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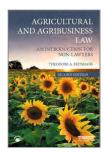
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## **Agricultural and Agribusiness Law**

An Introduction for Non-Lawyers



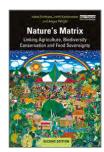
#### Theodore A. Feitshans

This introductory textbook provides an overview of the concepts necessary for an understanding of agricultural and agribusiness law. The text will help students of land-based industries with little or no legal background to appreciate and identify issues that may require referral or consultation with legal counsel. This new edition is full revised and updated, particularly addressing developments in taxation and trade, and includes a new chapter on criminal law, an area of increasing relevance to agriculture.

Routledge
March 2019:346
Hb: 978-1-138-60603-6: £130
Pb: 978-1-38-6-0610-4: £48.99
eBook: 978-0-429-46783-7
\* For full contents and more information, visit: www.routledge.com/9781138606104

#### **Nature's Matrix**

Linking Agriculture, Biodiversity Conservation and Food Sovereignty



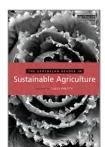
#### Ivette Perfecto, John Vandermeer, Angus Wright

When first published in 2009, Nature's Matrix set out a radical new approach to the conservation of biodiversity. This new edition pushes the frontier of the biodiversity/agriculture debate further, making an even stronger case for the need to transform agriculture and support small and medium-scale agroecology and food sovereignty. By integrating the ecological aspects of agriculture and conservation biology, with a political and social analysis as well as historical perspective, the book continues to set a progressive agenda and appeals to a wide range of students and professionals.

Routledge
June 2019:316
Hb: 978-0-367-13777-9: £130
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## The Earthscan Reader in Sustainable Agriculture



Edited by Jules Pretty

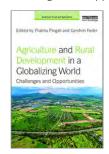
Series: Earthscan Reader Series

First Published in 2005. Routledge is an imprint of Taylor & Francis, an informa company.

Routledge August 2005:430 Hb: 978-1-844-07235-4: £110 Pb: 978-1-844-07236-1: £26.99 \* For **full contents** and more information, visit: **www.routledge.com/9781844072361** 

## Agriculture and Rural Development in a Globalizing World

Challenges and Opportunities



Edited by Prabhu Pingali, Gershon Feder

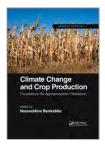
Series: Earthscan Food and Agriculture

Rapid structural transformation and urbanization are transforming agriculture and food production in rural areas across the world. This textbook provides a comprehensive review and assessment of the multi-faceted nature of agriculture and rural development, particularly in the developing world where the greatest challenges occur. It provides a "state of the art" review of the literature on each of the facets of the transformation process and a policy agenda for tackling key issues.

Routledge May 2017:404 Hb: 978-1-138-23181-8: **£130** Pb: 978-1-138-23182-5: **£52.99** eBook: 978-1-315-31405-1

#### **Climate Change and Crop Production**

Foundations for Agroecosystem Resilience



Edited by Noureddine Benkeblia

Presenting an overview of agroecology within the framework of climate change, this book looks at the impact of our changing climate on crop production and agroecosystems, reporting on how plants will cope with these changes, and how we can mitigate these negative impacts to ensure food production for the growing population. It explores the ways that farmers can confront the challenges of climate change, with contributed chapters from around the world demonstrating the different challenges associated with differing climates.

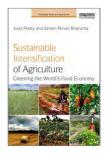
CRC Press February 2020:206 Hb: 978-1-138-03234-7: £160 Pb: 978-0-367-89592-1: £66.99 eBook: 978-1-315-39186-1



<sup>\*</sup> For full contents and more information, visit: www.routledge.com/9781138231825

## **Sustainable Intensification of Agriculture**

Greening the World's Food Economy



#### Jules Pretty, Zareen Pervez Bharucha

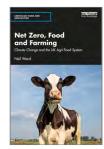
Series: Earthscan Food and Agriculture

Sustainable intensification (SI) has emerged in recent years as a powerful new conceptualisation of sustainable agriculture and has been widely adopted in policy circles and debates. It is defined as a process or system where yields are increased without adverse environmental impact and without the cultivation of more land. Cowritten by Jules Pretty, one of the pioneers of the concept and internationally known and respected authority on sustainable agriculture, this book sets out current thinking and debates around sustainable agriculture and intensification.

Routledge
June 2018:196
Hb: 978-1-138-19601-8: £130
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eBook: 978-1-138-63804-4
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## Net Zero, Food and Farming

Climate Change and the UK Agri-Food System



#### **Neil Ward**

Series: Earthscan Food and Agriculture

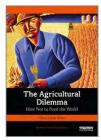
This book examines how the transition to net zero food and farming in the UK can be managed to avoid catastrophic climate change in the crucial decades ahead. Taking a historical approach, the book examines the evolution of agriculture and the food system in the UK over the last century and discusses the implications of tackling climate change for food, farming and land use, setting the UK situation in an international context. Written in a clear and accessible style, this book will be of essential reading to students and scholars of food, agriculture and the environment, as well as policymakers and professionals involved climate change policy and the agriculture and food industry.

Routledge August 2022:268 Hb: 978-1-032-24426-6: £130 Pb: 978-1-032-23519-6: £35.99 eBook: 978-1-003-27853-5

\* For full contents and more information, visit: www.routledge.com/9781032235196

## The Agricultural Dilemma

How Not to Feed the World



#### Glenn Davis Stone

Series: Earthscan Food and Agriculture

The Agricultural Dilemma questions everything we think we know about the current state of agriculture and how to, or perhaps more importantly how not to, feed a world with a growing population. This book is about the three fundamental forms of agriculture: Malthusian (expansion), industrialization (external-input-dependent) and intensification (labour-based).

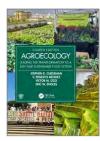
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Leading the Transformation to a Just and Sustainable Food System



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Series: Advances in Agroecology

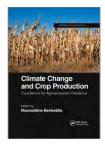
Groundbreaking in its first edition and established as the definitive text in its second and third, the fourth edition of Agroecology captures recent developments in the field and forcefully applies the idea that agroecology is a science, a movement, and a practice. The text provides the essential foundation for understanding Agroecology in all its components: agricultural, ecological, economic, social, cultural, and political. Streamlined treatment of Aagroecology's foundations in ecological science makes this edition even more compatible with typical course curricula.

CRC Press September 2022:470 Hb: 978-1-032-18710-5: **£82.99** eBook: 978-1-003-30404-3

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Foundations for Agroecosystem Resilience



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#### **Ecology of Fire-Dependent Ecosystems**

Wildland Fire Science, Policy, and Management



#### Devan Allen McGranahan, Carissa L. Wonkka

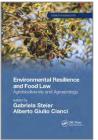
This textbook for upper-level courses in fire ecology and wildland fire management will help students design and conduct robust wildland fire research projects and critically interpret and apply fire science in any management, education, or policy situation. It emphasises variability in wildland fire as an ecological regime and provides tools for students, researchers and managers to assess and connect fire environment and fire behaviour to fire effects. It reviews literature, synthesises concepts, and identifies research gaps and policy needs. The book also demonstrates how fire policy can adapt to cultural and socio-ecological objectives.

CRC Press December 2020:266 Hb: 978-1-138-59717-4: **£205** Pb: 978-1-138-59715-0: **£68.99** 

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#### **Environmental Resilience and Food Law**

Agrobiodiversity and Agroecology



#### Edited by Gabriela Steier, Alberto Giulio Cianci

Agrobiodiversity and agroecology go hand-in-hand in promoting environmental resilience in international food systems, and climate change resilient food policy. This book contextualizes how various legal frameworks address agrobiodiversity and agroecology for audiences of students, practitioners, and scholars. Some chapters focus on the legal regulation of agroecology from a food law perspective. Others are geared toward providing regulators, lawmakers and attorneys with the scientific and policy background of those concepts, so that they are equipped to realize ideals and goals from the field of food law in everyday practice and policy.

CRC Press June 2022;208 Hb: 978-1-138-33606-3: £160 Pb: 978-1-032-33807-1: £44.99 eBook: 978-0-429-44335-0

eBook: 978-0-429-44335-0 \* For full contents and more information, visit: www.routledge.com/9781032338071

#### **Food System Transparency**

Law, Science and Policy of Food and Agriculture



#### Edited by Gabriela Steier, Adam Friedlander

Series: Advances in Agroecology

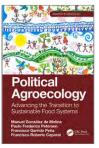
This book brings together an international group of agriculture and food lawyers and scientists to define the field of Food System Transparency. Investigating social, economic, political, scientific and legal frameworks, the book addresses topics such as food authenticity, agroecological evaluations, and consumer protection. Interwoven themes of transparency contextualize concepts of food safety, information sharing and regulatory opportunities at a local and global scale. Important reading for graduate-level students, legal scholars, non-legal academics, and advocates for food system transparency, resilience, agroecology and environmental conservation.

CRC Press June 2021:244 Hb: 978-0-367-77412-7: £145 Pb: 978-0-367-44036-7: £52.99 eBook: 978-1-003-00755-5

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#### **Political Agroecology**

Advancing the Transition to Sustainable Food Systems



#### Manuel González de Molina, Paulo Frederico Petersen, Francisco Garrido Peña, Francisco Roberto Caporal

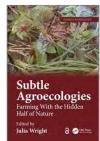
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Political Agroecology is the first book to offer a systematic and articulated reflection on Political Agroecology from the Agroecological perspective. It defines the disciplinary field responsible for designing and producing actions, institutions and regulations aimed at achieving agrarian sustainability. In short, it aims to build a political theory that makes the scaling-up of agroecological experiences possible, turning them into the foundation of a new and alternative food regime.

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## **Subtle Agroecologies**

Farming With the Hidden Half of Nature



Edited by Julia Wright

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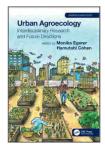
This book forges a new discipline in the form of Subtle Agroecologies, a nexus of indigenous epistemologies, multidisciplinary advances in wave-based and ethereal studies, and the science of sustainable agriculture. Bringing together authors from 12 countries and 5 continents, it introduces the discipline and explains its potential contribution to Agroecology. The book is grounded in applied phenomena, offering different facets by which to approach and explore this invisible dimension of agriculture. Subtle Agroecologies could herald a new wave of more sustainable farming techniques and changing our relationship with nature to one of collaboration rather than control.

CRC Press June 2021:384 Hb: 978-1-138-33981-1: **£170** eBook: 978-0-429-44093-9

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## **Urban Agroecology**

Interdisciplinary Research and Future Directions



Edited by Monika Egerer, Hamutahl Cohen

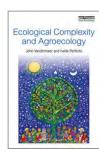
Series: Advances in Agroecology

Today, 20 percent of the global food supply relies on urban agriculture. This book shows how urban agroecologists measure flora and fauna that underpin the ecological dynamics of these socio-economic systems, and how people manage and benefit from these systems. By investigating the role of agroecology in cities, the book calls for the creation of spaces for food to be sustainably grown in urban spaces: an Urban Agriculture (UA) movement. Essential reading for graduate students, practitioners, policy makers and researchers, this book charts the course for accelerating this movement.

December 2020:384 Hb: 978-0-367-63664-7: **£205** Pb: 978-0-367-26001-9: **£82.99** 



## **Ecological Complexity and Agroecology**



#### John Vandermeer, Ivette Perfecto

This textbook reflects the immense growth in interest in agroecology and changing approaches to it. The new science of complexity has become extremely important in the modern science of ecology, but tends to be too mathematical and technical and thus off-putting for the average student. Therefore this book seeks to present ideas about ecological complexity with a minimum of formal mathematics, illustrated by examples from agroecology and agricultural systems from around the world.

Routledge November 2017:272 Hb: 978-1-138-23196-2:£145 Pb: 978-1-38-23197-9:£52.99 eBook: 978-1-315-31369-6 \* For **full contents** and more information, visit: www.routledge.com/9781138231979

## **Leaving Space for Nature**

The Critical Role of Area-Based Conservation



#### Nigel Dudley, Sue Stolton

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Assessing Implementation and Compliance



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Humans are causing a biodiversity crisis, where one million species are facing extinction. Species are dying, in no small part, because they are overexploited, poached and trafficked and CITES is the main international instrument designed to protect traded wildlife. Does the state of the world's species mean CITES is failing? This book explores the implementation of and compliance with CITES by all one hundred and eighty-three member countries examining both implementation and compliance. This timely book will be essential reading for students and academics interested in wildlife law, trade and trafficking, green criminology and biodiversity conservation more broadly.

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## Sustainable Governance of Wildlife and **Community-Based Natural Resource** Management

From Economic Principles to Practical Governance



Series: Earthscan Studies in Natural Resource Management

This book develops the Sustainable Governance Approach and the principles of Community-Based Natural Resource Management (CBNRM). It provides practical examples of successes and failures in implementation, and lessons about the economics and governance of wild resources with global application. Based on the author's extensive experience this book will be key reading for students of natural resource management, sustainable land use, community forestry, conservation and development.
Providing practical but theoretically robust tools for implementing CBNRM it will also appeal to professionals and practitioners working in communities and in conservation and development.

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## **School Farms**

Feeding and Educating Children



Edited by Alshimaa Aboelmakarem Farag, Samaa Badawi, Gurpinder Lalli, Maya Kamareddine

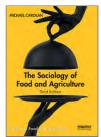
Series: Routledge Studies in Food, Society and the

Hunger is one of the most pressing concerns we face today and there is a clear need to provide alternative sources of food to feed a fast growing population. School farms offer a sustainable opportunity to produce food locally in order to feed underprivileged students who rely on school meals as an integral part of their daily diet. Approaching the concept of school farms through four themes, problem, people, process and place, the book shows how they can play an essential role in providing sustainable and healthy food for students, and the positive impact hands-on farming can have on students' mental and physical well-being.

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## The Sociology of Food and Agriculture



#### Michael Carolan

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Thoroughly revised and updated, the third edition of The Sociology of Food and Agriculture provides a cutting-edge, comprehensive introduction to the study of food and society. This title is perfect for students of food studies, including food justice, food and nutrition security, sustainable diets and food sovereignty, environmental sociology, agriculture and cultural studies.

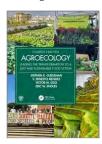
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Leading the Transformation to a Just and Sustainable Food System



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Series: Advances in Agroecology

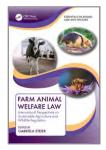
Groundbreaking in its first edition and established as the definitive text in its second and third, the fourth edition of Agroecology captures recent developments in the field and forcefully applies the idea that agroecology is a science, a movement, and a practice. The text provides the essential foundation for understanding Agroecology in all its components: agricultural, ecological, economic, social, cultural, and political. Streamlined treatment of Aagroecology's foundations in ecological science makes this edition even more compatible with typical course curricula.

CRC Press September 2022:470 Hb: 978-1-032-18710-5: **£82.99** eBook: 978-1-003-30404-3

\* For **full contents** and more information, visit: **www.routledge.com/9781032187105** 

#### **Farm Animal Welfare Law**

International Perspectives on Sustainable Agriculture and Wildlife Regulation



#### Edited by Gabriela Steier

Series: Essentials in Animal Law and Welfare

Introducing the various aspects of international farm animal protection and wildlife conservation through the lenses of food safety and environmental protection law, Farm Animal Welfare Law provides a primer for law school courses and masters' programs, for practitioners, advocates, and animal enthusiasts alike. Animal welfare and biodiversity conservation sit at the core of the selected chapters, each one providing real-world examples to make the complex field easy to understand. Current developments including food safety modernization, block chain, and COVID-19 considerations, are addressed head-on.

CRC Press August 2023:400 Hb: 978-0-367-68477-8: **£94.99** Pb: 978-0-367-68476-1: **£38.99** eBook: 978-1-003-13773-3

\* For full contents and more information, visit: www.routledge.com/9780367684761

#### 2ND EDITION

## **Science and Technology of Organic Farming**

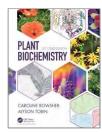


#### Allen V. Barker

Organic farming is not only a philosophy; it is also a well-researched science. The second edition of this highly regarded book presents the scientific basis of organic farming and the methods of application needed to achieve adequate yields through plant nutrition and protection. Organic farming is a scientifically derived method of improving soil fertility to increase agricultural yields with limited chemical inputs. As such, it can both meet public demand for reduced chemical inputs in agriculture and play a key role in feeding a growing world population. This book gives comprehensive details on how soil fertility can be maintained and how plants can be nourished in organic agriculture.

CRC Press April 2021:272 Hb: 978-0-367-54867-4: **£82.99** Pb: 978-0-367-56756-9: **£44.99** eBook: 978-1-003-09372-5

## **Plant Biochemistry**



#### Caroline Bowsher, Alyson Tobin

Plant Biochemistry focuses on the molecular and cellular aspects of each major metabolic pathway and sets these within the context of the whole plant. Using examples from biomedical, environmental, industrial and agricultural applications, it shows how a fundamental understanding of plant biochemistry can be used to address real-world issues. Plant Biochemistry is invaluable to undergraduate students who wish to gain insight into the relevance of plant metabolism in relation to current research questions and world challenges. It should also prove to be a suitable reference text for graduates and researchers who are new to the topic.

Garland Science
March 2021:490
Hb: 978-0-367-68535-5: £170
Pb: 978-0-815-34499-5: £66.99
eBook: 978-1-003-13798-6
\* For full contents and more information, visit: www.routledge.com/9780815344995



## Plants, People, and Culture

The Science of Ethnobotany



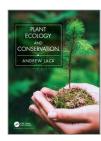
#### Michael J Balick, Paul Alan Cox

Botanical wisdom of indigenous peoples has led to discoveries of new pharmaceuticals, chemical compounds, and a myriad of other products. Using riveting stories of fieldwork in remote villages, two of the world's leading ethnobotanists argue that the very roots of human culture are deeply intertwined with plants. Designed for the college classroom as well as for the general lay reader, Plants, People, and Culture, Second Edition, entices the reader with first-hand stories of fieldwork, spectacular illustrations, and a deep respect for both indigenous peoples and the earth's natural heritage.

Garland Science September 2020:228 Hb: 978-0-367-50183-9: £105 Pb: 978-0-815-34590-9: £42.99 eBook: 978-1-030-04907-4

<sup>\*</sup> For full contents and more information, visit: www.routledge.com/9780815345909

## **Plant Ecology and Conservation**



#### **Andrew Lack**

This is an introduction to the world of plant ecology. It includes ideas about plant populations, nutrition and plant community ecology, and has an emphasis on the interactions of plants with animals, fungi and microorganisms. With the world's environmental problems having such a high profile, the book focuses on the human impact on the world's plant species. Conservation of the terrestrial world starts with plants as they form the basis of all ecosystems on land. We can understand how best to conserve the world's biodiversity with an understanding of the central role of plant ecology. This theme runs throughout with numerous examples of the disruption of ecosystems by human activity.

Garland Science
June 2022:328
Hb: 978-0-367-61223-8: £105
Pb: 978-0-815-34460-5: £44.99
eBook: 978-1-003-10471-1
\* For full contents and more information, visit: www.routledge.com/9780815344605



## **Plant Pathology**



#### Stephen Burchett, Sarah Burchett

Plant Pathology explores the topic of plant pathology and aligns classic studies and knowledge in the topic with the current state of research. The text is supported by schematic diagrams to reinforce difficult concepts such as the process of disease infection, cell-to-cell recognition, and plant breeding mechanisms used to develop resistant cultivars. The compendium of diseases focuses on important economic disease organisms from different crops and includes a dedicated section on fruit crops. The compendium is supported by original photos and micrographs of key pathogens, the development of pathogen structures, and the processes of cellular degradation.

Garland Science January 2018:244 Pb: 978-0-815-34483-4: **£51.99** eBook: 978-1-315-14492-4

\* For full contents and more information, visit: www.routledge.com/9780815344834

#### **3RD EDITION**

## Plant Pathology Concepts and Laboratory Exercises



#### Edited by Bonnie H. Ownley, Robert N. Trigiano

Continuing in the tradition of its predecessors, this new edition combines an informal, easy to read style with a thorough introduction to concepts and terminology of plant pathology. After reviewing fundamental concepts, the book discusses groups of plant pathogens and molecular tools for studying them, pathogen interactions, epidemiology and disease control, and special topics in plant pathology. The book details various disease-causing organisms, including viruses, fungi, prokaryotics, nematodes, and various biotic agents. It also examines various plant-pathogen interactions, molecular attack strategies, extracellular enzymes, host defenses, and disruption of plant function.

CRC Press October 2016:598 Hb: 978-1-138-40760-2: £180 Pb: 978-1-466-50081-5: £130 eBook: 978-1-315-38077-3

eBook: 978-1-315-38077-3
\*For full contents and more information, visit: www.routledge.com/9781466500815

## **Plant Propagation Concepts and Laboratory**



#### Edited by Caula A. Beyl, Robert N. Trigiano

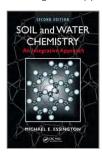
This new edition integrates modern approaches for studying plant molecular biology and biotechnology into the framework of traditional plant propagation. It emphasizes the principles of plant propagation applied in both temperate and tropical environments. In addition to presenting the essential fundamentals, the book features protocols and practices that students will be able to apply in laboratory and field experiences. This text helps readers choose the best methods for plant propagation including proper media and containers; describes techniques such as budding cutting layering grafting and cloning; and budding, cutting, layering, grafting, and cloning; and addresses various propagation challenges.

CRC Press CRC Press
September 2014:514
Pb: 978-1-466-50387-8: £110
eBook: 978-0-429-19618-8
\* For full contents and more information, visit: www.routledge.com/9781466503878



## **Soil and Water Chemistry**

An Integrative Approach, Second Edition



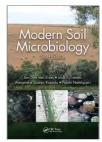
#### Michael E. Essington

The discipline of soil chemistry examines the chemical and mineralogical characteristics of the soil environment and the chemical processes that distribute matter between the soil solid, solution, and gaseous phases. This book provides a comprehensive treatment of the composition and chemical properties of soils and the processes that govern their fate in the environment. It covers a variety of topics including soil chemical environment, soil minerals, soil organic matter, cation exchange, oxidation-reduction, mineral weathering and solubility, surface chemistry and adsorption reaction, and acidity and salinity in soil materials. The book has been thoroughly revised and all chapters have

CRC Press
June 2021:666
Hb: 978-1-466-57315-4: £84.99
Pb: 978-1-032-09869-2: £44.99
eBook: 978-0-429-15796-7
\* For **full contents** and more information, visit: www.routledge.com/9781032098692

#### **3RD EDITION**

## Modern Soil Microbiology, Third Edition



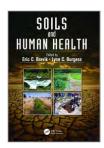
Edited by Jan Dirk van Elsas, Jack T. Trevors, Alexandre Soares Rosado, Paolo Nannipieri

Following the tradition of its predecessors, Modern Soil Microbiology, Third Edition, is an indispensable source that supports graduate/undergraduate teaching for soil and environmental microbiologists in academia, as well as in government and industrial laboratories.

CRC Press
June 2021:500
Hb: 978-1-498-76353-0: £69.99
Pb: 978-1-032-09304-8: £38.99
eBook: 978-0-429-05918-6
\* For **full contents** and more information, visit: www.routledge.com/9781032093048



## Soils and Human Health



#### Edited by Eric C. Brevik, Lynn C. Burgess

The first reference to focus on human health from a soils perspective, this book discusses human health as a product of soil health. Authors discuss how soils influence human health in a variety of ways, including the supply of nutrients, presence of toxic materials and pathogens, and other factors such as medicines and climate change. Chapters cover soil elements and human health, soil water, geophagy, organic pollutants in soil, medicinal uses of soils, pathogens in soil, radioactive elements/issues in soil, soil degradation, soilbased public health recommendations, heavy metals in soil, food security, and climate change.

CRC Press
November 2016:408
Hb: 978-1-439-84454-0: £170
Pb: 978-1-138-19931-6: £48.99
eBook: 978-0-429-06371-8
\* For **full contents** and more information, visit: www.routledge.com/9781138199316

## **Sustainable Landscaping**

Principles and Practices



#### Marietta Loehrlein

This second edition examines the underlying issues of landscaping adversely affecting the environment and illustrates alternative methods resulting in positive outcomes. The textbook examines all phases of landscaping in both residential and commercial landscaping, from design to construction and implementation to maintenance. The book explores topics including: choosing appropriate plants and using plants for effects such as shading; water quality and quantity; soil health and optimal preservation techniques; pesticide usage and its inherent dangers; energy consumption; and resource management and waste reduction. The book offers practical solutions applied by landscape professionals.

CRC Press October 2020:232

Hb: 978-0-367-25089-8: £82.99 eBook: 978-0-429-28597-4 \* For full contents and more information, visit: www.routledge.com/9780367250898



#### **3RD EDITION**

## **Urban Wildlife Management**

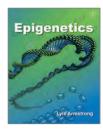


#### Clark E. Adams

This new edition provides an updated and expanded analysis of the issues that increase the need for urban wildlife management, exploring the changing dynamics of which management, exploining the changing dynamics of the field while giving historical perspectives and looking at current trends and future directions. It focuses on ecological matters as well as political, economic, and societal issues that must be addressed for successful management planning. It also features an entirely new section on urban wildlife species, covering urban communities, herpetofauna, birds, ungulates, mammals, carnivores, and feral and introduced species.

CRC Press
June 2021:618
Hb: 978-1-498-70201-0: £115
Pb: 978-1-032-09796-1: £44.99
eBook: 978-1-315-37186-3
\* For full contents and more information, visit: www.routledge.com/9781032097961

## **Epigenetics**



#### Lyle Armstrong

Epigenetics is a new textbook that brings together the structure and machinery of epigenetic modification, how epigenetic modification controls cellular functions, and the evidence for the relationship between epigenetics and disease. It is a valuable source of information about all aspects of the subject for undergraduate students, graduate students, and professionals.

Garland Science November 2013:320 Pb: 978-0-815-36511-2: £74.99 eBook: 978-0-429-25886-2

\* For **full contents** and more information, visit: **www.routledge.com/9780815365112** 

#### 2ND EDITION

#### **Gene Control**



#### **David Latchman**

The new edition of Gene Control has been updated to include significant advances in the roles of the epigenome and regulatory RNAs in gene regulation. The chapter structure remains the same: the first part consists of pairs of chapters that explain the mechanisms involved and how they regulate gene expression, and the second part deals with specific biological processes (including diseases) and how they are controlled by genes. Coverage of methodology has been strengthened by the inclusion more explanation and diagrams.

Garland Science February 2015:NA Pb: 978-0-815-34503-9: **£84.99** eBook: 978-1-317-40775-1

\* For full contents and more information, visit: www.routledge.com/9780815345039

#### **Statistical Genetics**

Gene Mapping Through Linkage and Association



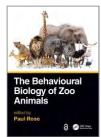
## Edited by Benjamin Neale, Manuel Ferreira, Sarah Medland, Danielle Posthuma

This advanced textbook focuses on conducting genetic linkage and association analysis in the post-genomic era. Covering established and new methodologies, it provides both a genetic and statistical theory base. Worked examples of important methods are given, as well as study design and sources of error. Selected Contents: 1. Introduction 2. Human Genome & Gene Mapping 3. Biometrical Genetics & Likelihood 4. Introduction to Statistics, Mixture Distributions & Incomplete Chi-Square 5. Study Design & Data Properties 6. Population Genetics 7. Principles of Linkage Analysis 8. IBD Estimation 9. Regression Methods for Linkage Analysis 10. Univariate Variance Components Linkage Analysis 11. Extensions to Univariate Linkage Analysis 12. Multivariate Variance Components Linkage Analysis 13. Factors Affecting Type-I Error & Power of Linkage Analysis 14. Introduction to Association Analysis 15. Single-Locus Association Models 16. Haplotype Estimation

Taylor & Francis December 2007:606 Pb: 978-0-415-41040-3: £84.99 eBook: 978-0-203-96720-1



## The Behavioural Biology of Zoo Animals



Edited by Paul Rose

This is the first book on captive animal behaviour and how this applies to welfare. The book enables all aspects of zoo husbandry and management (nutrition, enclosure design, handling and training, enrichment, population management) to be based on a sound knowledge of the species, its evolutionary and natural history. Chapters from expert authors cover a vast range of taxa, from primates and elephants to marine mammals and freshwater fish, to reptiles, birds and invertebrates. It explains how evidence from the wild can be implemented into captive care to support the wider aims of the zoo (conservation, education, research and recreation).

CRC Press
November 2022:367
Hb: 978-1-032-07719-2:£140
Pb: 978-1-032-07716-1:£54.99
eBook: 978-1-003-20847-1
\* For full contents and more information, visit: www.routledge.com/9781032077161

#### **Bioinformatics**

Genes, Proteins and Computers



## Edited by Christine Orengo, David Jones, Janet Thornton

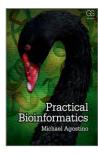
Series: Advanced Texts

Bioinformatics, the use of computers to address biological questions, has become an essential tool in biological research

Taylor & Francis November 2002:320 Pb: 978-1-859-96054-7: £59.99

\* For full contents and more information, visit: www.routledge.com/9781859960547

#### **Practical Bioinformatics**



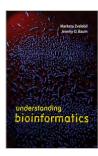
#### Michael Agostino

This is a first text on learning how to perform bioinformatics sequence analysis. Basic sequence analysis should be part of everyone's skill set if they are doing any form of study in a biological or medical field. Written specifically for courses that have a practical, hands-on element and contains many exercises to do as you go through the book. Concepts will be introduced and then, using biological examples, sequence analysis problems will be shown and solved. Followed by exercises for the students to attempt. No installation of software, no programming skills or support from IT is required for the exercises, just connection to the web. Instructor Online resources: JPEGS and Powerpoints Solutions to the questions posed in the book.

Garland Science September 2012:392 Pb: 978-0-815-34456-8: £51.99 eBook: 978-0-429-25826-8

\* For full contents and more information, visit: www.routledge.com/9780815344568

## **Understanding Bioinformatics**



#### Marketa Zvelebil, Jeremy O. Baum

'Congratulations on a fine book! I do not think I have seen such a comprehensive text on bioinformatics algorithms and techniques before.' - Jaap Heringa, Vrije Universiteit, the Netherlands Suitable for advanced undergraduates and postgraduates, Understanding Bioinformatics provides a definitive guide to this vibrant and evolving discipline. This book takes a conceptual approach and guides the reader from first principles through to an understanding of the computational techniques and the key algorithms. Understanding Bioinformatics is an invaluable companion for students from their first encounter with the subject through to more advanced studies. Selected Contents: Section 1: Background Basics Section 2: Sequence Alignments Section 3: Evolutionary Processes Section 4: Genome Characteristics Section 5: Secondary Structures&nb

Garland Science September 2007:800 Pb: 978-0-815-34024-9: **£82.99** eBook: 978-0-203-85250-7



## **Basic Laboratory Calculations for Biotechnology**



#### Lisa A. Seidman

To succeed in the lab, it is crucial to be comfortable with the math calculations that are part of everyday work. This accessible introduction to common laboratory techniques focuses on the basics, helping even readers with good math skills to practice the most frequently encountered types of problems. Discusses very common laboratory problems, all applied to real situations. Explores multiple strategies for solving problems for a better understanding of the underlying math. Includes hundreds of practice problems, all with solutions and many with boxed, complete explanations; plus hundreds of "story problems" relating to real situations in the lab.

CRC Press December 2021:578 Hb: 978-0-367-24485-9: £130 Pb: 978-0-367-24480-4: £66.99

eBook: 978-0-429-28274-4
\* For full contents and more information, visit: www.routledge.com/9780367244804

#### **3RD EDITION**

## **Basic Laboratory Methods for Biotechnology**

Textbook and Laboratory Reference

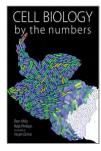


#### Lisa A. Seidman, Cynthia J. Moore, Jeanette Mowery

This versatile textbook provides students with a solid foundation to pursue employment in the biotech industry and can later serve as a practical reference to ensure success at each stage in their career. The authors focus on basic principles and methods while skillfully including recent innovations and industry trends throughout. Fundamental laboratory skills are emphasized, and boxed content provides step by step laboratory method instructions for ease of reference at any point in the students' progress. Worked through examples and practice problems and solutions assist student comprehension.

CRC Press January 2022:1210 Hb: 978-0-367-24490-3: £205 Pb: 978-0-367-24488-0: £82.99 eBook: 978-0-429-28279-9

## **Cell Biology by the Numbers**



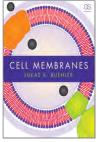
#### Ron Milo, Rob Phillips

A full color book written as a pocket guide and handy reference for advanced students and practitioners in molecular and cell biology, chemistry, and biophysics. It is based on the BioNumbers website, a peer-reviewed open-source database of numbers, created and curated by author Ron Milo. Well-illustrated and approximately 350 pages long, the book explores some of the key numbers for cell biology, focusing on quantities that help us to think about the sizes, concentrations, rates, energies, information content, and other numbers that describe the living world.

Garland Science December 2015:400 Pb: 978-0-815-34537-4: £42.99 eBook: 978-0-429-25877-0

\* For full contents and more information, visit: www.routledge.com/9780815345374

#### **Cell Membranes**



#### Lukas Buehler

Cell Membranes provides a concise introduction to the structure and function of biological membranes. The book begins by explaining the composition and dynamics of cell membranes—discussing the diversity, structure, and distribution of lipids and membrane proteins and their effect on the shape and transformation of membranes. The text then explores the role of the membrane in transport, signaling, and metabolism. Cell Membranes is a valuable resource for advanced undergraduate students, graduate students, and professionals.

Garland Science June 2015:400 Pb: 978-0-815-34196-3: **£69.99** eBook: 978-0-429-25867-1

\* For **full contents** and more information, visit: **www.routledge.com/9780815341963** 

#### 2ND EDITION

## **Physical Biology of the Cell**



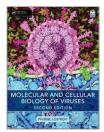
#### Rob Phillips, Jané Kondev, Julie Theriot, Hernan Garcia

Physical Biology of the Cell is a textbook for a first course in physical biology or biophysics for undergraduate or graduate students. It maps the huge and complex landscape of cell and molecular biology from the distinct perspective of physical biology. As a key organizing principle, the proximity of topics is based on the physical concepts that unite a given set of biological phenomena. The Second Edition features full-color illustrations throughout, two new chapters, a significantly expanded set of end-of-chapter problems, and is available in a variety of e-book formats.

Garland Science October 2012:1088 Pb: 978-0-815-34450-6: **£89.99** eBook: 978-0-429-16883-3



## **Molecular and Cellular Biology of Viruses**



#### Phoebe Lostroh

This fully revised second edition of Molecular and Cellular Biology of Viruses leads students on an exploration of viruses by supporting interactive learning. All the major classes of by supporting interactive tearning. An trie major classes of viruses are covered, with separate chapters for their replication and expression strategies. Examples come from the most-studied and medically important viruses such as SARS-CoV-2, HIV, and influenza. New to this second edition, a supplementary chapter, freely available for download, looks at how virology intersects with public health, and uses the COVID-19 pandemic as a notable example.

CRC Press
March 2024:550
Hb: 978-1-032-73210-7: £160
Pb: 978-1-032-73212-1: £64.99
eBook: 978-1-003-46311-5
\* For full contents and more information, visit: www.routledge.com/9781032732121

## Cell Signaling, 2nd edition

Principles and Mechanisms



#### Wendell Lim, Bruce J. Mayer

Extensively updated, this 2nd edition of Cell Signaling provides undergrads and graduates with the conceptual tools needed to make sense of the array of pathways that cells use to detect, process, and respond to signals from the environment. By emphasizing the common design principles and molecular processes that underlie all signaling mechanisms, the book develops a broad conceptual framework through which students can understand diverse signaling pathways. It first examines the common currencies of cellular information processing and the core components of the signaling machinery and then shows how these components link together into networks.

CRC Press October 2024:446 Hb: 978-0-367-27942-4: £210 Pb: 978-0-367-27937-0: £84.99

\* For full contents and more information, visit: www.routledge.com/9780367279370

#### 2ND EDITION

## **Cellular Signal Processing**

An Introduction to the Molecular Mechanisms of Signal Transduction



#### Friedrich Marks, Ursula Klingmüller, Karin Müller-Decker

This book offers a unifying view of cell signaling based on the concept that protein interactions act as sophisticated data processing networks that govern intracellular and extracellular communication. It is intended for use in signal transduction courses for undergraduate and graduate students working in biology, biochemistry, bioinformatics, and pharmacology, as well as medical students. The text is organized by three key topics central to signal transduction: the protein network, its energy supply, and its evolution. The new edition includes expanded coverage of prokaryotes, as well as new developments in systems biology, epigenetics, redox signaling, and small, non-coding RNA signaling.

Garland Science May 2017:656 Pb: 978-0-815-34534-3: **£66.99** eBook: 978-1-315-16547-9

\* For full contents and more information, visit: www.routledge.com/9780815345343

## **Systems Biology of Cell Signaling**

Recurring Themes and Quantitative Models



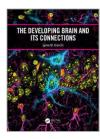
#### James Ferrell

This textbook aims to provide advanced students with the tools and insights needed to carry out studies of signal transduction drawing upon modeling, theory and experimentation. It seeks to provide quantitatively inclined biologists and biologically inclined physicists with the tools needed to apply modeling/theory to biological processes. All chapters consistently use approaches and concepts from chemical kinetics and non-linear dynamics, including rate-balance analysis, phase plane analysis, nullclines, linear stability analysis, stable nodes, saddles, unstable nodes, stable and unstable spirals, and bifurcations

Garland Science September 2021:284 Hb: 978-0-367-64383-6: £190 Pb: 978-0-815-34603-6: £74.99



# The Developing Brain and its Connections



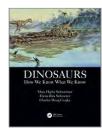
## Lynne M. Bianchi

This text tells of the extraordinary processes of neural development by showing how the scientific discoveries were made and how the hypotheses evolved over time. Each chapter explores the specific mechanisms of development while highlighting the key experiments and methods used to make those discoveries—including descriptions of both invertebrate and vertebrate animal models. Discussions of neurodevelopmental disorders and therapeutic approaches to them will captivate those interested in the more clinical aspects of the field. With its clear illustrations and easy-to-follow writing style, it presents an accessible approach to neural development for undergraduate students.

CRC Press
December 2022:378
Hb: 978-0-367-76243-8: £190
Pb: 978-0-367-74990-3: £74.99
eBook: 978-1-003-16607-8
\* For full contents and more information, visit: www.routledge.com/9780367749903

## **Dinosaurs**

How We Know What We Know



Mary Higby Schweitzer, Mary Higby Schweitzer, Elena Rita Schroeter, Elena Rita Schroeter, Charles Doug Czajka, Charles Doug Czajka

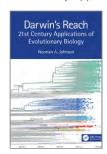
This textbook introduces research on dinosaurs by describing the science behind how we know what we know about dinosaurs. A wide range of topics is covered, from fossils and taphonomy to dinosaur physiology, evolution, and extinction. In addition, sedimentology, paleo-tectonics, and non-dinosaurian Mesozoic life are discussed. There is a special opportunity to capitalize on the enthusiasm for dinosaurs that students bring to classrooms to foster a deeper engagement in all sciences. Students are encouraged to synthesize information, employ critical thinking, construct hypotheses, devise methods to test these hypotheses, and come to new defensible conclusions, just as paleontologists do.

CRC Press November 2020:562 November 2/2/2/562 Hb: 978-1-138-60816-0: **£200** Pb: 978-0-367-56381-3: **£82.99** eBook: 978-0-429-46671-7 \* For **full contents** and more information, visit: **www.routledge.com/9780367563813** 



## **Darwin's Reach**

21st Century Applications of Evolutionary Biology



#### Norman A. Johnson

This book is about applied evolution – the application of the principles of and information about evolutionary biology to diverse practical matters. It is divided into five sections: Law, Health, Food, Environment, and Society. Although applied evolution has existed for a long time, today's evolutionary medicine has formed into its own discipline with its own various institutes, centers, and journals. Evolutionary approaches have long been employed in agriculture and in conservation biology. But Darwin's reach now extends into forensic biology and the law, foreign affairs and national security. Applied evolution is both interdisciplinary and multidisciplinary.

CRC Press December 2021:430 Hb: 978-1-138-58742-7: £115 Pb: 978-1-138-58739-7: £44.99 eBook: 978-0-429-50396-2

\* For full contents and more information, visit: www.routledge.com/9781138587397

## **Evolution**

The Origins and Mechanisms of Diversity



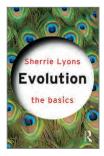
#### Jonathan Bard

This textbook covers both this history and the mechanisms of speciation; it also aims to provide students with the background needed to read the research literature on evolution. Students will therefore learn about cladistics, molecular phylogenies, the molecular-genetical basis of evolutionary change including the important role of protein networks, symbionts and holobionts, together with the core principles of developmental biology. The book also includes introductory appendices that provide background knowledge on, for example, the diversity of life today, fossils, the geology of Earth and the history of evolutionary thought.

CRC Press December 2021:536 Hb: 978-1-032-13848-0: £170 Pb: 978-0-367-35701-6: £66.99 eBook: 978-0-429-34621-7

For full contents and more information, visit: www.routledge.com/9780367357016

## **Evolution: The Basics**



#### **Sherrie Lyons**

Series: The Basics

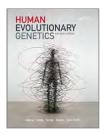
An engaging introduction to the history, development and science of the theory of evolution. Beginning pre-Darwin and concluding with the latest research and controversies, readers are introduced to the origins of the idea of evolution, the ways in which it has developed and been adapted over time and the science underpinning it all. Topics addressed include: Early theories of evolution, the impact of Darwin's On the Origin of Species, the discovery of genetics and Mendel's experiments, molecular evolution and the discovery of DNA and Revisiting evolutionary ethics and the development of empathy.

Routledge June 2011:208 Hb: 978-0-415-59225-3: £94.99 Pb: 978-0-415-59226-0: £19.99 eBook: 978-0-203-80806-1

\* For full contents and more information, visit: www.routledge.com/9780415592260

#### 2ND EDITION

# **Human Evolutionary Genetics**



# Mark Jobling, Edward Hollox, Toomas Kivisild, Chris Tyler-Smith

Now in full color, this new edition of Human Evolutionary Genetics has been brought up-to-date with the many advances and discoveries made since the publication of the highly regarded first edition. The focus of the book is human genetic diversity: the mechanisms that generate it, how we study it, its implications in evolution, and its implications today. It will be an invaluable resource for anyone studying human evolution, genetic variation, population genetics, and biological anthropology.

Garland Science June 2013:650 Pb: 978-0-815-34148-2: **£82.99** eBook: 978-0-429-15629-8

\* For full contents and more information, visit: www.routledge.com/9780815341482

## 2ND EDITION

# **Integrated Molecular Evolution**



#### **Scott Orland Rogers**

Reflecting the large and growing pedagogical landscape in the field, this new edition contains nearly double the number of chapters of its predecessor, making it approximately twice the length while incorporating new topics. Fully updated, it remains the only book that combines and integrates an extensive set of subjects in genetics and evolution in a manner that is readily understood by students at either the graduate or undergraduate level. It provides the basic foundations of molecular evolution, including the structure and function of macromolecules such as DNA, RNA, and proteins.

CRC Press December 2019:594 Hb: 978-1-482-23089-5: £115 Pb: 978-0-367-86952-6: £56.99 eBook: 978-1-315-37329-4

For full contents and more information, visit: www.routledge.com/9780367869526

# **Species Problems and Beyond**

Contemporary Issues in Philosophy and Practice



Edited by John S. Wilkins, Frank E. Zachos, Igor Ya. Pavlinov

Series: Species and Systematics

The chapters in this book present opposing views on the current philosophical and conceptual issues of the Species Problem in biology. Divided into four sections Theories and Concepts, Practice and Methods, Ranks, Trees and Names, and Metaphysics and Epistemologies, the book is authored by biologists, philosophers, historians, many leaders in their fields. Topics include ontology of species, definitions of both species category and units, species rank, speciation issues, nomenclature, and ecology, and species conservation.

CRC Press June 2022:382 Hb: 978-0-367-42537-1: £170 Pb: 978-1-032-22147-2: £48.99 eBook: 978-0-367-85560-4

# **Vertebrate Evolution**

From Origins to Dinosaurs and Beyond



## Donald R. Prothero

The first vertebrate animals appear in the fossil record over 520 million years ago. These lineages diversified and eventually crept ashore leading to further evolutionary divergence and the appearance of the familiar charismatic vertebrates of today.

CRC Press April 2022:464 Hb: 978-0-367-65176-3: £140 Pb: 978-0-367-47316-7: £56.99 eBook: 978-1-003-12820-5 \* For full contents and more information, visit: www.routledge.com/9780367473167

# **Vertebrate Evolution**

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CRC Press
April 2022:464
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eBook: 978-1-003-12820-5
\* For full contents and more information, visit: www.routledge.com/9780367473167



# **Biology Trending**

A Contemporary Issues Approach

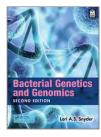


## Eli Minkoff, Jennifer K. Hood-DeGrenier

Biology Trending is a truly innovative introductory biology text. Designed to combine the teaching of biological concepts within the context of current societal issues, Biology Trending encourages introductory biology students to think critically about the role that science plays in their world. To support teaching and learning, the book is accompanied by a range of digital Instructor and Student Resources, such as questions for self-testing, visual simulations to demonstrate key processes, and for instructors, time-saving resources such as PowerPoint slides and a comprehensive lesson plan.

CRC Press
July 2023:818
Hb: 978-1-032-48858-5: £190
Pb: 978-1-032-48804-2: £74.99
eBook: 978-1-003-39115-9
\* For full contents and more information, visit: www.routledge.com/9781032488042

#### **Bacterial Genetics and Genomics**



#### Lori Snyder, Lori A.S. Snyder

Understanding of bacterial genetics has progressed as genomics has advanced. Genetics and genomics complement each other; they're inseparable. Under novel insights from genetics and genomics, once-believed borders in biology start to fade: knowledge of the bacterial world is being viewed under a new light and concepts are being redefined. This second edition of Bacterial Genetics and Genomics has been updated to reflect advances made over the past five years. This includes descriptions for 10 types of secretion systems, bacteria that can be seen with the naked eye, and differences between coupled transcription-translation and uncoupled runaway transcription in bacteria.

Garland Science April 2024:444 Hb: 978-1-032-46178-6: £125 Pb: 978-1-032-46177-9: £48.99

\* For full contents and more information, visit: www.routledge.com/9781032461779

# **DNA Repair and Replication**

Mechanisms and Clinical Significance



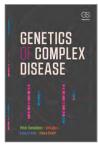
Edited by Roger J. A. Grand, John J. Reynolds

DNA Repair and Replication brings together contributions from active researchers. The first part of this book covers most aspects of the DNA damage response, emphasizing the relationship to replication stress. The second part concentrates on the relevance of this to human disease, with particular focus on both the causes and treatments which make use of DNA Damage Repair (DDR) pathways.

Garland Science September 2018:364 Hb: 978-1-138-61291-4: £115 Pb: 978-0-815-34599-2: £77.99 e8pok: 978-0-479-46474-4

\* For full contents and more information, visit: www.routledge.com/9780815345992

# **Genetics of Complex Disease**



## Peter Donaldson, Ann Daly, Luca Ermini, Debra Bevitt

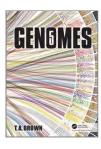
Genetics of Complex Disease is a concise text for final year undergraduate and first year graduate students. Healthcare professionals and other biomedical scientists trying to come to grips with the impact of new genetics research will also find the book useful. After explaining genetic variation and defining complex diseases, the text shows how and why complex diseases are investigated. The focus then changes to areas where there is strong evidence for the genes/alleles involved. Important ethical consequences are also covered, as are the methods used to generate new genetic data.

Garland Science August 2015:428 Pb: 978-0-815-34491-9: **£84.99** eBook: 978-0-429-25868-8

\* For full contents and more information, visit: www.routledge.com/9780815344919

#### **5TH FDITION**

## **Genomes 5**



#### Terry A. Brown

Genomes 5 has been rigorously updated. It is a thoroughly modern textbook about genomes and how they are investigated. As with previous editions, techniques come first, then genome anatomies, followed by genome function, and finally genome evolution. The genomes of all types of organism are covered: viruses, bacteria, fungi, plants, and animals including humans. Genome sequencing and assembly methods have been thoroughly revised including a survey of four genome projects: human, Neanderthal, giant panda, and barley to include new developments in longread DNA sequencing. This is the ideal text for upper-level courses focused on genomes and genomics.

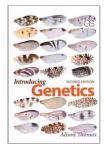
CRC Press April 2023:548 Hb: 978-0-367-67866-1: £150 Pb: 978-0-367-67407-6: £64.99 eBook: 978-1-003-13316-2

\* For **full contents** and more information, visit: **www.routledge.com/9780367674076** 

#### 2ND EDITION

# **Introducing Genetics**

From Mendel to Molecules



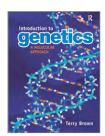
#### **Alison Thomas**

Like its predecessor, the new edition of Introducing Genetics is an accessible introduction to genetics from first principles to recent developments. It covers the three key areas of genetics: Mendelian, molecular and population and will be easily understood by first and foundation year students in the biological sciences.

Garland Science December 2014:272 Pb: 978-0-815-34509-1: **£46.99** eBook: 978-0-429-25883-1

\* For full contents and more information, visit: www.routledge.com/9780815345091

# Introduction to Genetics: A Molecular Approach



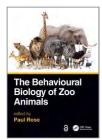
#### T A Brown

Introduction to Genetics: A Molecular Approach is a new textbook for first and second year undergraduates. It first presents molecular structures and mechanisms before introducing the more challenging concepts and terminology associated with transmission genetics.

Garland Science August 2011:552 Pb: 978-0-815-36509-9: £84.99 eBook: 978-0-429-08880-3



# The Behavioural Biology of Zoo Animals

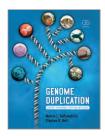


Edited by Paul Rose

This is the first book on captive animal behaviour and how this applies to welfare. The book enables all aspects of zoo husbandry and management (nutrition, enclosure design, handling and training, enrichment, population management) to be based on a sound knowledge of the species, its evolutionary and natural history. Chapters from expert authors cover a vast range of taxa, from primates and elephants to marine mammals and freshwater fish, to reptiles, birds and invertebrates. It explains how evidence from the wild can be implemented into captive care to support the wider aims of the zoo (conservation, education, research and recreation).

CRC Press
November 2022:367
Hb: 978-1-032-07719-2:£140
Pb: 978-1-032-07716-1:£54.99
eBook: 978-1-003-20847-1
\* For full contents and more information, visit: www.routledge.com/9781032077161

# **Genome Duplication**



## Melvin DePamphilis, Stephen Bell

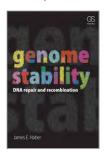
This comprehensive and readable overview provides an excellent starting point for undergraduate and graduate students. Using model organisms from the three domains of life (Bacteria, Archaea, and Eukarya), Genome Duplication describes the principal molecular mechanisms of DNA replication and shows how the process is linked to cell division. This approach allows the authors to shed insight into how genome duplication has evolved, and how its regulation is relevant to the understanding and treatment of human disease, especially cancer.

Garland Science October 2010:476 Pb: 978-0-415-44206-0: **£82.99** eBook: 978-0-203-81873-2

\* For full contents and more information, visit: www.routledge.com/9780415442060

# **Genome Stability**

DNA Repair and Recombination



#### James Haber

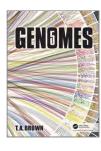
Genome Stability: DNA Repair and Recombination describes the various mechanisms of repairing DNA damage by recombination, most notably the repair of chromosomal breaks. The text presents a definitive history of the evolution of molecular models of DNA repair, emphasizing current research. The book introduces the central players in recombination. An overview of the four major pathways of homologous recombinational repair is followed by a description of the several mechanisms of nonhomologous end-joining. Designed as a textbook for advanced undergraduate and graduate students with a molecular biology and genetics background, researchers and practitioners, especially in cancer biology, will also appreciate the book as a reference.

Garland Science December 2013:NA Pb: 978-0-815-34485-8: **£82.99** eBook: 978-0-429-25887-9

\* For full contents and more information, visit: www.routledge.com/9780815344858

#### **5TH EDITION**

# **Genomes 5**



## Terry A. Brown

Genomes 5 has been rigorously updated. It is a thoroughly modern textbook about genomes and how they are investigated. As with previous editions, techniques come first, then genome anatomies, followed by genome function, and finally genome evolution. The genomes of all types of organism are covered: viruses, bacteria, fungi, plants, and animals including humans. Genome sequencing and assembly methods have been thoroughly revised including a survey of four genome projects: human, Neanderthal, giant panda, and barley to include new developments in long-read DNA sequencing. This is the ideal text for upper-level courses focused on genomes and genomics.

CRC Press April 2023:548 Hb: 978-0-367-67866-1: £150 Pb: 978-0-367-67407-6: £64.99 eBook: 978-1-003-13316-2

\* For full contents and more information, visit: www.routledge.com/9780367674076

#### 2ND EDITION

# **Phylogenomics**

A Primer



#### Rob DeSalle, Michael Tessler, Jeffrey Rosenfeld

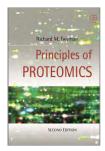
Phylogenomics: A Primer, Second Edition is for advanced undergraduate and graduate biology students studying molecular biology, comparative biology, evolution, genomics, and biodiversity. This book explains the essential concepts underlying the storage and manipulation of genomics level data, construction of phylogenetic trees, population genetics, natural selection, the tree of life, DNA barcoding, and metagenomics. The inclusion of problem-solving exercises in each chapter provides students with a solid grasp of the important molecular and evolutionary questions facing modern biologists as well as the tools needed to answer them.

CRC Press August 2020:400 Hb: 978-0-367-02852-7: **£205** Pb: 978-0-367-02849-7: **£82.99** eBook: 978-0-429-39754-7

eBook: 978-0-429-39754-7 \* For **full contents** and more information, visit: **www.routledge.com/9780367028497** 

# 2ND EDITION

# **Principles of Proteomics**



#### **Richard Twyman**

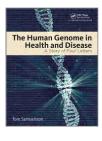
Principles of Proteomics, Second Edition, provides a concise and user-friendly introduction to the diverse technologies used for the large-scale analysis of proteins, as well as their applications, and their impact in areas such as drug discovery, agriculture, and the fight against disease.

Garland Science September 2013:288 Pb: 978-0-815-34472-8: **£74.99** eBook: 978-0-429-25852-7

\* For full contents and more information, visit: www.routledge.com/9780815344728

# The Human Genome in Health and Disease

A Story of Four Letters



#### **Tore Samuelsson**

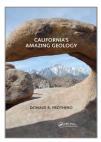
The Human Genome in Health and Disease examines the human genome, a linear sequence of roughly 3 billion bases. The intimate link between this information and biological function is systematically explored and is illustrated with inherited disorders and cancer. A range of sequence-based functional units of the human genome are thereby covered. The book is motivated by the wealth of human sequence data currently accumulating and aids in understanding this information. It also discusses significant medical applications of human genome sequencing and genetic variation, such as the identification of causative variants in rare genetic disorders and a variety of current methods in gene therapy.

Garland Science February 2019:297 Hb: 978-0-367-07633-7: £130 Pb: 978-0-815-34591-6: £46.99 eBook: 978-0-429-02173-2

 $\hbox{* For full contents} \ \ \text{and more information, visit:} \ \ \textbf{www.routledge.com/9780815345916}$ 



# **California's Amazing Geology**

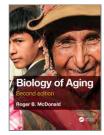


#### Donald R. Prothero

This up-to-date textbook, suitable for the college market, is devoted to the complex geology of California, including the recently discovered tectonic history of California. The book provides a historical overview of the state and contains enough coverage of rocks and minerals and plate tectonics so that students and other readers can make sense of the bizarre rocks and minerals and the wild and crazy tectonics of California's geological history. The book is heavily illustrated with color maps, diagrams, and photographs.

CRC Press
December 2019:496
Hb: 978-1-498-70791-6: £84.99
Pb: 978-0-367-87200-7: £48.99
eBook: 978-1-315-37149-8
\* For full contents and more information, visit: www.routledge.com/9780367872007

# **Biology of Aging**



## Roger B. McDonald

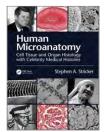
Biology of Aging, Second Edition revises and updated the original text to reflect the new approach to aging research that has had a significant impact on how disciplines such as gerontology and geriatrics view the aging process. The rate of aging and the incidence of disease are now considered highly modifiable, especially as biogerontologists and geriatricians are now accepting that time-related functional loss and disease are more closely related to environmental factors than to an intrinsic process. This book discusses the science behind the discovery that the rate of aging can be slowed and that many diseases can be prevented.

Garland Science
June 2019:456
Hb: 978-0-367-14160-8: £150
Pb: 978-0-815-34567-1: £56,99
eBook: 978-0-429-03064-2
\* For full contents and more information, visit: www.routledge.com/9780815345671



# **Human Microanatomy**

Cell Tissue and Organ Histology with Celebrity Medical Histories



# Stephen A. Stricker

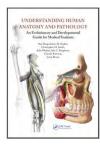
Human Microanatomy is a comprehensive histology text that analyzes human structure and function from the subcellular to organ level of organization. In addition to emphasizing medically relevant information, each chapter considers developmental and evolutionary aspects of microanatomy while also using celebrity medical histories to help provide context for accompanying descriptions of normal histology. Each chapter also includes a preview, pictorial summary, and self-study quiz to help elucidate important concepts.

CRC Press February 2022:538 Hb: 978-0-367-77184-3: **£205** Pb: 978-0-367-36457-1: **£82.99** eBook: 978-0-429-35330-7

\* For full contents and more information, visit: www.routledge.com/9780367364571

# **Understanding Human Anatomy and Pathology**

An Evolutionary and Developmental Guide for Medical Students



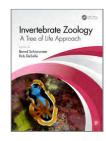
Rui Diogo, Drew M. Noden, Christopher M. Smith, Julia Molnar, Julia C. Boughner, Claudia Alexandra Amorim Barrocas, Joana Araujo Bruno

This book provides medical students with a much easier and more comprehensive way to learn and understand human gross anatomy by combining state-of-the-art knowledge about human anatomy, evolution, development, and pathology in one book. The book combines this information in a way that reduces the difficulty and total time spent learning gross anatomy by making learning more logical and systematic. It also synthesizes data that would normally be available for students only by consulting several books at a time. Anatomical illustrations are easy to understand without overwhelming students with visual information.

CRC Press June 2016:348 Hb: 978-1-138-40258-4: £180 Pb: 978-1-498-75384-5: £59.99 eBook: 978-1-315-38044-5

# **Invertebrate Zoology**

A Tree of Life Approach



## Bernd Schierwater, Rob DeSalle

Invertebrate Zoology: A Tree of Life Approach is a comprehensive textbook adopting an explicitly phylogenetic organization. With the explosion of Next Generation Sequencing approaches, there has been a seachange in the recognized phylogenetic relationships among and between invertebrate lineages. In addition, the merger for additionary and development biology (so the part of the lineages) and the second of the lineages. 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 a unique perspective of invertebrate discretic. diversity.

CRC Press
June 2021:644
Hb: 978-1-482-23581-4: £105
Pb: 978-0-367-68567-6: £43.99
eBook: 978-0-429-15905-3
\* For full contents and more information, visit: www.routledge.com/9780367685676



# 4TH EDITION

# Fermentation Microbiology and Biotechnology, **Fourth Edition**



#### Edited by E. M. T. El-Mansi, Jens Nielsen, David Mousdale, Ross P. Carlson

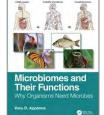
Fermentation Microbiology and Biotechnology, Fourth Edition explores and illustrates the broad array of metabolic pathways employed for the production of primary and secondary metabolites as well as biopharmaceuticals. This updated and expanded edition and entirely re-written chapters, address the whole spectrum of fermentation biotechnology, from fermentation kinetics and dynamics to protein and co-factor engineering. In addition, The 4th edition includes new chapters on industrial biotechnology and biofuels

September 2020:440 Hb: 978-1-138-58102-9: **£200** Pb: 978-0-367-65670-6: **£46.99** eBook: 978-0-429-50698-7

For full contents and more information, visit: www.routledge.com/9780367656706

# **Microbiomes and Their Functions**

Why Organisms Need Microbes



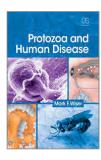
#### Vasu D. Appanna

This book provides a fundamental understanding of the importance of the microbiome in the life of virtually all multicellular organisms. It explains why microbes are an integral part of living organisms and describes the diverse roles they perform for their hosts. Researchers and professionals probing microbial interactions with living organisms will find this book interesting and enriching.

CRC Press January 2023:256 Hb: 978-0-367-76333-6: £149.99 Pb: 978-0-367-74989-7: £59.99 eBook: 978-1-003-16648-1

\* For full contents and more information, visit: www.routledge.com/9780367749897

# **Protozoa and Human Disease**



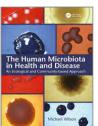
## Mark F Wiser

Protozoa and Human Disease is a textbook on medically important protozoa and the diseases they cause for advanced undergraduate students, graduate students, and professionals. It combines a taxonomic and medical approach and is therefore suitable for a parasitology, microbiology, medical, and public health readership. In addition to the basics such as morphological features, life cycles, and the clinical manifestations of the diseases, topics like the molecular and immunological basis of pathogenesis, metabolic pathways, specialized subcellular structures ecology of disease transmission, antigenic variation, and molecular epidemiology are discussed for many of the protozoan pathogens. At the end of the book is an extensive glossary of molecular biology, immunology, and medical

Garland Science November 2010:256 Pb: 978-0-815-36500-6: **£59.99** eBook: 978-0-429-25828-2

# The Human Microbiota in Health and Disease

An Ecological and Community-based Approach



#### Mike Wilson

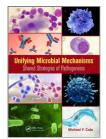
This book describes the various microbial communities (microbiota) inhabiting humans as well as their important roles in human health and disease. It is aimed at senior undergraduates and graduates whose courses include a module on the indigenous microbiota of humans. It will also be useful to professional scientists, clinicians, and others who are keen to know more about the human microbiota and its role in health and disease.

Garland Science September 2018:504 Hb: 978-1-138-34278-1: **£205** Pb: 978-0-815-34585-5: **£84.99** eBook: 978-1-351-06836-9

For full contents and more information, visit: www.routledge.com/9780815345855

# **Unifying Microbial Mechanisms**

Shared Strategies of Pathogenesis



#### Michael F. Cole

Microbial pathogenesis is the study of the mechanisms by which microbes cause infectious disease and make their hosts (humans) ill. Bacterial infections thought to be easily treatable are again a huge cause for concern with the rise of antibiotic resistance. There are very few effective antiviral drugs threatening epidemics such as bird flu and the outbreaks of viruses such the recent (and ongoing) Ebola crisis. Parasitic diseases continue to pose a heavy burden in the developing world and with climate change could spread into the developed world. There is therefore an urgent need to understand microbial mechanisms, with research programmes and university courses dedicated to th

Garland Science Sentember 2019:364 Hb: 978-0-367-20664-2: £150 Pb: 978-0-815-34540-4: £52.99 eBook: 978-0-429-26277-7

<sup>\*</sup> For full contents and more information, visit: www.routledge.com/9780815365006

## **6TH EDITION**

# **Ehrlich's Geomicrobiology**



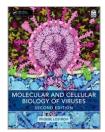
Edited by Henry Lutz Ehrlich, Dianne K. Newman, **Andreas Kappler** 

This new edition surveys various aspects of geomicrobiology, including the microbial role in elemental cycling and in the formation and degradation of minerals and fossil fuels. Unlike the previous edition, many expert contributors besides the editors have been included, providing added depth to topics and broadening the overall insights. The new breadth of scope and possible applications in agriculture, forestry, aquaculture, marine science, the metals industry, and more that this book presents make it a must-have source in geomicrobiology.

CRC Press
March 2021:656
Hb: 978-1-466-59240-7: £180
Pb: 978-0-367-65872-4: £44.99
eBook: 978-0-429-16859-8
\* For full contents and more information, visit: www.routledge.com/9780367658724



# **Molecular and Cellular Biology of Viruses**



#### **Phoebe Lostroh**

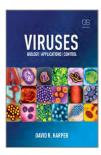
This fully revised second edition of Molecular and Cellular Biology of Viruses leads students on an exploration of viruses by supporting interactive learning. All the major classes of viruses are covered, with separate chapters for their replication and expression strategies. Examples come from the most-studied and medically important viruses such as SARS-CoV-2, HIV, and influenza. New to this second edition, a supplementary chapter, freely available for download, looks at how virology intersects with public health, and uses the COVID-19 pandemic as a notable example.

CRC Press March 2024:550 Hb: 978-1-032-73210-7: £160 Pb: 978-1-032-73212-1: £64.99 eBook: 978-1-003-46311-5

 $^{*}$  For full contents and more information, visit: www.routledge.com/9781032732121

## **Viruses**

Biology, Applications, and Control



#### **David Harper**

Viruses: Biology, Application, and Control is a concise advanced undergraduate and graduate textbook covering the essential aspects of virology included in biomedical science courses. It is an updated and expanded version of David Harper's Molecular Virology 2e from the Medical Perspectives series. Selected Contents: 1. Virus Structure and Infection 2. Virus classification and evolution 3. Virus Replication 4. Viral Interaction with the Immune System 5. Vaccines and vaccination 6. Antiviral Drugs 7. Beneficial Use of Viruses 8. Emergence, transmission, and extinction 9. Viruses, vectors, and genomics 10. Virus Culture, Detection and Diagnosis Viral Replication Strategies Appendix: Current Antiviral Drugs

Garland Science June 2011:346 Pb: 978-0-815-34150-5: **£69.99** eBook: 978-0-429-25846-6

eBook: 978-0-429-25846-6
\* For full contents and more information, visit: www.routledge.com/9780815341505

# Introduction to Bioorganic Chemistry and Chemical Biology



# David Van Vranken, Gregory A. Weiss

This textbook uniquely blends the modern tools of organic chemistry with concepts of biology, physiology, and medicine. With a focus on human cell biology and using a problems-driven approach, the text explains the combinatorial architecture of biooligomers (genes, DNA, RNA, proteins, glycans, lipids, and terpenes) as the molecular engine for life. Accentuated by descriptions of mechanistic arrow pushing and rich illustrations, organic chemistry is used to illuminate the central dogma of molecular biology. The text contains more than 300 problems to test assimilation or the material.

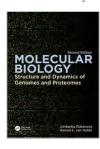
Garland Science November 2012:504 Pb: 978-0-815-34214-4: **£74.99** eBook: 978-0-203-38109-0

\* For full contents and more information, visit: www.routledge.com/9780815342144

#### 2ND EDITION

# **Molecular Biology**

Structure and Dynamics of Genomes and Proteomes



#### Jordanka Zlatanova

Molecular Biology: Structure and Dynamics of Genomes and Proteomes 2nd edition illustrates the essential principles behind the transmission and expression of genetic information at the level of DNA, RNA, and proteins. Emphasis is on the experimental basis of discovery and the most recent advances in the field while presenting a rigorous, yet concise, summary of the structural mechanisms of molecular biology. Topics new to this edition include the CRISPR-Cas gene editing system, coronaviruses, and newly-recognised mechanisms for transcription termination. The text is written for advanced undergraduate or graduate-level courses in molecular biology.

Garland Science April 2023:732 Hb: 978-0-367-67408-3: £160 Pb: 978-0-367-67809-8: £64.99 eBook: 978-1-003-13292-9



# **Integrated Molecular Evolution**



# **Scott Orland Rogers**

Reflecting the large and growing pedagogical landscape in the field, this new edition contains nearly double the number of chapters of its predecessor, making it approximately twice the length while incorporating new topics. Fully updated, it remains the only book that combines and integrates an extensive set of subjects in genetics and evolution in a manner that is readily understood by students at either the graduate or undergraduate level. It provides the basic foundations of molecular evolution, including the structure and function of macromolecules such as DNA, RNA, and proteins.

CRC Press
December 2019:594
Hb: 978-1-482-23089-5: £115
Pb: 978-0-367-86952-6: £56.99
eBook: 978-1-315-37329-4
\* For **full contents** and more information, visit: www.routledge.com/9780367869526

# **Integrated Molecular Evolution**



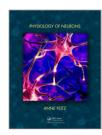
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December 2019-594
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eBook: 978-1-315-37329-4
\* For full contents and more information, visit: www.routledge.com/9780367869526



# **Physiology of Neurons**



Edited by Anne Feltz

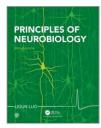
Thanks to tremendous technical advances in molecular biology and cellular imaging after those in electrophysiology, there is now a deep understanding of the physiology of nerve cells and their synaptic interconnections. The complexity of the brain emerges from the communication and interaction between billions of these elements. This book explores systematically and didactically the details of neuronal physiology, covering membrane biophysics, receptor physiology, sensory transduction and synaptic transmission with its selective pharmacology. Readers of the book will be fully equipped to understand the functions and possibilities of the key units of the brain's parallel computations.

Garland Science March 2020:478 Hb: 978-0-367-26375-1: **£240** Pb: 978-0-815-34600-5: **£105** eBook: 978-0-429-29297-2

\* For full contents and more information, visit: www.routledge.com/9780815346005

#### 2ND EDITION

# **Principles of Neurobiology**



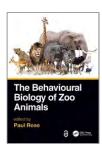
#### Ligun Luo

Principles of Neurobiology, Second Edition presents the major concepts of neuroscience with an emphasis on how we know what we know. The text is organized around a series of key experiments to illustrate how scientific progress is made and helps upper-level undergraduate and graduate students discover the relevant primary literature. Written by a single author in a clear and consistent writing style, each topic builds in complexity from electrophysiology to molecular genetics to systems level in a highly integrative approach. Principles of Neurobiology is accompanied by online resources including animations, figures in PowerPoint, and a Question Bank for adopting instructors.

Garland Science September 2020:760 Hb: 978-0-367-51471-6: £170 Pb: 978-0-815-34605-0: £66.99 eBook: 978-1-003-05397-2

\* For full contents and more information, visit: www.routledge.com/9780815346050

# The Behavioural Biology of Zoo Animals



#### Edited by Paul Rose

This is the first book on captive animal behaviour and how this applies to welfare. The book enables all aspects of zoo husbandry and management (nutrition, enclosure design, handling and training, enrichment, population management) to be based on a sound knowledge of the species, its evolutionary and natural history. Chapters from expert authors cover a vast range of taxa, from primates and elephants to marine mammals and freshwater fish, to reptiles, birds and invertebrates. It explains how evidence from the wild can be implemented into captive care to support the wider aims of the zoo (conservation, education, research and recreation).

CRC Press November 2022:367 Hb: 978-1-032-07719-2: £140 Pb: 978-1-032-07716-1: £54.99 eBook: 978-1-003-20847-1

\* For full contents and more information, visit: www.routledge.com/9781032077161

# The Developing Brain and its Connections



#### Lynne M. Bianchi

This text tells of the extraordinary processes of neural development by showing how the scientific discoveries were made and how the hypotheses evolved over time. Each chapter explores the specific mechanisms of development while highlighting the key experiments and methods used to make those discoveries—including descriptions of both invertebrate and vertebrate animal models. Discussions of neurodevelopmental disorders and therapeutic approaches to them will captivate those interested in the more clinical aspects of the field. With its clear illustrations and easy-to-follow writing style, it presents an accessible approach to neural development for undergraduate students.

CRC Press December 2022:378 Hb: 978-0-367-76243-8: £190 Pb: 978-0-367-74990-3: £74.99 eBook: 978-1-003-16607-8

# **Parasitology**

A Conceptual Approach



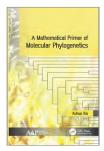
## Eric S. Loker, Bruce V. Hofkin

Produced amidst the rippling effects of a pandemic and as the world experiences the increasing burden of global warming, the second edition of Parasitology offers a timely overview of the eukaryotic parasites affecting human health and the health of animals and plants. It offers a broadly encompassing, integrative view of the phenomenon of parasitism and of the remarkable diversity of the world's parasites. This second edition, aimed chiefly at an upper-undergraduate audience, has been thoroughly updated on all aspects of parasitism, including expanded sections on parasite biodiversity, parasite genomes and applications of new techniques like CRISPR for parasite control

CRC Press
August 2022:668
Hb: 978-0-367-22888-0: £180
Pb: 978-0-367-22887-3: £94.99
eBook: 978-0-429-27740-5
\* For full contents and more information, visit: www.routledge.com/9780367228873



# A Mathematical Primer of Molecular Phylogenetics



#### Xuhua Xia

This volume, A Mathematical Primer of Molecular Phylogenetics, offers a unique perspective on a number of phylogenetic issues that have not been covered in detail in previous publications. The volume provides sufficient mathematical background for young mathematicians and computational scientists, as well as mathematically inclined biology students, to make a smooth entry into the expanding field of molecular phylogenetics. The book will also provide sufficient details for researchers in phylogenetics to understand the workings of existing software packages used.

Apple Academic Press March 2021:380 Hb: 978-1-771-88755-7: £116 Pb: 978-1-774-63006-8: £82.99 eBook: 978-0-429-42587-5

For full contents and more information, visit: www.routledge.com/9781774630068

# **Bayesian Phylogenetics**

Methods, Algorithms, and Applications



## Edited by Ming-Hui Chen, Lynn Kuo, Paul O. Lewis

Suitable for graduate-level researchers in statistics and biology, this book presents a snapshot of current trends in Bayesian phylogenetic research. It emphasizes model selection, reflecting recent interest in accurately estimating marginal likelihoods. The book discusses new approaches to improve mixing in Bayesian phylogenetic analyses in which the tree topology varies. It also covers divergence time estimation, biologically realistic models, and the burgeoning interface between phylogenetics and population genetics.

Chapman & Hall July 2022:396 Hb: 978-1-466-50079-2: £130 Pb: 978-1-032-34023-4: £44.99 eBook: 978-0-429-18426-0

For full contents and more information, visit: www.routledge.com/9781032340234

# **Phylogenomic Data Acquisition**

Principles and Practice



## W. Bryan Jennings

The genomes of many individuals can be assembled and analyzed using convenient and widely available computer programs running on every desktop or laptop computer. This rapid development has resulted in an entirely new subdiscipline of evolutionary biology called "phylogenomics," the integration of phylogenetic sequencing data and analyses implemented using entire genomes. This book introduces the principles and practices of phylogenomics, making it available to a broad cross-section of evolutionary biologists, systematists, organismal biologists, conservationists. and ecologists.

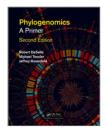
CRC Press December 2019:244 Hb: 978-1-482-23534-0: £170 Pb: 978-0-367-86980-9: £56.99 eBook: 978-1-315-18143-1

\* For full contents and more information, visit: www.routledge.com/9780367869809

#### 2ND EDITION

# **Phylogenomics**

A Primer

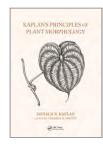


#### Rob DeSalle, Michael Tessler, Jeffrey Rosenfeld

Phylogenomics: A Primer, Second Edition is for advanced undergraduate and graduate biology students studying molecular biology, comparative biology, evolution, genomics, and biodiversity. This book explains the essential concepts underlying the storage and manipulation of genomics level data, construction of phylogenetic trees, population genetics, natural selection, the tree of life, DNA barcoding, and metagenomics. The inclusion of problem-solving exercises in each chapter provides students with a solid grasp of the important molecular and evolutionary questions facing modern biologists as well as the tools needed to answer them.

CRC Press August 2020:400 Hb: 978-0-367-02852-7: **£205** Pb: 978-0-367-02849-7: **£82.99** eBook: 978-0-429-39754-7

# **Kaplan's Principles of Plant Morphology**



## Donald Kaplan, Chelsea D. Specht

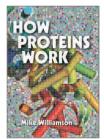
The principles of plant morphology are being brought into studies of crop development, biodiversity and evolution during climate change, and researchers are in need of a modern reference and textbook on the subject. This book defines the field of plant morphology, providing resources, examples and theoretical constructs that illuminate the foundations of plant morphology and clearly outline the importance of integrating a fundamental understanding of plant morphology into modern research in plant genetics, development and physiology.

CRC Press March 2022:1317

Hib: 978-1-482-24519-6: £300 eBook: 978-1-315-11864-2 \* For full contents and more information, visit: www.routledge.com/9781482245196



## **How Proteins Work**



#### Mike Williamson

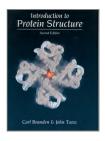
How Proteins Work explains protein function in living systems within the governing parameters of physics, chemistry, and evolution. Written for advanced undergraduates, early graduate students, and practitioners, this textbook provides an integrated view of proteins at both a cellular and systemic level. Numerous examples from biology and end-of-chapter problems are presented. Chapter 1. Protein structure and evolution Chapter 2. Protein domains Chapter 3. Oligomers Chapter 4. Protein interactions in vivo Chapter 5. How enzymes work Chapter 6. Protein flexibility and dynamics Chapter 7. How proteins make things move Chapter 8. How proteins transmit signals Chapter 9. Protein complexes: molecular machines Chapter 10. Multi-enzyme complexes Chapter 11. Techniques for studying proteins

Garland Science July 2011:464 Pb: 978-0-815-34446-9: **£74.99** eBook: 978-0-429-06184-4

\* For full contents and more information, visit: www.routledge.com/9780815344469

## 2ND EDITION

## Introduction to Protein Structure



#### Carl Ivar Branden, John Tooze

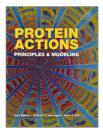
A contemporary account of the principles of protein structure, with examples of proteins in their biological context. Includes chapters on the general principles, specific examples of structures and on determining and predicting.

Garland Science January 1999:424 Pb: 978-0-815-32305-1: **£74.99** eBook: 978-0-429-06209-4

eBook: 978-0-429-06209-4
\* For full contents and more information, visit: www.routledge.com/9780815323051

# **Protein Actions**

Principles and Modeling



#### Ivet Bahar, Robert L. Jernigan, Ken A. Dill

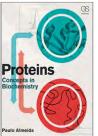
Protein Actions: Principles and Modeling describes the basic principles of protein molecules—their structures; their folding, binding and aggregation; their dynamics and mechanisms; and their evolution—as well as the methods of modeling them, including bioinformatics, physics-based computer simulations, and the tools of drug discovery. It is intended for a one-semester course for biological scientists learning quantitative foundations and for physical scientists learning the biology and chemistry. This text is ideal for graduates, advanced undergraduates, and any professional who seeks an introduction to the biological, chemical, and physical properties of proteins.

Garland Science February 2017:336 Pb: 978-0-815-34177-2: **£99.99** eBook: 978-1-315-21221-0

\* For full contents and more information, visit: www.routledge.com/9780815341772

## **Proteins**

Concepts in Biochemistry

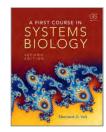


#### Paulo Almeida

Proteins: Concepts in Biochemistry teaches the biochemical concepts underlying protein structure, evolution, stability and folding, and explains how interactions with macromolecular structures determine protein function. Intended for a one-semester biochemistry course with a focus on proteins, this textbook emphasizes the logic underlying biophysical chemical principles. Problems throughout the book encourage statistical and quantitative thinking. The text is ideal for senior undergraduates, first year graduate students, and practitioners in chemistry, biochemistry, biochemistry, biology, and biophysics.

Garland Science March 2016:416 Pb: 978-0-815-34502-2: **£62.99** eBook: 978-0-429-25881-7

# A First Course in Systems Biology



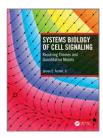
#### **Eberhard Voit**

This book is an introduction for advanced undergraduate and graduate students to the growing field of systems biology. The book begins with the fundamentals of modelling, then reviews features of the molecular inventories that bring biological systems to life and discusses case studies that represent some of the frontiers in systems biology and synthetic biology. In this way, it provides the reader with a comprehensive background and access to methods for executing standard systems biology tasks, understanding the modern literature, and launching into specialized courses or projects that address biological questions with theoretical and computational means.

Garland Science Garland Science
September 2017:480
Pb: 978-0-815-34568-8: £82.99
eBook: 978-0-203-70226-0
\* For full contents and more information, visit: www.routledge.com/9780815345688

# **Systems Biology of Cell Signaling**

Recurring Themes and Quantitative Models



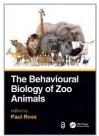
#### James Ferrell

This textbook aims to provide advanced students with the tools and insights needed to carry out studies of signal transduction drawing upon modeling, theory and experimentation. It seeks to provide quantitatively inclined biologists and biologically inclined physicists with the tools needed to apply modeling/theory to biological processes. All chapters consistently use approaches and concepts from chemical kinetics and non-linear dynamics, including rate-balance analysis, phase plane analysis, nullclines, linear stability analysis, stable nodes, saddles, unstable nodes, stable and unstable spirals, and

Garland Science September 2021:284 Hb: 978-0-367-64383-6: £190 Pb: 978-0-815-34603-6: £74.99 eBook: 978-1-003-12426-9



# The Behavioural Biology of Zoo Animals



Edited by Paul Rose

This is the first book on captive animal behaviour and how this applies to welfare. The book enables all aspects of zoo husbandry and management (nutrition, enclosure design, handling and training, enrichment, population management) to be based on a sound knowledge of the species, its evolutionary and natural history. Chapters from expert authors cover a vast range of taxa, from primates and elephants to marine mammals and freshwater fish, to reptiles, birds and invertebrates. It explains how evidence from the wild can be implemented into captive care to support the wider aims of the zoo (conservation, education, research and recreation).

CRC Press November 2022:367 Hb: 978-1-032-07719-2: £140 Pb: 978-1-032-07716-1: £54.99 eBook: 978-1-003-20847-1

\* For full contents and more information, visit: www.routledge.com/9781032077161

## **Vertebrate Evolution**

From Origins to Dinosaurs and Beyond



#### Donald R. Prothero

The first vertebrate animals appear in the fossil record over 520 million years ago. These lineages diversified and eventually crept ashore leading to further evolutionary divergence and the appearance of the familiar charismatic vertebrates of today.

CRC Press April 2022:464 Hb: 978-0-367-65176-3: **£140** Pb: 978-0-367-47316-7: **£56.99** eBook: 978-1-003-12820-5

\* For full contents and more information, visit: www.routledge.com/9780367473167

# 2ND EDITION

# **Zoo and Aquarium History**

Ancient Animal Collections to Conservation Centers



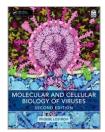
## Edited by Vernon N. Kisling, Jr

This second edition of Zoo and Aquarium History takes the reader on a journey through the transition of private collections to menageries, to zoos, then zoological gardens, and more recently conservation centers and sanctuaries. An international team of authors has thoroughly updated the only comprehensive, global history of animal collections, menageries, zoos, and aquariums. This new edition pulls together new regional information along with the cultural aspects of each region and expands the Appendix to include over 1,200 zoos and aquariums.

CRC Press
July 2022:447
Hb: 978-1-032-25279-7: £105

eBook: 978-1-003-28248-8 \* For full contents and more information, visit: www.routledge.com/9781032252797

# **Molecular and Cellular Biology of Viruses**



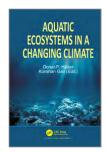
## Phoebe Lostroh

This fully revised second edition of Molecular and Cellular Biology of Viruses leads students on an exploration of viruses by supporting interactive learning. All the major classes of by supporting interactive learning. Air the ringor classes of viruses are covered, with separate chapters for their replication and expression strategies. Examples come from the most-studied and medically important viruses such as SARS-CoV-2, HIV, and influenza. New to this second edition, a supplementary chapter, freely available for download, looks at how virology intersects with public health, and uses the COVID-19 pandemic as a notable example.

CRC Press
March 2024:550
Hb: 978-1-032-73210-7: £160
Pb: 978-1-032-73212-1: £64.99
eBook: 978-1-003-46311-5
\* For full contents and more information, visit: www.routledge.com/9781032732121



# **Aquatic Ecosystems in a Changing Climate**



#### Donat-P Häder, Kunshan Gao

Global climate change affects productivity and species composition of freshwater and marine aquatic ecosystems by raising temperatures, ocean acidification, excessive solar UV and visible radiation. Effects on bacterioplankton and viruses, phytoplankton and macroalgae have far-reaching consequences for primary consumers such as zooplankton, invertebrates and vertebrates, as well as on human consumption of fish, crustaceans and mollusks. It has affected the habitation of the Arctic and Antarctic oceans the most so far. Increasing pollution from terrestrial runoff, industrial, municipal and household wastes as well as marine transportation and plastic debris also affect aquatic ecosystems.

CRC Press March 2021:324 Hb: 978-1-138-35005-2: £180 Pb: 978-0-367-78060-9: £44.99 eBook: 978-0-429-43613-0

\* For full contents and more information, visit: www.routledge.com/9780367780609

# At the Heart of the Coral Triangle

Celebrating Biodiversity



#### Alan J Powderham, Sancia van der Meij

The Coral Triangle, lying at the confluence of the Indian and Pacific Oceans, harbours the greatest biodiversity of marine life on the planet. While it is hardly immune to the growing global impacts of climate change and pollution, it is home to a wondrous variety of species living within diverse habitats. With stunning photography supported by an engaging, informative and accessible text, this book celebrates this biodiversity with the underlying message that it needs our protection before it is too late.

CRC Press December 2020:252 Hb: 978-0-367-42816-7: **£44.99** eBook: 978-0-367-85531-4

\* For full contents and more information, visit: www.routledge.com/9780367428167

## **3RD EDITION**

# **Biology of Fishes**



#### Quentin Bone, Richard Moore

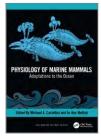
An ideal textbook for students of fish biology and any of the branches of aquatic biology for experienced biologists. This new edition has been completely rewritten to take account of the high rate of publication of scientific papers on fishes. Selected Contents: 1. Diversity of Fishes 2. Fishes and their Habitats 3. Locomotion 4. Buoyancy 5. Gas Exchange and the Circulatory System 6. Osmoregulation and Ion Balance 7. Food and Feeding 8. Reproduction and Life Histories 9. Endocrine Systems 10. Sensory Systems and Communication 11. The Nervous System 12. Behaviour 13. Fisheries and Aquaculture

Taylor & Francis March 2008:450 Hb: 978-1-138-35771-6: £180 Pb: 978-0-415-37562-7: £77.99 eBook: 978-0-429-10534-0

\* For full contents and more information, visit: www.routledge.com/9780415375627

# **Physiology of Marine Mammals**

Adaptations to the Ocean



#### Edited by Michael Castellini, Jo-Ann Mellish

Series: CRC Marine Biology Series

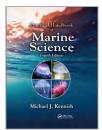
This unique undergraduate textbook considers what makes a marine mammal different from terrestrial mammals, focusing on the physiological and biochemical characteristics that have allowed this group of mammals to effectively exploit the hostile marine environment. The contents are organised around common student questions such as "How do mammals stay warm in a cold ocean?" while each chapter provides a set of PowerPoint slides for instructors to use in teaching. Study Questions and Future Implications points conclude each chapter, while full-colour images and comprehensive, accessible content make this the definitive textbook for marine mammal physiology.

CRC Press July 2023:368 Hb: 978-1-032-28570-2: **£130** Pb: 978-1-032-28560-3: **£49.99** eBook: 978-1-003-29746-8

\* For full contents and more information, visit: www.routledge.com/9781032285603

#### **4TH EDITION**

## **Practical Handbook of Marine Science**



#### Michael J. Kennish

This heavily revised fourth edition continues its tradition as a state-of-the-art reference that updates the field of marine science to meet the interdisciplinary research needs of physical oceanographers, marine biologists, marine chemists, and marine geologists. Maintaining its user-friendly, multi-sectional format, this comprehensive resource will also be of value to undergraduate and graduate students, administrators, and other professionals who deal with the management of marine resources. The new edition offers extensive illustrative and tabular reference material covering all the major disciplines related to the sea.

CRC Press June 2022:528 Hb: 978-1-138-06885-8: **£200** Pb: 978-1-032-33823-1: **£44.99** eBook: 978-1-315-15759-7

#### **3RD EDITION**

# **Biology of Fishes**



#### Quentin Bone, Richard Moore

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Taylor & Francis Márch 2008:450 Hb: 978-1-138-35771-6: **£180** Pb: 978-0-415-37562-7: **£77.99** eBook: 978-0-429-10534-0

\* For full contents and more information, visit: www.routledge.com/9780415375627

#### **3RD EDITION**

# **Marine Microbiology**

**Ecology & Applications** 



#### Colin Munn, Colin Munn, Colin B. Munn

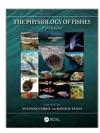
The third edition of this bestselling text has been rigorously updated to reflect major new discoveries and concepts since 2011, especially progress due to extensive application of high-throughput sequencing, single cell genomics and analysis of large datasets. Significant advances in understanding the diversity and evolution of bacteria, archaea, fungi, protists, and viruses are discussed and their importance in marine processes is explored in detail. A Companion Website provides extra resources to aid teaching and learning

CRC Press January 2020:436 Hb: 978-0-367-18359-2: £130 Pb: 978-0-367-18356-1: £66.99

\* For full contents and more information, visit: www.routledge.com/9780367183561

## **5TH EDITION**

# The Physiology of Fishes



Edited by Suzanne Currie, David H. Evans

Series: CRC Marine Biology Series

The fifth edition of The Physiology of Fishes represents a compendium of knowledge across fish physiology, collecting up-to-date research into an easy-to-access single textbook. Written by the leaders in the field, it provides a comprehensive, accessible review of the core topics, integrating physiology with environmental science, ecology, evolution, and molecular cell biology. New chapters address Epigenetics, Biomechanics and Locomotion, and Behaviour and Learning. Each chapter contains an extensive bibliography, providing readers with the best sources from the primary literature.

CRC Press CRC Press September 2020:256 Hb: 978-0-367-54109-5: £205 Pb: 978-0-367-47755-4: £84.99 eBook: 978-1-003-03640-1



# At the Heart of the Coral Triangle

Celebrating Biodiversity



#### Alan J Powderham, Sancia van der Meij

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CRC Press December 2020:252 Hb: 978-0-367-42816-7: **£44.99** eBook: 978-0-367-85531-4

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# **Biology of Fishes**



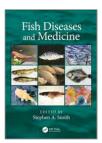
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CRC Press April 2019:412 Hb: 978-1-498-72786-0: **£84.99** eBook: 978-0-479-19525-9

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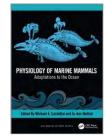
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# **Physiology of Marine Mammals**

Adaptations to the Ocean



Edited by Michael Castellini, Jo-Ann Mellish

Series: CRC Marine Biology Series

This unique undergraduate textbook considers what makes a marine mammal different from terrestrial mammals, focusing on the physiological and biochemical characteristics that have allowed this group of mammals to effectively exploit the hostile marine environment. The contents are organised around common student questions such as "How do mammals stay warm in a cold ocean?" while each chapter provides a set of PowerPoint slides for instructors to use in teaching. Study Questions and Future integration points conclude each chapter, while full-colour images and comprehensive, accessible content make this the definitive textbook for marine mammal physiology.

CRC Press July 2023:368 Hb: 978-1-032-28570-2: £130 Pb: 978-1-032-28560-3: £49.99 eBook: 978-1-003-29746-8

 $\hbox{* For full contents} \ \ \text{and more information, visit:} \ \hbox{$www.routledge.com/9781032285603}$ 

# The Complex Lives of British Freshwater Fishes



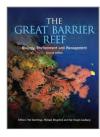
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CRC Press May 2020:369 Hb: 978-0-367-44032-9: £31.99 eBook: 978-1-003-00760-9

# The Great Barrier Reef

Biology, Environment and Management, Second Edition



#### Edited by Pat Hutchings, Michael Kingsford, Ove Hoegh-Guldberg

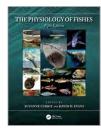
The iconic and beautiful Great Barrier Reef (GBR) Marine Park is home to one of the most diverse ecosystems in the world. With contributions from international experts, this timely and fully updated second edition of The Great Barrier Reef describes the animals, plants and other organisms of the reef, as well as the biological, chemical and physical processes that influence them. A must-read for the interested reef tourist, student, researcher and environmental manager. While it has an Australian focus, it can equally be used as a reference text for most Indo-Pacific

CRC Press February 2019:488 Pb: 978-0-367-17428-6: **£74.99** 

\* For full contents and more information, visit: www.routledge.com/9780367174286

#### **5TH EDITION**

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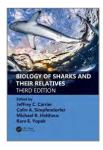
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For full contents and more information, visit: www.routledge.com/9780415375627

## **3RD EDITION**

# **Biology of Sharks and Their Relatives**



Edited by Jeffrey C. Carrier, Colin A. Simpfendorfer, Michael R. Heithaus, Kara E. Yopak

Series: CRC Marine Biology Series

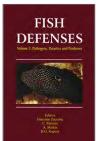
Biology of Sharks and Their Relatives is an award winning and groundbreaking exploration of the fundamental elements of the taxonomy, physiology, and ecology of sharks, skates, rays, and chimera. This presents current research as well as traditional models, to develop new frontiers in their own work. Traditional areas of study such as reproduction, taxonomy and systematics, sensory biology, and ecology are updated with contemporary research that incorporates emerging techniques including molecular genetics, exploratory techniques in artificial insemination.

CRC Press June 2022:840 Hb: 978-0-367-86117-9: **£99.99** eBook: 978-1-003-26219-0

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#### Fish Defenses Vol. 2

Pathogens, Parasites and Predators



#### Edited by Giacomo Zaccone

Dramatic changes in the environment, including habitat degradation and climate change, have focused attention on how individuals and populations respond to a shifting biotic and abiotic landscape

CRC Press January 2019:411 Hb: 978-1-578-08407-4: **£130** Pb: 978-1-138-11353-4: **£48.99** eBook: 978-0-429-18728-5

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# **Fish Diseases and Medicine**



#### Edited by Stephen A. Smith

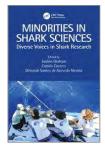
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 $\hbox{* For {\it full contents}} \ \ \hbox{and more information, visit:} \\ \hbox{$\it www.routledge.com/9781498727860}$ 

## Minorities in Shark Sciences

Diverse Voices in Shark Research

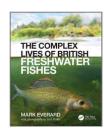


# Edited by Jasmin Graham, Camila Caceres, Deborah Santos de Azevedo Menna

This book showcases the work done by Black, Indigenous and People of Color around the world in the fields of shark science and conservation. Edited by one Black and two Latin American female shark researchers, it strives to provide positive role models for the next generation. Strong minority voices are exactly what is needed to bring greater attention to the conservation of sharks, and this book illustrates how great things have been, are and will continue to be accomplished by people who were historically excluded from marine science. It highlights the unique perspectives these scientists bring to their field that allow them to interact with stakeholders.

CRC Press November 2022:212 Hb: 978-1-032-19696-1: £94.99 Pb: 978-1-032-19694-7: £34.99 eBook: 978-1-003-26037-0

# The Complex Lives of British Freshwater Fishes



#### **Mark Everard**

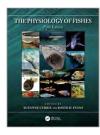
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# Unravelling the algae

the past, present, and future of algal systematics



Edited by Juliet Brodie, Jane Lewis

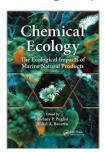
With six pages of full color plates, Unravelling the algae: the past, present, and future of algae systematics reviews the state-of-the-science and assesses the impact of molecular tools on the taxonomy of algal groups. It discusses the extent to which these tools extend understanding of the immense algal diversity and revolutionize ideas of taxonomy and classification. Illustrating contrasting viewpoints, the book highlights contemporary perspectives on algal evolution and the concept of classification, addresses systematics and taxonomy for virtually all algal groups ranging from microalgae to ultraplankton, explores the impact of genomics on algal systematics, and concludes with a discussion of future directions for research.

CRC Press October 2019:412 Hb: 978-0-849-37989-5: £170 Pb: 978-0-367-38819-5: £59.99 eBook: 978-0-429-12614-7

<sup>\*</sup> For full contents and more information, visit: www.routledge.com/9780367388195

# **Chemical Ecology**

The Ecological Impacts of Marine Natural Products



#### Edited by Melany P. Puglisi, Mikel A. Becerro

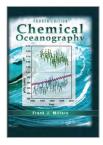
During the past 20 years, marine chemical ecology has emerged as a respected field of study providing a better understanding of the role natural products play in organisms and their environments. Ample data in this book advocates the conservation of marine environments for future drug discovery efforts while sustaining their overall health. Marine chemical ecology has expanded to include research in the areas of predator—prey interactions, marine microbial chemical ecology, and seasonal and geographical distribution of marine natural products.

CRC Press December 2020:416 Hb: 978-1-482-24880-7: £180 Pb: 978-0-367-73330-8: £44.99 eBook: 978-0-429-45346-5

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#### **4TH EDITION**

# **Chemical Oceanography**

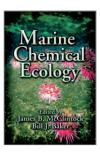


#### Frank J. Millero

The fourth edition of this respected text explores the latest issues affecting the health of our ocean environment. It examines ocean acidification and provides updated coverage on the carbonate system in the ocean, oceanic organic compounds, and dissolved organic carbon. It also discusses phosphate, nitrogen, and metals in the ocean. The book offers a new definition of salinity and a new equation of the state of seawater based on recent, original research, and it describes the new thermodynamic equation of the state of seawater. Full-color graphs and photographs assist readers in visualizing the concepts presented.

CRC Press April 2013:591 Hb: 978-1-466-51249-8: **£69.99** 

# Marine Chemical Ecology



Edited by James B. McClintock, Bill J. Baker

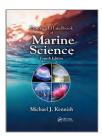
Series: CRC Marine Science

The interdisciplinary field of marine chemical ecology is an expanding and dynamic science. The first comprehensive resource on the subject, this book provides cellular, physiological, organismal, evolutionary, and applied perspectives and creates a high-resolution snapshot of the field at the start of the 21st century. It also includes up-to-date subject reviews by experts. An introductory section discusses distribution, biosynthesis, and evolution of secondary metabolites. Fully detailed with figures, tables, and chemical structural diagrams, it also provides broad coverage of microscopic and macroscopic chemical ecological phenomena and applied aspects of the field.

CRC Press June 2001:622 Hb: 978-0-849-39064-7: £200 eBook: 978-0-429-12451-8

#### 4TH EDITION

# **Practical Handbook of Marine Science**



#### Michael J. Kennish

This heavily revised fourth edition continues its tradition as a state-of-the-art reference that updates the field of marine science to meet the interdisciplinary research needs of physical oceanographers, marine biologists, marine chemists, and marine geologists. Maintaining its user-friendly, multi-sectional format, this comprehensive resource will also be of value to undergraduate and graduate students, administrators, and other professionals who deal with the management of marine resources. The new edition offers extensive illustrative and tabular reference material covering all the major disciplines related to the sea.

CRC Press June 2022:528 Hb: 978-1-138-06885-8: £200 Pb: 978-1-032-33823-1: £44.99 eBook: 978-1-315-15759-7

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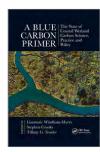


eBook: 978-0-429-09663-1 \* For full contents and more information, visit: www.routledge.com/9781466512498

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#### A Blue Carbon Primer

The State of Coastal Wetland Carbon Science, Practice and Policy



# Edited by Lisamarie Windham-Myers, Stephen Crooks, Tiffany G. Troxler

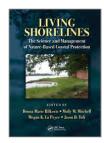
Blue Carbon has emerged as a term that represents the distinctive carbon stocks and fluxes into or out of coastal wetlands such as marshes, mangroves, and seagrasses. The Blue Carbon concept has been rapidly emerging in science literature and is highly relevant politically, as nations and markets are developing blue carbon monitoring and management tools and policies. This book is a comprehensive and current compendium of the state of the science, the state of maps and mapping protocols, and the state of policy incentives (including economic valuation of blue carbon), with additional sections on operationalizing blue carbon projects and 7 case studies with global relevance

CRC Press February 2020:532 Hb: 978-1-498-76909-9: **£160** Pb: 978-0-367-89352-1: **£56.99** eBook: 978-0-429-43536-2

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# **Living Shorelines**

The Science and Management of Nature-Based Coastal Protection

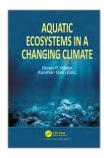


# Edited by Donna Marie Bilkovic, Molly M. Mitchell, Megan K. La Peyre, Jason D. Toft

Estuarine and coastal shorelines were managed primarily to support human infrastructure and economic benefits. As a result, ecosystem function has diminished. Shoreline management is evolving to embrace the use of nature-based shoreline erosion control approaches. This book is a synthesis of recent thinking and results from practitioners and researchers of Living Shorelines, which are intended to restore natural shoreline functions in estuarine, marine, and aquatic systems.

CRC Press June 2020:519 Hb: 978-1-498-74002-9: **£170** Pb: 978-0-367-57383-6: **£44.99** eBook: 978-1-315-15146-5

# **Aquatic Ecosystems in a Changing Climate**



#### Donat-P Häder, Kunshan Gao

Global climate change affects productivity and species composition of freshwater and marine aquatic ecosystems by raising temperatures, ocean acidification, excessive solar UV and visible radiation. Effects on bacterioplankton and viruses, phytoplankton and macroalgae have far-reaching consequences for primary consumers such as zooplankton, invertebrates and vertebrates, as well as on human consumption of fish, crustaceans and mollusks. It has affected the habitation of the Arctic and Antarctic oceans the most so far. Increasing pollution from terrestrial runoff, industrial, municipal and household wastes as well as marine transportation and plastic debris also affect aquatic ecosystems.

CRC Press March 2021:324 Hb: 978-1-138-35005-2: £180 Pb: 978-0-367-78060-9: £44.99

\* For full contents and more information, visit: www.routledge.com/9780367780609

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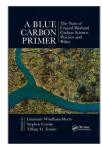
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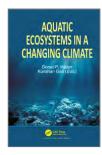
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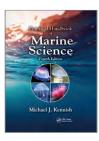
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CRC Press June 2022:528 Hb: 978-1-138-06885-8: **£200** Pb: 978-1-032-33823-1: **£44.99** eBook: 978-1-315-15759-7

### At the Heart of the Coral Triangle

Celebrating Biodiversity

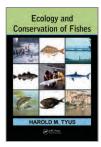


### Alan J Powderham, Sancia van der Meij

The Coral Triangle, lying at the confluence of the Indian and Pacific Oceans, harbours the greatest biodiversity of marine life on the planet. While it is hardly immune to the growing global impacts of climate change and pollution, it is home to a wondrous variety of species living within diverse habitats. With stunning photography supported by an engaging, informative and accessible text, this book celebrates this biodiversity with the underlying message that it needs our protection before it is too late.

CRC Press December 2020:252 Hb: 978-0-367-42816-7: **£44.99** eBook: 978-0-367-85531-4

### **Ecology and Conservation of Fishes**



### Harold M. Tyus

Written as a stand-alone text for students, this book provides broad, comprehensive, and systematic coverage of all aquatic systems from the mountains to the ocean. It addresses freshwater, estuarine, and marine ecosystems in the first third of the book, and identifies factors that affect the distribution and abundance of fishes. It is followed with the examination of the adaptations of fishes as a response to constraints posed in ecosystems. The final four chapters on applied ecology discuss management, conservation, the biodiversity crises, and climate change. The book offers case studies from all major aquatic systems.

CRC Press October 2011:574 Hb: 978-1-439-85854-7: **£94.99** eBook: 978-0-429-11303-1

### The Complex Lives of British Freshwater Fishes



### **Mark Everard**

This stunningly illustrated book explores the fascinating life histories of Britain's freshwater fishes, a group of animals which, despite their importance and ubiquity in our diverse waters, has before now been rarely regarded and respected as 'wildlife'. It shows how freshwater fish provide food, ornamentation, sport and cultural identity, and highlights their huge importance for conservation. Featuring over 100 full-colour photographs by renowned photographer Jack Perks, this will appeal to conservationists, marine biology students, the conservation-minded public, the angling community, and our nation of wildlife enthusiasts.

CRC Press May 2020:369 Hb: 978-0-367-44032-9: £31.99 eBook: 978-1-003-00760-9



<sup>\*</sup> For full contents and more information, visit: www.routledge.com/9780367428167

<sup>\*</sup> For full contents and more information, visit: www.routledge.com/9781439858547

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### **Aquaculture Technology**

Flowing Water and Static Water Fish Culture



### Richard Soderberg W.

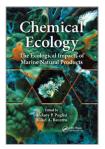
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CRC Press June 2020:284 Hb: 978-1-498-79884-6: **£99.99** Pb: 978-0-367-57374-4: **£39.99** eBook: 978-1-315-19481-3

\* For full contents and more information, visit: www.routledge.com/9780367573744

### **Chemical Ecology**

The Ecological Impacts of Marine Natural Products



### Edited by Melany P. Puglisi, Mikel A. Becerro

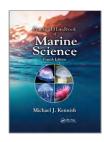
During the past 20 years, marine chemical ecology has emerged as a respected field of study providing a better understanding of the role natural products play in organisms and their environments. Ample data in this book advocates the conservation of marine environments for future drug discovery efforts while sustaining their overall health. Marine chemical ecology has expanded to include research in the areas of predator—prey interactions, marine microbial chemical ecology, and seasonal and geographical distribution of marine natural products.

CRC Press December 2020:416 Hb: 978-1-482-24880-7: £180 Pb: 978-0-367-73330-8: £44.99 eRook: 978-0-429-45346-5

eBook: 978-0-429-45346-5
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### **4TH EDITION**

### **Practical Handbook of Marine Science**



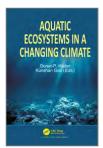
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CRC Press
June 2022:528
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Pb: 978-1-032-33823-1: £44.99
eBook: 978-1-315-15759-7
\* For **full contents** and more information, visit: www.routledge.com/9781032338231



### **Aquatic Ecosystems in a Changing Climate**



### Donat-P Häder, Kunshan Gao

Global climate change affects productivity and species composition of freshwater and marine aquatic ecosystems by raising temperatures, ocean acidification, excessive solar UV and visible radiation. Effects on bacterioplankton and viruses, phytoplankton and macroalgae have far-reaching consequences for primary consumers such as zooplankton, invertebrates and vertebrates, as well as on human consumption of fish, crustaceans and mollusks. It has affected the habitation of the Arctic and Antarctic oceans the most so far. Increasing pollution from terrestrial runoff, industrial, municipal and household wastes as well as marine transportation and plastic debris also affect aquatic ecosystems.

CRC Press March 2021:324 Hb: 978-1-138-35005-2: £180 Pb: 978-0-367-78060-9: £44.99 eRook: 978-0-429-43613-0

\* For full contents and more information, visit: www.routledge.com/9780367780609

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Celebrating Biodiversity



### Alan J Powderham, Sancia van der Meij

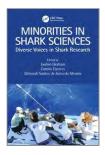
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Diverse Voices in Shark Research



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CRC Press November 2022:212 Hb: 978-1-032-19696-1: **£94.99** Pb: 978-1-032-19694-7: **£34.99** eBook: 978-1-003-26037-0

\* For full contents and more information, visit: www.routledge.com/9781032196947

### **Modern Fisheries Engineering**

Realizing a Healthy and Sustainable Marine Ecosystem



### Edited by Stephen A. Bortone, Shinya Otake

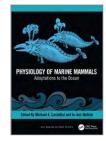
This book is a compendium of the latest and most cutting-edge information on the diversity of technical aspects associated with Fisheries Engineering. Expanding on presentations given at the International Conference on Fisheries Engineering (ICFE) 2019, it aims to encourage and inspire future generations of young researchers in the field. Topics include artificial reefs, ocean ranching, fishing gear developments, modern monitoring technologies, and other subjects related to the latest practice of conducting efficient, sustainable fishing.

CRC Press April 2022:168 Hb: 978-0-367-34792-5: £180 Pb: 978-0-367-56066-9: £69.99 eBook: 978-0-429-32803-9

\* For full contents and more information, visit: www.routledge.com/9780367560669

### **Physiology of Marine Mammals**

Adaptations to the Ocean



### Edited by Michael Castellini, Jo-Ann Mellish

Series: CRC Marine Biology Series

This unique undergraduate textbook considers what makes a marine mammal different from terrestrial mammals, focusing on the physiological and biochemical characteristics that have allowed this group of mammals to effectively exploit the hostile marine environment. The contents are organised around common student questions such as "How do mammals stay warm in a cold ocean?" while each chapter provides a set of PowerPoint slides for instructors to use in teaching. Study Questions and Future Implications points conclude each chapter, while full-colour images and comprehensive, accessible content make this the definitive textbook for marine mammal physiology.

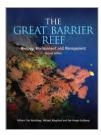
CRC Press July 2023:368 Hb: 978-1-032-28570-2: £130 Pb: 978-1-032-28560-3: £49.99 eBook: 978-1-003-29746-8

\* For full contents and more information, visit: www.routledge.com/9781032285603

### 2ND EDITION

### The Great Barrier Reef

Biology, Environment and Management, Second Edition



# Edited by Pat Hutchings, Michael Kingsford, Ove Hoegh-Guldberg

The iconic and beautiful Great Barrier Reef (GBR) Marine Park is home to one of the most diverse ecosystems in the world. With contributions from international experts, this timely and fully updated second edition of The Great Barrier Reef describes the animals, plants and other organisms of the reef, as well as the biological, chemical and physical processes that influence them. A must-read for the interested reef tourist, student, researcher and environmental manager. While it has an Australian focus, it can equally be used as a reference text for most Indo-Pacific coral reefs.

CRC Press February 2019:488 Pb: 978-0-367-17428-6: **£74.99** 

# A Pocket Guide to Scientific Writing in Aquaculture Research

# A POCKET GUIDE TO SCIENTIFIC WRITING IN AQUACULTURE RESEARCH Review Vocas

### **Rodrigue Yossa**

Writing a high-quality scientific aquaculture publication is challenging, and many students and early career aquaculture scientists find the task daunting. Yossa provides new researchers with all the tools they need to write abstracts and a variety of articles (peer-reviewed, technical, magazines, working papers, scientific reports and more). He talks the reader step-by-step through the process of reviewing submitted manuscripts and replying to reviewers, and understanding research ethics. Each section is accompanied by examples, offerings a lifeline to aquaculture students and early career academics getting to grips with the basics.

CRC Press November 2021:120 Hb: 978-0-367-33888-6: **£48.99** Pb: 978-0-367-33887-9: **£18.99** eRook: 978-0-429-32764-8

\* For full contents and more information, visit: www.routledge.com/9780367338879

### **Aquaculture Technology**

Flowing Water and Static Water Fish Culture



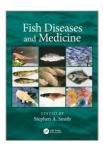
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CRC Press June 2020:284 Hb: 978-1-498-79884-6: **£99.99** Pb: 978-0-367-57374-4: **£39.99** eBook: 978-1-315-19481-3

\* For full contents and more information, visit: www.routledge.com/9780367573744

### **Fish Diseases and Medicine**



Edited by Stephen A. Smith

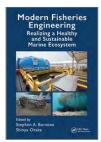
This comprehensive text provides an overview of fish medicine and the diseases and disorders of tropical, ornamental, bait and food fish from the freshwater, brackish and marine environments. The book is organized by body systems, an approach consistent with how a practitioner examines a diseased animal. Nineteen chapters by expert contributors offer an international perspective, exploring the problems affecting fish in various regions of the world.

CRC Press April 2019:412 Hb: 978-1-498-72786-0: **£84.99** eBook: 978-0-429-19525-9

 $\hbox{* For full contents} \ \ \text{and more information, visit:} \ \ www.routledge.com/9781498727860$ 

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### Edited by Stephen A. Bortone, Shinya Otake

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CRC Press April 2022:168 Hb: 978-0-367-34792-5: £180 Pb: 978-0-367-56066-9: £69.99 eRook: 978-0-429-32803-9

\* For full contents and more information, visit: www.routledge.com/9780367560669

### **Sustainable Aquafeeds**

Technological Innovation and Novel Ingredients



Edited by Jose M. Lorenzo, Jesus Simal-Gandara

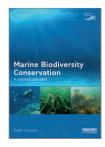
This book explores the evolution of aquaculture feeds, explaining the current challenges and considering how advances in technologies and ingredients can produce aquafoods for the increasing world population. International contributors provide information on the profile of the aquafeed industry, including factors affecting supplies and prices of key ingredients for aquafeed production. Chapters update readers on the most promising strategies, including the use of different ingredients for nutrient supplementations such as bacterial meals, plant-based proteins, algae and yeast to replace wild-caught ingredients, and the enhancement of their use by genetic selection.

CRC Press April 2023:384 Hb: 978-0-367-35444-2: £160 Pb: 978-1-032-12072-0: £98 eBook: 978-0-429-33166-4



### **Marine Biodiversity Conservation**

A Practical Approach



### Keith Hiscock

Series: Earthscan Oceans

Effective marine biodiversity conservation is dependent upon a clear scientific rationale for practical interventions. This book is intended to provide knowledge and tools for marine conservation practitioners and to identify issues and mechanisms for upper-level undergraduate and Masters students. The main focus is on benthic species living on or in the seabed and immediately above. Such species are fundamental to a stable and sustainable marine ecosystem. The book is a practical guide based on a clear exposition of the principles of marine ecology and species biology to demonstrate how marine conservation has been tackled worldwide.

Routledge August 2014:318 Hb: 978-0-415-72355-8: £160 Pb: 978-0-415-72356-5: £51.99 eBook: 978-1-315-85764-0

\* For full contents and more information, visit: www.routledge.com/9780415723565

### Marine Conservation Ecology



### John Roff, Mark Zacharias

Series: Earthscan Oceans

This major textbook provides a broad coverage of the ecological foundations of marine conservation, including the rationale, importance and practicalities of various approaches to marine conservation and management. The scope of the book encompasses an understanding of the elements of marine biodiversity - from global to local levels threats to marine biodiversity, and the structure and function of marine environments as related to conservation issues. The authors describe the potential approaches, initiatives and various options for conservation, from the genetic to the species, community and ecosystem levels in marine environments. They describe planning of ecologically integrated conservation strategies, including decision-making on size, boundaries, numbers and connectivity of protected area networks. The book also addresses relationships between fisheries and biodiversity, novel methods for conservation planning in the coastal zone and the evaluation of conservation init

Routledge April 2011:476 Hb: 978-1-844-07883-7: £170 Pb: 978-1-844-07884-4: £56.99 eBook: 978-1-849-77554-0

### **Tropical Marine Mollusks**

An Illustrated Biogeographical Guide



### Edward J. Petuch, David P. Berschauer

This book continues pioneering research into the distributions of molluscan faunas, illustrating 1778 species of gastropods in full color, many extremely rare endemic species illustrated for the first time outside of their original descriptions. 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. This book will appeal to physical and chemical oceanographers, systematic and evolutionary biologists, historical geologists, paleontologists, climatologists, geomorphologists, and physical geographers.

CRC Press
December 2020:373
Hb: 978-0-367-63638-8: £170
eBook: 978-1-003-12007-0
\* For **full contents** and more information, visit: **www.routledge.com/9780367636388** 



### **Plankton**

Guide to Their Ecology and Monitoring for Water Quality



### Iain Suthers, David Rissik, Anthony Richardson

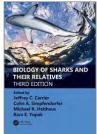
This practical book provides a comprehensive introduction to the biology and ecology of plankton and describes its use as a tool for monitoring water quality. All the major freshwater and coastal phytoplankton and zooplankton groups are covered and their associated environmental issues are discussed. A chapter on best practice in sampling and monitoring explains how to design, implement and conduct meaningful phytoplankton and zooplankton monitoring programs in marine and freshwater habitats, as well as how to analyse and interpret the results for effective management decision-making. Real-life case studies demonstrate the use of plankton for identifying and monitoring water quality issues.

CRC Press March 2019:248 Hb: 978-0-367-03016-2: **£56.99** 

 $<sup>\</sup>hbox{* For {\it full contents}} \ \ \hbox{and more information, visit:} \\ \hbox{{\it www.routledge.com/9780367030162}}$ 

### 3RD FDITION

### **Biology of Sharks and Their Relatives**



Edited by Jeffrey C. Carrier, Colin A. Simpfendorfer, Michael R. Heithaus, Kara E. Yopak

Series: CRC Marine Biology Series

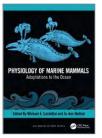
Biology of Sharks and Their Relatives is an award winning and groundbreaking exploration of the fundamental elements of the taxonomy, physiology, and ecology of sharks, skates, rays, and chimera. This presents current research as well as traditional models, to develop new frontiers in their own work. Traditional areas of study such as reproduction, taxonomy and systematics, sensory biology, and ecology are updated with contemporary research that incorporates emerging techniques including molecular genetics, exploratory techniques in artificial insemination.

CRC Press June 2022:840 Hb: 978-0-367-86117-9: **£99.99** eBook: 978-1-003-26219-0

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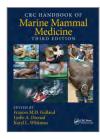
This unique undergraduate textbook considers what makes a marine mammal different from terrestrial mammals, focusing on the physiological and biochemical characteristics that have allowed this group of mammals to effectively exploit the hostile marine environment. The contents are organised around common student questions such as "How do mammals stay warm in a cold ocean?" while each chapter provides a set of PowerPoint slides for instructors to use in teaching. Study Questions and Future implications points conclude each chapter, while full-colour images and comprehensive, accessible content make this the definitive textbook for marine mammal physiology.

CRC Press July 2023:368 Hb: 978-1-032-28570-2: £130 Pb: 978-1-032-28560-3: £49.99 eBook: 978-1-003-29746-8

\* For full contents and more information, visit: www.routledge.com/9781032285603

### **3RD EDITION**

### **CRC Handbook of Marine Mammal Medicine**



Edited by Frances M.D. Gulland, Leslie A. Dierauf, Karyl Whitman

The new edition of the CRC Handbook of Marine Mammal Medicine provides a thorough and international approach to the husbandry, diseases, and environmental and political issues relating to marine mammal health and well-being. It covers all aspects of disease and health in cetaceans, pinnipeds, manatees, sea otters, and polar bears. In addition to the documented data on anatomy, physiology, infectious diseases, surgery, pathology, diagnostic imaging, and tagging and tracking, there are sections on marine mammals as sentinels of ocean health, strandings and rehabilitation, emerging diseases and public health considerations, legislative and regulatory issues, and careers in the field.

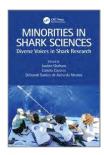
CRC Press May 2018:1144 Hb: 978-1-498-79687-3: £205 eBook: 978-1-315-14493-1

\* For full contents and more information, visit: www.routledge.com/9781498796873

### Book: 978-1-315-14493-1

### **Minorities in Shark Sciences**

Diverse Voices in Shark Research



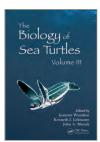
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CRC Press November 2022:212 Hb: 978-1-032-19696-1: £94.99 Pb: 978-1-032-19694-7: £34.99 eBook: 978-1-003-26037-0

For full contents and more information, visit: www.routledge.com/9781032196947

### The Biology of Sea Turtles, Volume III



Edited by Jeanette Wyneken, Kenneth J. Lohmann, John A. Musick

Series: CRC Marine Biology Series

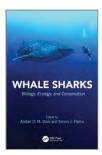
Since the first volume of The Biology of Sea Turtles was published in 1997, the field has grown and matured in ways few of the authors would have predicted. Volume III presents timely coverage of emerging areas as well as the integration of approaches and information that did not exist even a decade ago. The book assembles the foremost experts in each topic to provide the most up-to-date and comprehensive book on sea turtles available today. New areas covered include in vivo imaging of structure, spatial distributions of marine turtles at sea, epibiosis, imprinting, parasitology, and climatic effects.

CRC Press March 2013:475 Hb: 978-1-439-87307-6: £94.99 eBook: 978-0-429-10501-2

\* For full contents and more information, visit: www.routledge.com/9781439873076

### **Whale Sharks**

Biology, Ecology, and Conservation



Edited by Alistair D.M. Dove, Simon J. Pierce

Series: CRC Marine Biology Series

Written by the world's leading experts in whale shark biology, ecology, and conservation, Whale Sharks: Biology, Ecology and Conservation is the first definitive volume about the world's biggest fish. Chapters include discussions of satellite-linked tags, used to track whale shark movements; genetic sequencing, to examine evolutionary adaptations; even the use of underwater ultrasound units to investigate the species' reproduction. The editors hope that by collating what is known, they can make it easier for future researchers, conservationists, and resource managers to fill some of the remaining knowledge gaps, and provide the information they need to join the team.

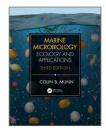
CRC Press August 2021:344 Hb: 978-1-032-04940-3: £205 Pb: 978-1-138-57129-7: £56.99 eBook: 978-0-203-70291-8



### **3RD EDITION**

### **Marine Microbiology**

Ecology & Applications



### Colin Munn, Colin Munn, Colin B. Munn

The third edition of this bestselling text has been rigorously updated to reflect major new discoveries and concepts since 2011, especially progress due to extensive application of high-throughput sequencing, single cell genomics and analysis of large datasets. Significant advances in understanding the diversity and evolution of bacteria, archaea, fungi, protists, and viruses are discussed and their importance in marine processes is explored in detail. A Companion Website provides extra resources to aid teaching and learning.

CRC Press CRC Press
January 2020:436
Hb: 978-0-367-18359-2: £130
Pb: 978-0-367-18356-1: £66.99
eBook: 978-0-429-06104-2
\* For full contents and more information, visit: www.routledge.com/9780367183561

### **Shark Research**

Emerging Technologies and Applications for the Field and Laboratory



### Edited by Jeffrey C. Carrier, Michael R. Heithaus, Colin A. Simpfendorfer

The study of shark biology has benefited from the development, refinement, and rapid expansion of novel techniques and advances in technology. These have given new insight into shark genetics, feeding, foraging, bioenergetics, imaging, age and growth, movement, migration, habitat preference, and habitat use. This pioneering book, written by experts in shark biology, examines technologies such as autonomous vehicle tracking, underwater video approaches, molecular genetics techniques, and accelerometry, among many others. Each detailed chapter offers new insights and promises for future studies of elasmobranch biology and provides an overview of appropriate uses of each technique.

CRC Press
March 2020:408
Hb: 978-1-138-03292-7: £160
Pb: 978-0-367-89343-9: £44.99
eBook: 978-1-315-31712-0
\* For full contents and more information, visit: www.routledge.com/9780367893439



### A Blue Carbon Primer

The State of Coastal Wetland Carbon Science, Practice and Policy



# Edited by Lisamarie Windham-Myers, Stephen Crooks, Tiffany G. Troxler

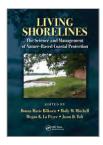
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CRC Press February 2020:532 Hb: 978-1-498-76909-9: £160 Pb: 978-0-367-89352-1: £56.99 eBook: 978-0-429-43536-2

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### **Living Shorelines**

The Science and Management of Nature-Based Coastal Protection



# Edited by Donna Marie Bilkovic, Molly M. Mitchell, Megan K. La Peyre, Jason D. Toft

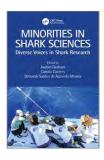
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CRC Press June 2020:519 Hb: 978-1-498-74002-9: £170 Pb: 978-0-367-57383-6: £44.99 eRook: 978-1-315-15146-5

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### **Minorities in Shark Sciences**

Diverse Voices in Shark Research



# Edited by Jasmin Graham, Camila Caceres, Deborah Santos de Azevedo Menna

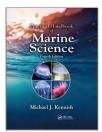
This book showcases the work done by Black, Indigenous and People of Color around the world in the fields of shark science and conservation. Edited by one Black and two Latin American female shark researchers, it strives to provide positive role models for the next generation. Strong minority voices are exactly what is needed to bring greater attention to the conservation of sharks, and this book illustrates how great things have been, are and will continue to be accomplished by people who were historically excluded from marine science. It highlights the unique perspectives these scientists bring to their field that allow them to interact with stakeholders.

CRC Press November 2022:212 Hb: 978-1-032-19696-1: £94.99 Pb: 978-1-032-19694-7: £34.99 eBook: 978-1-003-26037-0

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### 4TH EDITION

### **Practical Handbook of Marine Science**



### Michael J. Kennish

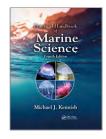
This heavily revised fourth edition continues its tradition as a state-of-the-art reference that updates the field of marine science to meet the interdisciplinary research needs of physical oceanographers, marine biologists, marine chemists, and marine geologists. Maintaining its user-friendly, multi-sectional format, this comprehensive resource will also be of value to undergraduate and graduate students, administrators, and other professionals who deal with the management of marine resources. The new edition offers extensive illustrative and tabular reference material covering all the major disciplines related to the sea.

CRC Press June 2022:528 Hb: 978-1-138-06885-8: £200 Pb: 978-1-032-33823-1: £44.99 eBook: 978-1-315-15759-7

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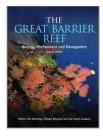
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CRC Press February 2019:488 Pb: 978-0-367-17428-6: **£74.99** 



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Edited by David R. Green, Jeffrey L. Payne

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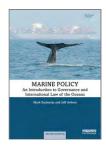
Routledge September 2017:336 Hb: 978-1-849-71289-7: £175 Pb: 978-1-849-71290-3: £52.99 eBook: 978-0-203-12708-7

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### Mark Zacharias, Jeff Ardron

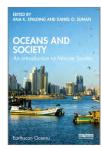
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This textbook provides readers with a foundation in policy development and analysis, describing how policy, including legal mechanisms, are applied to the marine environment. It presents a systematic treatment of all aspects of marine policy, including climate change, energy, environmental protection, fisheries, mining and transportation. Aligned with current course offerings, this textbook is an ideal introduction for undergraduates and graduate students taking marine affairs, science and policy courses.

Routledge June 2019:346 Hb: 978-0-815-37926-3: £130 Pb: 978-0-815-37927-0: £48.99 eBook: 978-1-351-21622-7

### **Oceans and Society**

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Edited by Ana Spalding, Daniel Suman

Series: Earthscan Oceans

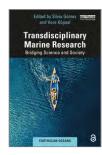
This unique textbook presents an introduction to the interdisciplinary field of marine studies, exploring the dynamic relationship between people and the marine environment. Oceans and Society is essential reading for students on marine studies courses, as well as those studying marine governance, policy, conservation and law more broadly. It will also be of great interest to students, researchers and professionals interested in applying interdisciplinary approaches to environmental challenges.

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### **Transdisciplinary Marine Research**

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Edited by Sílvia Gómez, Vera Köpsel

Series: Earthscan Oceans

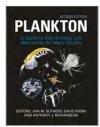
Drawing on the expertise of marine researchers from both the natural and social sciences, this book examines how we, as both scientists and societies, can return to a sustainable co-existence with the ocean and use the tools of transdisciplinarity to bring together the diverse forms of knowledge needed to achieve this important task. This book will be of great interest to students and scholars studying marine science and ocean research across a wide range of disciplines, including marine biology, environmental governance and policy, ocean resource management, oceanography, environmental anthropology, human geography and sustainability.

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### **Plankton**

Guide to Their Ecology and Monitoring for Water Quality



### Iain Suthers, David Rissik, Anthony Richardson

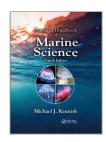
This practical book provides a comprehensive introduction to the biology and ecology of plankton and describes its use as a tool for monitoring water quality. All the major freshwater and coastal phytoplankton and zooplankton groups are covered and their associated environmental issues are discussed. A chapter on best practice in sampling and monitoring explains how to design, implement and conduct meaningful phytoplankton and zooplankton monitoring programs in marine and freshwater habitats, as well as how to analyse and interpret the results for effective management decision-making. Real-life case studies demonstrate the use of plankton for identifying and monitoring water quality issues.

CRC Press March 2019:248 Hb: 978-0-367-03016-2: **£56.99** 

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### **4TH EDITION**

### **Practical Handbook of Marine Science**



### Michael J. Kennish

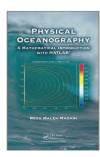
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Chapman & Hall April 2012:456 Hb: 978-1-584-88830-7: **£84.99** eBook: 978-0-429-11236-2

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CRC Press April 2017:310 Hb: 978-1-439-83896-9: £170 Pb: 978-1-138-07527-6: £66.99 eBook: 978-0-429-15213-9

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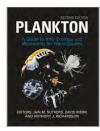
### Edited by Ferial El-Hawary

Compiled by an internationally acclaimed panel of experts, this is the most complete reference of its kind. It provides comprehensive coverage of important areas of the theory and practice of oceanic/coastal engineering and technology. The well-organized text includes five major sections: Marine Hydrodynamics and Vehicles Control, Modeling Considerations, Position Control Systems for Offshore Vessels, Applications of Computational Intelligence in the Ocean's Environment, and Fiber Optics in Oceanographic Applications. Designed as a traditional handbook, it offers a detailed look ocean engineering, including thorough coverage of position control theory and implementation.

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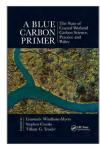
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### A Blue Carbon Primer

The State of Coastal Wetland Carbon Science, Practice and Policy



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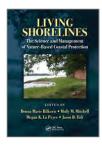
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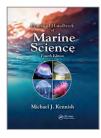
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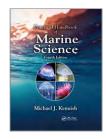
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