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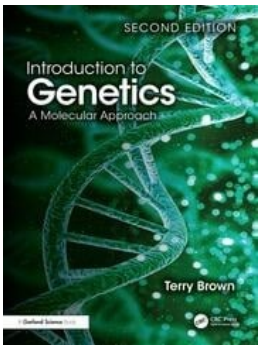

2nd Edition

Introduction to Genetics

A Molecular Approach
By Terry A. Brown
Copyright 2025
Paperback ISBN 9781032743530
574 Pages 666 Color & 19 B/W Illustrations

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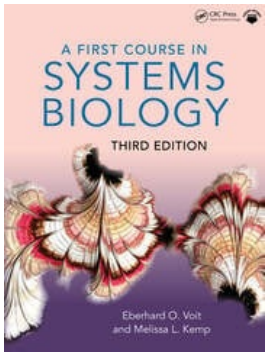

3rd Edition

A First Course in Systems Biology

By Eberhard Voit, Melissa L. Kemp
Copyright 2025
Paperback
ISBN 9781032515434
532 Pages 382 Color & 4 B/W Illustrations

Description
A First Course in Systems Biology, Third Edition is an introduction to the growing field of systems biology for advanced undergraduates and graduate students. Its focus is the design and analysis of computational models and their applications to diverse biomedical phenomena, from simple networks and kinetics to complex pathway systems, signal transduction, personalized medicine, and interacting populations. The book begins with the fundamentals of computational modeling, then reviews features of the molecular inventories that bring biological systems to life and ends with case studies that reflect some of the frontiers in systems biology. In this way, the First Course provides the reader with a comprehensive background and with access to methods for executing standard tasks of biomedical systems analysis, exposure to the modern literature, and a foundation for launching into specialized projects that address biomedical questions with theoretical and computational means.

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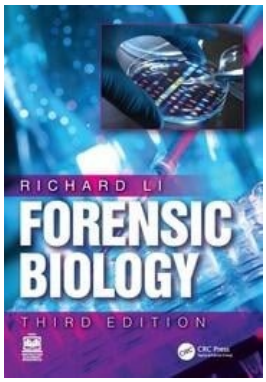

3rd Edition

Forensic Biology

By Richard Li
Copyright 2025 Hardback ISBN 9781032913414
572 Pages 423 Color & 2 B/W Illustrations
Published March 26, 2025 by CRC Press

Description
Forensic Biology, Third Edition, provides students with a general understanding of forensic biology, particularly in forensic serology and forensic DNA analysis, and addresses rapid advancements in the field over the past few years. The book is divided into 26 chapters that are designed to be covered in a single-semester course for students majoring in forensic science, with the aim of equipping students with the knowledge needed to understand and apply new real-world techniques and methods to prepare them for entry into the field.
Provides clear explanations of the principles involved in forensic identification and the analysis of biological evidence
Explains the techniques used in forensic body fluid identification and DNA profiling, both in the field and in the laboratory
Discusses the benefits and limitations of various forensic biology techniques
Includes over four hundred color illustrations
Includes over three thousand in-text citations
This updated and comprehensive volume on forensic biology is suitable for use both in the classroom and as a reference for practicing professionals.

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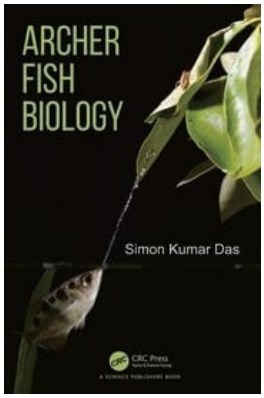

1st Edition

Archer Fish Biology

By Simon Kumar Das
Copyright 2024 Hardback ISBN 9780367462376
156 Pages 7 Color & 30 B/W Illustrations
Published April 9, 2024 by CRC Press

Description
This book unveils the secrets of archer fish, covering everything from their morphology to their unique feeding techniques, digestion physiology, and reproductive intricacies. It serves as an essential resource for students, researchers, conservation biologists, and anyone curious about the biology of archer fish, as well as fish biology in general. Readers can immerse themselves in chapters that discuss identification techniques, age, and growth, feeding physiology, and much more. The book highlights the wonders of these remarkable creatures, helping readers gain a deeper understanding of the intricate realm of fish biology.

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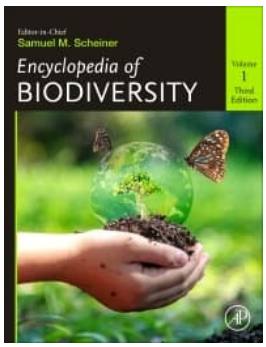

Encyclopedia of Biodiversity

3rd Edition - November 3, 2023
Editor: Samuel M. Scheiner
Language: English
Hardback ISBN: 9780128225622

Description
Encyclopedia of Biodiversity, Third Edition, Seven Volume Set provides a coherent, synthetic and comprehensive overview of the field, bringing together contributions from over 400 expert academics and practitioners. The book brings together the dimensions of biodiversity and examines the services it provides and measures to protect it. Major themes include the evolution of biodiversity, systems for classifying and defining biodiversity, ecological patterns and theories of biodiversity, and an assessment of contemporary patterns and trends in biodiversity. The entire work is reviewed and updated, including new chapters on topics which have come to the forefront since the publication of the previous edition.

The science of biodiversity has become the science of our future. It is an interdisciplinary field spanning areas of both physical and life sciences. Our awareness of the loss of biodiversity has brought a long overdue appreciation of the magnitude of this loss and a determination to develop the tools to protect our future. One important feature of the new edition will be updated information on the growing biodiversity crisis.

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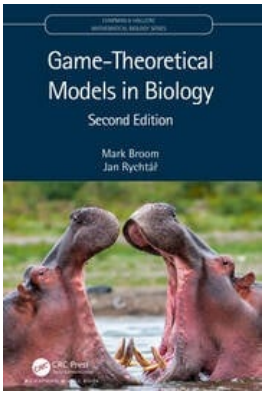


2nd Edition

Game-Theoretical Models in Biology

By Mark Broom, Jan Rychtář
Copyright 2023
Paperback ISBN 9781032308708
622 Pages 103 B/W Illustrations
Published August 26, 2024 by Chapman & Hall

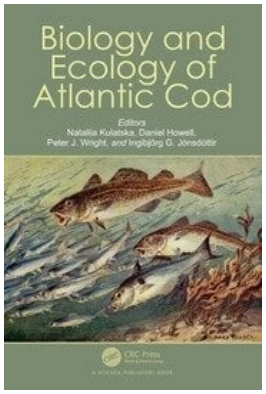
Description

Covering the major topics of evolutionary game theory, Game-Theoretical Models in Biology, Second Edition presents both abstract and practical mathematical models of real biological situations. It discusses the static aspects of game theory in a mathematically rigorous way that is appealing to mathematicians. In addition, the authors explore many applications of game theory to biology, making the text useful to biologists as well.

The book describes a wide range of topics in evolutionary games, including matrix games, replicator dynamics, the hawk-dove game, and the prisoner's dilemma. It covers the evolutionarily stable strategy, a key concept in biological games, and offers in-depth details of the mathematical models. Most chapters illustrate how to use Python to solve various games.

Important biological phenomena, such as the sex ratio of so many species being close to a half, the evolution of cooperative behaviour, and the existence of adornments (for example, the peacock's tail), have been explained using ideas underpinned by game theoretical modelling. Suitable for readers studying and working at the interface of mathematics and the life sciences, this book shows how evolutionary game theory is used in the modelling of these diverse biological phenomena.

In this thoroughly revised new edition, the authors have added three new chapters on the evolution of structured populations, biological signalling games, and a topical new chapter on evolutionary models of cancer. There are also new sections on games with time constraints that convert simple games to potentially complex nonlinear ones; new models on extortion strategies for the Iterated Prisoner's Dilemma and on social dilemmas; and on evolutionary models of vaccination, a timely section given the current Covid pandemic.



1st Edition

Biology and Ecology of Atlantic Cod

Edited By Nataliia Kulatska, Daniel Howell, Peter J. Wright, Ingibjörg G. Jónsdóttir
Copyright 2025
Hardback ISBN 9780367638283
254 Pages 8 Color & 91 B/W Illustrations
Published October 31, 2024 by CRC Press

Description

Atlantic cod is an important fish species in human history and continues to be a major influence on North Atlantic fisheries management, as stock collapses and recoveries impact coastal communities and shelf sea food webs. This book provides an overview of Atlantic cod biology and ecology, focussing on regional differences in life-history and stock dynamics that affect productivity and the challenges faced by management. By comparing the success of management approaches and the local influence of changing climate and food webs, the book highlights the different pressures facing stocks and identifies knowledge gaps across the species' range.

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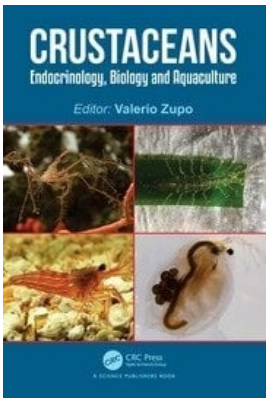


1st Edition

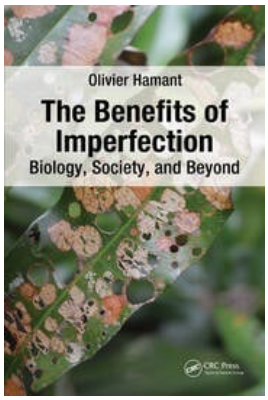
Crustaceans

Endocrinology, Biology and Aquaculture
Edited By Valerio Zupo
Copyright 2023
Paperback ISBN 9781032390727
308 Pages 9 Color & 38 B/W Illustrations
Published October 4, 2024 by CRC Press

Description

Anyone who attempts to study crustaceans soon realizes that there are many science fields involved. As a major subphylum of Arthropods—the largest phylum in the animal kingdom—crustaceans exhibit an extraordinary diversity of taxa, shapes, physiology and styles of life. These invertebrates play key ecological roles in all aquatic environments, while only a few species are adapted to sub-aerial and humid environments. Their evolutionary success is not only due to a wide set of morphological and biological adaptations, but also because of some key features, e.g., their peculiar endocrinology. In addition, crustaceans are characterized by chemical and optical sensors deserving attention because they play important biological roles, linked to chemical ecology issues, and their functioning is impaired by global changes and ocean acidification. Several crustaceans have critical roles in aquatic ecology (e.g., copepods in the plankton, amphipods and isopods in the benthos). Select species are technologically important as "models" for scientific research. Furthermore, aquaculture of several decapod crustaceans is important for providing high protein products to meet the need for nutrition. Understanding the physiology and ecology of crustaceans is important to fulfill these diverse purposes and practical applications.

In this book, leading world scientists have pooled their excellence to provide vibrant and expert views of fundamental biological and physiological mechanisms involving crustaceans. To this end, a comprehensive view of crustacean endocrinology and reproductive ecology is provided, along with information about their molecular physiology, adaptations, aquaculture and welfare. In particular, we attempted to span the breadth of their adaptations, presenting behavioral and physiological peculiarities, considering key groups of crustaceans to describe general features and global biodiversity. This book is offered as a tool for students and scientists in various fields of physiological, ecological, biotechnological and aquacultural research.



1st Edition

The Benefits of Imperfection

Biology, Society, and Beyond
By Olivier Hamant
Copyright 2025
Hardback ISBN 9781032832203
186 Pages
Published September 30, 2024 by CRC Press

Description

The cult of performance leads our society to emphasise the values of success and continuous optimisation in all areas. Slowness, redundancy and randomness are therefore negatively perceived. Olivier Hamant, in his book, reclaims them by his knowledge of biological processes.

What can we learn from life sciences? While some biological mechanisms certainly boast formidable efficiency, recent advances instead highlight the fundamental role of errors, incoherence or slowness in the robustness of living organisms. Should life be considered suboptimal? To what extent could suboptimality become a counter-model to the credo of performance and control in the Anthropocene?

In the face of pessimistic observations and environmental alerts, the author outlines solutions for a future that is viable and reconciled with nature.

Key Features:

Solidly documents with a grounding in scientific facts focusing on solutions
Explores a pragmatic way towards robustness, moving the debate beyond performance, technolatry or degrowth
Responds to eco-anxiety by providing an engaging and viable way forward

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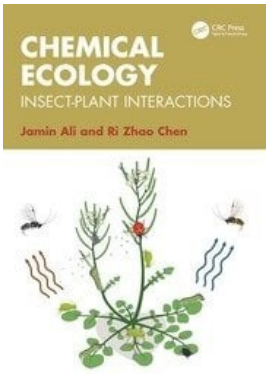

1st Edition

Chemical Ecology

Insect-Plant Interactions
By Jamin Ali, Ri Zhao Chen
Copyright 2025 Paperback ISBN 9781032767062
196 Pages 15 B/W Illustrations
Published November 26, 2024 by CRC Press

Description
This textbook provides a comprehensive overview of the principles, methods and applications of chemical ecology, covering such topics as chemical signalling, predator–prey interactions, host plant selection and chemical defence. The book takes the reader through the historical development of the discipline to current state-of-the-art research, delving into recent findings on the role of chemical ecology in conservation and management and exploring how the field may contribute to future innovations in ecological science. A chapter is dedicated to the techniques that have been used in chemical ecology and some success stories.
Chemical Ecology: Insect-Plant Interactions is an important resource for advanced undergraduates and postgraduate researchers as well as practitioners in this interdisciplinary field. The book's layout aligns with the curriculum of chemical-ecology-related disciplines, progressing from basic fundamental principles to a more advanced level. Those studying and researching in ecology, entomology, plant biology and biochemistry will find it invaluable as well as those practising in areas such as agriculture, forestry and pest management.

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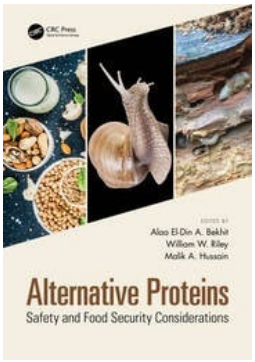

1st Edition

Alternative Proteins

Safety and Food Security Considerations
Edited By Alaa El-Din A. Bekhit, William W. Riley, Malik A. Hussain
Copyright 2022
Paperback ISBN 9781032161600
448 Pages 40 Color & 4 B/W Illustrations
Published October 4, 2024 by CRC Press

Description
In the last decade, there has been substantial research dedicated towards prospecting physiochemical, nutritional and health properties of novel protein sources. In addition to being driven by predictions of increased population and lack of a parallel increase in traditional protein sources, main drivers for the rise in novel proteins/ novel foods research activities is linked to significant changes in young consumers' attitudes toward red meat consumption and their interest in new alternative protein products.

Explains potential improvements to alternative proteins through the employment of novel processing techniques.
Contains the first review on keratin as an alternative protein source.
Explores first comprehensive evaluation of the religious aspects of novel proteins.
Describes methods for the detection and evaluation of health hazards.
Discusses guidelines, regulatory issues and recommendations for food safety
Additionally, this book covers fundamental and recent developments in the production of alternative proteins, and examines safety and consumer acceptability wherever information is available. The sources and processing options for alternative proteins and their impact on final product characteristics are also covered. A collective contribution from international researchers who are active in their field of research and have made significant contributions to the the food sciences, this book is beneficial to any researcher interested in the the food science and safety of alternative proteins.

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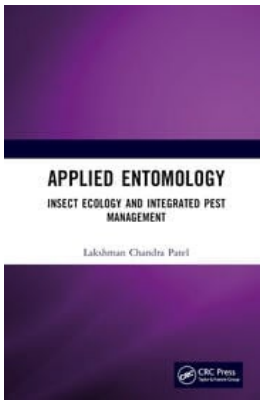

1st Edition

Applied Entomology

Insect Ecology and Integrated Pest Management
By Lakshman Chandra Patel
Copyright 2024 Hardback ISBN 9781032627786
331 Pages Published December 1, 2023 by CRC Press

Description
The subject of Entomology deals with the scientific study of insects in a diverse manner. It has two parts:
Insect Morphology, Anatomy and Systematic
Insect Ecology and Integrated Pest Management (IPM).
This book applies to students, researchers, extension workers, farmers and other stakeholders. Both classroom and field learning are important with this updated information to enhance need-based knowledge and skill. Applied Entomology: Insect Ecology and Integrated Pest Management covers mostly used practical work at the field level apropos Insect Ecology and Integrated Pest Management (IPM).

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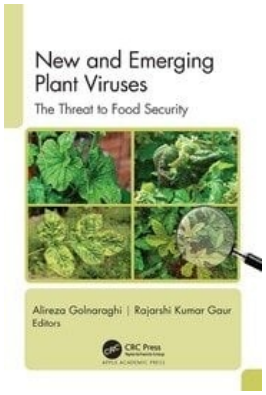

1st Edition

New and Emerging Plant Viruses

The Threat to Food Security
Edited By Alireza Golnaraghi, Rajarshi Kumar Gaur
Copyright 2025
Hardback ISBN 9781774916582
380 Pages 15 Color Illustrations
Published December 6, 2024 by Apple Academic Press
Request Inspection Copy

Description
Emerging and re-emerging viruses are a constant threat to plants. Despite intensive efforts to manage and prevent plant viruses and their potential vectors in crop production processes, many crops are damaged each year. This new book reviews the progress made to date and the challenges ahead in the field of plant viruses and agricultural production. It sheds light on previously undiscovered plant viruses, bringing together information on the detection and tracking, host interaction, evolution, and management. The first section covers the various hidden sources of plant viruses such as from wild plants, weeds, and tobacco as well as other undetermined plant virus sources. The second section covers the implications of mixed infection on disease pathogenicity and epidemiology, provides an understanding of the virus and host relationship, and presents an overview of plant viruses from old to new.
Providing new and important knowledge on major plant viruses and discussing their nature as well as impact on plants, this volume will be of special interest to research scholars, professors, and scientists working on plant and environmental viruses.

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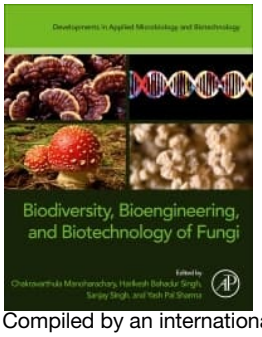

Biodiversity, Bioengineering, and Biotechnology of Fungi

1st Edition - April 1, 2025
Editors: Chakravarthula Manoharachary, Harikesh Bahadur Singh, Sanjay Singh, Yash Pal Sharma
Language: English
Paperback ISBN: 9780443138560

Description

Biodiversity, Bioengineering, and Biotechnology of Fungi examines various fungi genera and their biotechnological applications. The book covers the most common genera of fungi, their structure, their taxonomy, the maintenance and organization of a permanent study collection with associated databases, and their application in diverse sectors including industrial applications in the food, environment, bioenergy, biorefinery, and biopharma sectors.

Compiled by an international team of fungal biologists, Biodiversity, Bioengineering, and Biotechnology of Fungi provides a wealth of information particularly on the diversity of fungal genera and their biotechnological contributions. The book is a valuable resource for scientists, researchers, health practitioners, nutritionists, industry professionals, advanced students, and all those who wish to broaden their knowledge in the allied field.

Biological Science

Exploring the Science of Life

Jon Scott, Gus Cameron, Anne Goodenough, Dawn Hawkins, Jenny Koenig, Martin Luck, Despo Papachristodoulou, Alison Snape, Kay Yeoman, and Mark Goodwin

Motivates the reader to take their first steps on the journey to becoming an independent researcher, using a narrative and numerous learning features that demonstrate the experimental basis of biological science, and the importance of the scientific method and scientific enquiry.

Builds a robust understanding of the essential concepts that underpin biological science as a discipline onto which more advanced study can be layered: this is emphatically not a catalogue of knowledge to be remembered, but a resource that introduces concepts to be understood.

Incorporates quantitative skills as a central component of the study and investigation of biological science, so that students learn to see the value of quantitative tools in better understanding biological systems than something to be

A modular structure allows academics to tailor the content used to the specific needs of their students, ensuring maximum relevance to each student, and hence optimizing their motivation to learn.

Encapsulates a rich learning experience that fosters active learning, problem-solving ability and critical thinking and accommodates different learning preferences - with a focus on the enhancement of understanding, not the testing of knowledge.

Also available as an ebook with functionality, navigation features, and links that offer extra learning support.

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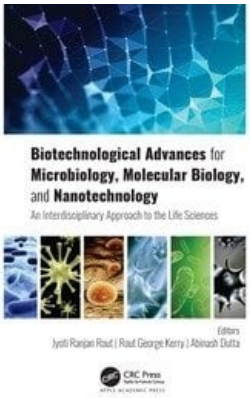

1st Edition

Biotechnological Advances for Microbiology, Molecular Biology, and Nanotechnology

An Interdisciplinary Approach to the Life Sciences

Edited By Jyoti Ranjan Rout, Rout George Kerry, Abinash Dutta
Copyright 2022
Paperback ISBN 9781774639474
694 Pages 27 Color & 44 B/W Illustrations
Published August 26, 2024 by Apple Academic Press

Description

Biotechnological Advances for Microbiology, Molecular Biology, and Nanotechnology: An Interdisciplinary Approach to the Life Sciences presents cutting-edge research associated with the beneficial implications of biotechnology on human welfare.

The volume mainly focuses on the highly demanding thrust areas of biotechnology that are microbiology, molecular biology, and nanotechnology. The book provides a detailed overview of the beneficial roles of microbes and nanotechnology-based engineered particles in biological developments. Also, it highlights the role of epigenetic machinery and redox modulators during the development of diseases. In addition, it provides research on nanotechnology-based applications in tissue engineering, stem cell, and regenerative medicines.

Overall, the book provides an extended platform for acquiring the methodological knowledge needed for today's biotechnological applications, such as DNA methylation, redox homeostasis, CRISPR, nano-based drug delivery systems, proteomics, genomics, metagenomics, bioluminescence, bioreactors, bioremediation, biosensors, etc.

Divided into three sections, the book first highlights some recent trends in applied microbiology used in different areas, such as crop improvement, wastewater treatment, drug delivery, healthcare management, and more. The volume goes on to cover some advances in cellular and molecular mechanisms, such as CRISPR technology in biological systems, induced stem cells in disease prevention, integrated omics technology, and others. The volume also explores the indispensable role of nanotechnology in the precisely modulating intricate functioning of an organism in diagnostic and therapy along its application in tissue engineering and regenerative medicine and in food science as well as its role in ecological sustainability.

This multidisciplinary volume will be highly valuable for the researchers, scientists, biologists, and faculty and students striving to expand their horizon of knowledge in their respective fields.

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1st Edition

Breeding and Culture of Freshwater Ornamental Fish

By Archana Sinha, Pramod Kumar Pandey
Copyright 2024
Hardback ISBN 9781032599311
250 Pages 125 Color Illustrations
Published October 6, 2023 by CRC Press

Description

This book deals with recent and upcoming technologies of breeding freshwater ornamental fish. It covers in detail areas such as status, breeding techniques, food and health management and marketing of freshwater ornamental fishes. There is a separate chapter on breeding of indigenous freshwater ornamental fishes.
Emphasis is given on national and international legislation related to ornamental fish export and import. The book contains a useful chapter on the importance and role of ornamental plants and accessories. Aquarium making, decoration, water quality management and maintenance have also been well explained for hobbyists.

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Dictionary of Toxicology

Reference work
© 2024
Authors:
AB Pant

Table of contents (2999 entries)

About this book

This dictionary of toxicology provides curated and authentic information on the terminologies used with their description as per modern toxicology and associated declines. It aims to have a collection of over 3500 terminologies with their basic information and roles with relevance in toxicology and associated disciplines in alphabetical order. This book has a flow of information in alphabetical order starting from word A to Z. The contents cover all the possible facets of contemporary. It is an unparalleled reservoir of information with a practical understanding of the subject for undergraduates, post-graduate, doctorate and post-doctorate, researchers of toxicology, medical and dental sciences, veterinary sciences, pharmacy sciences, life sciences, forensic sciences, etc. Besides this, target readers would also be personnel working in academia, pharma industries, contract research organizations involved in regulatory studies, regulatory agencies and implementing agencies, and people having an interest in toxicological sciences.

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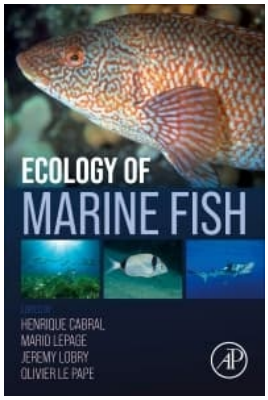

Ecology of Marine Fish

1st Edition - November 28, 2024
Editors: Henrique Cabral, Mario LePage, Jeremy Lobry, Olivier Le Pape
Language: English
Paperback ISBN: 9780323990363

Description

Ecology of Marine Fish offers updated reviews of the current knowledge on the ecology of marine fish. This book is an all-inclusive reference on the diversity of marine fish, their behaviors, their role in marine food webs, as well as the human and environmental impacts on marine fish, such as pollutants and climate change. It takes a historical approach to discussing spatial and temporal patterns of fish populations and introduces the changing patterns of the present. Each chapter provides an in-depth review of the science behind marine fish populations and the methodological tools to study them.

This book is an excellent resource for anyone in the fisheries sector, including scientists and researchers, fisheries managers, marine resource managers, marine biologists, fish farmers, marine ecologists, policy makers, leaders and regulators, operations researchers, as well as students and faculty studying marine fish ecology.

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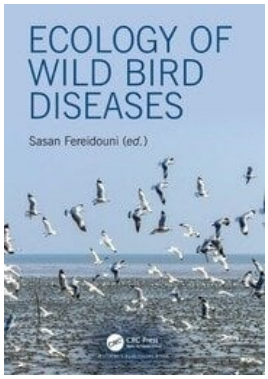

1st Edition

Ecology of Wild Bird Diseases

Edited By Sasan Fereidouni Copyright 2024 Hardback ISBN 9780815379454
400 Pages 41 Color & 49 B/W Illustrations Published June 14, 2024 by CRC Press

Description

The book focuses on the ecology of the most important infectious diseases of wild avian hosts, especially those with high morbidity and mortality rates. Disease ecology is an important scientific approach to study the relationships and interactions between living organisms, their environment, and potential pathogens. Birds have high diversity, and the very special ability to fly and migrate. They migrate over long distances, and share ecosystems with other animals, even humans. They serve as the most important natural source of several pathogens with zoonotic potential. Bird-pathogen interactions are increasingly changing due to the continuous anthropogenic disturbances in habitats and ecosystems. With intensified climate change and improved environmental conditions for vectors, as well as higher susceptibility of avian hosts due to simultaneous exposure to environmental stressors (e.g., contamination, food limitation, etc.), the probability of emerging new infections and their expansion into new territories increase tremendously. The Covid-19 pandemic has shown that neglected ecological and epidemiological interactions between wildlife, domestic animals and humans are paramount to global

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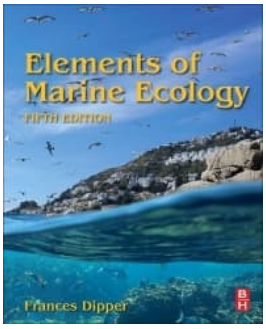

Elements of Marine Ecology

5th Edition - February 16, 2022
Author: Frances Dipper
Language: English
Paperback ISBN: 9780081028261

Description

Elements of Marine Ecology, Fifth Edition focuses on marine ecology as a coherent science, providing undergraduate students with an essential foundation of knowledge in the structure and functioning of marine ecosystems. The text reflects ecological groupings such as the pelagic lifestyle vs. the benthic lifestyle. In addition, background oceanographic material, previously in various chapters, is consolidated in the first chapter. The broad definition of ecology is the study of organisms in relation to their surroundings. This book presents marine ecology as a coherent science, providing undergraduate students with an essential foundation of knowledge in the structure and functioning of marine ecosystems. This new edition has been thoroughly revised and updated to meet the needs of today's courses and now includes worldwide examples, all thoroughly updated with brand new chapters.

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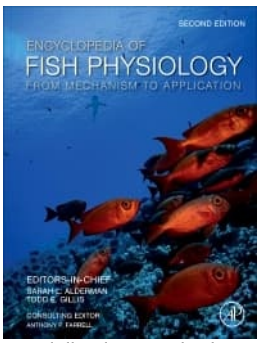


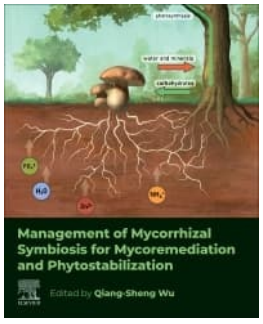
Encyclopedia of Fish Physiology

2nd Edition - March 19, 2024
Editors: Sarah L. Alderman, Todd E. Gillis
Language: English
Hardback ISBN: 9780323908016

Description

Encyclopedia of Fish Physiology, Second Edition is a comprehensive, introductory-level reference work that aims to unite readers in the wonders of this discipline. Chapters highlight where physiological systems and processes are conserved across vertebrate groups, which supports the use of fish as a vertebrate model for investigating fundamental problems in physiology and knowledge transfer to the medical field. Other chapters highlight unique specializations and adaptations that allow fish to survive in challenging environments, leading to a deeper appreciation of the natural world. Final sections demonstrate the consequences of perturbing physiological systems and how this knowledge can empower conservation strategies to protect fish.

Much has changed in the field of fish physiology since publication of the previous, Prose award winning, edition. For example, we understand better the impacts of global climate change on the physiological systems of fish, and we have gained a deeper mechanistic understanding of physiological processes through technological advancements such as gene editing with CRISPR, whole genome sequencing, and quantitative 'omic` approaches. The new edition greatly expands the closing thematic section focused on applying fish physiology to real world challenges with topics including ocean acidification, declining habitat quality due to human activities, and the use of zebrafish in biomedical studies on tissue regeneration, neurological disorders and cancer.



Management of Mycorrhizal Symbiosis for Mycoremediation and Phytostabilization

1st Edition - February 26, 2025
Editor: Qiang-Sheng Wu
Language: English
Paperback ISBN: 9780443248634

Description

Management of Mycorrhizal Symbiosis for Mycoremediation and Phytostabilization overviews the many advances that have been made in mycorrhizal research and practice. Many microorganisms are present in plant rhizosphere, among which root-associated mycorrhizal fungi are ancient fungi that have evolved along with the evolution of plants. Mycorrhizal fungi of the soil can colonize more than 80% of terrestrial plant roots, where the mycorrhizal symbiosis helps the host to obtain water and nutrients, in exchange of lipids and sugars from the host plant to the mycorrhizal fungus for its life history. The mycorrhizal extraradical mycelium can extend beyond the root zone, enabling the absorption of water and nutrients from the soil. Thus, the reciprocal symbiosis can provide an important technology for crop reduction of fertilizer inputs and environmental stewardship. Mycorrhizal fungal fertilizers have been produced commercially in Europe, Asia, and North America, which provides strong support for mycorrhizal applications in agriculture and environmental field. Therefore, there is a great need to summarize the recent research results and bring them together in a book. This book provides soil scientists and mycorrhizal researchers with a comprehensive overview of new advances in mycorrhizal fungi. It may also serve as a reference for professionals in adjacent fields working in environmental management, microbiology, and crop science.

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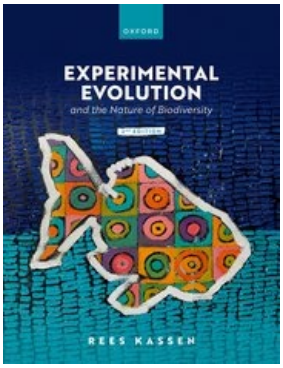

Experimental Evolution and the Nature of Biodiversity

Second Edition
Paperback Published: 29 August 2024
272 Pages | 100 colour line drawings and photographs ISBN: 9780192898678

Rees Kassen
Creates a compelling and complete account of how biodiversity evolves, as seen through the lens of microbial evolution experiments
Provides a unifying framework, focusing on a clear exposition of adaptive evolution and diversification
Integrates theoretical and empirical material throughout the text
Includes a broad taxonomic range of examples - human, animal, plant, and microbe
Updates existing analyses with more recent work
Expands on existing chapters to include the most important new ideas
Incorporates three new chapters (parallel and convergent evolution; the evolution of novelty and innovation; coevolution), detailing their respective contributions to our improved understanding of adaptation and diversification.

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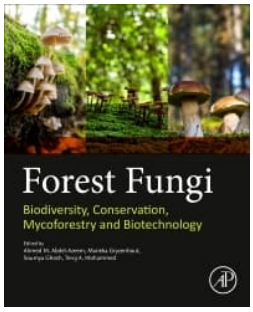

Forest Fungi

Biodiversity, Conservation, Mycoforestry and Biotechnology
1st Edition - September 4, 2024
Editors: Ahmed M. Abdel Azeem, Marieka Gryzenhout, Soumya Ghosh, Teroj A. Mohammed
Paperback ISBN: 978044318870

Description
Forest Fungi: Biodiversity, Conservation, Mycoforestry and Biotechnology explores sustainable option aspects of forest fungal research, from the selection of hosting plants, isolation, identification, fermentation, identification of secondary metabolites, omics-tools for better understanding the plant–fungus Interactions. Forests are the world's greatest repository of terrestrial biomass, soil carbon and biodiversity. They provide a variety of provisioning, supporting, regulatory and cultural ecosystem services, which are crucial for the survival of human beings. Fungi play key roles in forest ecosystems as mutualists, saprobes and pathogens.

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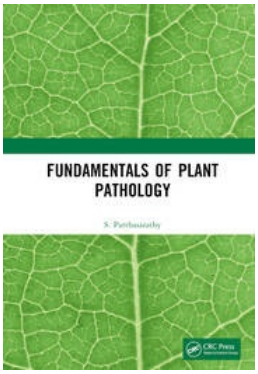

1st Edition

Fundamentals of Plant Pathology

By S. Parthasarathy
Copyright 2024
Hardback ISBN 9781032711843
428 Pages Published February 6, 2024 by CRC Press

Description
This book introduces the nature, causes and impact of plant diseases, describes briefly the history of plant pathology as a scientific discipline, and introduces the disease cycle as the key tool for understanding disease development and devising appropriate management strategies. The book describes the diverse organisms and agents that cause diseases—plant pathogens.

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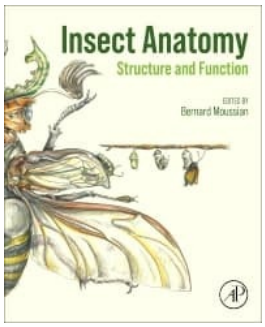

Insect Anatomy

Structure and Function
1st Edition - August 1, 2025
Editor: Bernard Moussian
Language: English
Paperback ISBN: 9780323856195

Description
Insect Anatomy: Structure and Function provides both morphological and anatomical descriptions of insect tissues and organs and the underlying genetic mechanisms of their function using updated methods. Insects play important roles in diverse ecosystems, with subsequent, tremendous impacts on human society through disease, agriculture effects, and more. Both beneficial and detrimental insect species continuously challenge agriculture and medicine. Written by international experts of insect morphology and anatomy, this book offers concise descriptions of all parts of an insect's anatomy, including the brain and nervous system, tracheal system, blood, reproductive organs, and kidney system.

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1st Edition

Insect Diversity and Ecosystem Services

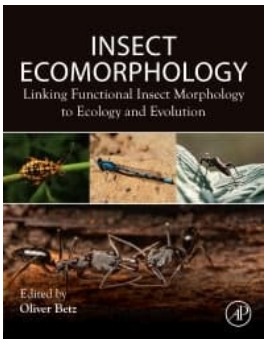
2-volume set
Edited By Younis Ahmad Hajam, Sajad Hussain Parey, Rouf Ahmad Bhat
Hardback
ISBN 9781774915776
560 Pages 27 Color & 4 B/W Illustrations
Published August 30, 2024 by Apple Academic Press

Description
This new book, Insect Diversity and Ecosystem Services, published in two comprehensive volumes, is an innovative work on insects and their impact on the ecosystem, describing their enormous free ecosystem services. The volumes cover a range of topics related to insects including their role in environmental pollution, their use in sustainable agricultural services, and the industrial, forensic, and medical applications of insects and their pure products. The book also covers the entomological and molecular aspects of insects, identifies the gaps in the research, and looks at integrated management strategies for pests.

The first volume, Volume 1: Importance, Threats, Conservation, and Economic Perspectives, presents a comprehensive review of different insect orders regarding their diversity and importance in providing free ecological services. This book discusses the different diversity patterns of biogeographic zones of the world and how insects contribute to maintaining ecological diversity in different biogeographic regions of the world.

Volume 2: Environmental Indicators, Molecular Approaches, and Management Strategies discusses the various aspects of insects, such as their role as environmental indicators, the effect of pesticides on insect diversity, strategies to control the diversity of insects, medical and forensic importance of insects, exploring new insect species through DNA barcoding, integrated pest management, the role of insect population in agriculture, and eco-friendly pest management approaches.

Role of insects for sustainable agricultural development
Commercial importance of insects and their products
Food additive roles of insects and formulation of remedies for the reduction of disease pathogenesis
Management strategies for pest control
Some specific topics include colony collapse disorder of managed honey bee (Apis mellifera l.) populations, insects as strong crime indicator tools in forensic sciences, insect-based value-added products, and more.
Together, these two volumes offer important information for researchers, academicians, scientists, industrialists, teachers, entomologists, and students for understanding the contribution of insects towards the sustainability of the ecosystem.



Insect Ecomorphology

Linking Functional Insect Morphology to Ecology and Evolution
1st Edition - February 25, 2025
Editor: Oliver Betz
Language: English
Paperback ISBN: 9780443185441

Description
Insect Ecomorphology: Linking Functional Insect Morphology to Ecology and Evolution offers up-to-date knowledge and understanding of the morphology of insects and the functional basis of their diversity. This book covers the form and function of insect body structures in relation to their physiological performance capabilities, biological roles, and evolutionary histories. Written by international experts, the book explores the ecomorphology of functional systems such as insect feeding, locomotion, sensing, and egg laying. The combination of conceptual and review chapters, methodological approaches, and case studies enables readers to delve into active research fields and to gain an understanding of the form-function-performance paradigm.
This book uncovers key structures of the various regions of the insect body, elucidates their function, and investigates their ecological and evolutionary implications. Insect Ecomorphology is thus a vital resource for entomologists, biologists, and zoologists, especially those seeking to understand more fully the morphology and physiological impacts of insects in correlation to their environments and to evolution.

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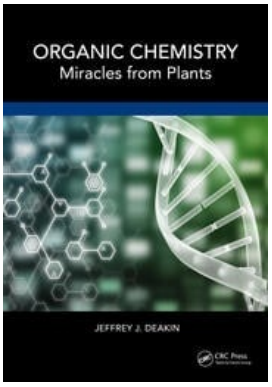
CARVANN BOOKS



1st Edition

Organic Chemistry

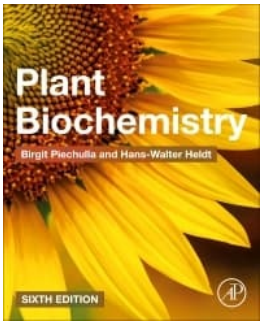
Miracles from Plants
By Jeffrey John Deakin
Copyright 2024
Paperback ISBN 9781032664903
276 Pages 48 Color & 139 B/W Illustrations
Published May 23, 2024 by CRC Press

Description
Human benefit from the organic chemistry of plants is incalculable in terms of health, food, comfort and security. Indeed, the future well-being of humanity rests in significant measure upon a responsible relationship with the plant kingdom in order to re-establish balance in the Earth's natural environmental systems.

In a highly readable volume, Organic Chemistry: Miracles from Plants presents many fascinating points of entry to the organic chemistry of a wide range of crucially-important, naturally-occurring, chemical substances which are derived from plants.

Features:

Presents in a readable and accessible manner many fascinating points of entry to the organic chemistry of a wide range of crucially-important, naturally-occurring, chemical substances which are derived from plants.
Key concepts in and knowledge of organic chemistry are reinforced.
Highly-relevant and contemporary context stimulates learning in organic chemistry.
Searching exercises and extension materials are provided at the end of every chapter each of which is amply illustrated.
In a single source, this volume provides knowledge, challenge and valuable learning opportunity in chemistry, medicine, nutrition and the environmental sciences.
Recipient of the 2025 American Botanical Council's 'James A. Duke Excellence in Botanical Literature Award'. ABC has chosen Organic Chemistry: Miracles from Plants due to its engaging and readable exploration into the role plants play in human lives and, as a result, creates an accessible introduction to the field of organic chemistry.



Plant Biochemistry

6th Edition - December 16, 2024
Authors: Birgit Piechulla, Hans-Walter Heldt
Language: English
Paperback ISBN: 9780443266164

Description
Plant Biochemistry, Sixth Edition examines the molecular mechanisms of photosynthesis and highlights and expands this view to all facets facilitating plant life. It delivers the fundamental knowledge of plant biochemistry and explains the biological processes of life, including growth, development, senescence, and interactions between organisms and the environment, with chemical reactions. This book is suitable for advanced undergraduates and graduate students in plant physiology, plant pathology, plant cell biology, and other plant sciences, researchers in industries actively involved in agribusiness, other biotechnology enterprises, and researchers in agronomy, agriculture, plant.
Covering a broad spectrum of topics in plant biochemistry, this book explores photosynthesis, energy metabolism, carbohydrate synthesis, photorespiration, starch biosynthesis and degradation, sulfate assimilation and nitrogen and nitrate assimilation and biosynthesis of plant proteins. The new edition delineates areas of latest and future research and includes a new and cutting-edge chapter on chlorophyll degradation.

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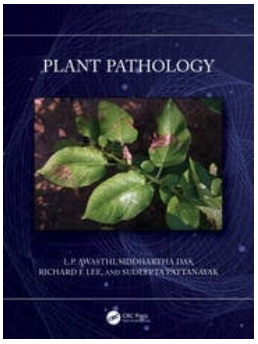


1st Edition

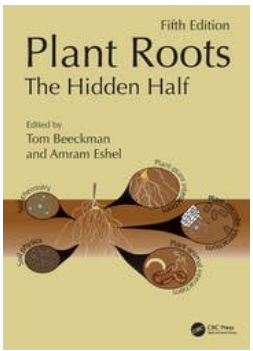
Plant Pathology

By L.P. Awasthi, Siddhartha Das, Richard F. Lee, Sudeepta Pattanayak
Copyright 2025
Hardback
ISBN 9781032354439
414 Pages 78 Color & 47 B/W Illustrations
Published December 18, 2024 by CRC Press

Description
Plant Pathology is a valuable, much-needed resource in plant pathological science. In a world where agriculture sustains life, the battle against crop diseases is paramount. This book is a comprehensive guide to understanding and managing disease threats. Plant Pathology dives into the intricate world of plant diseases. Authored by leading experts in the field, this book offers a comprehensive overview of plant pathology, covering everything from the fundamentals of disease development to advanced management strategies.

Explore the fascinating mechanisms behind pathogen invasion and host response, unraveling the complex interactions that dictate disease outcomes. Delve into the diverse array of pathogens—from fungi and bacteria to viruses and nematodes—that wreak havoc on crops worldwide. This book doesn't stop at diagnosis but equips readers with the knowledge and tools to combat these threats effectively. The latest cutting-edge techniques in disease management, from cultural practices and biological control to the latest developments in genetic resistance, and chemical intervention are described.

A comprehensive exploration of crop diseases, authored by leading experts
Fundamental concepts of disease development and advanced management strategies
Insights into pathogen invasion and host response mechanisms, spanning fungi, bacteria, viruses, and nematodes
The latest techniques in disease management, including cultural practices, biological control, and genetic resistance
Practical recommendations and case studies
This book equips researchers, plant pathology degree students, and farmers with the knowledge to safeguard crops, enhance yields, and ensure food security.



5th Edition

Plant Roots

The Hidden Half, Fifth Edition
Edited By Tom Beeckman, Amram Eshel
Copyright 2025
Hardback ISBN 9781032350318
548 Pages 133 Color & 27 B/W Illustrations

Description
Following its predecessors, Plant Roots: The Hidden Half, Fifth Edition is thoroughly updated and reports the major changes that have taken place in root research since the last edition published over 10 years ago. Considered a widely acclaimed book in the field of plant sciences, this edition includes a broad array of topics reflecting progress being made in the subdomains of root biology, featuring chapters on modern topics, while retained chapters are fully updated to demonstrate significant developments made in our understanding of root biology and in fast-evolving research methodologies and techniques. It reviews all root-related processes, from the evolution of roots in past eras to single-cell genomics, allowing readers to grasp an overall view of the state-of-the-art research in this field.
Among the 104 contributors to this book are seasoned experts in the field, as well as uprising specialists who have already made a distinguished mark in scientific literature. All of the chapters are extensively referenced featuring specific information on any topic related to the biology of the hidden half of plants. Featuring full color illustrations throughout, this handbook is an essential source of information for both expert and novice root scientists.

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Part I Evolution of Roots
Part II Root Structure and Development
Part III Regulation of Root Growth
Part IV Soil Resource Acquisition
Part V Root Response to Stress
Part VI Root-Rhizosphere Interactions
Part VII Root Genomics and Research Techniques

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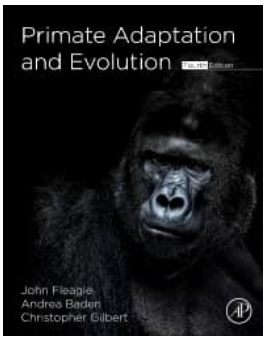
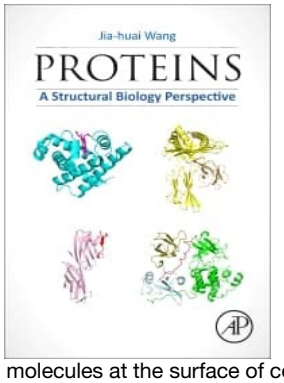


Primate Adaptation and Evolution

4th Edition - December 19, 2024
Authors: John G. Fleagle, Andrea L. Baden, Christopher C. Gilbert
Language: English
Hardback ISBN: 9780128158098

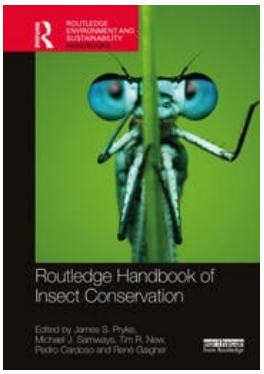
Description
Primate Adaptation and Evolution, Fourth Edition provides key features of extant families and references to more detailed texts. The book sets the scene and creates space for a thorough updating of exciting developments in primate paleontology and a reconstruction through early hominid species of our own human origins. This updated version covers recent developments in primate paleontology, the latest taxonomy, and includes new visuals, including helpful illustrations and evolutionary trees. It is an ideal text for undergraduate and post-graduate students studying the evolution and functional ecology of primates and early fossil hominids.The book retains its grounding in the extant primate groups as the best way to understand the fossil trail and evolution of these modern forms. However, this coverage is now more streamlined, referring to the many new and excellent books on living primate ecology and adaptation - a field that has burgeoned since this book's first publication.



Proteins

A Structural Biology Perspective
1st Edition - November 25, 2024
Author: Jia-huai Wang
Language: English
Paperback ISBN: 9780323998932

Description
Proteins: A Structural Biology Perspective explains how advances in modern physics fueled the birth of structural biology and modern molecular biology in the early to mid 20th century. Scientifically rigorous and deeply informed by the author’s own 60-year career as a structural biologist, the book provides historical and personal accounts of how two generations of renowned scientists doggedly pursued their research projects to arrive at milestone achievements, while also covering basic aspects of protein structures and their evolution with a special focus on molecules at the surface of cells and viruses. Since 1962, when only a single structure for myoglobin had been determined at atomic resolution, the rapidly evolving field has grown exponentially to fill protein structure databases (PDB) worldwide with hundred thousands of structures for basic research and medical advancement. From “What is a Wave?” to “What Is Life?”, Proteins: A Structural Biology Perspective takes readers on a uniquely intimate journey through the past 100 years of protein science, while providing an up-to-the-minute assessment of successful structure prediction by AI models like AlphaFold and RoseTTAFold and where it’s all likely to lead. Outfitted with detailed illustrations and authoritative citations, this is a valuable resource for graduate students and young research scientists in biology and the medical sciences.



1st Edition

Routledge Handbook of Insect Conservation

Edited By James S. Pryke, Michael J. Samways, Tim R. New, Pedro Cardoso, René Gaigher
Copyright 2024
Hardback
ISBN 9781032259505
586 Pages 74 Color Illustrations

Description
This handbook presents a comprehensive overview of insect conservation and provides practical solutions to counteract insect declines, at a time where insects are facing serious threats across the world from habitat destruction to invasive species and climate change.

The Routledge Handbook of Insect Conservation consist of six sections, covering all aspects of insect conservation, containing contributions from academics, researchers and practitioners from across the globe. Section I addresses the fundamentals of insect conservation and outlines the reason why insects are important and discusses the greatest drivers of insect decline. The chapters in Section II examine the approaches that can be used for insect conservation globally, such as protected areas and agroecology, while highlighting the importance of insects in the composition and function of ecosystems. The chapters in Section III focus on insect populations in the major biomes around the world, from temperate and tropical forests to savannas and grasslands, with the chapters in Section IV focusing on natural and manmade ecosystems of the world, including mountain, soil, urban, island and agricultural habitats. They discuss the unique pressures and challenges for each biome and ecosystem and offer practical solutions for conserving their insect populations. Section V focuses on the assessment and monitoring of insects for conservation, discussing how we can implement practical monitoring protocols and what options are available. A wide variety of methods and tools are examined, including citizen science, bioindication, the role of taxonomy, drones and eDNA. The book concludes by examining policy and education strategies for insect conservation in Section VI. The chapters discuss key issues around social and policy strategies and conservation legislation for ensuring the long-term protection of insects.

This book is essential reading for students and scholars of biodiversity conservation and entomology as well as professionals and policymakers involved in conservation looking for real-world solutions to the threats facing insects across the globe.

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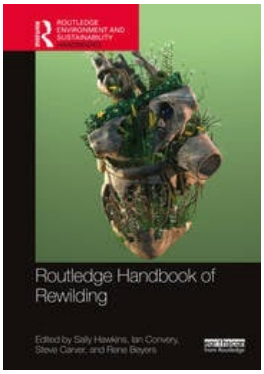

1st Edition

Routledge Handbook of Rewilding

Edited By Sally Hawkins, Ian Convery, Steve Carver, Rene Beyers
Copyright 2023
Paperback ISBN 9780367564490
420 Pages 64 B/W Illustrations
Published August 26, 2024 by Routledge

Description

This handbook provides a comprehensive overview of the history, theory, and current practices of rewilding. Rewilding offers a transformational paradigm shift in conservation thinking, and as such is increasingly of interest to academics, policymakers, and practitioners. However, as a rapidly emerging area of conservation, the term has often been defined and used in a variety of different ways (both temporally and spatially). There is, therefore, the need for a comprehensive assessment of this field, and the Routledge Handbook of Rewilding fills this lacuna. The handbook is organised into four sections to reflect key areas of rewilding theory, practice, and debate: the evolution of rewilding, theoretical and practical underpinnings, applications and impacts, and the ethics and philosophy of rewilding. Drawing on a range of international case studies the handbook addresses many of the key issues, including land acquisition and longer-term planning, transitioning from restoration (human-led, nature enabled) to rewilding (nature-led, human enabled), and the role of political and social transformational change.

Led by an editorial team who have extensive experience researching and practising rewilding, this handbook is essential reading for students, academics and practitioners interested in rewilding, ecological restoration, natural resource management and conservation.

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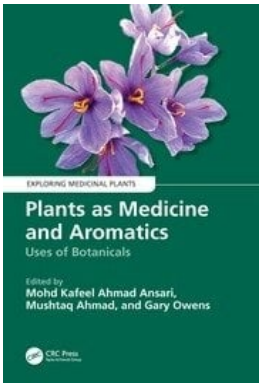

1st Edition

Plants as Medicine and Aromatics

Uses of Botanicals

Edited By Mohd Kafeel Ahmad Ansari, Mushtaq Ahmad, Gary Owens
Copyright 2025 ISBN 9781032517902
454 Pages 90 B/W Illustrations Published October 22, 2024 by CRC Press

Description

Plant-based medicines and aromatics are increasingly in demand in the healthcare sector all over the globe where they are used, not only for the treatment of various diseases, but also for maintaining good human health. Plants as Medicine and Aromatics: Uses of Botanicals reviews modern uses of ancient botanicals as medicine and aromatics, including chapters on both traditional usage and modern drug discovery development, as well as clinical research and development in ancient medicinal herbs.

Assesses the status of aromatics and medicinal plants as well as their modern uses.
Elucidates the uses of plants within traditional culture practices for the prevention and treatment of diseases.
Examines contemporary approaches being used to explore medicinal botany.
A volume in the Exploring Medicinal Plants series, Plants as Medicine and Aromatics: Uses of Botanicals presents a comprehensive understanding in terms of modern uses of botanicals of medicinal and aromatic plants. It is useful to researchers, teachers, cultivators, students, and for those interested in herbal medicine.

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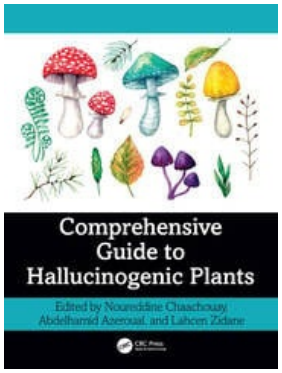

1st Edition

Comprehensive Guide to Hallucinogenic Plants

Edited By Noureddine Chaachouay, Abdelhamid Azeroual, Lahcen Zidane
Copyright 2025 Hardback ISBN 9781032591803
455 Pages 87 Color & 7 B/W Illustrations Published March 11, 2025 by CRC Press

Description

Hallucinogens have been traditionally used to encourage spiritual growth, heighten perception, inspire personal development, or expand reality. Comprehensive Guide to Hallucinogenic Plants focuses on ethnobotanical aspects of hallucinogenic plant species, featuring history on how they were used in ancient societies, identifying chemical compounds, and explaining modern medicinal uses, as well as conservation initiatives. The book emphasizes the importance of understanding the cultural, countrywide, environmental, and scientific importance of these medicinal plants.

Some of the 50 plants covered in this work include: ayahuasca, ginger, kanna, dream herb, iboga, peyote, canary broom, coral tree, catnip, wild rue, kava, mandrake, and golden angel's trumpet. Each chapter includes information on historical plant use and identification of chemical compounds, and explains modern medicinal uses. The text highlights the importance of studying, evaluating, and utilizing these plants not in isolation, but from a global perspective.

Comprehensive Guide to Hallucinogenic Plants appeals to plant scientists, botanists, ethnobotanists, pharmacologists, and those with an interest in alternative or herbal medicine.

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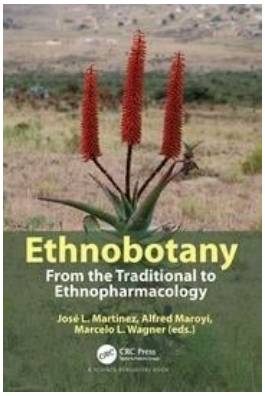

1st Edition

Ethnobotany

From the Traditional to Ethnopharmacology

Edited By José L. Martinez, Alfred Maroyi, Marcelo L. Wagner
Copyright 2023
Paperback
ISBN 9781032059877
264 Pages 9 Color & 12 B/W Illustrations
Published December 19, 2024 by CRC Press

Description

In this book we present recent studies that have been carried out on some widely used medicinal plants. The need for new and alternative treatments stem from the lack of efficiency of existing remedies for certain illnesses. We have compiled information that may be useful to researchers in their quest to develop new drugs.

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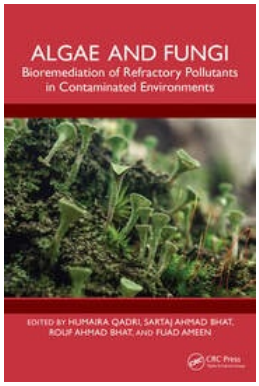

1st Edition

Algae and Fungi

Bioremediation of Refractory Pollutants in Contaminated Environments
Edited By Humaira Qadri, Sartaj Ahmad Bhat, Rouf Ahmad Bhat, Fuad Ameen
Copyright 2025
Hardback ISBN 9781032485836
200 Pages 14 B/W Illustrations
Published February 24, 2025 by CRC Press

Description
This book discusses algae and fungi as the tools for decontamination of polluted environments and how the remediation techniques aid in biorefining the pollution in environmentally sustainable ways. It covers their applications in containing and controlling pollution along with detailed diagrammatic representations including mechanisms of phyco- and myco-remediation. Recovery of pollutants including heavy metals, pesticides, organic chemicals, radionuclides, and persistent chemicals from polluted ecosystems and wastewater is also covered.
Exclusively covers phyco- and myco-remediation of various pollutants
Reviews dynamics of pollution abatement related to algae as well as fungi
Covers recovery of the pollutants from polluted ecosystems
Advocates usage of multiple modes of fungi and algae for detoxification of different compounds
Discusses restoration of the degraded ecosystems
This book is aimed at researchers and graduate students in environmental engineering, algae and fungi biotechnology, applied microbiology, and phycology.

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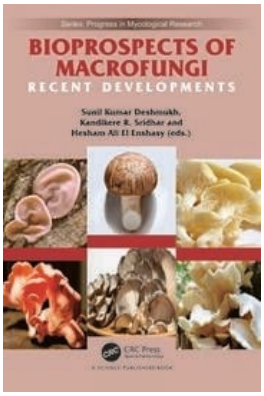

1st Edition

Bioprospects of Macrofungi

Recent Developments
Edited By Sunil Deshmukh, Kandikere Sridhar, Hesham El-Enshasy
Copyright 2024
Paperback ISBN 9781032381695
430 Pages 13 Color & 61 B/W Illustrations
Published January 30, 2025 by CRC Press

Description
The discipline of mycology is a fascinating one. It has a major influence on the nutrition, health and environmental safety of mankind. Cultivation of edible and non-edible mushrooms for nutrition, pharmaceuticals, biopolymers and biocomposites will open up new avenues in research as well as the more profitable utilization of agricultural residues. Cultivation and of domesticated and wild mushrooms poses a challenge to fulfill the needs of human/animal nutrition and utilization of agrowastes tangibly. Cultivation of ectomycorrhizal fungi benefits nutrition as well as plant protection. Macrofungi are the major source of several metabolites of nutritional, health, agricultural and industrial significance (e.g., antioxidants, antimicrobials and pigments). Macrofungal bio composites provide alternatives to the use of animal-derived or plant-derived products (e.g., nanopapers, leather and packaging materials). They serve a dual role in providing nutrition and pharmaceuticals (nutraceuticals) to humans as well as livestock. Macrofungi interact with insects symbiotically (e.g., Termitomyces with termites) and provide delicious nutraceutical product. They also control insects by infecting and producing pharmaceutically and metabolite-rich products (e.g., Cordyceps attacks insects). Macrofungi have a strong potential to control pathogens like nematodes in soil (bioremediation). They are also useful as biofertilizers to meet the needs of plant nutrition.

The book outlines current advances in macrofungal technology. It highlights different facets of macrofungal cultivation, bioactive compounds, biocomposites, nutraceuticals, benefits with interaction with insects, application as biofertilizers and ecosystem services like bioremediation.

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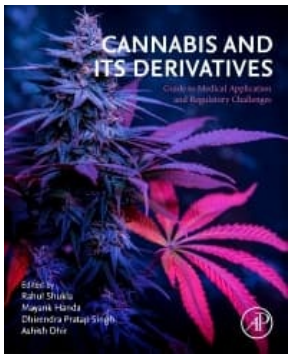

Cannabis and its Derivatives

Guide to Medical Application and Regulatory Challenges
1st Edition - May 24, 2024
Editors: Rahul Shukla, Mayank Handa, Dhirendra Pratap Singh, Ashish Dhir
Paperback ISBN: 9780443154898

Description
Cannabis and its Derivatives: Guide to Medical Application and Regulatory Challenges summarizes the current state of research and clinical pharmacology of cannabis-based therapeutics, along with associated regulatory frameworks. Sections cover historical, botanical, and taxonomical platforms of cannabis, chemical derivatives of the cannabis plant, a literature review of therapeutic applications, the biological fate of cannabis and its metabolic products, pain management, neurological disorders, cancer management, interactions with other drugs, veterinary applications, and the adverse effects of Cannabis overuse in humans.
The book's final section is devoted to discussions around regulatory challenges and future considerations. This is the ideal reference pharmaceutical scientists, clinicians, and academic researchers who want access to updated information on the therapeutic applications of cannabis and its derivates. Corporate researchers will also benefit from this book's presentation of the associated regulatory environment.

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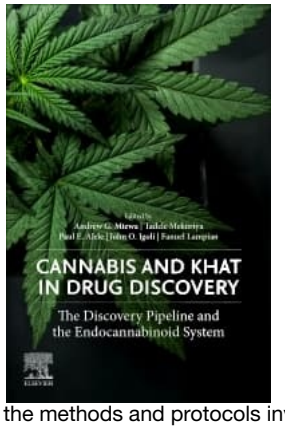

Cannabis and Khat in Drug Discovery

The Discovery Pipeline and the Endocannabinoid System
1st Edition - August 9, 2024
Editors: Andrew G. Mtewa, Tadele Mekuriya, Paul E. Alele, John O. Igoli, Fanuel Lampiao
Paperback ISBN: 9780323959278

Description
Cannabis and Khat in Drug Discovery: The Discovery Pipeline and the Endocannabinoid System provides comprehensive coverage of two important psychoactive plants: Khat and Cannabis. Initial research has found that compounds and derivatives from Cannabis and Khat are found to have promising properties that can be used for the discovery, design and development of potential drug leads against various diseases. This book extensively discusses the drug discovery and allied sciences of these compounds in the drug discovery pipeline, including basic research and computer aided modeling in ligand-drug interactions and their interactions with the endocannabinoid system. Categorized into sections including, chemical analyses and bioassays, medicinal chemistry, chemical biology and pharmacology, clinical applications, and policy and regulations, this book covers the methods and protocols involved and will be of interest to students, researchers, policymakers and all those involved in drug discovery

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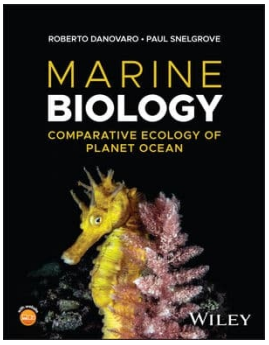


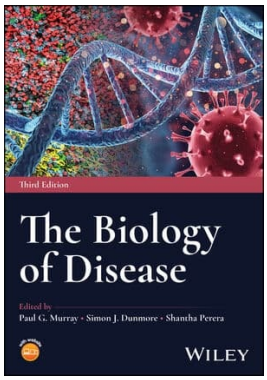
Marine Biology: Comparative Ecology of Planet Ocean

Roberto Danovaro, Paul Snelgrove
ISBN: 978-1-394-20007-8
May 2024
720 pages

Description
MARINE BIOLOGY
Marine Biology: Comparative Ecology of Planet Ocean provides a learning tool to those who love the ocean to help them understand and learn about the life that populates it, the extraordinary adaptations of marine organisms to their environment, and the spectacular variety of marine life forms that inhabit the many marine habitats and contribute to the life support system of Planet Ocean.

The book introduces marine biology by seeing the ocean through the eyes of its inhabitants, describing the properties of sea water, the surface waters and its currents, and the characteristics of the seabed according to how marine organisms perceive, exploit, and shape them. This book explains to the reader and those who love the ocean not only how to recognize the most common marine organisms and habitats, from the coast to great depths, but it also explains their complex life cycles and the environmental factors controlling their distribution, reproduction, and growth. Finally, the book evaluates the role that living biota play in how different marine ecosystems function in order to understand better their characteristics, peculiarities, and threats.

This book offers an up-to-date and comprehensive text on the study of marine biology, presenting insights into the methodologies scientists have adopted for the study of marine ecosystems. It also includes chapters about human impacts on marine biodiversity, from overfishing to climate change, from pollution (including microplastics), to alien-species invasions, from conservation of marine resources to the restoration of degraded marine habitats.
The authors developed this text for Bachelor and Master's level students taking classes on marine biology and marine ecology, but it will also interest high-school students and marine enthusiasts (dive masters, tour guides) who wish to deepen their knowledge of marine biology.

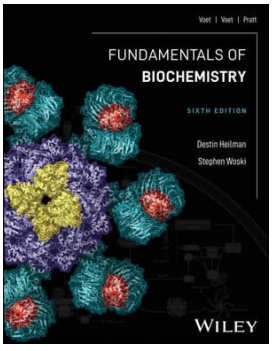


The Biology of Disease, 3rd Edition

Paul G. Murray (Editor), Simon J. Dunmore (Editor), Shantha Perera (Editor)
ISBN: 978-1-118-35415-5September 2024 624 pages

Description
All-new edition of a classic textbook bridging the gap between human biology and clinical practice
The Biology of Disease provides a comprehensive overview of the principles of the disease process. Building on the success of previous editions, this all-new Third Edition reflects the unprecedented challenges that the global community now faces in the field, as well as advances in the basic sciences of cell biology, immunology, and the molecular mechanisms of disease, with all chapters extensively modified to ensure that they remain at the cutting edge of current knowledge.

Each section is followed by case studies which bridge the gap between theory and clinical practice. This Third Edition includes 72 case studies in total, of which 34 are new. All diagrams and figures have been updated to present the most relevant information at a glance, and a new companion website with more than 500 multiple choice questions in two difficulty levels has been made available.
Written by three highly qualified academics with significant experience in the field, The Biology of Disease includes information on:
Emergence of new and drug resistant pathogens and an increasing recognition of the environmental factors, including climate change, that influence health
The growing impact of diet and physical inactivity on the development of obesity and related disorders including cancer and type 2 diabetes
Principles of epidemiology, cell reproduction, injury and death, inflammation and disorders of immunity
Disorders of blood and blood vessels including anaemia, vascular disorders, and disorders of haemostasis
The Biology of Disease is an essential textbook resource for medical students with a focus in physiology, pathophysiology, or pharmacology, along with undergraduate students in biomedical science, biomedicine, medical biochemistry, and human biology.



Fundamentals of Biochemistry, 6th Edition

Destin Heilman, Stephen Woski, Donald Voet, Judith G. Voet, Charlotte W. Pratt
ISBN: 978-1-119-90350-5
May 2024 1184 pages

Description
Fundamentals of Biochemistry, 6th edition, with new authors Destin Heilman and Stephen Woski, provides a solid biochemical foundation that is rooted in chemistry while presenting complete and balanced coverage that is clearly written and relevant to human health and disease. This edition includes new pedagogy and enhanced visuals that better adapt the text for the modern student, including a focus on enhanced self-assessment tools and scaffolding of learning outcomes throughout the text.

The new authors continue the trusted pedagogy of the previous five editions and present approachable, balanced coverage to provide students with a solid biochemical foundation to prepare them for future scientific challenges. The pedagogy remains focused on biochemistry's key theme: the relationship between structure and function, while streamlining the student experience to better focus attention on the critical subject matter.
Fundamentals of Biochemistry 6e includes a significant update to the art program with modernized, more effective renderings that better enable understanding of the subject matter. New scaffolded learning outcomes in each section, and a focus on self-assessment tools, both streamline and elevate the effectiveness of the new edition as a critical learning resource for biochemistry students.

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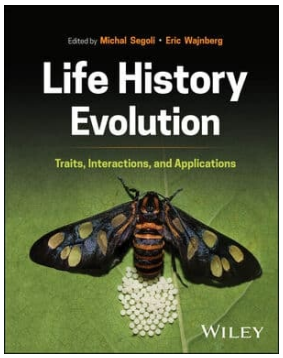
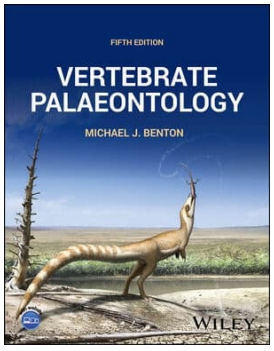


Life History Evolution: Traits, Interactions, and Applications

Michal Segoli (Editor), Eric Wajnberg (Editor)
ISBN: 978-1-394-18572-6
February 2025 496 pages

Description
Provides a timely and authoritative account of Life History Evolution by a multidisciplinary team of scholars and researchers from around the world
Life History Evolution: Traits, Interactions, and Applications presents a cutting-edge synthesis of the mechanisms driving life history strategies that span the breadth of taxa, from bacteria to humans. Integrating classical and contemporary perspectives, this comprehensive volume addresses how organisms evolve traits in response to diverse ecological pressures. Editors Michal Segoli and Eric Wajnberg bring together leading experts to explore the intersection of evolutionary biology, ecology, and applied research, focusing on the evolving complexity of life history traits and their implications.
In-depth yet accessible chapters cover a broad spectrum of life history traits, from classical traits of lifespan and reproduction to more complex interactions like social behaviour, predator-prey dynamics, and human-induced evolutionary processes. The contributing authors explain essential concepts, identify critical knowledge gaps, discuss future research directions, and demonstrate the relevance of life history evolution in addressing climate change, species invasion, pollution, and more.
Providing a well-balanced understanding of life history traits and their implications, Life History Evolution:
Incorporates recent advances in evolutionary theory, including eco-evolutionary feedback loops and anthropogenic impacts
Offers diverse perspectives and original research from leading experts in fields such as evolutionary biology, ecology, entomology, zoology, agriculture, and veterinary medicine
Discusses life history evolution in the context of co-evolved interactions such as predator-prey, parasite-host, plant-herbivore, and endosymbiont-host relationships
Provides an overview of the foundational theory, recent developments, and current thinking in the field
Features numerous case studies that highlight real-world applications in biological control, wildlife management, climate change adaptation, and others
Revealing how life history traits shape the evolutionary strategies of organisms, Life History Evolution: Traits, Interactions, and Applications is an essential resource for undergraduate and graduate students, researchers, industry professionals, and policymakers in ecological science. It is an



Vertebrate Palaeontology, 5th Edition

Michael J. Benton
ISBN: 978-1-394-19508-4
August 2024
688 pages

Description
All-new edition of the world's leading vertebrate palaeontology textbook, now addressing key evolutionary transitions and ecological drivers for vertebrate evolution

Richly illustrated with colour illustrations of the key species and cladograms of all major vertebrate taxa, Vertebrate Palaeontology provides a complete account of the evolution of vertebrates, including macroevolutionary trends and drivers that have shaped their organs and body plans, key transitions such as terrestrialization, endothermy, flight and impacts of mass extinctions on biodiversity and ecological drivers behind the origin of chordates and vertebrates, their limbs, jaws, feathers, and hairs.
This revised and updated fifth edition features numerous recent examples of breakthrough discoveries in line with the current macroevolutionary approach in palaeontology research, such as the evolutionary drivers that have shaped vertebrate development. Didactical features have been enhanced and include new functional and developmental feature spreads, key questions, and extensive references to useful websites.

Written by a leading academic in the field, Vertebrate Palaeontology discusses topics such as:
Palaeozoic fishes, including Cambrian vertebrates, placoderms ('armour-plated monsters'), Pan-Chondrichthyes such as sharks and rays, and Osteichthyes ('bony fishes')
The first tetrapods, covering problems of life on land, diversity of Carboniferous tetrapods and temnospondyls and reptiliomorphs following the Carboniferous
Mesozoic reptiles, such as Testudinata (turtles), Crocodylomorpha, Pterosauria, Dinosauria, great sea dragons and Lepidosauria (lizards and snakes)
Mammals of the southern and northern hemispheres, covering Xenarthra (sloths, anteaters), Afrotheria (African mammals), Laurasiatheria (bats, ungulates, carnivores), and Euarchontoglires (rodents, primates)
A highly comprehensive and completely up-to-date reference on vertebrate evolution, Vertebrate Palaeontology is an ideal learning aid for palaeontology courses in biology and geology departments. The text is also highly valuable to enthusiasts who want to experience the flavour of how modern research in the field is conducted.

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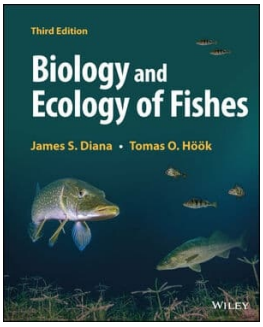


Biology and Ecology of Fishes, 3rd Edition

James S. Diana, Tomas O. Höök
ISBN: 978-1-119-50577-8
July 2023
560 pages

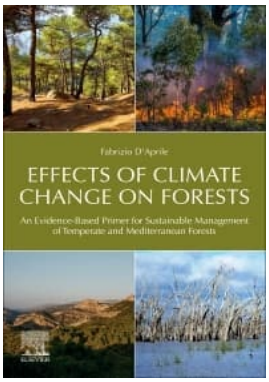
Description
Biology and Ecology of Fishes
Immerse yourself in the world of fish ecology with the newest edition of this essential introduction

The study of fish ecology has traditionally proceeded along two tracks: the first is more basic, concerned with the anatomy, physiology and theoretical ecology of fish, and the second is more practical, concerning itself with fish populations, management, and habitats. Many fish researchers have come to view this distinction as artificial, and to develop a new study of fish that combines both tracks in a single holistic approach. It has never been more critical for introductory textbooks to represent this combined study in order to prepare the next generation of fish biologists and fishery scientists.

Biology and Ecology of Fishes meets this need with a textbook that incorporates both biology and population management. Beginning with a general introduction to aquatic life and ecosystems, this book covers anatomical, environmental, and ethological topics to give a thoroughly rounded view of its subject, promising to serve as the fundamental introduction to multidisciplinary fish studies.

Readers of the third edition of Biology and Ecology of Fishes will also find:

Detailed coverage of subjects including growth and bioenergetics, feeding and predation, mortality and recruitment and more
Increased attention to stressors of fish populations and communities
New and revised chapters that introduce quantitative methods and present emerging issues facing fish populations and communities
Biology and Ecology of Fishes is a useful overview for advanced undergraduate and graduate students studying fish ecology or fishery biology, as well as a reference for researchers and professionals in fish ecology, fish population management, and related fields.



Effects of Climate Change on Forests

An Evidence-Based Primer for Sustainable Management of Temperate and Mediterranean Forests
1st Edition - November 30, 2024
Author: Fabrizio D'Aprile
Paperback ISBN: 9780128150245

Description
Effects of Climate Change on Forests: An Evidence-Based Primer for Sustainable Management of Temperate and Mediterranean Forests presents concepts, case studies and the application of theories about forest management under climate change. It provides invaluable insight to how forest planning and management tie into the ecological functioning and resilience of the forest, and does so by utilizing a concept weakly implemented in traditional forest planning: namely, by following the variability in growth, and other processes, over time. This shift in focus better incorporates the services provided by forests, and allows for better adaptation planning to help temperate forests not only survive but thrive in the face of climate change. Real-world case studies demonstrate how to effectively manage temperate forests under climate change, using the results of evidence-based research.
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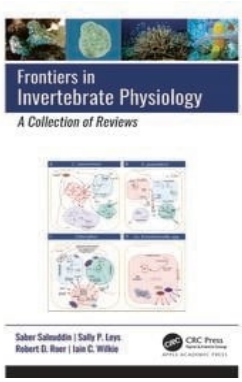

1st Edition

Frontiers in Invertebrate Physiology A Collection of Reviews

3-volume set
Edited By Saber Saleuddin, Sally P. Leys, Robert D. Roer, Iain C. Wilkie
Hardback ISBN 9781774913987
1466 Pages 112 Color & 128 B/W Illustrations
Published February 13, 2023 by Apple Academic Press

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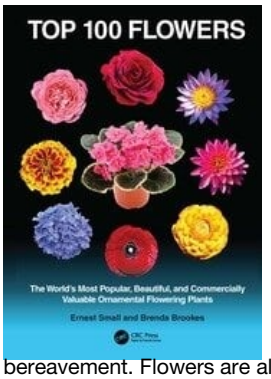
7. The Juxtaligamental Cells of Echinoderms and Their Role in the Mechano-Effector Function of Connective Tissue
8. Neuropeptide Signaling in Echinoderms: From "Physiologic Activity of Nerve Extracts" to Neuropeptidomics and Beyond



1st Edition

Top 100 Flowers

The World's Most Popular, Beautiful, and Commercially Valuable Ornamental Flowering Plants
By Ernest Small, Brenda Brookes
Copyright 2025
Hardback ISBN 9781032902272
768 Pages 1315 Color & 2 B/W Illustrations
June 13, 2025 by CRC Press

Description
Flowers are universally admired. Flowers are the leading gift expressing love and respect, they prominently decorate our homes and cities, and they accompany all of the major events in human affairs from birth through marriage and bereavement. Flowers are also of tremendous economic importance, representing billion-dollar industries in numerous countries. Hundreds of thousands of plant species produce flowers, but relatively few dominate the world of cultivated ornamental plants. Top 100 Flowers: The World's Most Popular, Beautiful, and Commercially Valuable Ornamental Flowering Plants presents key information and illustrations of the world's most popular, beautiful, and commercially valuable ornamental flowering plants.

Towards these goals, basic information is presented on the identification, appearance, names, history, growth requirements, economic aspects, and problem issues, as well as sources of additional library and online resources. Throughout the text, extensive photos, paintings, and diagrams are provided to illustrate the beauty and applications of the plants. Although the book is encyclopedic in nature, the information given is reduced to essentials and presented in non-technical language. The world's leading flowering plants are stunningly attractive and the thousands of illustrations presented were chosen not only for their explanatory and educational value, but also to reflect the beauty and charm of the plants. The text relates many of the wonderfully entertaining stories that reflect the intimate relationships of people and our beloved flowers.

The goal of Top 100 Flowers: The World's Most Popular, Beautiful, and Commercially Valuable Ornamental Flowering Plants is to provide basic knowledge of practical interest to the horticultural industry, especially students, to choose, develop, and market profitable floral crops, and the public, to choose, grow, and appreciate flowers in their gardens and homes.

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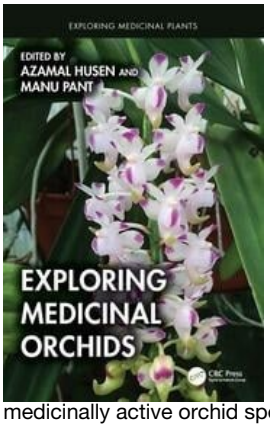

1st Edition

Exploring Medicinal Orchids

Edited By Azamal Husen, Manu Pant
Copyright 2025
Hardback ISBN 9781032555539
162 Pages 59 Color & 6 B/W Illustrations
Published December 18, 2024 by CRC Press
Request Inspection Copy

Description

Orchids are fascinating ornamental flowers with a huge market both as cut flowers and potted plants, but they are also used in the traditional medicine system as they can be rich in phytochemicals with exceptional medicinal properties. This book, Exploring Medicinal Orchids, is a comprehensive guide for medicinally important orchids, their diversity, and their use in traditional and folk medicines. It presents information on secondary metabolites of medicinally active orchid species, pharmaceutical and medicinal applications, and describes advanced techniques of biotechnology in the conservation of medicinal orchids.

Features

Dedicated chapters discuss phytochemical constituents and medicinal properties of orchids
Enriches the understanding of secondary metabolites of medicinal orchids and their pharmaceutical application
Elaborates the botanical, ethnomedicinal, and pharmacological aspects of various medicinal orchids
Demonstrates tissue culture systems for the conservation of medicinal orchids
A volume in the Exploring Medicinal Plants series, this book is a resource for academics, researchers, professors, and students working in the fields of medicinal plants and flowers, biodiversity conservation, herbal medicine, and plant biotechnology.

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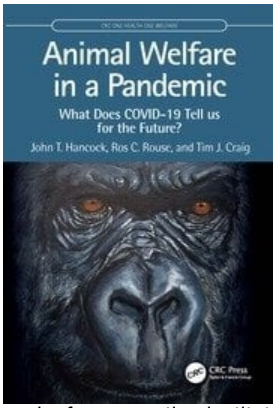

1st Edition

Animal Welfare in a Pandemic

What Does COVID-19 Tell us for the Future?
By John T. Hancock, Ros C. Rouse, Tim J. Craig
Copyright 2024
Paperback ISBN 9781032521091
250 Pages 43 B/W Illustrations
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Description

Animal Welfare in a Pandemic explores the impact of COVID-19 on a wide array of animals, from those in the wild to companion and captive animals. During the height of the pandemic, a range of animals were infected, and many died, but this was hard to predict, even using up-to-date bioinformatics. Lockdowns around the world had, and continue to have, a major effect on animals' welfare, influencing pet ownership and care, as well as impacting on the work of conservation institutes due to the lack of visitors and funding and lack of tourist presence in the wild which impacted on anti-poaching efforts. Some of the vast amount of personal protection equipment (PPE) that was distributed was discarded, creating both dangers and occasional opportunities for wild animals. With the rollout of human vaccines, some countries started developing animal vaccines, only some of which were deployed. In summary, the pandemic had a wide-ranging influence on animal welfare around the world. This is reviewed to highlight what can be learned to protect and enhance animal welfare in future epidemics/pandemics, and contribute to a genuinely One Health approach where the health and welfare of both humans and animals are considered holistically.

This book is authored by members of the University of the West of England, Bristol, who span a range of expertise in Biological Sciences, Social Sciences, Animal Welfare, and Ethics.

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