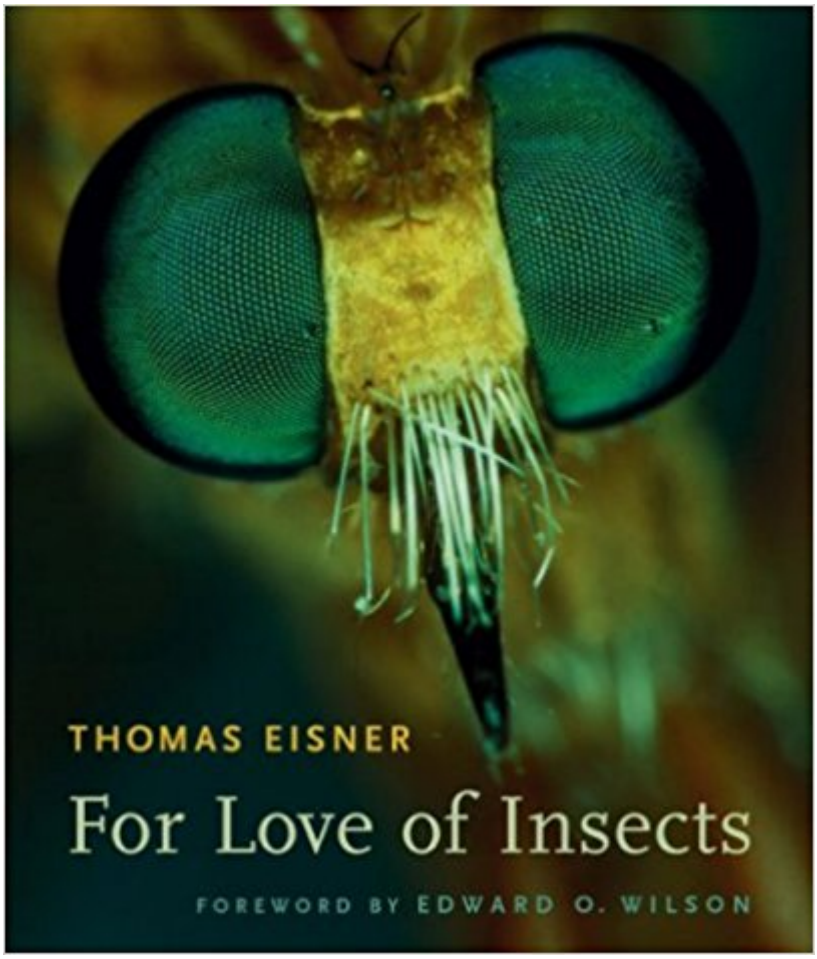
For Love Of Insects



Synopsis

Imagine beetles ejecting defensive sprays as hot as boiling water; female moths holding their mates for ransom; caterpillars disguising themselves as flowers by fastening petals to their bodies; termites emitting a viscous glue to rally fellow soldiers--and you will have entered an insect world once beyond imagining, a world observed and described down to its tiniest astonishing detail by Thomas Eisner. The story of a lifetime of such minute explorations, For Love of Insects celebrates the small creatures that have emerged triumphant on the planet, the beneficiaries of extraordinary evolutionary inventiveness and unparalleled reproductive capacity. To understand the success of insects is to appreciate our own shortcomings, Eisner tells us, but never has a reckoning been such a pleasure. Recounting exploits and discoveries in his lab at Cornell and in the field in Uruguay, Australia, Panama, Europe, and North America, Eisner time and again demonstrates how inquiry into the survival strategies of an insect leads to clarifications beyond the expected; insects are revealed as masters of achievement, forms of life worthy of study and respect from even the most recalcitrant entomophobe. Filled with descriptions of his ingenious experiments and illustrated with photographs unmatched for their combination of scientific content and delicate beauty, Eisner's book makes readers participants in the grand adventure of discovery on a scale infinitesimally small, and infinitely surprising.

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Customer Reviews

Among the many wondrous tales that Eisner relates in this memoir of his research on insects is that

of a tiny millipede (a polyxenid) that defends itself by coating its attacker—usually an ant—with bristles. Scanning electron micrographs taken by Maria Eisner, coworker and wife of Thomas Eisner, show how the entangling mechanism works. The bristle tips are grappling hooks that become fastened to the ant’s hairs. To make matters worse, barbs on the bristle shafts cross-link the bristles, creating a loose meshwork that muzzles the ant and strings its legs together. After observing an attack, Eisner wrote that the ants "attempted to clean themselves, but in so doing seemed only to aggravate their plight. They wiped antennae with forelegs, drew appendages through the mouthparts, or stroked legs against one another, but they usually succeeded only in further entangling themselves. . . . Many lost their footing and fell to the side, without ever recovering. . . . The polyxenids, without exception, survived the encounters." Unlike the polyxenids, most of the insects Eisner has studied use chemicals to defend themselves. In fact, his discoveries of these defenses, beginning in the 1950s just after he earned his doctorate from Harvard University, helped to found a new field of biology, chemical ecology. He has, ever since, been busy making new discoveries about these surprising strategies in the field and in laboratory experiments at Cornell University, where he is J. G. Schurman Professor of Chemical Ecology. The findings he describes are intriguing—all the more so in that they provide the scaffolding on which we see at work the mind of one of our most distinguished scientists and naturalists. Exquisitely illustrated with photographs, most taken by Eisner, who is widely admired for his photography, the book is written in a style that is conversational, witty and graphic. Beautiful to look at and beautiful to read. Editors of Scientific American

An avowed "entomophile" (insect lover), Eisner has written an absorbing book on his years of studying insects. E. O. Wilson points out in his introduction that the keys to Eisner’s success are excellence both as a field biologist and as a laboratory experimentalist, and these strengths are revealed in his personal accounts of the animals he studied and the discoveries he made. The text ranges from the anecdotal, as when the author was sprayed by a stick insect and declares the secretion "evil stuff," to the scientific, when he discusses the chemical composition of such sprays. The author is also an accomplished photographer, and the book is heavily illustrated with color photographs that are not only masterful at illustrating his experiments but also surprisingly beautiful. Although insects are not usually the stars of popular-science writing, this engaging look at how one scientist studies their lives may add them to the most-requested lists of science- and animal-loving readers. Nancy BentCopyright Ã Â© American Library Association. All rights reserved

In todays world of science,cosmology and physics have the center stage in the media and the popular imagination and that is understanable but short sighted.As a poet stated " to plumb the depths of nature one need not go very far look into a spiders web as you would unto a star". Eisner is in the great tradition of Fabre,Von Frisch and Wilson in that they redirect your attention to the miracle beneath your feet and right in front of your eyes.The book is beautifully written,informiitive and spellbinding in its details and its depth as well as a personal document of one man’s committment to his vision.The greatest accomplishment of science is the scientific method.Science in the hands of the masters does not denude or remove the spirit of creation,but uncover and make clear the majesty of it all.Eisner is one of those masters.

Thomas Eisner is J. G. Schurman Professor of Chemical Ecology at Cornell University and his life long fascination of the insect world has blessed us with an extraordinary, in-depth knowledge of bugs and their awesome capabilities, esp., in chemical defenses which have led to the discovery of many helpful medicines, etc.Eisner’s many beautiful color photos and micro-photography turn this book into a coffee-table txt book on insect ecology and this is worth the price of admission on just that aspect alone.The famous sociobiologist/entomologist, friend and research collaborator of Eisner, E. O. Wilson, "Diversity of Life", et al., wrote the Foreword to this book and gives a good summation on the focus of this book: "The many behaviors he [Eisner] has discovered and explained, and their implementation by life around us, amazing in a variety and precision, are the worthy focus of this book." Well put.After the Foreword is a great quote about insects in general: "What makes things baffling is their degree of complexity, not their sheer size... a star is simpler than an insect." From: [Martin Rees, "Exploring Our Universe and Others," Scientific American, December 1999]In the Prologue, Eisner has given a great appraisal of the insect world in: "They have succeeded in one major respect where humans have failed. They are practitioners of sustainable development. Although they are the primary consumers of plants, they do not merely exploit plants. They also pollinate them, thereby providing a secure future, both for themselves and for their plant partners." Indeed, symbiosis, harmony.....And, Eisner on his hopes for this fine book: "If this book contributes in any way toward bolstering the preservationist spirit, as I hope it might, it will have fulfilled it’s purpose."It has certainly "edified" my preservationist spirit and will no doubt do the same for others!

This is a very good book with tons of fascinating information about the defenses of insects. Well written and fun to read. A good book for the amateur or professional. At this price this book should

be in every naturalist’s library.As the father of chemical ecology, Eisner has brought together the fields of ecology, insect behavior, and chemistry. In this book he describes how he and his collaborators view the world of insects with the observant and questioning minds of naturalists and scientists and how they concocted experiments to uncover the purpose of smells, secretions, characteristics, and behaviors of bugs. His enthusiasm comes through in his writing and kept me hooked, reading eagerly to find out what the next discovery would be.Eisner has added a new dimension to my view of nature. My daily walks in the woods will never be the same as I now sniff each bug, watch each creature for signs of chemical defense, and consider how each predator has circumvented the defenses of their prey.

Anyone paging through this charming book will be captivated by the stellar quality of the photos and by what they show: the essence of discovery. In my case, as a field biologist, they range from fascinating closeups of a group of animals about which I know least, to visual demonstrations of the truth of Eisner’s lifelong findings. And what stays with you after reading his often humorous (always engaging and yet self-effacing) accounts of genuine discovery, are those very discoveries: the findings. I can recall, as a grad student in the 1960’s, receiving "Science" from my mailbox, and hearing friends call out: "Eisner’s got another one". We would then flip through the magazine to the richly illustrated article and devour it with our eyes and curiosity. His reports were thrilling - that anyone could take the mystery of nature and repeatedly send us monthly supplements of such an array of utterly-convincing revelations of evolution’s torturous path! Now in color and vivid retrospect, Tom lets us revisit these discoveries, and adds the anecdotal credits of his many friends and collaborators to remind us that no worthy endeavor takes place without the open cooperation of ideas and efforts. Brilliant!

For a Great Scientist (of which Eisner is one) to share their love for their subjects and science is a rare event, and Eisner is a master communicator. He describes how simple observations about everyday insects color patterns, foul and pleasant scent, reactions to shadows or being touched lead to insights into insect behavior that are remarkable, wonderful, and that have similarities in so-called higher life forms. This should be the first textbook in any entomology course - it will make all the hard work of learning entomology worthwhile.

Utterly fascinating. Eisner’s chemistry perspective makes this book particularly enjoyable. The photographs are great. But even better is that this book is packed with information communicated by

a man who writes with flair. (He may love language as much as he loves insects.)

Great text for the "lay" person interested in insects or anyone through high school who wants to know more but isn't pursuing an entomology degree. The writing is engaging, illustrations are helpful and just love the book overall. This was part of our home schooling curriculum for an entomology course.