book. In this section, chapters are presented on arthropod evolution, insect diversity, external morphology, and systematics; and six chapters treat the insect taxa to the resolution of superfamily. In the chapter on systematics, a key to the orders of insects is presented, and this is the only key in the book. Since the first edition, Section I has undergone considerable revision in its treatment of phylogenetic relationships. The most modern, accepted, subordinal classifications are presented for the orders, although some orders have been reorganized significantly in the literature subsequent to press time (e.g., Hemiptera). Of course, this is unavoidable because by its very nature, as soon as information is printed, it is, to some extent, out-of-date.

Section II, “Anatomy and Physiology,” includes chapters on the integument, sensory systems, nervous and chemical integration, muscles and locomotion, gas exchange, food uptake and utilization, circulatory system, and excretion and osmoregulation. These topics have been updated and a discussion of spacing pheromones added. Areas in which our knowledge base has increased dramatically generally have been increased as well. For example, the discussion of immunity has more than doubled. Gillott’s style of discussion is very clear, as is exemplified by his cogent explanation of the click mechanism of Diptera in Chapter 14.

Section III, “Reproduction and Development,” includes chapters on reproduction, embryonic development, and postembryonic development. These topics also have been updated, and a discussion of ovulation has been added.

Section IV, “Ecology,” includes chapters on the abiotic and biotic environments, and insects and humans. Gillott has become politically correct by changing the title of the final chapter from “Insects and Man” to the gender-nonspecific “Insects and Humans.” Parts of this section have received significant revision. Most notably, the section on insect—plant interactions has been expanded and subdivided into subsections on herbivores, insect—plant mutualism, and detritivores; and illustrations of food webs have been added. The IPM discussion has increased and been embellished with a flow chart depicting the development of an IPM program. Other section headings have remained the same, but the content has been updated.

In comparison with another recently updated general entomology text, The Science of Entomology (Romoser and Stoffolano, 1994, 3rd ed., W. C. Brown), the information content for most chapters is comparable, although Gillott might have the edge in detail. The most obvious differences between these two fine texts are in the areas of applied entomology and taxonomy. Romoser and Stoffolano clearly have placed more emphasis on the former and Gillott on the latter. Further, in comparison with Chapman’s The Insects: Structure and Function (1982, 3rd ed., Harvard Press), which is used widely in morphology and physiology classes, Gillott’s treatment is up-to-date, although not given in the detail as it is in Chapman. Nonetheless, I think the updated information satisfactorily compensates for the disparity in detail.

My only concern is the audience for this text. Gillott gives an excellent treatment of general topics and uses almost half of the book to treat taxonomy to the superfamily level. However, without family keys, an instructor will have to supplement this reference with a laboratory manual with taxonomic keys. Because the textbook by Borror, Triplehorn, and Johnson, An Introduction to the Study of Insects (1989, 6th ed., Saunders College) has the taxonomic market cornered, its use as a companion text would necessitate two textbook purchases for students. To fill the void of general entomological topics and minimize costs incurred by students, a Gillott without the taxonomic treatment would be ideal. Nonetheless, this reference is very well prepared and should be on the shelf of any entomologist on the professional circuit.

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The Complete Cockroach

David George Gordon
Ten Speed Press, Berkeley, CA
1996
178 pp., $11.95

I’ve been intrigued by cockroaches ever since Frank Fisk, my instructor in insect physiology at Ohio State University, took me into one of his rearing rooms and showed me his many colonies of living cockroaches. And, although I thought (and still do) that some of those species were among the most beautiful of insects, this opinion is not held by many, especially those in the nonentomological community!

Although he may never have met Frank Fisk, David Gordon certainly shares his enthusiasm for this most misunderstood—well, at least partially misunderstood—group of insects. When I first received The Compleat Cockroach, I thought I would page through it, write a short review, and put the book on my shelf. After reading the introductory remarks, I found the book difficult to put down. Within the next few days, I had read the book and was making use of the information for a popular “Insects and People” course taught at my university. Undoubtedly, this book will provide fodder for one, if not two, discussions on these most familiar creatures.

Gordon has amassed an amazing amount of information on these insects and presents it with a writing style that is a joy to read. Topics ranging from anatomy to zoo exhibits are treated in short narratives that are divided into major topic areas. This is not a book designed for children, although those with an entomological or natural history interest will surely enjoy it. The Complete Cockroach attempts to answer many of the questions that a more mature audience has developed during a lifetime of personal experiences including: Would one of the benefits of a nuclear war be the elimination of cockroaches? How big do cockroaches really get? Was my neighbor correct when she said she saw an eight-incher in Florida? And, do they spend more money in Los Angeles or New York to get rid of cockroaches? As a separate note, did you know that there is a cockroach “swap club” for living material?

The final chapter of the book is a short, but very interesting, treatment of cockroach control measures. From the earliest recorded history—“Be far from me, o vile cockroach, for I am the god Khnum” (from the Egyptian Book of the Dead)—to the most modern five star hotels, cockroaches have been and continue to be a bane to mankind (as well as womankind). Have you thought about purchasing a hedgehog or some geckos?!

You will not make a better investment than the $12 cost of this book. It will make an excellent gift and is a must coffee table item for everyone with entomological interests. For nonlovers of cockroaches, its pleasant print style, organization, and short discussions make it eminently readable. Congratulations, David, on an excellent contribution to the popular entomological literature.

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