Insects through the Seasons

Gilbert Waldbauer
289 pp., $24.95

Insects through the Seasons is a new natural history of insects by Gilbert Waldbauer, professor emeritus of entomology, University of Illinois, Urbana–Champaign. It will be useful to both the student, as a readable introduction to the life processes of insects, and the professional, as an up-to-date account of the biology of insects.

The book is illustrated with color photographs on the dust cover and black and white line drawings, by Amy Bartlett Wright, in the text. Illustrations are captioned but not numbered. Each chapter heading is decorated with a detail from an included figure. Lower right corners of right-hand pages have figures ranged by chapter. Entries include references to the hard science underlying the text. It also seems clear that five protected biospheres have been set aside for monarch butterflies in Mexico, but, in fact, there is only one biosphere on the planet.

There are 12 chapters, organized by topic and season around the life history of the cecropia moth. Chapters are unnumbered. Chapters 1–4, titled “First Things,” “The Most Successful Animals on Earth,” “Finding and Courting a Mate,” and “After the Courtship’s Over,” relate to spring. Chapters 5–9, “Caring for Offspring,” “Defense against Predators,” “The Parasitic Way of Life,” “Recognizing Food,” and “Taking Nourishment,” relate to summer. Chapters 10–11, “Coping with the Seasons” and “Silken Cocoons,” relate to fall, and Chapter 12 is “Winter.”

The biology of the cecropia moth, which the author studied for more than a decade, serves for comparison with other species, including a jellyfish and various annelids, mollusks, and vertebrates, as well as arthropods. The author is a lifelong bird-watcher, and that is reflected in the text. It also seems clear that he is very familiar with flowering plants.

The book provides an astonishing amount of information on insect biology without the use of tables, graphs, chemical structures, or mathematical expressions. Access to the hard science underlying the text is provided by a 13-page bibliography arranged by chapter. Entries include reference works, textbooks, and articles in scientific journals, including Science, Nature, and journals of the Entomological Society of America. Emphasis is on primary sources, the earliest being a 1790 paper on the toxin of processionary caterpillars by Moritz Balthasar Borkhausen. The original descriptions of Batesian mimicry (1862) and Mullerian mimicry (1879) are listed. The latest dates included are 1994.

Although the focus of Insects Through the Seasons is on insect biology, historical material is included throughout, and topics in applied entomology are discussed where appropriate. Accounts of the spread of the Colorado potato beetle (pp. 177–179), the decline of the monarch butterfly (pp. 234–236), and the history of the silkworm (pp. 249–253) are particularly interesting and informative.

I found little to criticize in Insects Through the Seasons. If some passages are oversimplified, it is because of the wide range of subject matter covered. Some sentences are repetitive, e.g., “Janzen showed . . . that the acacia does not survive unless it is occupied by ants” versus “Janzen showed that bull’s horn acacias do not survive unless they are defended by ants” (p. 180). Also, it is stated (p. 234) that five protected biospheres have been set aside for monarch butterflies in Mexico, but, in fact, there is only one biosphere on the planet.

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Bizarre Bugs

Doug Wechsler
Cobblehill Books, New York, 1995
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If a picture is worth a thousand words, Bizarre Bugs is easily longer than War and Peace. Although this book is written at a level perfect for early to middle elementary school readers, as university students, we still found ourselves absorbed in the wealth of beautiful and bizarre photographs and enchanted by the clear and concise way Wechsler presents the concept of the amazing adaptations of insects.

Bizarre Bugs is presented in four chapters with the headings “Why Be Bizarre?,” “Avoiding the Enemy,” “Peculiar Parts,” and “Bizarre Life Cycles.” Each chapter is subdivided into a short number of paragraphs with descriptive headings. These divisions will make the book easy for young people to read. In addition to these small and easily digested sections, the pronouncements for some of the longer words, as well as the glossary at the end of the book, are included to help young readers. Yet, one cannot help but be distracted from the text to examine the superb photographs, which are accompanied by concise descriptions. These photographs provide appropriate emphasis for the subject at hand. In truth, the photography is the greatest achievement of Bizarre Bugs.

An examination of why insects have developed the strange forms that are found so often in nature, from the “Spiny Katydid” to, our all-time favorite, the “Trash Carrier,” is explained in simple terms. Evolution and adaptation are discussed in Chapter 1. In subsequent chapters, bizarre defensive, strange morphological, and unusual life cycle adaptations are shown, discussed, and photographed. Wechsler uses amusing analogies to explain such adaptations. For example, how the strawlike mouthparts of an hemipteran would be perfect for someone who lived only on milkshakes.

We would be hard pressed to find anything wrong with Bizarre Bugs. It met all of the criteria that we felt necessary for a good children’s book: an abundance of photographs, text that does not read like a textbook, and an interesting topic. The only thing we might have added to the book would have been a short section on the study of entomology and on entomologists. Nonetheless, this book would be a perfect addition to classroom libraries or a great present for children who show an interest in nature and the world around them. It would be a perfect book to share with your children.

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