

The Ecology of Aquatic Insects

Edited by V. H. Resh and D. M. Rosenberg. 1984. Praeger Publishers, Toronto and New York. U.S. \$35.

This new volume is the first attempt in nearly 15 years to treat the ecology of aquatic insects in a detailed, comprehensive text. Most recent books on aquatic entomology have dealt with biology and ecology on a systematic level, usually as short notes in addition to keys, or as descriptions of a single group of insects. At best some basic ecological principles have been addressed in introductory chapters in these taxonomic works. The present volume, however, deals with aquatic insects from quite a different perspective: representative insects are considered only as examples of the broader ecological principles. The result is more a compilation of the present knowledge of various trends and processes of insects in aquatic habitats, and less a discussion of the insect species themselves.

A total of 17 different chapters by 22 authors covers a surprisingly wide range of subjects, dealing with topics such as Aquatic Insects as Primary Consumers; Secondary Production; Colonization Dynamics; and even the effects of Fish Predation on Aquatic Insects. A basic bias running through much of the book is the strong orientation to flowing water ecosystems. The ecology of lake benthos is often treated in limnology texts, so this bias is perhaps understandable. However, some of the processes described are more completely known from limnological studies than from stream studies.

In almost all cases the discussion of each subject covers a broad range of opinion, and the contributors have been well chosen for their presentation of sometimes conflicting theories. Much of this information is very recent and the authors of each chapter have gone to great length to emphasize the present work in their fields. This text is highlighted by examples drawn not only from the northern hemisphere but includes examples from all over the world. Extensive use has been made of tables to deal with species-specific information with the quite positive effect that the text itself is not cluttered with myriad examples.

Due to the broad nature of the subjects covered in each chapter, no one area is treated in very great depth

(most chapters are about 20 text pages in length) and specialists find their own area of interest treated in less detail than they would want. In some cases the author has been quite selective, and has included only subjects for which recent information is available. However, as compensation, each chapter does include an extensive bibliography for those requiring greater detail.

The basics of aquatic insect ecology (and biology) are nevertheless well treated, and these chapters comprise almost one half of the book. This volume is unique in its inclusion of other subjects seldom considered. Included in the second half, for example, are chapters on Hydrologic Determinants of Aquatic Insect Habitats; Insects of Extremely Small and Extremely Large Aquatic Habitats; The Hyporheic Zone as a Habitat; and even a chapter detailing some of the principles of Hypothesis Testing in Ecological Studies. Few of these subjects have been treated in texts on aquatic entomology before, and the present volume represents a recent and very broad overview of aquatic insect ecology.

Finally, something must be said of the editing. Unlike many texts composed of papers by different authors, a continuity runs through the book that is usually found only in single-author texts. This reviewer found it a pleasure to read, an assessment extending even to those chapters that might otherwise have been tedious in their familiarity.

It is refreshing to finally have a book devoted in its entirety to the ecology of aquatic insects — one that explores the subject from its basic principles. Much has happened in the area of aquatic insect research in the last 10 years, and the present volume makes a very good attempt to consider most of it. This volume is a timely compilation of recent knowledge that would not be out of place in anyone's library.

REIN JAAGUMAGI

Department of Entomology, Royal Ontario Museum, 100 Queen's Park Crescent, Toronto, Ontario M5S 2C6



Jaagumagi, R. 1986. "The Ecology of Aquatic Insects, eds. V. H. Resh and D. M. Rosenberg [Review]." *The Canadian field-naturalist* 100(1), 148–148.

<https://doi.org/10.5962/p.355566>.

View This Item Online: <https://www.biodiversitylibrary.org/item/89211>

DOI: <https://doi.org/10.5962/p.355566>

Permalink: <https://www.biodiversitylibrary.org/partpdf/355566>

Holding Institution

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Sponsored by

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Ottawa Field-Naturalists' Club

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.