

Insects Their Natural History And Diversity With A Photographic Guide To Insects Of Eastern North America

This work has been selected by scholars as being culturally important and is part of the knowledge base of civilization as we know it. This work is in the public domain in the United States of America, and possibly other nations. Within the United States, you may freely copy and distribute this work, as no entity (individual or corporate) has a copyright on the body of the work. Scholars believe, and we concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. To ensure a quality reading experience, this work has been proofread and republished using a format that seamlessly blends the original graphical elements with text in an easy-to-read typeface. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant.

In the arthropoda phylum insects are one of the most successful species, and spiders are one of the largest groups. This book provides a fascinating overview of insects and spiders.

An accessible but comprehensive overview of beetles, illustrated with 4,500 photographs. Among Stephen Marshall's many other natural history titles are Insects: Their Natural History and Diversity and Flies: The Natural History and Diversity of Diptera, two of the most respected books on the insect world published in the last 20 years. More admirable than the books' rigorous science, however, is that they are wholly suitable for a lay audience, including student readers from high school on. The books have been adopted as classroom texts and assigned as required reading at the university level and are on the references shelves of many practicing entomologists. In Beetles: The Natural History and Diversity of Coleoptera, Marshall has again applied his deep knowledge of the insect world. Comprehensive and packed with 27 pages of richly illustrated keys and 4,500 color illustrations, it provides the reader with a colorful and enjoyable introduction to the natural history of a huge group of organisms, along with an overview of the diversity of fascinating families included in the group. The subject of this book is an enormous one, since the beetles, or Coleoptera, include almost 400,000 named species. Marshall opens with a description of what makes a beetle a beetle, and then introduces the natural history of the order with copious examples and explanations. Part one of the book includes: Life Histories of Beetles: Form and Function: Eggs; Larvae; Pupae, Prepupae and Cocoons; Adults; Courtship and Mating Behaviors Defense and Deception: Tanks, Tricks and Coleopteran; Chemical Warfare; Brilliance and Bioluminescence in the Beetles Freshwater and Marine Beetles: Freshwater beetles; Marine beetles Beetle Associations with Fungi, Dung and Carrion: Beetles and Fungi; Beetles and Dung; Beetles and Dead Bodies Beetles, Plants and Plant Products: Beetles and Flowers; Phytophagy and Beetle Diversity; Aposematic Beetles and Their Plant Hosts; Beetles as Agricultural and Garden Pests; Beetles and Biological Control of Weeds; Beetles and Trees Beetles and Other Animals: Dangerous Beetles; Coleoptera and Culture; Beetles Indoors; Rare, Endangered and Threatened Beetles; Beetles, Birds and Wild Mammals; Beetles and Other Invertebrates. Part two of Beetles is a guided tour of the diversity of the order, with fascinating stops for all of the world's 180 or so families of beetles as well as most of the significant subfamilies. Thousands of photos, almost all taken in the field by the author, are used to capture the range of form and function in each family, with pages of examples of the popular groups -- such as fireflies, tiger beetles, jewel beetles -- but also with unique photographs of little-known groups ranging from long-lipped beetles to the rarest rove beetles. Essential information about importance, range, behavior and biology is provided for each group, and easily used photographic keys to most families are provided for those wishing to use the book as an identification guide. The profusely illustrated keys in Beetles, linked to the unprecedented photographic coverage of the world's beetle families and subfamilies, enable readers to identify most families of beetles quickly and accurately, and to readily access information about each family as well as hundreds of distinctive genera and species. Like its companion titles, Insects and Flies, Beetles will be welcomed by the scientific, academic and naturalist communities, including the next generation of students of entomology.

Close-up photographs and descriptive text explore the natural history and intricacies of a variety of insects and arthropods.NjBwBT

Borrer and DeLong's Introduction to the Study of Insects

Natural History of the Insects of India, Containing Upwards of Two Hundred and Twenty Figures and Descriptions

An Epitome Of The Natural History Of The Insects Of China

Insects

Five Insects and Their Impacts on Human History

The Natural History & Diversity of Diptera

Featuring Extraordinary Illustrations from One of the World's Great Rare Book Collections

This is the first single book to cover the whole of the fossil history of insects so comprehensively. The volume embraces subjects from the history of insect palaeontology to the diagnostic features of all insect orders, both extant and extinct.

What is that creature that just landed on my arm? What will that funny-looking caterpillar turn into? What do lady-bugs eat? This book will help you to answer such questions (and many more) about your local insects. - From inside cover.

This new edition of Australian Insects, with updated scientific names, records the physical attributes and lifestyle developments that have made life on this continent possible for insects.Insects are survivors. Since their evolution some 365 million years ago, they have penetrated almost every habitat on Earth. Today in Australia there are over 100,000 species crawling, flying, hopping and hurrying across the continent. Australian Insects reveals worlds that we often glimpse at but rarely stop to consider.

Highlighted by more than two thousand digitally enhanced color photographs, a comprehensive guide to the insects of North America contains information—including life histories, behaviors, and habitats—on every major group of insects found north of Mexico.

A Natural History of Our Planet's Moth Life

Fireflies, Glow-worms, and Lightning Bugs

With a Photographic Guide to Insects of Eastern North America

A Visual Reference

The Bee

Ecology, Behavior, and Natural History

Clothes, Utensils, Worms, Insects, Amphibians, Animals with Scales, Animals with Shells

A richly illustrated look at the natural history of moths Moths are among the most underappreciated insects on the planet, yet they make up the majority of some 180,000 known species of Lepidoptera. Filled with striking images, The Lives of Moths looks at the remarkable world of these amazing and beautiful creatures. While butterflies may get more press than moths, Andrei Sourakov and Rachel Warren Chadd reveal that the lopsided attention is unjust. Moths evolved long before butterflies, and their importance cannot be overestimated. From the tiniest leaf miners to exotic hawk moths that are two hundred to three hundred times larger, these creatures are often crucial pollinators of flowers, including many that bloom at night or in twilight. The authors show that moths and their larvae are the main food source for thousands of animal species, and interact with other insect, plant, and vertebrate communities in ecosystems around the world, from tropical forests and alpine meadows to deserts and wetlands. The authors also explore such topics as evolution, life cycles, methods of communication, and links to humans. A feast of remarkable facts and details, The Lives of Moths will appeal to insect lovers everywhere.

Volume VIII in the Ben cao gang mu series offers a complete translation of chapters 38 through 46, devoted to clothes, utensils, worms, insects, amphibians, animals with scales, and animals with shells. The Ben cao gang mu is a sixteenth-century Chinese encyclopedia of medical matter and natural history attributed to the author Li Shizhen (1518-1593). The culmination of a sixteen-hundred-year history of Chinese medical and pharmaceutical literature, it is considered the most important and comprehensive book ever written in the history of Chinese medicine and remains an invaluable resource for researchers and practitioners. This nine-volume series reveals an almost two-millennia-long panorama of wide-ranging observations and sophisticated interpretations, ingenious manipulations, and practical applications of natural substances for the benefit of human health. Paul Unschuld's annotated translation of the Ben cao gang mu, presented here with the original Chinese text, opens a rare window into viewing the people and culture of China's past.

A guide to insects, with examples chiefly from the area east of the Mississippi and north of Georgia, covers species in twelve families and groups, as well as non-insect arthropods, and provides information on collection techniques.

This is the first comprehensive firefly guide for eastern and central North America ever published. It is written for all those who want to know more about the amazing world of lightning bugs and learn the secrets hidden in the flash patterns of the 75+ species found in the eastern and central U.S. and Canada. As an independent researcher working with numerous university teams, naturalist Lynn Frierson Faust, "The Lightning Bug Lady," has spent decades tracking the behavior and researching the habitats of these fascinating creatures. Based on her twenty-five years of field work, this book is intended to increase understanding and appreciation of bioluminescent insects while igniting enthusiasm in a fun and informative way. Species accounts are coupled with historical background and literary epigraphs to engage and draw readers young and old into the world of these tiny sparklers. A chart documenting the flash patterns of the various species will aid in identification. Clear photos illustrate the insects' distinguishing physical characteristics, while habitats, seasonality, and common names are provided in clear, easy-to-understand yet scientifically accurate language. The guide will be welcomed by everyone who wants to learn more about fireflies' and glow-worms' unique traits and about their fragile niche in the ecosystem. FEATURES Over 600 color photographsDetailed accounts and anatomical diagrams of 75+ species, as well as aids in distinguishing between similar speciesA first-of-its-kind flash-pattern chart that folds out on heavy-weight paper • Extensive scientific details written in an understandable and engaging wayColorful, common names—Twilight Bush Baby, Shadow Ghosts, and Snappy Syncs, and more—for easy species identification based on flash patternsTips on ideal sites and times of year for firefly watchingConservation-oriented approach

Portraits of Insects

Comprising Figures And Descriptions Of Upwards Of One Hundred New, Singular, And Beautiful Species

Field Guide to California Insects

Color

Medical Insects and Arachnids

Insect Museum

A Natural History of Insects in 100 Limericks

"Meticulously researched and illustrated with more than 2000 color photographs taken by the author, Flies is a landmark reference book that will be indispensable to any naturalist, biologist or entomologist. Most photographs in this encyclopedic reference were taken in the field and show the insects in their natural environment. All of the world's fly families are included, with photographic coverage spanning the range from common deer flies and fruit flies through to deadly tsetse flies and malaria mosquitoes, with thousands of spectacular species such as exotic stalk eyed flies, giant robber flies and hedgehog flies in between. Flies is broken up into three parts: Life Histories, Habits and Habitats of Flies; Diversity; and Identifying and Studying Flies. The 20 pages of profusely illustrated keys linked to the unprecedented photographic coverage of the world's fly families and subfamilies enable the reader to identify most flies quickly and accurately, and to readily access information about each family as well as hundreds of distinctive genera and species"--Publisher's description.

An incomparable illustrated look at the critical role bees play in the life of our planet Bees pollinate more than 130 fruit, vegetable, and seed crops that we rely on to survive. Bees are also crucial to the reproduction and diversity of flowering plants, and the economic contributions of these irreplaceable insects measure in the tens of billions of dollars each year. Yet bees are dying at an alarming rate, threatening food supplies and ecosystems around the world. In this richly illustrated natural history of the bee, which includes more than 250 color photographs and illustrations, Noah Wilson-Rich and his team of bee experts provide a window into the vitally important role that bees play in the life of our planet. Earth is home to more than 20,000 bee species, from fluorescent-colored orchid bees and sweat bees to flower-nesting squash bees and leaf-cutter bees. This book provides an unmatched account of this astounding diversity, blending an engaging narrative with practical, hands-on discussions of such topics as beekeeping and bee health. It explores our relationship with the bee over evolutionary time, examining how it originated and where it stands today--and what the future holds for humanity and bees alike. Provides an accessible, richly illustrated look at the human-bee relationship over time Features a section on beekeeping and handy guides to identifying, treating, and preventing honey bee diseases Covers bee evolution, ecology, genetics, and physiology Includes a directory of notable bee s Presents a holistic approach to bee health, including organic and integrated pest management techniques Shows how you can help bee populations

Bugs are usually so small that we hardly notice them, let alone think of them as living beings. But call upon the magnifying glass, and a shapeless jumble of legs, wings, and antennae suddenly start staring back at us. About 80 percent of the Earth's animals are insects. While there are millions of different species, we rarely see many of them . . . until now. Thanks to the photography of John Hallmén, who took a camera and magnified these magnificent creatures one hundred times, we can see what we've never been able to see before. Bugs Up Close takes readers on a journey into a world rarely seen, with incredible photographs of such insects as: Crane flies Yellow meadow ants Black fungus beetles Treehoppers And many more! The diversity of this insect civilization is striking and unknown to most. An insect we may never have thought twice about now looks like a creature from outer space. Fascinating and somewhat monstrous details such as compound eyes, antennae, and sharp mouth parts are visible, and with text by Lars-Åke Janson, Bugs Up Close is an amazing close look into the strange and beautiful world of insects.

InsectsTheir Natural History and Diversity : with a Photographic Guide to Insects of Eastern North AmericaRichmond Hill, Ont. : Firefly Books

Insect Metamorphosis

Their Natural History and Diversity : with a Photographic Guide to Insects of Eastern North America

Microsculpture

Kaufman Field Guide to Insects of North America

California Insects

A Natural History and Identification Guide to Beetles, Flies, Bees, Wasps, Mayflies, Dragonflies, Cockroaches, Mantids, Earwigs, Ants and Many More Beetles

Their descriptions in English and French.

A lavishly illustrated introduction to the world's dragonflies and damselflies Dragonflies and damselflies are often called birdwatchers' insects. Large, brightly colored, active in the daytime, and displaying complex and interesting behaviors, they have existed since the days of the dinosaurs, and they continue to flourish. Their ancestors were the biggest insects ever, and they still impress us with their size, the largest bigger than a small hummingbird. There are more than 6,000 odonate species known at present, and you need only visit any wetland on a warm summer day to be enthralled by their stunning colors and fascinating behavior. In this lavishly illustrated natural history, leading dragonfly expert Dennis Paulson offers a comprehensive, accessible, and appealing introduction to the world's dragonflies and damselflies. The book highlights the impressive skills and abilities of dragonflies and damselflies--superb fliers that can glide, hover, cruise, and capture prey on the wing. It also describes their arsenal of tactics to avoid predators, and their amazing sex life, including dazzling courtship displays, aerial mating, sperm displacement, mate guarding, and male mimicry. Dragonflies and Damselflies includes profiles of more than fifty of the most interesting and beautiful species from around the world. Learn about the Great Cascade Damsel, which breeds only at waterfalls, the mesmerizing flight of Blue-winged Helicopters, and how the larva of the Common Sanddragon can burrow into sand as efficiently as a mole. Combining expert text and excellent color photographs, this is a must-have guide to these remarkable insects. A lavishly illustrated, comprehensive, and accessible natural history that reveals the beauty and diversity of one of the world's oldest and most popular insect groups Offers a complete guide to the evolution, life cycles, biology, anatomy, behavior, and habitats of dragonflies and damselflies Introduces the 39 families of dragonflies and damselflies through exemplary species accounts Features tips on field observation and lab research, and information on threats and conservation

"You will never look at a beetle or a moth the same way again." --WIRED "Art meets science to dazzling effect." --The Guardian Microsculptureis a unique photographic study of insects in mind-blowing magnification that celebrates the wonders of nature and science. Levon Biss's photographs capture in breathtaking detail the beauty of the insect world and are printed in large-scale format to provide an unforgettable viewing experience. Each picture in Microsculpture is created from approximately 8,000 individual photographs. Segments of the specimen are lit and photographed separately using microscope lenses, then "stacked" to maintain sharp focus throughout. These images are then combined to create a single high-resolution file. From start to finish, each portrait takes approximately 4 weeks to create. The project has captured the attention of the world with features in WIRED and New Scientist. Microsculpture has been exhibited at the Oxford University Museum of Natural History and the Xposure 2016 International Photography Festival in Sharjah, U.A.E. It has been viewed by over half a million people so far and will be touring museums around the world from 2017 onward. The entomology collection has significant cultural and historical value, containing the world's oldest pinned insect specimen and many thousands of insects collected by pioneering Victorian explorers and biologists such as Charles Darwin and Alfred Russell Wallace.

A father tells his child about the wonder of the natural world from a Christian point of view.

Australian Insects

History of Insects

The Illustrated World Encyclopedia of Insects

Insects: Their Natural History and Diversity

The Book of Nature

A Philosophy of the Insect

Second Edition

Understand the insect world with BORROR AND DELONG’S INTRODUCTION TO THE STUDY OF INSECTS! Combining current insect identification, insect biology, and insect evolution, this biology text provides you with a comprehensive introduction to the study of insects. Numerous figures, bullets, easily understood diagrams, and numbered lists throughout the text help you grasp the material.

Traces the life cycles of numerous insect species by describing their methods of courtship, mating, raising young, self-defense, and surviving seasonal changes.

Explores the development of natural history since the Renaissance and contextualizes current discussions of biodiversity.

This established, popular textbook provides a stimulating andcomprehensive introduction to the insects, the animals thatrepresent over half of the planet's biological diversity. In thisnew fourth edition, the authors introduce the key features ofinsect structure, function, behavior, ecology and classification,placed within the latest ideas on insect evolution. Much of thebook is organised around major biological themes - living on theground, in water, on plants, in colonies, and as predators,parasites/parasitoids and prey. A strong evolutionary theme ismaintained throughout. The ever-growing economic importance ofinsects is emphasized in new boxes on insect pests, and in chapteron medical and veterinary entomology, and pest management. Updated'taxoboxes' provide concise information on all aspects of each ofthe 27 major groupings (orders) of insects. Key Features: All chapters thoroughly updated with the latest results frominternational studies Accompanying website with downloadable illustrations and linksto video clips All chapters to include new text boxes of topical issues andstudies Major revision of systematic and taxonomy chapter Still beautifully illustrated with more new illustrations from the artist, Karina McInnes A companion resources site is available at ahref="http://www.wiley.com/go/gullan/insects"target=" _blank"www.wiley.com/go/gullan/insects/a. This siteincludes: Copies of the figures from the book for downloading, along witha PDF of the captions. Colour versions of key figures from the book A list of useful web links for each chapter, selected by theauthor.

The natural history of Carolina, Florida, and the Bahama Islands

Bugs Up Close

The Natural History and Diversity of Coleoptera

The Natural History of Insects

A Natural History of the Palette

From Natural History to Regulation of Development and Evolution

From grasshoppers to grubs, an eye-opening look at insect cuisine around the world. An estimated two billion people worldwide regularly consume insects, yet bugs are rarely eaten in the West. Why are some disgusted at the thought of eating insects while others find them delicious? Edible Insects: A Global History provides a broad introduction to the role of insects as human food, from our prehistoric past to current food trends—and even recipes. On the menu are beetles, butterflies, grasshoppers, and grubs of many kinds, with stories that highlight traditional methods of insect collection, preparation, consumption, and preservation. But we not only encounter the culinary uses of creepy-crawlies across many cultures. We also learn of the potential of insects to alleviate global food shortages and natural resource overexploitation, as well as the role of world-class chefs in making insects palatable to consumers in the West.

Publisher description

Beautifully illustrated and approachable, this is the only California-specific, statewide book devoted to all groups of insects. Completely revised for the first time in over 40 years, Field Guide to California Insects now includes over 600 insect species, each beautifully illustrated with color photographs. Engaging accounts focus on distinguishing features, remarkable aspects of biology, and geographical distribution in the state. An accessible and compact introduction to identifying, understanding, and appreciating these often unfamiliar and fascinating creatures, this guide covers insects that readers are likely to encounter in homes and natural areas, cities and suburbs, rural lands and wilderness. It also addresses exotic and invasive species and their impact on native plants and animals. Field Guide to California Insects remains the definitive portable reference and a captivating read for beginners as well as avid naturalists.

Reviews of the first edition of Insects [starred review]—This book is simply bigger, prettier, and more comprehensive than any previous publication on insects.—Library Journal —An incredibly important, masterfully written and profusely illustrated work that belongs in the library of every field biologist, educator, student and naturalist . . . a book that is destined to become a natural history classic—. —Arthur V Evans, Research Collaborator, Dept. of Entomology, Smithsonian Institution Called —a milestone in insect photography— and —simply bigger, prettier and more comprehensive than any previous publication on insects, — Professor Stephen Marshall's Insects is now in a new edition, with more than 500 changes to reflect the latest scientific findings since it was first published in 2006. It is a comprehensive reference on insects featuring an easy identification guide using 28 picture keys, 4000 color photographs taken in the field (not pinned specimens), expert advice on observing insects, and more. Insects enables readers and starting entomologists to identify most insects quickly and accurately. More than 50 pages of picture keys lead to appropriate chapters and specific photos, to confirm identification. The keys are surprisingly comprehensive and easy for non-specialists to use. Features include: detailed chapters covering insect orders and insect families a brief examination of common families of related terrestrial arthropods 4000+ color photographs showing typical behaviors and key characteristics three indexes—common family names, photographs, general index expert guidance on observing, collecting and photographing insects new remarks on declining habitat and threats to biodiversity. This book has been widely and thoroughly praised. It is now ready for a new generation of new, and lifetime students of entomology.

500 Insects

Flies

Worlds of Natural History

Identification and Natural History of the Fireflies of the Eastern and Central United States and Canada

Edible Insects

Epitome of the Natural History of the Insects of India, and the Islands in the Indian Seas

Cockroaches

In this vivid and captivating journey through the colors of an artist's palette, Victoria Finlay takes us on an enthralling adventure around the world and through the ages, illuminating how the colors we choose to value have determined the history of culture itself. How did the most precious color blue travel all the way from remote lapis mines in Afghanistan to Michelangelo's brush? What is the connection between brown paint and ancient Egyptian mummies? Why did Robin Hood wear Lincoln green? In Color, Finlay explores the physical materials that color our world, such as precious minerals and insect blood, as well as the social and political meanings that color has carried through time. Roman emperors used to wear togas dyed with a purple color that was made from an odorous Lebanese shellfish—which probably meant their scent preceded them. In the eighteenth century, black dye was called logwood and grew along the Spanish Main. Some of the first indigo plantations were started in America, amazingly enough, by a seventeen-year-old girl named Eliza. And the popular van Gogh painting White Roses at Washington's National Gallery had to be renamed after a researcher discovered that the flowers were originally done in a pink paint that had faded nearly a century ago. Color is full of extraordinary people, events, and anecdotes—painted all the more dazzling by Finlay's engaging style. Embark upon a thrilling adventure with this intrepid journalist as she travels on a donkey along ancient silk trade routes; with the Phoenicians sailing the Mediterranean in search of a special purple shell that garners wealth, sustenance, and prestige; with modern Chilean farmers breeding and bleeding insects for their viscous red blood. The colors that craft our world have never looked so bright.

This beautifully illustrated book provides an overview of the world of insects. The encyclopedia of insect species is organized according to geographical region and then by insect order.

Surprising though it seems, the world faces almost as great a threat today from arthropod-borne diseases as it did in the heady days of the 1950s when global eradication of such diseases by eliminating their vectors with synthetic insecticides, particularly DDT, seemed a real possibility. Malaria, for example, still causes tremendous morbidity and mortality throughout the world, especially in Africa. Knowledge of the biology of insect and arachnid disease vectors is arguably more important now than it has ever been. Biological research directed at the development of better methods of control becomes even more important in the light of the partial failure of many control schemes that are based on insecticide—although not all is gloom, since basic biological studies have contributed enormously to the outstanding success of international control programmes such as the vast Onchocerciasis Control Programme in West Africa. It is a sine qua non for proper understanding of the epidemiology and successful vector control of any human disease transmitted by an arthropod that all concerned with the problem—medical entomologist, parasitologist, field technician—have a good basic understanding of the arthropod's biology. Knowledge will be needed not only of its direct relationship to any parasite or pathogen that it transmits but also of its structure, its life history and its behaviour—in short, its natural history. Above all, it will be necessary to be sure that it is correctly identified.

The world of insects is at once beneath our feet and unfathomably alien. Small and innumerable, insects surround and disrupt us even as we scarcely pay them any mind. Insects confront us with the limits of what is imaginable, while at the same time being essential to the everyday functioning of all terrestrial ecosystems. In this book, the philosopher and historian of science Jean-Marc Drouin contends that insects pose a fundamental challenge to philosophy. Exploring the questions of what insects are and what scientific, aesthetic, ethical, and historical relationships they have with humanity, he argues that they force us to reconsider our ideas of the animal and the social. He traces the role that insects have played in language, mythology, literature, entomology, sociobiology, and taxonomy over the centuries. Drouin emphasizes the links between humanistic and scientific approaches—how we have projected human roles onto insects and seen ourselves in insect form. Caught between the animal and plant kingdoms, insects force us to confront and reevaluate our notions of gender, family, society, struggle, the division of labor, social organization, and individual and collective intelligence. A remarkably original and thought-provoking work, A Philosophy of the Insect is an important book for animal studies, environmental ethics, and the history and philosophy of science.

The Silken Thread

The Lives of Moths

The Natural History of Aquatic Insects

Insects Through the Seasons

Describing 114 Species of Insects and Other Arthropods, Including Their Natural History and Environment

Natural History of Birds, Fish, Insects, and Reptiles

A Natural History

Insects are seldom mentioned in discussions surrounding human history, yet they have dramatically impacted today's societies. This book places them front and center, offering a multidisciplinary view of their significance. Diseases vectored by insects have killed more people than all weapons of war. Fleas are common pests, but some can transmit illnesses such as the bubonic plague. In fact, three pandemics can be traced back to them. Epidemics of typhus have been caused by lice. Conversely, humans have also benefitted from insects for millennia. Silk comes from silkworms and honey comes from bees. Despite the undeniably powerful effects of insects on humans, their stories are typically left out of our history books. In The Silken Thread, entomologists Robert. N. Wiedenmann and J. Ray Fisher link the history of insects to the history of empires, cultural exchanges, and warfare. The book narrows its focus to just five insects: a moth, a flea, a louse, a mosquito, and a bee. The authors explore the impact of these insects throughout time and the common threads connecting them. Using biology to complement history, they showcase these small creatures in a whole new light. On every page, the authors thoughtfully analyze the links between history and entomology. The book begins with silkworms, which have been farmed for centuries. It then moves to fleas and their involvement in the spread of the plague before introducing the role lice played in the Black Death, wars, and immigration. The following section concerns yellow fever mosquitoes, emphasizing the effects of yellow fever in the Americas and the connection to sugar and slavery. After discussing the importance of western honey bees, the authors tie these five insects together in an exciting closing chapter.

Insects are often overlooked because they are small or ignored because they are deemed trivial, and many are dismissed as nuisance pests. But their numbers and diversity are mind-numbing, and under even a modest hand lens they are beautiful or bizarre. Insects dominate the centre ground of all terrestrial and most aquatic ecosystems. They inform us of the conservation value of ancient woodland and chalk downland. They help monitor the purity or pollution levels of ponds, streams and rivers. And they can demonstrate the effects of climate change, acting as warning lights to alert us to the damage that humans are doing to the world. Recent insectageddon headlines are starting to make people sit up and take more notice. What better way to promote an interest in these fascinating creatures than by poetizing them? This cornucopia of discordant nonsense, with some quite frankly dubious rhyming clashes, is offered up so that entomological outreach will at least benefit from their shock value.

Insect Metamorphosis: From Natural History to Regulation of Development and Evolution explores the origin of metamorphosis, how it evolved, and how it is it regulated. The book discusses insect metamorphosis as a key innovation in insect evolution. With most of the present biodiversity on Earth composed of metamorphosing insects—approximately 1 million species currently described, with another 10-30 million still waiting to be discovered, the book delves into misconceptions and past treatments. In addition, the topic of integrating insect metamorphosis into the theory of evolution by natural selection as noted by Darwin in his On the Origin of Species is also discussed. Users will find this to be a comprehensive and updated review on insect metamorphosis, covering biological, physiological and molecular facets, with an emphasis on evolutionary aspects. Features updated knowledge from the past decade on the mechanisms of action of juvenile hormone, the main doorkeeper of insect metamorphosis Aids researchers in entomology or developmental biology dealing with specialized aspects of metamorphosis Provides applied entomologists with recently updated data, especially on regulation, to better face the problems of pest control and management Gives general evolutionary biologists context on the process of metamorphosis in its larger scope

A fascinating look at the world's most numerous inhabitants, illustrated with stunning images from the American Museum of Natural History's Rare Book Collection. It is estimated that there are around five million insect species on Earth, and this magnificent volume tells their incredible story. It covers everything from insect evolution, metamorphosis, and camouflage to society, language, and pollination—plus tales of discovery by intrepid entomologists. More than 180 illustrations describe these fascinating animals down to their tiniest details, from butterflies' iridescent wings to beetles' vibrant colors.

A Global History

Innumerable Insects

An Outline of Entomology

Ben Cao Gang Mu, Volume VIII

A Magnified Look at the Incredible World of Insects

The Insects

A Guide to the World of Arthropods, Covering Many Insect Orders, Including Beetles, Flies, Stick Insects, Dragonflies, Ants and Wasps, as Well as Microscopic Creatures

Single-page entries describe and illustrate five hundred of the world's reported one million recognized insect varieties.

Dragonflies and Damselflies - a Natural History