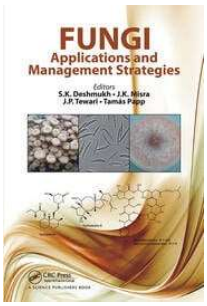
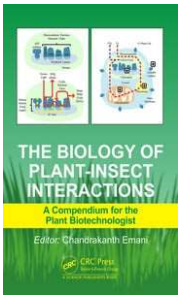


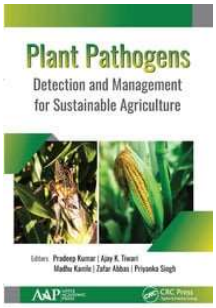

**Fungi**
**Applications and Management Strategies**
**Edited By Sunil K. Deshmukh J. K. Misra Jalpa P. TewariTamas Papp**
**ISBN 9780367783099**
**Published March 31, 2021 by CRC Press**

The book deals with the application of fungi and the strategic management of some plant pathogens. It covers fungal bioactive metabolites, with emphasis on those secondary metabolites that are produced by various endophytes, their pharmaceutical and agricultural uses, regulation of the metabolites, mycotoxins, nutritional value of mushrooms, prospecting of thermophilic and wood-rotting fungi, and fungi as myconano factories. Strategies for the management of some plant pathogenic fungi of rice and soybean have also been dealt with. Updated information for all these aspects has been presented and discussed in different chapters.



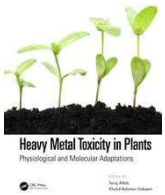

**The Biology of Plant-Insect Interactions**
**A Compendium for the Plant Biotechnologist**
***Edited By Chandrakanth Emani***
**ISBN 9780367781415**
**Published March 31, 2021 by CRC Press**

Overviews of biochemical, genetic, and molecular perspectives of plant-insect interactions with added emphasis on bioinformatic, genomic, and transcriptome analysis are comprehensively treated in this book. It presents the agro-ecological and evolutionary aspects of plant-insect interactions with an exclusive focus on the climate change effect on the resetting of plant-insect interactions. A valuable resource for biotechnologists, entomologists, agricultural scientists, and policymakers, the book includes theoretical aspects as a base toward real-world applications of holistic integrated pest management in agro-ecosystems.



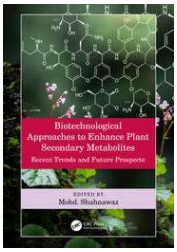

**Plant Pathogens**
**Detection and Management for Sustainable Agriculture**
**Edited By** Pradeep Kumar
**ISBN 9781774634639**
**Published December 13, 2021 by Apple Academic Press**

Addressing the most critical issues in the management of emerging diseases throughout the world, experts in plant pathology from internationally renowned institutes share their research and examine key literature. They look at both traditional pathology and advanced biotechnological and molecular diagnosis, and integrated management practices.

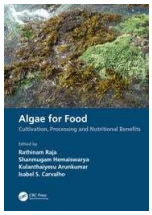



**Heavy Metal Toxicity in Plants**
**Physiological and Molecular Adaptations**
***Edited By** Tariq Aftab, Khalid Rehman Hakeem*
**ISBN 9780367725075**
**Published November 25, 2021 by CRC Press**

*Heavy Metal Toxicity in Plants: Physiological and Molecular Perspectives* highlights the various metal induced impacts on plants and adaptation strategies employed to avoid these stressful conditions. The volume comprise the chapters from the different areas ranging from latest biotechnological to omics approaches.
This comprehensive volume emphasizes on the recent updates about the current research on the heavy metal stress in plant biology covering different aspects related to challenges and opportunities in the concerned field. This book is an attempt to bring together researchers who have been engaged in the area of stress signaling, crosstalk and mechanisms of heavy metal stress and share their research findings. Various chapters deal with the topics ranging from sensing and signalling in plants to translational research. The book will provide a direction towards implementation of programs and practices that will enable sustainable production of crops, resilient to environmental heavy metal pollution.

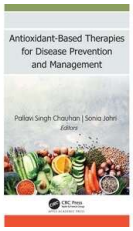



**Biotechnological Approaches to Enhance Plant Secondary Metabolites**
**Recent Trends and Future Prospects**
*Edited By*
*Mohd. Shahnawaz*
ISBN 9780367473365
Thousands of secondary metabolites are produced by plants to withstand unfavourable environmental conditions and are important molecules for nutraceutical, agro, cosmetic and pharmaceutical industries, etc. Harvesting of plants for the extraction of these important metabolites can threaten the plant germplasm, and various medicinally important plants are at the verge of extinction. Based on need, various methods and strategies were developed and followed by researchers from time to time to save the plant germplasm and produce important secondary metabolites efficiently to meet their growing demands.Published November 5, 2021 by CRC Press



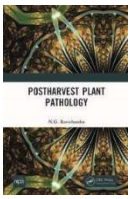

**Algae for Food**
**Cultivation, Processing and Nutritional Benefits**
***Edited By*** *Rathinam Raja*
**ISBN 9780367762087**
**Published October 26, 2021 by CRC Press**

Algae are a primitive, living photosynthetic form and they are the oldest living organism. In the marine ecosystem, algae are the primary producers that supply energy required to a diverse marine organism and especially seaweed provides a habitat for invertebrates and fishes. There have been significant advances in many areas of phycology. This book describes the advances related to food and nutrition of algae achieved during the last decades, it also identifies gaps in the present knowledge and needs for the future. The 17 chapters, grouped into 6 parts, are written by phycologists. More insight on industrial exploitation of algae and their products is supported by current studies and will help academia. The first part explains new technologies to improve the microalgal biomass, strain improvement and different methods of seaweed cultivation. In the second part, food and nutraceutical applications of algae, food safety aspects, green nanotechnology and formulation methods for the extraction and isolation of algal functional foods are described. The third part deals with pigments and carotenoids while the fourth part exploits the isolation and application of hydrocolloids, nutritional implications of algal polysaccharides and the characterization and bioactivity of fucoidans. In the fifth part, the biomedical potential of seaweed followed by agricultural applications of algae are well described. The book is an important resource for scholars that provides knowledge on wide range of topics.



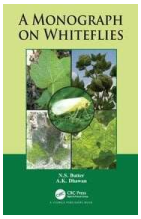

**Antioxidant-Based Therapies for Disease Prevention and Management**
***Edited By** Pallavi Singh Chauhan, Sonia Johri*
**ISBN 9781771889643**
**Published December 23, 2021 by Apple Academic Press**

This informative volume presents a valuable overview of the therapeutic aspects as well as applications of antioxidants. It discusses the basic mechanisms of therapy-based oxidative damage and categorization of nutritional antioxidants and covers the sources of antioxidants as well as their extraction and quantification. The volume considers the controversies of the usefulness or disadvantages of antioxidant supplementation in relation to adaptation and performance and also looks at the effectiveness of bioactives and antioxidant-based therapies for specific health issues, such as anemia, infectious diseases, urinary tract infections, Parkinson's diseases, and diabetes.
The book discusses the sensing of oxidative stress and the effectiveness of antioxidant treatment, followed by an introduction to several biomarkers to estimate the bioefficacy of dietary/supplemental antioxidants in various forms. Also considered are free radicals that can cause "oxidative stress," a process that can trigger cell damage, and how antioxidant molecules have been shown to counteract oxidative stress in laboratory experiments.



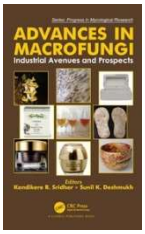

**Postharvest Plant Pathology**
***By** N.G. Ravichandra*
**ISBN 9781032158860**
**Published November 23, 2021 by CRC Press**

The purpose of the book *Postharvest Plant Pathology* is to provide its readers recent developments and updated comprehensive information on postharvest pathogens & diseases of major crops. This book explicates the fundamental aspects of postharvest diseases of crops and is conveniently divided into ten chapters, providing the latest information on the concept & types of postharvest diseases, economically significant postharvest pathogens & diseases of major crops, factors governing postharvest diseases, storage conditions, food safety issues, quiescence in post harvest pathogens, detailed & recent information on major mycotoxins, various approaches of postharvest disease management, integrated management strategies, biochemical & molecular aspects of postharvest diseases, apart from which, an exclusive chapter for discussing the postharvest nematode diseases and their management is also furnished.



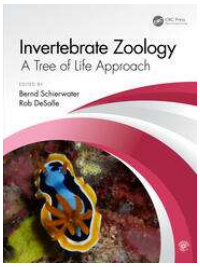
**A Monograph on Whiteflies**
***By*** *N.S. Butter*
**ISBN 9780367559038**
**Published October 18, 2021 by CRC Press**

In all, 1550 species of whiteflies have been identified. The rapid spread of *Bemisia tabaci* has occurred throughout the globe and it is regarded as the most notorious species. It is a complex species known to contain many biotypes namely, New World (Biotype -A), B-biotype MEAM1 (Biotype-B or Bemisia argentifolii, and MED (Biotype-Q) depending upon the geographical location. The complete information on the bio-ecology of important species along with the feeding mechanism has been presented in this book. The use of modern techniques of identification has added more biotypes considering the variations in host range, species of endosymbionts, virus transmission efficiency, and resistance to pesticides. The resistance and resurgence due to pesticides has been discussed in the monograph. The information on economic thresholds for judicious use of pesticides or release of natural enemies against whiteflies has been quoted in this compilation The pest control methods, namely chemical, cultural measures, biocontrol agents, resistant varieties, and mechanical devices have been elaborated on. Based on the availability of information the integrated model has been suggested to contain the whitefly menace under different situations. Considering the key factors responsible for the outbreak of whiteflies, a sound system of IPM has been formulated. The book also contains the use of semiochemicals and biotechnological tools likely to gain momentum in the future.



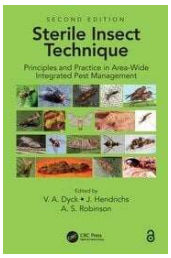
**Advances in Macrofungi**
**Industrial Avenues and Prospects**
***Edited By***
*Kandikere R. Sridhar*
**ISBN 9780367562052**
**Published September 1, 2021 by CRC Press**
Large scale cultivation of macrofungi is possible with fermentation, using easily accessible lignocellulosic agricultural residues applying economical methods to generate substantial biomass, food and biofuels. Bioconversion of lignocellulosic wastes by macrofungi generates value-added fungal nutritional biomass for humans and livestock. Besides commercial cultivation techniques, other topics covered in *Advances in Macrofungi: Industrial Avenues and Prospects* include: the healing potential of mushrooms, industrial opportunities, mycelium-based products, forest wild mushrooms and industrial applications of white rot fungi.
This book reviews the industrial applications and uses of macrofungi. It encourages students and researchers to explore non-conventional sources of nutrition as well as bioactive metabolites to serve as nutraceuticals. It emphasizes the potential of macrofungi as a source of bioactive compounds to remedy human lifestyle diseases especially cancers and

cardiovascular ailments along with immunostimulation potential by Cordyceps. This book emphasizes the role of on mushrooms as a source of cosmeceuticals, flavors, essence, scents and perfumes.



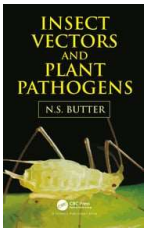

Invertebrate Zoology
A Tree of Life Approach
*By Bernd Schierwater*
ISBN 9780367685676
Published June 30, 2021 by CRC Press

*Invertebrate Zoology: A Tree of Life Approach* is a comprehensive and authoritative textbook adopting an explicitly phylogenetic organization. Most of the classical anatomical and morphological work has not been changed – it established the foundation of Invertebrate Zoology. With the explosion of Next-Generation Sequencing approaches, there has been a sea-change in the recognized phylogenetic relationships among and between invertebrate lineages. In addition, the merger of evolutionary and developmental biology (evo-devo) has dramatically contributed to changes in the understanding of invertebrate biology. Synthesizing these three approaches (classical morphology, sequencing data, and evo-devo studies) offers students an entirely unique perspective of invertebrate diversity.




**Sterile Insect Technique**
**Principles And Practice In Area-Wide Integrated Pest Management**
**Edited By Victor A. Dyck**
**ISBN 9780367474348**
**Published April 1, 2021 by CRC Press**

The sterile insect technique (SIT) is an environment-friendly method of pest control that integrates well into area-wide integrated pest management (AW-IPM) programmes. This book takes a generic, thematic, comprehensive, and global approach in describing the principles and practice of the SIT. The strengths and weaknesses, and successes and failures, of the SIT are evaluated openly and fairly from a scientific perspective. The SIT is applicable to some major pests of plant-, animal-, and human-health importance, and criteria are provided to guide in the selection of pests appropriate for the SIT.




**Insect Vectors and Plant Pathogens**
***By*** *Nachhattar Singh Butter*
**ISBN 9780367780845**
**Published March 31, 2021 by CRC Press**

The history of pathogens and vectors, unique symptoms of diseases and economic importance of important viral diseases have been dealt with in the introductory chapter of this book. While highlighting the role of arthropods, nematodes, and fungi; other agents of the spread of plant pathogens have also been included. Important aspects of insect vectors with direct bearing on transmission, i.e. vector identification, biology, feeding apparatus, and mechanism of spread including control of pathogens through vectors are covered comprehensively. As aphids and other hemipterous insects are major insect vectors, the book stresses on this order. There is a focus on the transmission of determinants under different categories of the transmission mechanism. The transmission determinant paradigm comprising coat protein and helper component has been expounded with recent cases. A brief description of new diseases at least one from each genus of plant viruses has been included in this compendium to elucidate the interaction of vector and virus. Phytoplasmal etiology of pathogens has been detailed separately on account of their importance. The transmission of plant viruses through insects with biting and chewing type of mouth parts has been discussed in detail as separate chapter. The latest research in the field of mites, nematodes, and fungi as vectors of plant viruses has been included. How the phytotoxemia is different from other crop disorders, has been critically explained with support from suitable and common examples of crop disorders. The book also highlights the effects of plant viruses on their vectors. An account of classification of plant viruses has also been given for better understanding of subject matter. Likewise, the information on the electron microscope along with its use has been included so as to define the procedure of examining sub-microscopic entities. The latest developments in the management of plant pathogens through vector management have been discussed with special reference to the use of biotechnology, crop protection, and plant resistance.

The valuable information provided in this book will be very helpful for faculty and advanced-level students, scientists and researchers, policymakers, and others involved in pest management for vegetable crops.

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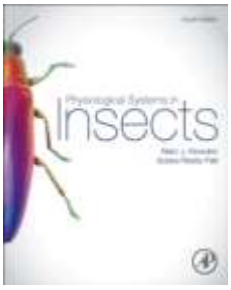
**Encyclopedia Of Scale Insect Pests**
**Author: Kondo, Takumasa (Agrosavia, Colombia) Publisher: CABI Publishing Format: Hardback**
**Published: 25/03/2022 ISBN/EAN: 9781800620643**

Scale insects feed on plant juices and can easily be transported to new countries on live plants.
They sometimes become invasive pests, costing billions of dollars in damage to crops worldwide annually, and farmers try to control them with toxic pesticides, risking environmental damage.
Fortunately, scale insects are highly susceptible to control by natural enemies so biological control is possible.
They have unique genetic systems, unusual metamorphosis, a broad spectrum of essential symbionts, and some are sources of commercial products like red dyes, shellac and wax.
There is, therefore, wide interest in these unusual, destructive, beneficial, and abundant insects.
The Encyclopedia of Scale Insect Pests is the most comprehensive work on worldwide scale insect pests, providing detailed coverage of the most important species (230 species in 26 families, 36% of the species known).




**Physiological Systems In Insects**
**Author: Klowden, Marc J. (Professor Emeritus of Entomology, University of Idah Publisher: Academic Press Inc Format: Laminated**
**Published: 01/02/2022 ISBN/EAN: 9780128203590**

Physiological Systems in Insects, Fourth Edition explores why insects have become the dominant animals on the planet. Sections describe the historical investigations that have led us to our current understanding of insect systems.
Integrated within a basic physiological framework are modern molecular approaches that provide a glimpse of the genetic and evolutionary frameworks that testify to the unity of life on earth.
This updated edition describes advances that have occurred in our understanding of hormone action, metamorphosis, and reproduction, along with new sections on the role of microbiomes, insecticide action and its metabolism, and a chapter on genetics, genomics and epigenetic systems. The book represents a collaborative effort by two internationally known insect physiologists who have instructed graduate courses in insect physiology.
As such, it is the ideal resource for entomologists and those in other fields who may require knowledge of insect systems.

**Insects As Animal Feed : Novel Ingredients For Use In Pet, Aquaculture And Livestock Diets**
**Author: Hall, Heidi (Anpario plc, UK) Publisher: CABI Publishing Format: Laminated**
**Published: 16/09/2021 ISBN/EAN: 9781789245929**

The global drive towards sustainability and improved animal health means there is a greater need for development of novel functional ingredients for the feed industry.
As the requirements for protein for livestock feed and human consumption grows, the use of insect products as animal feed has gained increasing attention.
Covering global production systems of insect protein, oil and chitin, as well as co-products from this industry, this book: - Considers in-depth nutritional and safety aspects of insects for feed. - Reviews suitability of insects as feed for different animal species and life stages. - Examines current knowledge of the value of insect-rearing residues as biofertilizers for crop health. - Identifies the challenges related to regulation, legislation, consumer perception and acceptance, and commercialization of insects. - Provides interviews with established and early-stage innovative companies producing insect protein for feed.
Including a focus on practices such as waste valorization, this book takes a holistic look at how insects could contribute to the sustainability of livestock production on a global scale.
Providing an up-to-date reference for research scientists, nutritionists, and veterinarians, as well as prospective insect farmers, it will also be of interest to those with a broader curiosity towards climate change, sustainability, and the circular economy.

**Herbs And Spices**
**Author: Akram, Muhammad Publisher: IntechOpen Format: Hardback**
**Published: 07/10/2020 ISBN/EAN: 9781839629358**

Herbs and Spices - New Processing Technologies is a collection of research and review chapters offering a comprehensive overview of recent developments in the field of herbs and spices, with a focus on plants containing bioactive components and the utilization of novel processing technologies in the development of functional products. The book consists of four sections containing fourteen chapters written by various researchers and edited by an expert active in the research of plants and bioactive compounds.

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**Genetic Transformation In Crops**
**Author: To, Kin-Ying Publisher: IntechOpen Format: Hardback**
**Published: 07/10/2020 ISBN/EAN: 9781839624506**

Due to rapid population growth, climate change, and decreasing natural resources, growing sufficient crops with high productivity, resistance to abiotic and biotic stresses, and other attractive traits is a major challenge. Conventional breeding methods require time-consuming genetic crosses between different parents for multiple generations. By contrast, plant transformation is defined as the insertion of DNA from any organism into the genome of a plant species, and it is considered to be a powerful tool in plant breeding. This book aims to provide professional state-of-the-art information for basic and applied scientists and plant breeders, focusing on key crop plants. Papers related to the principle and application of Agrobacterium-mediated transformation, step-by-step protocols of DNA delivery to the important crop Brassica oleracea and higher-plant chloroplasts, current progress and prospects of virus-induced gene silencing (VIGS) in higher plants, improvement of grapevine through biotechnology, and public concern of biosafety issues regarding genetically modified organisms (GMOs) are all included in this book. It should be useful for students, breeders, and researchers in the field of transgenic crops around the world.

**Plant Communities And Their Environment**
**Author: Oliveira, Manuel T. Publisher: IntechOpen Format: Laminated**
**Published: 09/09/2020 ISBN/EAN: 9781789853377**

This book presents different perspectives on how to understand the complex interaction between plants and the environment. Plant communities adapt to biotic and abiotic stresses with different mechanisms and understanding these phenomena provides the means to better manage our environment and to cultivate crops that better serve our needs.

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**Contemporary Topics About Phosphorus In Biology And Materials**
**Author: Churchill, David G. Publisher: IntechOpen Format: Laminated**
**Published: 09/09/2020 ISBN/EAN: 9781789850390**

This book addresses a diverse set of topics regarding phosphorus chemistry, namely phosphates and closely related chemical systems. Divided into two sections, chapters cover such topics as phosphate dynamics and phosphates in biomaterials. This volume is a useful reference for scholars and researchers and will inspire readers to make future discoveries in the field.

**Synthetic Biology : New Interdisciplinary Science**
**Author: Nagpal, Madan L. Publisher: IntechOpen Format: Laminated**
**Published: 12/02/2020 ISBN/EAN: 9781789840896**

The atomic force microscope (AFM) has become one of the leading nanoscale measurement techniques for materials science since its creation in the 1980's, but has been gaining popularity in a seemingly unrelated field of science: biology. The AFM naturally lends itself to investigating the topological surfaces of biological objects, from whole cells to protein particulates, and can also be used to determine physical properties such as Young's modulus, stiffness, molecular bond strength, surface friction, and many more. One of the most important reasons for the rise of biological AFM is that you can measure materials within a physiologically relevant environment (i.e. liquids). This book is a collection of works beginning with an introduction to the AFM along with techniques and methods of sample preparation. Then the book displays current research covering subjects ranging from nano-particulates, proteins, DNA, viruses, cellular structures, and the characterization of living cells.

**Ginger Cultivation And Its Antimicrobial And Pharmacological Potentials**
**Author: Wang, Haiping Publisher: IntechOpen Format: Laminated**
**Published: 19/02/2020 ISBN/EAN: 9781838800291**

Ginger is well known as a spice and flavor. It has been a traditional medical plant in many cultures for thousands of years. To uncover the miraculous plant, this book not only gives you the plant's origins, where the plant is grown now, but also provides current studies on its utilization, cultivation, breeding, and therapeutic benefits.

**Pests Control And Acarology**
**Author: Haouas, Dalila Publisher: IntechOpen Format: Laminated**
**Published: 19/02/2020 ISBN/EAN: 9781838806026**

Pests Control and Acarology presents novel methods adopted in pest management for cereal crops and fruit trees. Each chapter was written by experts in their respective areas, and provides a rigorous review and outline of current trends and future needs, to expedite progress in the field. The book was structured in three sections as follows. The first section introduces the topics and defines concepts of Integrated Pest Management and Biological Control. The second section includes two chapters: the first one discusses a new trap barrier system for rodent pest control in rice and the second one presents methods used in the management of stem borers in cereal crops. The third section presents various topics within the area of Acarology.

**Microalgal Biotechnology**
**Author: Jacob-Lopes, Eduardo Publisher: IntechOpen Format: Hardback**
**Published: 27/06/2018 ISBN/EAN: 9781789233322**

Microalgal Biotechnology presents an authoritative and comprehensive overview of the microalgae-based processes and products. Divided into 10 discreet chapters, the book covers topics on applied technology of microalgae. Microalgal Biotechnology provides an insight into future developments in each field and extensive bibliography. It will be an essential resource for researchers and academic and industry professionals in the microalgae biotechnology field.

**Plant Science : Structure, Anatomy And Physiology In Plants Cultured In Vivo And In Vitro**
**Author: Gonzalez, Ana Publisher: IntechOpen Format: Hardback**
**Published: 13/05/2020 ISBN/EAN: 9781789847468**

Over seven chapters, this book helps readers to integrate knowledge of plant anatomy, physiology, and morphogenesis as well as consider the conditions of the different environments to which plants are exposed. It highlights the importance of knowledge of the anatomy of plant tissues for different applications. In addition to the variety of physiological studies presented here, the book also emphasizes anatomical studies in botanical quality control of medicinal herbs with human health benefits. It is reflected in this book that studies on plant structure have greatly benefited from the new approaches and techniques available today.

**Plant Genomics**
**Author: Abdurakhmonov, Ibrokhim Y Publisher: IntechOpen Format: Hardback**
**Published: 14/07/2016 ISBN/EAN: 9789535124559**

Plant genomics aims to sequence, characterize, and study the genetic compositions, structures, organizations, functions, and interactions/networks of an entire plant genome. Its development and advances are tightly interconnected with proteomics, metabolomics, metagenomics, transgenomics, genomic selection, bioinformatics, epigenomics, phenomics, system biology, modern instrumentation, and robotics sciences. Plant genomics has significantly advanced over the past three decades in the land of inexpensive, high-throughput sequencing technologies and fully sequenced over 100 plant genomes. These advances have broad implications in every aspect of plant biology and breeding, powered with novel genomic selection and manipulation tools while generating many grand challenges and tasks ahead. This Plant genomics provides some updated discussions on current advances, challenges, and future perspectives of plant genome studies and applications.

**Fungal Pathogenicity**
**Author: Sultan, Sadia Publisher: IntechOpen Format: Hardback**
**Published: 11/05/2016 ISBN/EAN: 9789535123941**

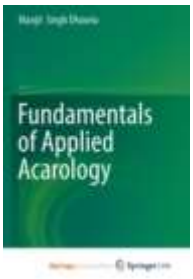
This book is specially written for researchers at various levels, for example, in forestry, agriculture, industry, university and college laboratories. It describes the fungal pathogenicity; resistance behavior of fungal biofilms and its mechanisms; different categories of fungal infection and colonization patterns with example relevant to soybean; characteristics of white rob of corncob and head smut of maize such as cycle, pathogenicity factors, control methods, the abilities of chitosan and its derivatives to elicit resistance reactions in plants and its action in the production and viability of fungal spores; and the mode of actions of single constituents of different essential oils depending on different case studies. In addition, this book also describes the importance of synthetic peptides as an alternative tool for the diagnosis of cryptococcosis. Finally, a survey of fungal diseases occurring on trees of Namibia is described. This survey is the first dedicated step to find ways of protecting them from disease-causing agents.

**Reptile And Amphibian**
**Author: Nevarez, Javier G. Publisher: Wiley-Blackwell Format: Hardback**
**Published: 18/10/2021 ISBN/EAN: 9781119233725**

Stay up to date on the best practices for treating reptiles and amphibians Blackwell's Five-Minute Veterinary Consult: Reptile and Amphibian delivers a comprehensive exploration of the treatment of the most common diseases and disorders in reptiles and amphibians.
The book is organized for quick and easy access to information, acting as an indispensable resource for veterinarians engaged in the care of chelonians, lizards, snakes, crocodilians, and amphibians. The book offers readers guidance from leading international voices in the field of reptile and amphibian care, packaged in a perfect clinical manual.
Diagnostic and treatment information is laid out in a logical, stepwise fashion. Readers will also enjoy access to a companion website that provides users with printable history and physical exam forms, images that illustrate venipuncture and intravenous catheterization techniques in various amphibian and reptile groups, and images that illustrate methods of sexing reptiles.
The ideal practical manual for veterinary practitioners and students seeking accessible and authoritative information on reptiles and amphibians, the book also offers: The treatment of common diseases and disorders in chelonians, including upper respiratory tract disease, cloacal prolapse, aural abscesses, and shell rotThe treatment of common diseases in lizards, including hypovitaminosis A, nutritional secondary hyperparathyroidism, cryptosporidiosis, abscesses, and fungal infectionsThe treatment of diseases affecting snakes, including dysecdysis, lower respiratory tract disease, inclusion body disease, stomatitis, and paramyxovirusA comprehensive exploration of the treatment of diseases affecting crocodilians, including West Nile virus, chlamydiosis, trauma, abscesses, and gout Blackwell's Five-Minute Veterinary Consult: Reptile and Amphibian is an indispensable reference for veterinary practitioners, students, residents, and interns who wish to improve their understanding and care of chelonians, lizards, snakes, crocodilians, and amphibians.

**Evolution And Development Of Fishes**
**Author: Johanson, Zerina (Natural History Museum, London) Publisher: Cambridge University Press Format: Laminated**
**Published: 10/01/2019 ISBN/EAN: 9781107179448**

Fish, or lower vertebrates, occupy the basal nodes of the vertebrate phylogeny, and are therefore crucial in interpreting almost every feature of more advanced vertebrates, including amphibians, reptiles, birds and mammals.
Recent research focuses on combining evolutionary observations - primarily from the fish fossil record - with developmental data from living fishes, in order to better interpret evolutionary history and vertebrate phylogeny.
This book highlights the importance of this research in the interpretation of vertebrate evolution, bringing together world-class palaeontologists and biologists to summarise the most interesting, current and cutting-edge topics in fish evolution and development.
It will be an invaluable tool for researchers in early vertebrate palaeontology and evolution, and those particularly interested in the interface between evolution and development.




Fundamentals Of Applied Acarology

**Author: Dhooria, Manjit Singh Publisher: Springer Format: Paperback**
**Published: 23/12/2016 ISBN/EAN: 9789811015939**

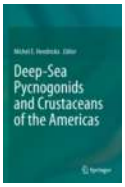
Acarology - the study of mites and ticks, is a subdiscipline of Zoology, and is many times considered in the field of Entomology (the study of insects). Mites and ticks are distributed throughout the world and inhabit almost every ecosystem (both terrestrial and aquatic) including grassland soils. More than 55,000 species of mites and ticks are already described. Mites and ticks directly affects humans as pests of different crops, fruit plants, vegetable crops and field crops; as parasites of human beings, veterinary animals, poultry and pets; pests of stored grains and other products; mushrooms and cheese; and as parasites of honeybees. Mite infestations are responsible for economic losses worth billions of dollars in terms of reduced crop yields and lowered quality of produce. Many species of mites serve as vectors of various plant diseases; some species of ticks cause losses through blood feeding and by transmitting many diseases among man and animals. House-dust mite allergies, and tick bite allergies are also common in many parts of the world.

Present Book, "Fundamentals of Applied Acarology," is written keeping in view non-availability of any standard text dealing in different aspects of acarology at one place. Separate chapters in this book are devoted to Importance of Acarology, Historical account, acarine technology, morphology and anatomy of Acari; Feeding, Development and Reproduction. Molecular developments in relation to mites and ticks are also discussed. Role of mites and ticks in Quarantines of plants and animals; forensic/criminal investigations; and importance of accidental acarophagy are discussed in detail. Safe usage of pesticides based on their mode of action (IRAC's Groups), development of acaricide resistance and measures to mitigate it are discussed. Mite pests of fruit trees, vegetable plants, and floricultural plants; field crops; mite problems in greenhouses/polyhouses; and mite problems encountered under organic cultivation of plants; and their management through minimum usage of pesticides are emphasized. Role of different predaceous mites in controlling plant pests like thrips, aphids and scale insects is elaborately discussed. Biological control of phytophagous mites is discussed in detail. Different animal parasitic mites and ticks are discussed from veterinary and medical point of view.

At the end of each chapter, many important references for further reading; and Electronic References (ER) in the form of youtube links and other weblinks are given to understand fully how these tiny creatures look like; behave, feed and reproduce; nature of damage they cause to plants and animals; and measures to mitigate them. Weblinks will stimulate interest in the readers for more information about different mites and ticks. The knowledge contained in the book may prove as best material for "General and Applied Acarology" course for graduate and post-graduate levels, teachers and researchers in entomology, pest control advisors, professional entomologists, pesticide industry managers, policy planners, and others having interest in mites and ticks.

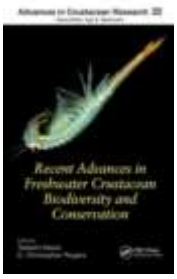
Fundamentals Of Applied Acarology
**Author: Dhooria, Manjit Singh Publisher: Springer Format: Paperback**
**Published: 23/12/2016 ISBN/EAN: 9789811015939**

Marine biogeography, the study of the spatial distribution of organisms in the world's oceans, is one of the most fascinating branches of oceanography. This book continues the pioneering research into the distributions of molluscan faunas, first studied by biologists over 160 years ago. It illustrates 1778 species of gastropods in full color, many of which are extremely rare and poorly known endemic species that are illustrated for the first time outside of their original descriptions.
The spatial arrangements of malacofaunas shown in this book can be considered proxies for worldwide oceanic conditions and used as tools for determining patterns of global climate change. The book's documentation of evolutionary "hot spots" and geographically restricted endemic faunas can also be used as a base line for future studies on patterns of environmental deterioration and extinction in the marine biosphere.
Documenting the evolution of the amazingly rich worldwide gastropod fauna, this book will appeal to physical and chemical oceanographers, systematic and evolutionary biologists, historical geologists, paleontologists, climatologists, geomorphologists, and physical geographers. The authors incorporate aspects of all of these disciplines into a new classification system for the nomenclature of biogeographical spatial units found in tropical, subtropical, and warm temperate seas.




**Deep-Sea Pycnogonids And Crustaceans Of The Americas**
**Author: Hendrickx, Michel E. Publisher: Springer Nature Switzerland AG Format: Paperback**
**Published: 17/03/2022 ISBN/EAN: 9783030584122**

Among the deep-sea marine invertebrates, pycnogonids and crustaceans represent ecologically important and most diverse groups of species.
Yet both are still poorly understood. Sampling and exploring operations off the west and east coast of the Americas has significantly increased in the last two decades.
However such operations are very costly and limited in number and frequency.
In countries like Brazil, Canada, Chile, Colombia, Costa Rica, Mexico, Peru, the United States of America, and El Salvador a large effort has been made to explore the deep-sea resources and the rich diversity of the communities, resulting in a better understanding of the natural ecosystems on both coasts of America.
Pycnogonids and many groups of deep-sea crustaceans have been intensively studied, from the smallest animals, like the mostly unknown benthic copepods to the largest decapods. This book presents new and updated information on various groups of deep-sea pycnogonids and crustaceans occurring off the American continent.
Offering a valuable reference resource for scientists interested in this fascinating fauna, it includes review papers and new data on the deep-sea communities occurring off the USA, Mexico, El Salvador, Costa Rica, Colombia, Chile, Peru, Brazil and Argentina, as well as in larger areas in both the East Pacific and the West Atlantic.
As such it covers most of the current deep-water research in Latin America.




## Recent Advances In Freshwater Crustacean Biodiversity And Conservation

**Author: Kawai, Tadashi (Central Fisheries Research Institution, Japan) Publisher: CRC**
**Press Format: Laminated**
**Published: 08/03/2021 ISBN/EAN: 9780367443504**

Recent Advances in Freshwater Crustacean Biodiversity and Conservation focuses on minor crustacean groups and regionally endemic groups, all from freshwaters.
Chapters in this book cover crustaceans such as Maxillopods, Mysids, Cumaceans, Isopods, Amphipods, Branchiopods, Copepods, and Decapods.
Each looks at global or regional fauna and discusses conservation issues for that group.
The majority of the chapters are based on papers presented at symposia organized by the editors at two international scientific meetings held in Barcelona and Washington DC.
The contributors are world-renowned experts on their groups, as well as on freshwater crustacean conservation and biodiversity at global levels.
It has previously been difficult for conservation managers, NGOs, and university professors and students who may not have access to comprehensive journal subscriptions to find relevant information on diversity and conservation of freshwater crustaceans.
This book meets that need, addressing crustacean groups not previously treated and providing additional information beyond any presented in existing books.
As the editors write in their introduction: we cannot conserve and we cannot protect what we do not know exists. This is a reliable, cutting-edge reference for anybody involved in crustacean research: students, researchers, agencies, and NGOs, as well as science educators, conservationists, and government conservation policymakers.
The book will also be useful for those working in aquaculture and fisheries, given that many of the taxa discussed are economically important.

**Reproductive Biology Of Crustaceans : Case Studies Of Decapod Crustaceans**
**Author: Mente, Elena Publisher: CRC Press Format: Paperback / softback**
**Published: 18/12/2019 ISBN/EAN: 9780367452773**

Crustaceans adapt to a wide variety of habitats and ways of life.
They have a complex physiological structure particularly with regard to the processes of growth (molting), metabolic regulation, and reproduction.
Crustaceans are ideal as model organisms for the study of endocrine disruption and stress physiology in aquatic invertebrates.
This book is an overview of the extensive research that has taken place over the recent years on issues of crustacean reproduction.


**Aeglidae : Life History And Conservation Status Of Unique Freshwater Anomuran Decapods**
**Author: Santos, Sandro (Federal University of Santa Maria, Santa Maria, RS-Bra Publisher: CRC Press Format: Laminated**
**Published: 15/10/2019 ISBN/EAN: 9781138294721**
Aeglidae focuses on these unique crustaceans who are endemic to South America.
The book is the first to summarize the diverse aspects of the Aeglidae, whose taxonomic features and phylogenetic relationships, evolutionary history and biogeographical background, biological characteristics, and current conservation awareness make them stand out among all other decapods.
Addresses the morphology, taxonomy, and phylogenetics that characterize the Aegla and their relationship to other decapod taxaProvides in-depth treatment of the evolutionary history, biogeography, reproduction, developmental biology, and the life cycle of the AeglidaeDiscusses their physiology, ecology and behavior, including physiological mechanisms associated with freshwater adaptation, population dynamics, trophic ecology, agonistic and non-agonistic behaviorCovers the current conservation status of all known species of aeglids, major threats to them, the use of aeglids as flagships or umbrella species, and conservation action planningEdited by internationally distinguished leaders in this field. This will be an important reference not only for carcinologists working with this family of decapods, but also readers interested in the evolution, biogeography, taxonomy, phylogenetics, physiology, and reproductive ecology.

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**Reproductive Strategies In Insects**
**Author: Omkar (University of Lucknow, India) Publisher: CRC Press Format: Laminated**
**Published: 16/02/2022 ISBN/EAN: 9780367488574**

Reproduction is one of the most inherent tasks that all living organisms are actively involved in.
It forms the backbone of their existence with all evolutionary energies directed over billion years of creation into maximizing reproductive effort.
For so simple and directed a need such as maximizing reproduction, it is interesting to see how much diversity and complexity exists in this task.
Each organism despite having the same end goal employs different strategies.
The complexities, intricacies and strategies of successful reproduction while being extremely fascinating are equally befuddling.
Reproductive Strategies in Insects provides an expansive critical look at the reproductive strategies of the most diverse group of animals, the insects.
Insects which inhabit myriad niches in all ecosystems except the oceans, show the most diverse reproductive strategies ranging from simplest to most complex.
Reproductive strategies, viz., search for mates, number of mates, display of mate quality, assessment of mate quality, acceptance of mate, rejection of mates, forced copulations, the fight for paternity pre, during and post copula, the modulation of paternity, ovipositional strategies and parental care are described in detail in this book.
Also, each strategy in analyzed in relation to its morphological, physiological, ethological, ecological and evolutionary aspects. Features:Covers a wide variety of reproductive strategies, A detailed step by step description of reproductive strategies. Discusses morphological, physiological, ethological, ecological and evolutionary aspects. Modulation of these strategies and responsible modulatory factors are also discussed.
Well-illustrated. Recent research results and probable future research directions. This is a niche reference book for ethologists, biologists studying behavioural evolution and entomologists.
It may also be used as a textbook for a graduate level course in behaviour.


**Insect Diapause**
**Author: Denlinger, David L. (Ohio State University) Publisher: Cambridge University Press Format: Laminated**
**Published: 03/02/2022 ISBN/EAN: 9781108497527**

Our highly seasonal world restricts insect activity to brief portions of the year.
This feature necessitates a sophisticated interpretation of seasonal changes and enactment of mechanisms for bringing development to a halt and then reinitiating it when the inimical season is past.
The dormant state of diapause serves to bridge the unfavourable seasons, and its timing provides a powerful mechanism for synchronizing insect development.
This book explores how seasonal signals are monitored and used by insects to enact specific molecular pathways that generate the diapause phenotype.
The broad perspective offered here scales from the ecological to the molecular and thus provides a comprehensive view of this exciting and vibrant research field, offering insights on topics ranging from pest management, evolution, speciation, climate change and disease transmission, to human health, as well as analogies with other forms of invertebrate dormancy and mammalian hibernation.

**Management Of Insect Pests In Vegetable Crops : Concepts And Approaches**
**Author: Vishwakarma, Ramanuj Publisher: Apple Academic Press Inc. Format: Paperback**
**Published: 01/01/2022 ISBN/EAN: 9781774634929**

This new book on the sustainable management of insect pests in important vegetables offers valuable management strategies in detail.
It focuses on eco-friendly technology and approaches to mitigating the damage caused by insect pests with special reference to newer insecticides.
Chapters in the volume provide an introduction to vegetable entomology and go on to present a plethora of research on sustainable eco-friendly pest management strategies for root vegetables, spice crops, tuber crops, and more. Vegetable crops that are infested by several insect pests from the nursery to the harvesting stage cause enormous crop losses.
Given that it is estimated that up to 40 percent of global crops are lost to agricultural pests each year, new research on effective management strategies is vital.
The valuable information provided in this book will be very helpful for faculty and advanced-level students, scientists and researchers, policymakers, and others involved in pest management for vegetable crops.

**The Insect & Spider Collections Of The World**
**Author: Arnett, Jr., Ross H. Publisher: CRC Press Format: Paperback**
**Published: 30/09/2021 ISBN/EAN: 9780367250744**

First published in 1993, completely rewritten, this second edition includes a list of all 210 countries of the world and all of the islands, with comments on the existence of insect and spider collections, both public and private.
These listings are arranged alphabetically by country, state/province, and city, with private collections listed under the public collection with which they are registered.
Part II of the directory is an alphabetical list of the codes assigned to each of the collections described in Part I.
This list is also cross-referenced to variations of the codes used in other works, which will eliminate any confusion over this duplication.
This classic work provides a ready reference to all collections and is required by all insect and spider systematists.


**The Silken Thread : Five Insects And Their Impacts On Human History**
**Author: Wiedenmann, Robert N. (Professor Emeritus, Department of Entomology,**
**P Publisher: Oxford University Press Inc Format: Laminated**
**Published: 13/12/2021 ISBN/EAN: 9780197555583**

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

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**Insects As Animal Feed : Novel Ingredients For Use In Pet, Aquaculture And Livestock Diets**
**Author: Hall, Heidi (Anpario plc, UK) Publisher: CABI Publishing Format: Laminated**
**Published: 16/09/2021 ISBN/EAN: 9781789245929**

The global drive towards sustainability and improved animal health means there is a greater need for development of novel functional ingredients for the feed industry.
As the requirements for protein for livestock feed and human consumption grows, the use of insect products as animal feed has gained increasing attention.
Covering global production systems of insect protein, oil and chitin, as well as co-products from this industry, this book: - Considers in-depth nutritional and safety aspects of insects for feed. - Reviews suitability of insects as feed for different animal species and life stages. - Examines current knowledge of the value of insect-rearing residues as biofertilizers for crop health. - Identifies the challenges related to regulation, legislation, consumer perception and acceptance, and commercialization of insects. - Provides interviews with established and early-stage innovative companies producing insect protein for feed.
Including a focus on practices such as waste valorization, this book takes a holistic look at how insects could contribute to the sustainability of livestock production on a global scale.
Providing an up-to-date reference for research scientists, nutritionists, and veterinarians, as well as prospective insect farmers, it will also be of interest to those with a broader curiosity towards climate change, sustainability, and the circular economy.


**How Birds Evolve : What Science Reveals About Their Origin, Lives, And Diversity**
**Author: Futuyma, Douglas J. Publisher: Princeton University Press Format: Laminated**
**Published: 05/10/2021 ISBN/EAN: 9780691182629**

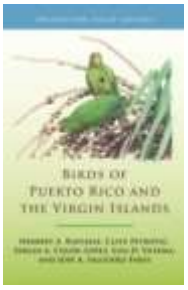
A marvelous journey into the world of bird evolutionHow Birds Evolve explores how evolution has shaped the distinctive characteristics and behaviors we observe in birds today.

Douglas Futuyma describes how evolutionary science illuminates the wonders of birds, ranging over topics such as the meaning and origin of species, the evolutionary history of bird diversity, and the evolution of avian reproductive behaviors, plumage ornaments, and social behaviors. In this multifaceted book, Futuyma examines how birds evolved from nonavian dinosaurs and reveals what we can learn from the "family tree" of birds.

He looks at the ways natural selection enables different forms of the same species to persist, and discusses how adaptation by natural selection accounts for the diverse life histories of birds and the rich variety of avian parenting styles, mating displays, and cooperative behaviors.

He explains why some parts of the planet have so many more species than others, and asks what an evolutionary perspective brings to urgent questions about bird extinction and habitat destruction.

Along the way, Futuyma provides an insider's perspective on how biologists practice evolutionary science, from studying the fossil record to comparing DNA sequences among and within species. A must-read for bird enthusiasts and curious naturalists, How Birds Evolve shows how evolutionary biology helps us better understand birds and their natural history, and how the study of birds has informed all aspects of evolutionary science since the time of Darwin.

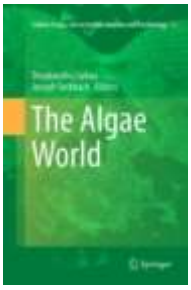



**Birds Of Puerto Rico And The Virgin Islands**
**Author: Raffaele, Birds of the West Indies Herbert A. Publisher: Princeton University Press Format: Paperback**
**Published: 10/08/2021 ISBN/EAN: 9780691211671**

The only fully illustrated guide to feature all the bird species of Puerto Rico and the Virgin IslandsThis portable and informative field guide describes the bird species found on Puerto Rico and the Virgin Islands.
Fully updated, the guide presents all 347 species, both naturally occurring as well as introduced, and highlights 19 endemic species found nowhere else in the world.
Species are sorted by habitat to facilitate identification and extra illustrations are provided for birds similar in appearance. The only fully illustrated guide to feature all 347 bird species in Puerto Rico and the Virgin IslandsSpecies sorted by habitat for easier identificationText and illustrations on facing pages for ease of identificationExtensive introduction covering taxonomy, migration, biogeography, and conservationUseful information on birding hotspots throughout the región


**Where Have All The Birds Gone?: Essays On The Biology And Conservation Of Birds That Migrate To The American Tropics**
**Author: Terborgh, John Publisher: Princeton University Press Format: Ebook**
**Published: 06/10/2020 ISBN/EAN: 9780691219493**

"Things are going wrong with our environment," writes John Terborgh, "even the parts of it that are nominally protected. If we wait until all the answers are in, we may find ourselves in a much worse predicament than if we had taken notice of the problem earlier. By waiting, one risks being too late; on the other hand, there can be no such thing as being too early." Terborgh's warnings are essential reading for all who care about migratory birds and our natural environment. Why are tropical migrant species disappearing from our forests? Can we save the birds that are left? Terborgh takes a more comprehensive view of migratory birds than is usual--by asking how they spend their lives during the half-year they reside in the tropics. By scrutinizing ill-planned urban and suburban development in the United States and the tropical deforestation of Central and South America, he summarizes our knowledge of the subtle combination of circumstances that is devastating our bird populations. This work is pervaded by Terborgh's love for the thrushes, warblers, vireos, cuckoos, flycatchers, and tanagers that inhabited his family's woodland acreage while he was growing upbirds that no longer live there, in spite of the preservation of those same woods as part of a county park. The book is a tour of topics as varied as ecological monitoring, the plight of the Chesapeake wetlands, the survival struggle of Central American subsistence farmers, and the management of commercial forests.




**The Algae World**
**Author: Sahoo, Dinabandhu Publisher: Springer Format: Paperback / softback**
**Published: 14/03/2019 ISBN/EAN: 9789402413298**

Algal World has been carefully written and edited with an interdisciplinary appeal and aims to bring all aspects of Algae together in one volume.
The 22 chapters are divided into two different parts which have been authored by eminent researchers from across the world.
The first part, Biology of Algae, contains 10 chapters dealing with the general characteristics, classification and description of different groups such as Blue Green Algae, Green Algae, Brown Algae, Red Algae, Diatoms, Xanthophyceae, Dinophyceae, etc.
In , it has two important chapters covering Algae in Extreme Environments and Life Histories and Growth Forms in Green Algae.
The second part, Applied Phycology, contains 12 chapters dealing with the more applied aspects ranging from Algal Biotechnology, Biofuel, Phycoremediation, Bioactive Compounds, Biofertilizer, Fatty Acids, Harmful Algal Blooms, Industrial Applications of Seaweeds, Nanotechnology, Phylogenomics and Algal culture Techniques,


**Algae For Food : Cultivation, Processing And Nutritional Benefits**
**Author: Raja, Rathinam (University of Algarve, Portugal) Publisher: CRC Press Format: Laminated**
**Published: 26/10/2021 ISBN/EAN: 9780367762087**

Algae for Food: Cultivation, Processing and Nutritional BenefitsAlgae are a primitive, living photosynthetic form and they are the oldest living organism.
In the marine ecosystem, algae are the primary producers that supply energy required to a diverse marine organism and especially seaweed provides a habitat for invertebrates and fishes.
There have been significant advances in many areas of phycology.
This book describes the advances related to food and nutrition of algae achieved during the last decades, it also identifies gaps in the present knowledge and needs for the future.
The 17 chapters, grouped into 6 parts, are written by phycologists.
More insight on industrial exploitation of algae and their products is supported by current studies and will help academia.
The first part explains new technologies to improve the microalgal biomass, strain improvement and different methods of seaweed cultivation.
In the second part, food and nutraceutical applications of algae, food safety aspects, green nanotechnology and formulation methods for the extraction and isolation of algal functional foods are described.
The third part deals with pigments and carotenoids while the fourth part exploits the isolation and application of hydrocolloids, nutritional implications of algal polysaccharides and the characterization and bioactivity of fucoidans.
In the fifth part, the biomedical potential of seaweed followed by agricultural applications of algae are well described.
The book is an important resource for scholars that provides knowledge on wide range of topics.
Key FeaturesCovers important fields of algae from biomass production to genetic engineering aspects of algaeUseful in the field of algal biotechnology, aquaculture, marine micro and macrobiology, microbial biotechnology and bioprocess technologyFocuses on the therapeutic and nutritional areas of algae

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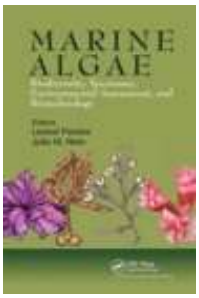
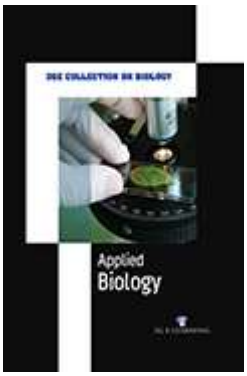



**Marine Algae : Biodiversity, Taxonomy, Environmental Assessment, And Biotechnology**
**Author: Pereira, Leonel (University of Coimbra, Portugal) Publisher: CRC Press Format: Paperback**
**Published: 18/12/2020 ISBN/EAN: 9780367739751**

This book is divided into three thematic areas. The first covers a revision of the taxonomy of algae, based on the algae portal, as well as the general aspects of biology and the methodologies used in this branch of marine biology.
The second subject area focuses on the use of algae in environmental assessment, with an intensive implementation in Western economies and some emerging economies.
The third topic is the potential use of algae in various industries including food, pharmaceuticals, cosmetics, agricultural fertilizers, and the emerging biofuels industries.




3GE Collection on Biology: Applied Biology
**ISBN**9781984636034
**Publication Year**2020
**Publisher**3G E-Learning
**Binding**Hardcover

Applied Biology is the science of life and of living organisms, including their structure, function, growth, origin, evolution, and distribution.
The objectives of this book are to present an up-to-date account of the biology and its applications.

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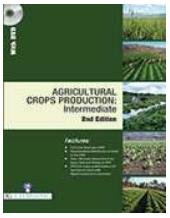
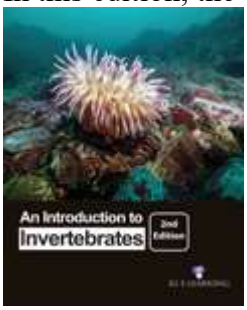



AGRICULTURAL CROPS PRODUCTION : Intermediate (2nd Edition) (Book with DVD)
**ISBN**9781680947380
**Publication Year**2018
**Publisher**3G E-Learning LLC
**Binding**Softcover
In this book we have mainly focused on physiological, biochemical, molecular and genetic bases of crop development and related approaches that can be used for crop improvement under environmental adversaries.
This edition contains updated information to produce various agricultural crops which include performing nursery operations, planting, caring and maintaining of crops and carrying-out harvest and postharvest operations.
In this edition, the units have been restructured and new topics are added with updated content.




An Introduction to Invertebrates (2nd Edition)
**ISBN**9781984659590
**Publication Year**2022
**Publisher**3G E-Learning
**Binding**Paperback
This second edition has been significantly expanded and updated, presenting new topics and updating coverage of other topics.
Presents information on animal groups and their evolutionary origins.
Explores anatomy, and current phylogenetic hypotheses.

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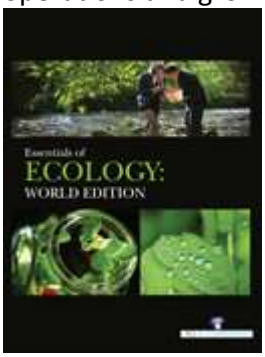
## AQUACULTURE : Intermediate (2nd Edition) (Book with DVD)

**ISBN**9781680948691
**Publication Year**2018
**Publisher**3G E-Learning LLC
**Binding**Softcover

Integrates many different practical and visual skills with knowledge of specialized materials and techniques.
This book will introduce the knowledge and skills for those studying and/or working in Aquaculture.
The revised information in this edition covers information applied to assist in aquaculture operations, prepare and maintain aquaculture facilities, operate fish nursery, perform fish or shrimp grow-out operations and grow seaweeds.




## Essentials of Ecology: World Edition

**ISBN**9781680947458
**Publication Year**2019
**Publisher**3G E-Learning LLC
**Binding**Softcover

The book provides with the elementary knowledge and a concise account of ecology.
A coherent presentation of the fundamental concepts and principles of ecology and environmental science.
The book covers all major fundamentals of ecology, well-supported by illustrations & exhaustive real-time stats.

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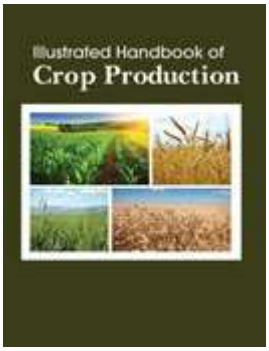


## ILLUSTRATED HANDBOOK OFCrop Production

**ISBN**9781680946659
**Publication Year**2017
**Publisher**3G E-Learning LLC
**Binding**Hardcover

Crop production is a branch of agriculture that deals with growing crops for use as food and fiber. Crop production includes grains, cotton, tobacco, fruits, vegetables, nuts and plants. A crop is any cultivated plant, fungus, or alga that is harvested for food, clothing, livestock, fodder, biofuel, medicine, or other uses. This handbook presents a structured discussion of the types of cultivars, the history of the crop, its uses and processing, a detailed discussion of how to plant and grow the crop, the pests and problems involved, and the harvesting, grading and marketing practices.


## Illustrated Handbook Of Insect Pathology

**ISBN**9781984647917
**Publication Year**2021
**Publisher**3G E-Learning
**Binding**Hardcover

Insects are the dominant animals in the world, with more than one million described species. Basic principles in insect pathology, their classification and phylogeny, portal of entry, infectivity, pathogenicity and virulence, course of disease, Koch?s postulates, and diagnosis are covered. Explains the importance of insect diseases and illuminates the complexity and diversity of insect-microbe relationships.

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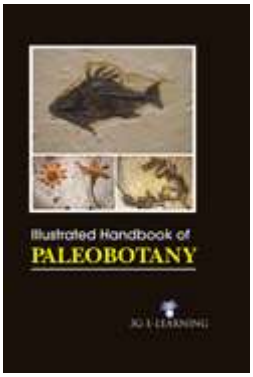
## Illustrated Handbook of Marine Biotechnology

**ISBN**9781984660398
**Publication Year**2022
**Publisher**3G E-Learning
**Binding**Hardcover
This book broadens students' understanding of the basics and recent developments in marine biotechnology.
Discusses the genetics and molecular biology of the bioactive compound biosynthesis and the identification of the organisms involved.




## Illustrated Handbook of Paleobotany

ISBN9781680949353
Publication Year2019
Publisher3G E-Learning LLC
BindingHardcover
Sheds light on many aspects of the evolutionary patterns of gymnosperms, angiosperms, and pteridophytes.
Explains the lives of these ancient plants, how they came to be fossilized, and what they may tell us about the past.

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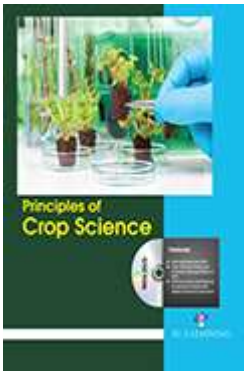



## Principles of Crop Science (Book with DVD)

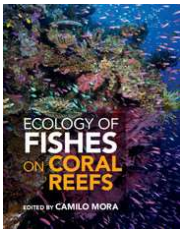
**ISBN**9781984638618
**Publication Year**2020
**Publisher**3G E-Learning
**Binding**Softcover

Covers principles of plant growth, including human and environmental influences and the theoretical and practical application of agronomic principles to crop production.
Includes the crop plant breeding, growth, development, and physiology; cropping systems and practices; seedbed preparation, tillage, and crop establishment; pests and controls; and harvesting, storing, and marketing practices.


## Theory, Practice and Techniques in Landscaping and Horticulture

**ISBN**9781680947540
**Publication Year**2018
**Publisher**3G E-Learning LLC
**Binding**Softcover

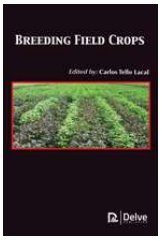
This comprehensive book provides a wealth of information on practical gardening techniques for ornamental as well as food gardens.
Covers gardening and landscaping basics, with information on such topics as selecting trees, and flowers; pruning and caring for trees, and growing vegetables.
This in-depth guide to all aspects of landscape painting is a must-have for anyone getting started in the genre, as well as more.




Ecology of Fishes on Coral Reefs
**EDITOR:** Camilo Mora, University of Hawaii, Manoa
**DATE PUBLISHED:** June 2015
**AVAILABILITY:** Available
**FORMAT:** Hardback
**ISBN:** 9781107089181

The local diversity and global richness of coral reef fishes, along with the diversity manifested in their morphology, behaviour and ecology, provides fascinating and diverse opportunities for study. Reflecting the very latest research in a broad and ever-growing field, this comprehensive guide is a must-read for anyone interested in the ecology of fishes on coral reefs. Featuring contributions from leaders in the field, the 36 chapters cover the full spectrum of current research. They are presented in five parts, considering coral reef fishes in the context of ecology, patterns and processes, human intervention and impacts, conservation, and past and current debates. Beautifully illustrated in full-colour, this book is designed to summarise and help build upon current knowledge and to facilitate further research. It is an ideal resource for those new to the field as well as for experienced researchers.


**Biological Control of Insects, Pests and Diseases**
Author(s)Hazem Shawky Fouda, Alexandria University, Egypt
Publication Year2020
ISBN9781774071533
PublisherDelve Publishing
Binding TypeHardcover
Biological Control of Insects, Pests and Diseases introduces the readers to the concept of biological control and further explains them the process done in association with nematodes, fungi and bacteria. The book also throws light on the allelochemicals. Also discussed in the book is the information related to the biocontrol of insects and diseases, further explaining the readers about the advantages of biocontrol, its future in the developing world and the incorporation of nanotechnology to improve the working in the field of biocontrol.

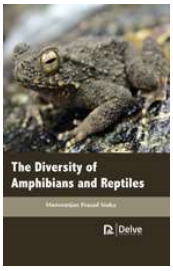



**Breeding Field Crops**
Editor(s)Carlos Tello Lacal, Zurcher Hochschule fur Angewandte Wissenschaften., Switzerland
Publication Year2019
ISBN9781773614946
Price$165
PublisherDelve Publishing
Binding TypeHardcover

Breeding Field Crops examines various aspects of Genetic, evolutionary and plant breeding insights from the domestication including an extensive historical overview of breeding crops and related issues. It includes definitions of diversity, Genome engineering and plant breeding, Quantitative Resistance to Plant Pathogens. Provides the reader with insights into the development of its history, so as to understand the Genomics-assisted breeding in fruit trees, Genetic analysis of recombinant inbred lines for Sorghum bicolor Sorghum propinquum, Challenges of breeding potato cultivars to grow in various environments and to meet different demands.


**Cotton Fiber Quality**
**Editor(s)**Dr. Hazem Fouda
**Publication Year**2018
**ISBN**9781773611976
**Publisher**Delve Publishing
**Binding Type**Hardcover

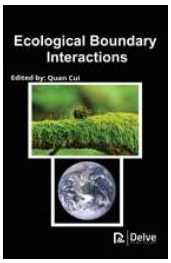
In today's highly competitive and global textile market, product quality has become of paramount importance in order to produce high-quality cotton yarns which will in turn produce high quality woven and knitted fabrics and end products, emphasis must be placed on the quality and processing of cotton fibers. This comprehensive guide is a vital tool for anyone interested in increasing the yield and quality of cotton, the world's most popular fiber.




## The Diversity of Amphibians and Reptiles

**Author(s)**Manoranjan Prasad Sinha, S.K.M. University, India
**Publication Year**2020
**ISBN**9781774072431
**Publisher**Delve Publishing
**Binding Type**Hardcover

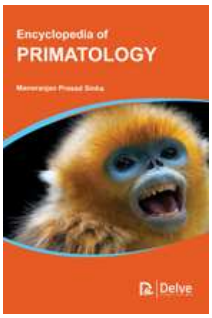
The Diversity of Amphibians and Reptiles discusses about amphibians and ecological importance of amphibians, reptiles and relationship between amphibians and reptiles, the differences between reptiles and amphibians. It also discusses the evolution of amphibians and reptiles and the related aspects like evolution of amphibians, important characteristics of amphibians. This book also throws light on ecosystem, diversity and geographic distribution of amphibians and reptiles and it includes the related aspects like natural habitat of amphibians and reptiles, habitat loss. This book also discusses about migration of amphibians and reptiles. Also discussed in the book is diversity and distribution of amphibians, distribution of amphibians, distribution of threatened species etc. The locomotion in amphibians and reptiles and its related aspects like principles of locomotion and locomotory patterns in toads, have also been discussed.




## Ecological Boundary Interactions

**Editor(s)**Quan Cui, Beijing Normal University, China
**Publication Year**2019
**ISBN**9781773612799
**Publisher**Delve Publishing
**Binding Type**Hardcover

Ecological Boundary Interactions examines various aspects of environmental boundary interactions using metabolic networks to resolve ecological properties of microbiomes. It includes definitions of macrophyte assessment in European lakes, operationalizing safe operating space for regional social-ecological systems and social-ecological dynamics of the small scale fisheries in Sundarbans Mangrove Forest. Provides the reader with insights into the development of understanding of marginal changes in ecosystem its history and the land use suitability concept.




## Encyclopedia of Primatology

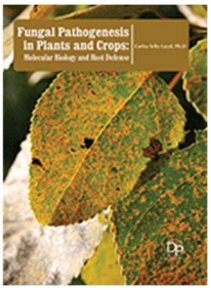
**Editor(s)**Manoranjan Prasad Sinha, S.K.M. University, India
**Publication Year**2019
**ISBN**9781773615684
**Publisher**Delve Publishing
**Binding Type**Hardcover

This encyclopedia brings together information about recent discoveries and current theories with reference to the origin and early evolution of anthropoid primates monkeys, apes, and humans. The encyclopedia examines the cognitive differences between humans and apes, review a powerful experimental methodology to determine the most likely acquisition modes responsible for primate "cultural" patterns.


## Fish and wildlife ecology and biology

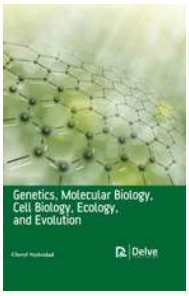
**Author(s)**Anjanette S. Tadena, Department of Agriculture, Philippines
**Publication Year**2020
**ISBN**9781774072448
**Publisher**Delve Publishing
**Binding Type**Hardcover

Fish and Wildlife Ecology and Biology talks about the wildlife biology and ecology of fish. It further includes the biological and ecological analysis of certain species of fish, impact of water quality on ecology of fish and economic feasibility of fishery in a specific nation. This book also discussed about Ecological and Biological Behaviors of Large Wildlife Herbivores, Major Natural Habitats of Wildlife and Their Conservation Measures, Conflicts Between Human Beings and Wildlife Animals, Common Diseases and Pests That Influence the Ecological and Biological Existence of Wildlife Animals and Impact of Climate Change and Environmental Degradation on Wildlife Habitats.




**Fungal Pathogenesis in Plants and Crops: Molecular Biology and Host Defense**
**Editor(s)**Carlos Tello Lacal
**Publication Year**2017
**ISBN**9781680958980
**Publisher**Delve Publishing LLC
**Binding Type**Hardcover

Dramatic progress in molecular biology and genetic engineering has recently produced an unparalleled wealth of information on the mechanisms of plant and pathogen interactions at the cellular and molecular levels. This book offers fresh insight into the interplay of signaling systems in plant and pathogen interactions. It delineates the battle between plant and fungal pathogen and the complex signaling systems involved.




Genetics, Molecular Biology, Cell Biology, Ecology, and Evolution
**Author(s)**Cheryl Natividad, University of the Philippines Los Banos, Philippines
**Publication Year**2020
**ISBN**9781774072318
**Publisher**Delve Publishing
**Binding Type**Hardcover

Genetics, Molecular Biology, Cell Biology, Ecology, and Evolution takes the readers through the various processes in genetics and explains them the meaning, history, role and application of this field and also states its importance in the current world. It also explains the meaning of molecular biology and the various applications of molecular biology, focusing on the study that has been conducted in the subject and the future application so this field. Also discussed in the book are the topics of cell biology and the various aspect related to it and the subject of ecology and speciation, in detail, which provide deep insights to the readers on the subjects.


Introduction to Life Science
**Editor(s)**Smitha Nair, Mumbai University, India
**Publication Year**2020
**ISBN**9781774073094
**Publisher**Delve Publishing
**Binding Type**Softcover

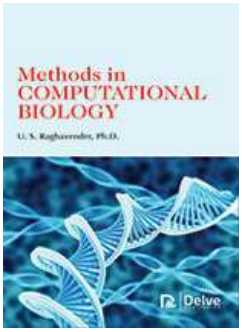
Introduction of Life Science introduces the concept of Life Sciences including the history and evolution of life sciences. This book highlights different fields in the life sciences and the basic as well as applied sciences. The first half of the book refers to the theory of life science and the spectroscopy of life science. This book covers the concept of chromatography and its principles and the concept of microscope and its significance in life sciences. There are certain measures for safety in the life science laboratory that must be taken, have been mentioned in this book. The insights related to the future aspects of life sciences have been provided to the readers with the help of this book.


Key Concepts in Biology
**Editor(s)**Esha Rami and Gaurav Shrimali
**Publication Year**2022
**ISBN**9781774691472
**Publisher**Delve Publishing
**Binding Type**Hardcover

The book addresses numerous key definitions or terms of Biology. Biology is the study of life. The word "biology" is derived from the Greek words "bios" (meaning life) and "logos" (meaning "study"). In general, biologists study the structure, function, growth, origin, evolution and distribution of living organisms.

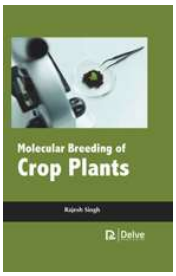

**Key Concepts in Biotechnology**
**Author(s)**Smitha Nair
**Publication Year**2022
**ISBN**9781774691533
**Publisher**Delve Publishing
**Binding Type**Hardcover

In this book, definitions of key terms related to biotechnology have been explained breifly. Biotechnology is a broad area of biology, involving the use of living systems and organisms to develop or make products. Depending on the tools and applications, it often overlaps with related scientific fields



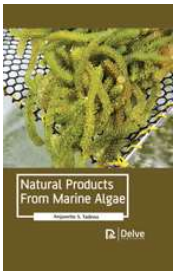

**Methods in Computational Biology**
**Author(s)**U. S. Raghavender, Ph.D.
**Publication Year**2018
**ISBN**9781773612416
**Publisher**Delve Publishing
**Binding Type**Hardcover

This book is an attempt to bring together in one place some of the latest advances in computational biology. With this in mind, we have included tutorials on many of the key topics in the book, designed to introduce biological scientists to some of the computational techniques that might otherwise be unfamiliar to them. This book is written keeping in mind the graduates and researchers studying life sciences using computational techniques. Although, it can also be used by undergraduates as a spring board for exploring the field of Computational Biology. This could serve as a supplement for people involved in specialized research.

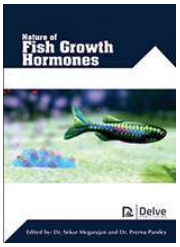



**Molecular Breeding of Crop Plants**
Author(s)Rajesh Singh, Purnea University, India
Publication Year2020
ISBN9781774073469
PublisherDelve Publishing
Binding TypeHardcover

Molecular Breeding of Plants discusses the various fundamentals of plant breeding with the readers and informs them about the application of genomic tools in the breeding of plant. The book throws light on the advancements in the genomics and the bioinformatics of plant breeding and also introduces the concepts of population genetics to the readers. Also discussed in the book are the methods for developing molecular markers, the introduction to the marker assisted crop improvement, plant transformation methods and identification of mutagenized plant population. These topics give and insight on the breeding of plants at molecular levels for the better understanding of the readers.



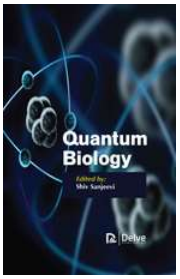

**Natural Products From Marine Algae**
**Author(s)**Anjanette S. Tadena, Department of Agriculture, Philippines
**Publication Year**2020
**ISBN**9781774071960
**Publisher**Delve Publishing
**Binding Type**Hardcover
Natural Products from Marine Algae discusses the extraction of natural products from marine algae. It further comprises the biological and commercial significance of the marine algae and the chemical composition of some natural products acquired from marine algae. It provides the reader with the process of extracting natural products from marine algae so as to understand the use and application of these natural products and their developments and significance in the process of drug discovery. This book also discusses about methods of isolation of natural products from marine algae applications and uses of natural product recent advances and importance of natural products in drug discovery and bioprospecting of natural products.




Nature of Fish Growth Hormones
**Editor(s)**Dr. Sekar Megarajan and Prerna Pandey
**Publication Year**2018
**ISBN**9781773611990
**Publisher**Delve Publishing
**Binding Type**Hardcover

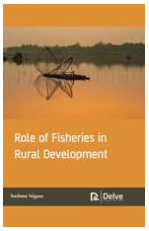
Growth rates of many species used in fish farms are naturally slow, but are currently being enhanced by traditional methods of domestication and selection. Growth and feed-conversion efficiency can also be increased by creating transgenic fish that incorporate a gene to encode growth hormone. Fish PRL and GH receptors (PRLR, GHR) are characterized in several fish species.This book focuses on the application of a synthetic growth hormone-releasing peptide, suggesting that the peptide, as well as the hormone itself, can stimulate growth. It also highlights the research work to find a peptide that will protect farm-raised rainbow trout and other seafood from disease,which often plagues aquaculture operations.


Pest Control for Sustainable Agriculture
**Editor(s)**Chenggui Sun, University of Waterloo, Waterloo, ON
**Publication Year**2020
**ISBN**9781774073476
**Publisher**Delve Publishing
**Binding Type**Hardcover
Pest Control for Sustainable Agriculture talks about the control of pests for the attainment of sustainable agriculture. It further comprises the use of bio-pesticides as sustainable solutions for management of pests in legume crops and stimulation of plant growth and biocontrol by bacillus amyloliquefaciens. This book also discusses about arachidonic acid as an elicitor of the plant defense response to phyto-pathogens, microbial diversity of vermi-compost bacteria that exhibit useful agricultural traits and waste management potential, impacts of glyphosate-based herbicides on disease resistance and health of crops, recent progress on the genetics and molecular breeding of brown plant hopper resistance in rice, fungal and bacterial nematicides in integrated nematode management strategies, natural enemies associated with some economic pests in egyptian agro-ecosystems, biocontrol of wilt-nematode complex infecting gerbera by bacillus subtilis under protected cultivation, effect of melia azedarach (sapindales: meliaceae) fruit extracts on citrus leaf miner phyllocnistis citrella (lepidoptera: gracillariidae), effectiveness of different entomopathogenic nematode species against the variegated cutworm, peridroma saucia (hubner) (lepidoptera: noctuidae), potential impact of host pest fed on bt-modified corn on the development of chrysoperla carnea (stephens) (neuroptera: chrysopidae).



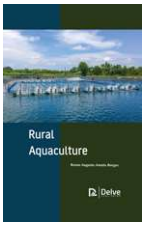

**Quantum Biology**
**Editor(s)**Shiv Sanjeevi, Vaze College, Mumbai, India
**Publication Year**2020
**ISBN**9781774073377
**Publisher**Delve Publishing
**Binding Type**Hardcover

Quantum Biology discusses the applications of mechanics and theoretical chemistry to biological objects and the related problems. It introduces the concept of migratory patterns, followed by a detailed discussion of quantum phenomenon in biomolecules, and a formal language for molecular biology. Physical properties of biological entities are further explained to ensure a comprehensive coverage of the topic.




Role of Fisheries in Rural Development
**Author(s)**Sushma Nigam
**Publication Year**2020
**ISBN**9781774072462
**Publisher**Delve Publishing
**Binding Type**Hardcover

Role of Fisheries in Rural Development introduces the field of fisheries to the readers and throws light on the concept of rural development simultaneously. The book talks about the management of fisheries and the ecosystem approaches to it, followed by the socio-economic impacts of the fisheries development. The book emphasizes on the possibility of poverty reduction by employing fisheries and further talks about ensuring food security in the rural areas. Also discussed in the book is the implication of climate change on fisheries, the impact fisheries have on the livelihood of rural communities, the application of advanced technologies in fisheries and the future of fisheries, by discussing the various opportunities and challenges in the field.




Rural Aquaculture
**Author(s)**Bruno Augusto Amato Borges, Federal University of Santa Catarina, Brazil
**Publication Year**2020
**ISBN**9781774072486
**Publisher**Delve Publishing
**Binding Type**Hardcover

Rural Aquaculture is a book introducing the concept of rural aquaculture. This book focuses on the integration of the rural aquaculture with the agriculture and the production systems which are used in rural aquaculture. It aims to provide information about the concepts and approaches of aquaculture technologies and business planning and management for small-scale sustainable aquaculture. The impact of rural aquaculture on the livelihood and food security and the application of biotechnology has also been mentioned in the second half of this book. The insights about the social and economic aspects of rural aquaculture, issues and opportunities and the future aspects in rural aquaculture have been provided to the readers with the help of this book.

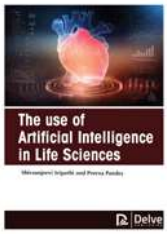

Shrimp Farming Challenges and Current Situation
**Editor(s)**Bruno Augusto Amato Borges
**Publication Year**2018
**ISBN**9781773610375
**Publisher**Delve Publishing
**Binding Type**Hardcover

Since the emergence of the shrimp farming worldwide, there is a growing concern with the use of resources and the search for optimization of the cultivation and commercialization processes. This book covers historical developments and the current status of shrimp farming in the modern world. This book is geared for professionals and researchers, as well as connoisseurs of the subject who seek knowledge about the main challenges of the cultivation of shrimp in the world, in addition to the current perspective and situation in which the activity is.


## Single-Cell Research: Revolutionizing Molecular Biology

- **Editor(s)**Aleksei Anatoliyovych Stepanenko
- **Publication Year**2018
- **ISBN**9781773610306
- **Publisher**Delve Publishing
- **Binding Type**Hardcover

Single-cell analysis has made increasingly significant contributions to our understanding of the role that somatic genome variations play in neuronal diversity and behaviors. In this book, the technologies recently developed for single cell isolation, genome acquisition, transcriptome, and proteome analyses, their applications and the future potentials are thoroughly discussed. The authors present the current state of the art in single cell analysis – from clinical hematology, functional analysis and drug screening, to platelet and microparticle analysis.

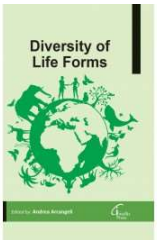



The use of Artificial Intelligence in Life Sciences
**Author(s)**Shivsanjeevi Sripathi and Prerna Pandey
**Publication Year**2022
**ISBN**9781774690666
**Publisher**Delve Publishing
**Binding Type**Hardcover

This book explains the various potential and existing applications of artificial intelligence across several fields ranging from agriculture to medicine to space exploration and crops. It is a first-ever book to compile all the applications to enable readers from scientific and non-scientific backgrounds to grasp the concepts and applications of "thinking machines".


Crop Management Research
Print ISBN: 978-1-68251-347-7 | 2018 | Hardcover
Editor: Chieh-Chuan Feng

Importance of wise usage of water, nutrient management, and tillage in the agricultural sector for sustaining agricultural growth and slowing down environmental degradation calls for urgent attention of researchers, planners, and policy makers. Crop models allow researchers to promptly take a chance on the long-term concerns of changes in agricultural practices. This book examines frequently used and alternate crop production techniques and systems and estimates them with respect to crop yield, profit, environmental and ecological concerns, and agricultural sustainability. The book will prove a comprehensive guide for students interested in agronomy, crop production, and plant, soil, and pest management. Crop scientists or agronomists involved in improving food, feed, and fiber production may find valuable this resource. It may be helpful for graduates qualify for careers in agribusiness, corporate and technical farm management, professional consulting, research, and sales positions.




Diversity of Life Forms
Print ISBN: 9781682518663 | $155 | 2022 | Hardcover
Editor: Andrea Arcangeli

The most unique feature of Earth is the existence of life, and the most extraordinary feature of life is its diversity. This includes all the different plants, animals, and microorganisms; the genes they contain; and the ecosystems they form on land and in water. This book covers living organisms of all kinds in any habitat, focusing on information features rapid assessment approaches, the estimation of species numbers and diversity, habitat management, conservation policy and regulations, threats, biodiversity loss, extinctions, and the documenting of long-term changes, and ex-situ conservation.

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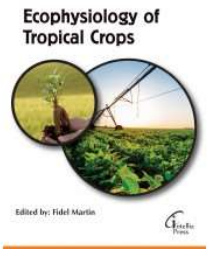
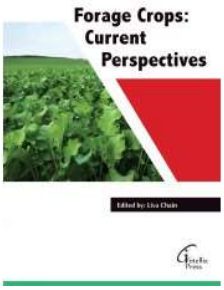


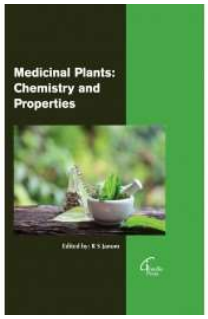

**Ecophysiology of Tropical Crops**
Isbn 9781682514764

This book discusses the fundamental ideas about the numerical description of plant development and considers effects of climatic factors, such as temperature, light, and water on physiological processes in plants. Ecophysiology of major tropical tree crops, considered here on a broader sense and including species such as banana, cashew, cassava, citrus, cocoa, coconut, coffee, mango, papaya, rubber, and tea, are examined. A valauble reference guide for practicing researchers, academics, PhD students and other scientists.



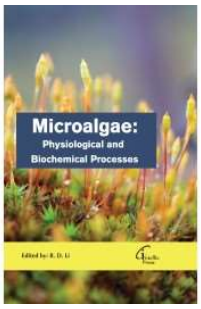

**Forage Crops: Current Perspectives**
Isbn 9781682514771

Providing latest information on crop forms, fertilization, management, morphological, physiological aspects, nutritional quality for the animal, conservation, among others, this book draws on the expertise of different specialists of the area, who discuss the following aspects: fertilization, semiarid region production, forage species selection, nitrogen fixation, grasses, legumes, cacti, drought, etc. Providing important information and diverse perspectives on the subject of forage farming, this book will be of interest to plant biologists and scientists and researchers in fields such as biochemistry, botany, microbiology, ecology, and evolutionary biology.




**Medicinal Plants: Chemistry and Properties**
Print ISBN:9781682516423 | 2020 | Hardcover
Contributors: R S Janom

Medicinal herbs or plants have been known to be an important potential source of therapeutics or curative aids. The use of medicinal plants has attained a commanding role in health system all over the world. Medicinal plants play vital roles in disease prevention and their promotion and use fit into all existing prevention strategies. However, conscious efforts need to be made to properly identify, recognise and position medicinal plants in the design and implementation of these strategies. This book presents interesting and emerging perspectives in the field of medicinal plants.




**Microalgae: Physiological and biochemical processes**
Print ISBN:9781682516546 | 2020 | Hardcover
Contributors: R. D. Li

The biodiversity of microalgae is enormous and they represent an almost untapped resource. Microalgae have recently attracted considerable interest worldwide, due to their extensive application potential in the renewable energy, biopharmaceutical, and nutraceutical industries. Microalgae are renewable, sustainable, and economical sources of biofuels, bioactive medicinal products, and food ingredients. This volume is an authoritative and contemporary review of current research on microalgae. The book will be essential reading for advanced undergraduates, postgraduates and researchers in the field.

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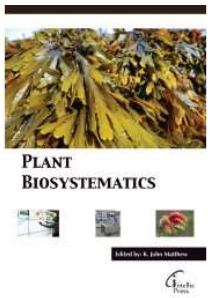
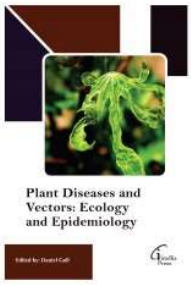



**Plant Biosystematics**
ISBN 9781682514795

To bridge the specific subject areas in plant systematics and evolution, encompassing evolutionary, phylogenetic, and genomic and biogeographically studies, this compendium reviews the current field of biosystematics, particularly the evolution of natural biota, and how plant biosystematics can contribute to the welfare of humans. A wide ranging biosystematic interest puts emphasis with the help of cytological and cytogenetic methods on getting to know chromosome variation within the family, genus and species connected with the phenomena of hybridization and polyploidization.




**Plant Diseases and Vectors: Ecology and Epidemiology**
ISBN 9781682514757

Portraying all aspects of plant diseases, pathogenesis, integrated plant protection, biology and molecular biology of viruses, bacteria, phytoplasms, oomycota, fungi and herbivores, including nematodes, mites, insects, snails and rodents, this book is intended to introduce to the wider audience vector-borne diseases, the threats and the risks, but also the panic that can be induced without a real risk.

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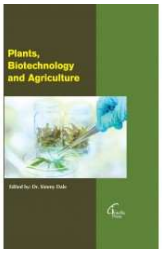
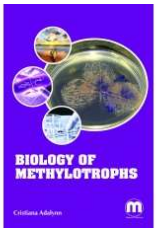



**Plants, Biotechnology and Agriculture**
Print ISBN: 9781682516409 | 2020 | Hardcover
Contributors: Dr. Simmy Dale

The aims of applied plant science research for agriculture are to enhance crop yields, improve food quality, and preserve the environment where human beings and other organisms live. Furthermore, food quality will become more important than crop productivity in a wealthy society. From an economic perspective, plant biotechnology offers significant potential for the seed, agrochemical, food processing, and specialty chemical and pharmaceutical industries to develop new products and manufacturing processes. This book covers the foundations for plant biotechnology by outlining the biological aspects including gene structure and expression, and the basic procedures in plant biotechnology of genomics, metabolomics, and transcriptomics. It intends to cover readers with a modern perspective on plants both as biological organisms and useful resources for people to exploit.




**Biology of Methylotrophs**
Author - Cristiana Adalynn
ISBN 9781682505007

Both plant and environmental factors are involved in shaping the methylotroph community on plants. This book is not intended to provide a comprehensive review of metabolism of methylotrophic bacteria. Instead this book focuses on significant recent discoveries that are both refining and transforming the current understanding of methylotrophy as a metabolic phenomenon. The book also examines new directions in methylotroph ecology that improve our understanding of the role of methylotrophy in global biogeochemical processes, including the future challenges in the field perspective.

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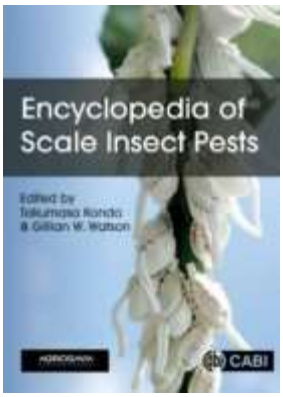
*Zooplankton Diversity and Pelagic Food Webs*
Roberta Piscia, Roberta Bettinetti, Barbara Leoni and Marina Marcella Manca
ISBN 978-3-03943-549-4 (Hbk)

Zooplankton are of key importance in the structure and functioning of aquatic food webs. They contribute to a large part of the functional and structural biodiversity of predator and prey plankton communities. Promptly responding to long-term and seasonal changes in the physical and chemical environment, they are sensitive indicators of patterns and mechanisms of impact drivers, both natural and human induced. In this volume, we aim to present evidence for both long-term and seasonal changes in zooplankton community structure and dynamics, investigating different approaches from population dynamics to advanced molecular techniques and reconstructing past communities from subfossil remains in lake sediments.




**Encyclopedia of Scale Insect Pests**
Edited by: Takumasa Kondo, Gillian W. Watson
April 2022 | Hardback | 720 Pages | 9781800620643

Scale insects feed on plant juices and can easily be transported to new countries on live plants. They sometimes become invasive pests, costing billions of dollars in damage to crops worldwide annually, and farmers try to control them with toxic pesticides, risking environmental damage. Fortunately, scale insects are highly susceptible to control by natural enemies so biological control is possible. They have unique genetic systems, unusual metamorphosis, a broad spectrum of essential symbionts, and some are sources of commercial products like red dyes, shellac and wax. There is, therefore, wide interest in these unusual, destructive, beneficial, and abundant insects.

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**Crop Pollination by Bees, Volume 1**
2nd Edition
By: Keith Delaplane
August 2021 | Paperback | 192 Pages | 9781786393494

Since the second half of the 20th Century, our agricultural bee pollinators have faced mounting threats from ecological disturbance and pan-global movement of pathogens and parasites. At the same time, the area of pollinator-dependent crops is increasing globally with no end in sight. Never before has so much been asked of our finite pool of bee pollinators. This book not only explores the evolutionary and ecologic bases of these dynamics, it translates this knowledge into practical research-based guidance for using bees to pollinate crops. It emphasizes conserving wild bee populations as well as culturing honey bees, bumble bees, and managed solitary bees.

To cover such a range of biology, theory, and practice from the perspectives of both the pollinator and the crop, the book is divided into two volumes. Volume 1 focuses on bees, their biology, coevolution with plants, foraging ecology and management, and gives practical ways to increase bee abundance and pollinating performance on the farm. Volume 2 (also available from CABI) focuses on crops, with chapters addressing crop-specific requirements and bee pollination management recommendations.

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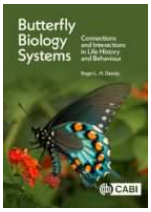
**Ecological and Economic Entomology**
By: Brian Freeman
November 2020 | Hardback | 712 Pages | 9781789241181

Ecological and Economic Entomology is a comprehensive advanced text covering all aspects of the role of insects in natural ecosystems and their impacts on human activity.

The book is divided into two sections. The first section begins with an outline of the structure, classification and importance of insects, followed by the geographical aspects of plant distribution and the complex defences plants marshal against herbivorous insects. Insect pests affecting plant roots, stem, leaf, and reproductive systems are covered in a comprehensive review. This section also covers insects that are important in medical and veterinary science, paying particular attention to those that transmit pathogens. The section concludes with the beneficial aspects of insects, especially their use in biological control, but also as soil formers and their importance in forensic science.




Butterfly Biology Systems
By: Roger L H Dennis
October 2020 | Hardback | 504 Pages | 9781789243574

In Butterfly Biology Systems Roger Dennis explores key topics and contentious issues in butterfly biology, specifically those in life history and behaviour. Uniquely, using a systems approach, the book focuses on the degree of integration and feedback between components and elements affecting each issue, as well as the links between different issues.

The book comprises four sections. The first two sections introduce the reader to principles and approaches for investigating complex relationships, and provide a platform of knowledge on butterfly biology. The final two sections deal in turn with life history and behaviour, covering key issues affecting different stages of development from eggs to adults.


**Plants for Soil Regeneration**
By: Sally Pinhey, Margaret Tebbs
March 2022 | Hardback | 192 Pages | 9781789243604

This book is a comprehensive, beautifully illustrated colour guide to the plants which farmers, growers and gardeners can use to improve soil structure and restore fertility without the use and expense of agrichemicals. Information based on the latest research is given on how to use soil conditioning plants to avoid soil degradation, restore soil quality and help clean polluted land.

There are 11 chapters: 1 to 6 cover soil health, nitrogen fixation, green manures and herbal leys, bacteria and other microorganisms, phytoremediators and soil mycorrhiza (plant-fungal symbiosis). Chapter 7 has plant illustrations, with climate range and soil types, along with their soil conditioning properties and each plant is presented with a comprehensive description opposite a detailed illustration, in full colour. Chapters 8 to 10 examine soil stabilisers, weeds and invasive plants, and hedges and trees and the final chapter, contains 5 case studies with the most recent data, followed by an appendix and glossary. The book allows the reader to identify the plants they need quickly and find the information necessary to begin implementation of soil regeneration.


Mushrooms
Edited by: Youssef Najib Sassine
October 2021 | Paperback | 464 Pages | 9781800620414
The white button mushroom, *Agaricus bisporus* is one of the most widely cultivated mushroom species in the world. It is favored for its high nutritional value and multiple health benefits, especially by consumers interested in vegan and clean eating. This book presents fundamental guidelines for mushroom production as well as major scientific findings in this field. It covers mushroom production and trade, substrates properties, compost quality, breeding, pests and diseases, harvesting, and post-harvest technologies. With practical information on methods used by both commercial and small-scale growers, the book also addresses:

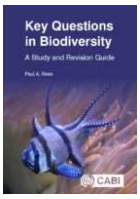
The major steps of the mushroom production cycle - compost preparation, spawning, casing, pinning, cropping, and harvest.
Ways to improve A. *bisporus* yield and quality, and disease resistance.
Case studies to illustrate cultivation techniques in a range of different countries, making use of local agricultural or industrial wastes.


**Diagnosing Hemp and Cannabis Crop Diseases**
By: Shouhua Wang
September 2021 | Hardback | 304 Pages | 9781789246070

Hemp and cannabis, both belonging to Cannabis sativa, have emerged as some of the most valuable crops because of their multiple functionalities - industrial, medicinal, and recreational uses. Like all other crops, they are at risk of diseases and pests. In certain cases, an entire hemp field can fail due to unexpected disease. As a new and highly regulated crop, research on Cannabis crop diseases is scarce, and the science of plant diagnostics is not well covered in the literature.

Taking hemp/cannabis as a model crop, the book illustrates how to diagnose a disease problem and how to manage it effectively. It presents real disease cases encountered during crop production, and explains methods of diagnosis, both in the field and in the lab, in order to find out the cause(s). The book provides:

·A field and laboratory guide to diagnosing hemp and cannabis diseases and pest problems
·Ready-to-adopt skills, methods and protocols in plant diagnosis, which can be applied to other crops
·Over 300 colour photographs accompanied by a wealth of disease information, including field observations, unique symptoms, microscopic details, and molecular data.




**Key Questions in Biodiversity**
By: Paul Rees
May 2021 | Paperback | 224 Pages | 9781789248630

The book has been produced in a convenient format so that it can be used at any time in any place. It allows the reader to learn and revise the meaning of terms used in animal and plant classification, the principles of comparative physiology, and the characteristics of, and diversity in, the major animal and plant taxa. The structure of the book allows the study of one topic area or group of taxa at a time, progressing through simple questions to those that are more demanding. Many of the questions require students to use their knowledge to identify organisms and biological structures from drawings or photographs.


**Plant Invasions**
Edited by: Anna Traveset, David M Richardson
January 2021 | Hardback | 480 Pages | 9781789242171

There are many books on aspects of plant invasions, but none that focus on the key role of species interactions in mediating invasions. This book reviews exciting new findings and explores how new methods and tools are shedding new light on crucial processes in plant invasions.
In 23 chapters, with contributions from 51 authors, the book addresses:

· the main theories and hypotheses in plant invasion ecology that invoke species interactions;
· plant invasions that are facilitated by, or benefit from, by mutualistic interactions and release from enemies;
· antagonistic interactions that prevent or hinder plant invasions;
· impacts of plant invasions on native species interactions and ecosystem functioning;
· the interaction-network approach to understanding plant invasions;
· the importance of considering species interactions in managing plant invasions

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**Applied Plant Science Experimental Design and Statistical Analysis Using SAS® OnDemand for Academics**

By: Edward Durner

June 2021 | Hardback | 416 Pages | 9781789249927

The correct design, analysis and interpretation of plant science experiments is imperative for continued improvements in agricultural production worldwide. The enormous number of design and analysis options available for correctly implementing, analysing and interpreting research can be overwhelming. SAS® is the most widely used statistical software in the world and SAS® OnDemand for Academics is now freely available for academic institutions.

This is a user-friendly guide to statistics using SAS® OnDemand for Academics, ideal for facilitating the design and analysis of plant science experiments. It presents the most frequently used statistical methods in an easy-to-follow and non-intimidating fashion, and teaches the appropriate use of SAS® within the context of plant science research. This book:

- Covers experimental designs and data analysis protocols
- Is presented as a how-to guide with many examples
- Includes freely downloadable data sets
- Examines key topics such as merging data frames, multivariate analysis and linear regression

Authored by an experienced teacher of applied plant science statistics, this book assumes no prior background in statistics and guides users through the appropriate methodologies in research. It is an invaluable tool for advanced undergraduate and graduate students, in addition to researchers, extension consultants, faculty and technicians.


**RNAi for Plant Improvement and Protection**
Edited by: Bruno Mezzetti, Jeremy Sweet, Lorenzo Burgos
April 2021 | Hardback | 200 Pages | 9781789248890
RNA interference (RNAi) has the potential to make major contributions towards sustainable crop production and protection with minimal environmental impacts compared to other technologies. RNAi is being developed and exploited both within plants (i.e. host-induced gene silencing, HIGS) and/or as topical applications (e.g. spray-induced gene silencing, SIGS) for targeting pest and pathogen genes and for manipulating endogenous gene expression in plants. Chapters by international experts review current knowledge on RNAi, methods for developing RNAi systems in GM plants and applications for crop improvement, crop production and crop protection. Chapters examine both endogenous systems in GM plants and exogenous systems where interfering RNAs are applied to target plants, pests and pathogens. The biosafety of these different systems is examined and methods for risk assessment for food, feed and environmental safety are discussed. Finally, aspects of the regulation of technologies exploiting RNAi and the socio-economic impacts of RNAi technologies are discussed.


The Constituents of Medicinal Plants
3rd Edition
By: Andrew Pengelly
May 2021 | Paperback | 232 Pages | 9781789243079
A classic in the literature of herbal medicine, this book explains in simple terms the commonly occurring chemical constituents of medicinal plants, and how these react with the human body. The major classes of plant constituents, such as phenols, terpenes and polysaccharides, are described both in terms of their chemical structures and their pharmacological activities.
The last 20 years has seen huge growth in research output in phytochemistry, and this edition has been thoroughly revised to incorporate up-to-date research. It contains a new chapter on resins and cannabinoids, and additional content on macrocarpals, essential oil chemotypes, mushroom polysaccharides, phytochemical synergy, and toxicology of phytochemicals.
Features include:
· Over 200 diagrams of chemical structures
· Coverage of energetics, synergism and the emerging field of network pharmacology
· New content on seaweeds and fungi, and polyphenol-rich foods
· References to primary research literature in pharmacy, pharmacology, chemistry, plant biology, molecular biology, integrative medicine and many other disciplines

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Handbook of Invasive Plant-parasitic Nematodes
By: Ziaul Haque, Mujeebur Rahman Khan
November 2021 | Hardback | 544 Pages | 9781789247367

Plant parasitic nematodes are major pests of agricultural crops and cause huge monetary losses. There is a very high risk of spread of plant-parasitic nematodes from one country to another, with the movement of plants and planting materials such as seeds, bulbs, corms, suckers, tubers, rhizomes, rooted plants, nursery stock and cut flowers. In view of the large quantities and the wide variety of materials being imported and exported, it is important to assess the status of invasive nematodes and their quarantine importance in relation to agricultural trade.

This book contains information on around 100 invasive nematodes and their potential threat in different countries. Each nematode entry includes information on authentic identification, geographical distribution, risk of introduction, host ranges, symptoms, biology, ecology, planting material liable to carry the nematode(s), nematode vectors, chance of establishment, likely impact, and phytosanitary measures. There are detailed accounts of diagnosis procedures including sampling, isolation, detection and identification of nematodes based on morphological and molecular characters. The book offers a global perspective on invasive plant-parasitic nematodes and useful for practitioners, professionals, scientists, researchers, students, and government officials working in plant quarantine and biosecurity.

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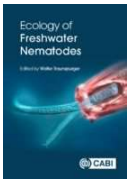
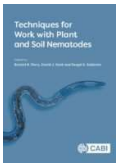


**Ecology of Freshwater Nematodes**
Edited by: Walter Traunspurger
August 2021 | Hardback | 400 Pages | 9781789243635

Nematodes are incontestably the most numerous and the most diverse metazoans in freshwater habitats, and these properties bestow exceptional significance to their role in the environment. An array of functional roles has been attributed to them: they are grazers on bacteria and primary producers, regulators of decomposition of plant material, predators, prey for other animals, and closely associated symbionts of bacteria and other organisms.

Freshwater nematodes are central in the context of environmental monitoring, pollution assessments, global warming and food webs, and this is increasingly being recognized. Moreover, the short generation time (a few days to months) of many species makes nematodes ideal for laboratory studies. This book:

Provides a follow-up to Freshwater Nematodes: Ecology and Taxonomy (2006).
Offers guidelines for studying the ecology of free-living nematodes, including detailed protocols and case studies.
Promotes free-living nematodes as model organisms for studies in a broad range of research fields.



Techniques for Work with Plant and Soil Nematodes
Edited by: Roland N Perry, David Hunt, Sergei A Subbotin
December 2020 | Hardback | 312 Pages | 9781786391759
Plant-parasitic and free-living nematodes are increasingly important in relation to food security, quarantine measures, ecology (including pollution studies), and research on host-parasite interactions. Being mostly microscopic, nematodes are challenging organisms for research. Techniques for Work with Plant and Soil Nematodes introduces the basic techniques for laboratory and field work with plant-parasitic and free-living soil-dwelling nematodes.
Written by an international team of experts, this book is extensively illustrated, and addresses both fundamental traditional techniques and new methodologies. The book covers areas that have become more widespread over recent years, such as techniques used in diagnostic laboratories, including computerized methods to count and identify nematodes. Information on physiological assays, electron microscopy techniques and basic information on current molecular methodologies and their various applications is also included.
This book is an essential resource for students of nematology and parasitology, academic researchers, diagnostic laboratories, and quarantine and advisory service personnel. It provides a much-needed methodology standard for anyone involved in work on plant and soil nematodes.

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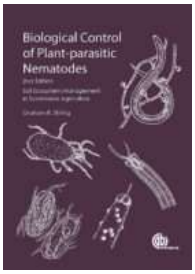


Biological Control of Plant-parasitic Nematodes
2nd Edition
By: Graham Stirling
October 2019 | Paperback | 534 Pages | 9781786395337

Plant-parasitic nematodes are one of multiple causes of soil-related sub-optimal crop performance. This book integrates soil health and sustainable agriculture with nematode ecology and suppressive services provided by the soil food web to provide holistic solutions. Biological control is an important component of all nematode management programmes, and with a particular focus on integrated soil biology management, this book describes tools available to farmers to enhance the activity of natural enemies, and utilize soil biological processes to reduce losses from nematodes.


Endophyte Biotechnology
Edited by: Alexander Schouten
October 2019 | Hardback | 212 Pages | 9781786399427

Endophytes are bacterial and fungal microorganisms that colonize plants without usually eliciting visible disease symptoms but establishing intricate and mutually beneficial interactions with their host plant. This can lead to an increase in plant vigour, growth, development, and changes in plant metabolism. Endophytes may assist in the development of more productive and sustainable agricultural practices or discoveries of novel pharmacologicals. These elusive organisms are often overlooked and their benefits underrated. Endophytes can support plants in a variety of ways to cope with biotic and abiotic stress factors, such as drought, heat, pest and diseases. They can produce particular metabolites, facilitate access to nutrients, change the plant's chemistry, physiology and responses, or by a combination of these factors. The biosynthetic pathways present in endophytes alone or in combinations with the plant's, can lead to novel chemicals, with yet undiscovered pharmacological characteristics. With state-of-the-art knowledge on their discovery and roles, this book describes the diversity of endophytes, their value, exploitation and future challenges.

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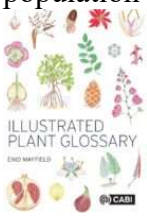
Plant Pathology and Plant Diseases
By: Anne Marte Tronsmo, David
B Collinge, Annika Djurle, Lisa Munk, Jonathan Yuen, Arne Tronsmo
October 2020 | Hardback | 464 Pages | 9781789243185

This textbook provides a comprehensive introduction to all aspects of plant diseases, including pathogens, plant-pathogen interactions, their management, and future perspectives. Plant diseases limit potential crop production and are responsible for considerable losses in agriculture, horticulture and forestry. Our global food production systems are under increasing pressure from global trade, climate change and urbanization. If we could alleviate the losses due to plant diseases, we would be able to produce roughly 20% more food - enough to feed the predicted world population in 2050.




Illustrated Plant Glossary
By: Enid Mayfield
September 2021 | Paperback | 332 Pages | 9781800620674

The Illustrated Plant Glossary is a comprehensive glossary of over 4000 terms related to plant sciences, featuring superb colour illustrations to aid comprehension of many of the plant terms.

The topics covered in this glossary include anatomy, angiosperms, bryophytes, chemistry, cytology, family specific terms, ferns and fern allies, flowers, fruit, genetics, gymnosperms, habit and growth, habitat and ecology, indumentum, inflorescence, leaves, reproduction, roots, seeds, systematics and more.

The Illustrated Plant Glossary sets a new standard in glossaries and is a must-have reference for plant scientists, plant science teachers and students, libraries, horticulturalists, ecologists, gardeners and naturalists.

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