Book Notice

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For a long time there has been a need for an up-to-date treatise on the free-living fresh-water invertebrates of the country. Zoologists are indebted to Dr. Pennak for assuming the task and filling the need. This book, eleven years in preparation, is the only modern, comprehensive work in its field. The author has sifted, selected, and organized the pertinent information on the general biology and classification of the invertebrates. An introductory chapter sets the stage with a brief discussion on the origin of the fresh-water fauna, comparisons between marine and fresh-water invertebrates, and several ecological topics of general interest. Thirty-six chapters are devoted to the major groups of fresh-water invertebrates including the insects. These chapters were examined critically by 40 specialists, some of whom contributed much in the construction of the keys. Each chapter is organized in the following sequence: general characteristics; locomotion; feeding and digestion; circulation; respiration; excretion; muscle system; nervous system and behavior; reproduction and development; ecology and geographical distribution; enemies and parasites; economic importance; collecting, preserving, and culturing; and taxonomy. Occasional special topics such as color, encystment, periodicity, etc., are included where they are of particular value.

The illustrations, mostly adapted and modified from published sources, were nevertheless made especially for this book by the author. They are large, clear, well made, and especially selected and drawn to illustrate the key characters. References are made in the keys to all points which are illustrated. There is an appendix of two sections on (1) field and laboratory apparatus and (2) reagents and solutions. The index is complete to taxa, but not to terminology.

This text was written for advanced undergraduate and graduate students and for professional zoologists, limnologists, fishery biologists, and aquatic entomologists. Emphasis has been given to taxonomy, natural history, and geographical distribution. Needs and suggestions for future research are frequently given. The type is large and clear; the paper and binding are of excellent quality. Very few typographical errors have been found by this reviewer and the only universal criticism received from his students is the absence of a glossary. This book will be invaluable to all concerned with free-living fresh-water invertebrates, and undoubtedly will stimulate further research on the part of younger students to fill in some of the gaps in our knowledge of the fresh-water fauna, a function which Dr. Pennak had set as one of his goals in preparing this volume.

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