 165, National Museum of Natural History, Washington, DC 20560.