



Life & Earth Sciences

Copyright Years 2021 - 2022

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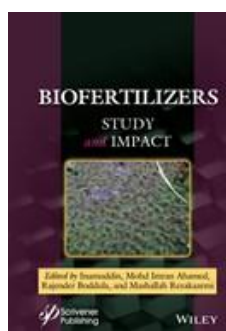
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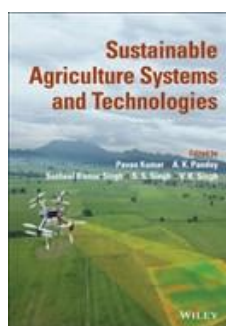
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Biofertilizers : Study and Impact
Inamuddin, Mohd Imran Ahamed, Rajender Boddula, Mashallah Rezakazemi
9781119724674
Pub Date: 8/3/21
\$225.00 USD
688 pages
Hardcover
Technology & Engineering / Agriculture / Sustainable Agriculture

Summary: Great attention has been paid to reduce the use of conventional chemical fertilizers harming living beings through food chain supplements from the soil environment. Therefore, it is necessary to develop alternative sustainable fertilizers to enhance soil sustainability and agriculture productivity. Biofertilizers are the substance that contains microorganisms (bacteria, algae, and fungi) living or latent cells that can enrich the soil quality with nitrogen, phosphorous, potassium, organic matter, etc. They are a cost-effective, biodegradable, and renewable source of plant nutrients/supplements to improve the soil-health properties. Biofertilizers emerge as an attractive alternative ...



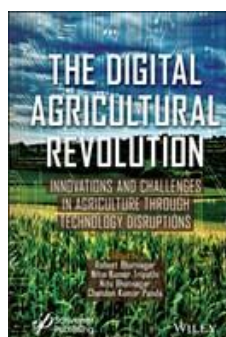
Sustainable Agriculture Systems and Technologies
Pavan Kumar, A. K. Pandey, Susheel Kumar Singh, S. S. Singh, V. K. Singh
9781119808534
Pub Date: 3/14/22
\$200.00 USD
400 pages
Hardcover
Technology & Engineering / Agriculture / Sustainable Agriculture

Summary: Sustainable Agriculture Systems and Technologies

A robust treatment of traditional and new techniques in sustainable agriculture

In Sustainable Agriculture Systems and Technologies, a team of distinguished researchers delivers an up-to-date and comprehensive exploration of sustainable agriculture and its relationship to the drivers of climate change. Along with robust examinations of food security and the agrarian livelihood, the book covers the impact of climate change and variability on agriculture, water management in agricultural systems, and precision agriculture.

This book represents a significant contribution to the scientific understanding of the application of technologies tha...

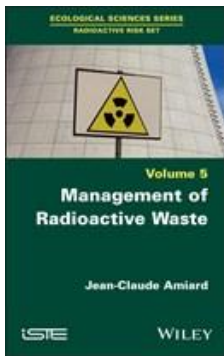


The Digital Agricultural Revolution : Innovations and Challenges in Agriculture through Technology Disruptions
Roheet Bhatnagar, Nitin Kumar Tripathi, Nitu Bhatnagar, Chandan Kumar Panda
9781119823339
Pub Date: 6/15/22
\$225.00 USD
496 pages
Hardcover
Computers / Artificial Intelligence

Summary: THE DIGITAL AGRICULTURAL REVOLUTION

The book integrates computational intelligence, applied artificial intelligence, and modern agricultural practices and will appeal to scientists, agriculturists, and those in plant and crop science management.

There is a need for synergy between the application of modern scientific innovation in the area of artificial intelligence and agriculture, considering the major challenges from climate change consequences viz. rising temperatures, erratic rainfall patterns, the emergence of new crop pests, drought, flood, etc. This volume reports on high-quality research (theory and practice including prototype & conceptualization of ideas, frameworks, real-w...



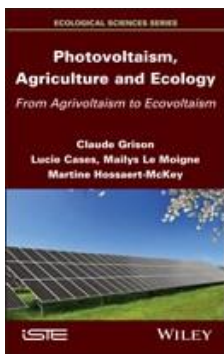
Management of Radioactive Waste

Jean-Claude Amiard
9781786307224
Pub Date: 10/26/21
\$165.00 USD
272 pages
Hardcover
Nature / Ecology

Summary: The classification of radioactive waste varies from state to state. This results in different management procedures for each country, while following IAEA and OECD/NEA recommendations.

Radioactive waste comes from numerous sources. The largest volumes are generated by the decommissioning and dismantling of nuclear facilities. Long-lived, medium- and high-activity waste – categorized as the most hazardous types of waste – are in fact largely produced by nuclear power reactors, spent fuel reprocessing plants and nuclear accidents.

Final disposal of very low-activity, low-activity and very short-lived waste is well controlled. However, final solutions for certain categories, including lo...



Photovoltaism, Agriculture and Ecology : From Agrivoltaism to Ecovoltalism

Claude Grison, Lucie Cases, Martine Hossaert-McKey, Mailys Le Moigne
9781786307200
Pub Date: 1/26/22
\$165.00 USD
176 pages
Hardcover
Technology & Engineering / Agriculture

Summary: One of the challenges of our modern society is to successfully reconcile growing energy demand, demographic and food pressure and ecological and environmental urgency.

This book offers an update on a rapidly evolving subject, that of modern photovoltaic systems capable of combining the needs of energy and ecological transition. Although photovoltaic solar energy is a well-proven technical solution in terms of energy, its development can compete with agricultural land or natural sites.

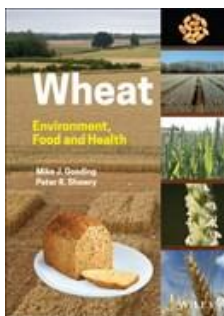
New solutions are emerging: the installation of photovoltaic parks on industrial wasteland; agrivoltaics, which reconcile agricultural activity and energy production on the same surface; and ecovoltaics,...



Alfalfa Management Guide

Dan Undersander, Denis Cosgrove, Eileen Cullen, Craig Grau, Martin E. Rice, Mark Renz, Craig Sheaffer, Glen Shewmaker, Mark Sulc
9780891183471
Pub Date: 7/7/21
\$10.00 USD
64 pages
Paperback
Technology & Engineering / Agriculture / Agronomy
Series: ASA, CSSA, and SSSA Books

Summary: Learn how to achieve top yields to maximize profits. This 2011 edition offers the latest information and strategies for alfalfa establishment, production, and harvest. Includes many color photos and charts.



Wheat : Environment, Food and Health

Mike J. Gooding, Peter R. Shewry

9781119652557

Pub Date: 2/7/22

\$200.00 USD

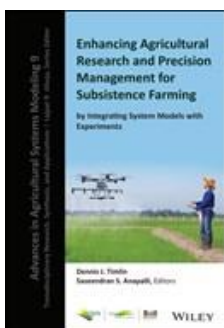
432 pages

Hardcover

Technology & Engineering / Agriculture / Agronomy

Summary: Wheat is produced on a greater area, grown over a wider geographic range, and traded internationally as a commodity more than any other arable crop. Wheat alone provides 20% of the calories and protein in the global human diet. Understanding the interactions between wheat production, the environment, and human nutrition is essential for meeting the demands of food security as we approach the middle of the 21st century.

Wheat: Environment, Food and Health is written by two leading authorities in the field and offers insights into critical issues such as the sustainability of wheat production, the challenges of both mitigating and adapting to environmental change, and the effects of wh...



Enhancing Agricultural Research and Precision Management for Subsistence Farming by Integrating System Models with Experiments

D Timlin

9780891183907

Pub Date: 5/17/22

\$145.00 USD

208 pages

Hardcover

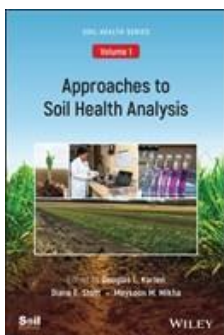
Technology & Engineering / Agriculture

Series: Advances in Agricultural Systems Modeling

Summary: Enhancing Agricultural Research and Precision Management for Subsistence Farming

Insightful applications of crop system models to developing countries to explore climate change mitigation and management decision tools

Enhancing Agricultural Research and Precision Management for Subsistence Farming by Integrating System Models with Experiments delivers an authoritative collection of applications of crop system models to Asian and African environments and evaluates current agricultural systems in developing nations. The book provides models to assist in the precision management of soil, water, fertilizers and manures, soil organic matter, alternative crops, and cultivars in both rainfed...



Approaches to Soil Health Analysis, Volume 1

Douglas L. Karlen, Diane E. Stott, Maysoon M. Mikha

9780891189800

Pub Date: 8/24/21

\$70.00 USD

224 pages

Paperback

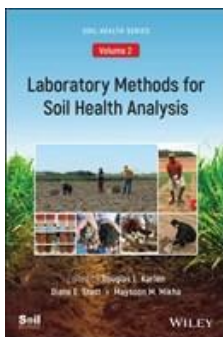
Technology & Engineering / Agriculture / Agronomy

Series: ASA, CSSA, and SSSA Books

Summary: Approaches to Soil Health Analysis

A concise survey of soil health analysis and its various techniques and applications

The maintenance of healthy soil resources provides the foundation for an array of global efforts and initiatives that affect humanity. Whether they are working to combat food shortages, conserve our ecosystems, or mitigate the impact of climate change, researchers and agriculturalists the world over must be able to correctly examine and understand the complex nature of this essential, fragile resource. These new volumes have been designed to meet this need, addressing the many dimensions of soil health analysis in chapters that are concise, accessible and applicable ...



Laboratory Methods for Soil Health Analysis, Volume 2

Douglas L. Karlen, Diane E. Stott, Maysoon M. Mikha

9780891189824

Pub Date: 8/24/21

\$70.00 USD

352 pages

Paperback

Technology & Engineering / Agriculture / Agronomy

Series: ASA, CSSA, and SSSA Books

Summary: Laboratory Methods for Soil Health Analysis Analyzing, comparing, and understanding soil health data

The maintenance of healthy soil resources is instrumental to the success of an array of global efforts and initiatives. Whether they are working to combat food shortages, conserve our ecosystems, or mitigate the impact of climate change, researchers and agriculturalists the world over must be able to correctly examine and understand the complex nature of this essential resource. These new volumes have been designed to meet this need, addressing the many dimensions of soil health analysis in chapters that are concise, accessible and applicable to the tasks at hand.

Soil Health, Volume Tw...



Soil Health Analysis, Set

DL Karlen

9780891189886

Pub Date: 8/24/21

\$125.00 USD

576 pages

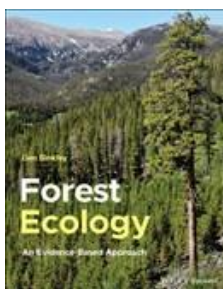
Paperback

Technology & Engineering / Agriculture / Agronomy

Series: ASA, CSSA, and SSSA Books

Summary: Volume 1 briefly reviews selected "Approaches to Soil Health Analysis" including a brief history of the concept, challenges and opportunities, meta-data and assessment, applications to forestry and urban land reclamation, and future soil health monitoring and evaluation approaches.

Volume 2 focuses on "Laboratory Methods for Soil Health Analysis" including an overview and suggested analytical approaches intended to provide meaningful, comparable data so that soil health can be used to guide restoration and protection of our global soil resources.



Forest Ecology : An Evidence-Based Approach

Dan Binkley

9781119703204

Pub Date: 10/4/21

\$79.95 USD

288 pages

Paperback

Nature / Plants / Trees

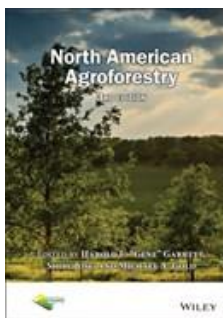
Summary: Forest Ecology

Forest Ecology

An Evidence-Based Approach

Forest ecology is the science that deals with everything in forests, including plants and animals (and their interactions), the features of the environment that affect plants and animals, and the interactions of humans and forests. All of these components of forests interact across scales of space and time. Some interactions are constrained, deterministic, and predictable; but most are indeterminant, contingent, and only broadly predictable.

Forest Ecology: An Evidence-Based Approach examines the features common to all forests, and those unique cases that illustrate the importance of site-specific factors in determining the struct...



North American Agroforestry (3rd Edition)
Harold E. Gene Garrett, Shibu Jose, Michael A. Gold
9780891183778
Pub Date: 2/23/22
\$120.00 USD
576 pages
Hardcover
Technology & Engineering / Agriculture
Series: ASA, CSSA, and SSSA Books

Summary: North American Agroforestry

Explore the many benefits of alternative land-use systems with this incisive resource

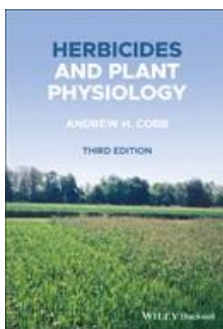
Humanity has become a victim of its own success. While we've managed to meet the needs—to one extent or another—of a large portion of the human population, we've often done so by ignoring the health of the natural environment we rely on to sustain our planet. And by deteriorating the quality of our air, water, and land, we've put into motion consequences we'll be dealing with for generations.

In the newly revised Third Edition of *North American Agroforestry*, an expert team of researchers delivers an authoritative and insightful exploration of an alternative land-use system ...



Horticultural Reviews, Volume 49
Ian Warrington
9781119851950
Pub Date: 11/9/21
\$245.00 USD
336 pages
Hardcover
Science / Life Sciences / Horticulture
Series: Horticultural Reviews

Summary: *Horticultural Reviews* presents state-of-the-art reviews on topics in horticultural science and technology covering both basic and applied research. Topics covered include the horticulture of fruits, vegetables, nut crops, and ornamentals. These review articles, written by world authorities, bridge the gap between the specialized researcher and the broader community of horticultural scientists and teachers.



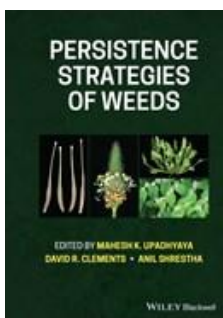
Herbicides and Plant Physiology (3rd Edition)
Andrew H. Cobb
9781119157694
Pub Date: 2/7/22
\$85.00 USD
400 pages
Paperback
Technology & Engineering / Agriculture / Agronomy

Summary: HERBICIDES AND PLANT PHYSIOLOGY

Discover the latest developments in herbicide and weed biology

In the newly revised Third Edition of *Herbicides and Plant Physiology*, distinguished researcher Professor Dr. Andrew H. Cobb delivers an insightful and comprehensive examination of the interaction between herbicides and plant physiology. The book discusses many of the advances in plant physiology, utilizing data from the *Arabidopsis* genome, and gene editing techniques that have occurred in the last dozen years.

This latest edition includes a variety of new and recent references addressing the latest developments in plant research. In addition to a complete introduction to weed biology, the bo...



Persistence Strategies of Weeds

Mahesh K. Upadhyaya, David R. Clements, Anil Shrestha

9781119525608

Pub Date: 2/14/22

\$199.99 USD

400 pages

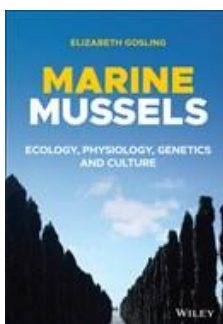
Hardcover

Technology & Engineering / Agriculture

Summary: An invaluable source of up-to-date information on all major aspects of weed persistence

Weeds negatively impact crop yields, the quality of agricultural produce, the health of livestock and ecosystems, and various aspects of human life. Despite significant expenditures of time, money, and resources by agricultural producers, land managers, and the general public, weeds persist. Developing new methods for protecting crops and the environment requires a thorough understanding of the persistence mechanisms of weeds.

In *Persistence Strategies of Weeds*, an international team of expert authors provide detailed information on weed seed biology, identify the vulnerabilities of different weeds...



Marine Mussels : Ecology, Physiology, Genetics and Culture

Elizabeth Gosling

9781119293903

Pub Date: 12/1/21

\$250.00 USD

880 pages

Hardcover

Technology & Engineering / Fisheries & Aquaculture

Summary: A comprehensive volume providing broad and detailed coverage of marine mussels

Marine Mussels: Ecology, Physiology, Genetics and Culture provides readers with in-depth, fully up-to-date information on all major aspects of marine mussels. Written by an internationally renowned expert in the field, this authoritative volume addresses morphology, ecology, feeding, phylogeny and evolution, reproduction and larval development, settlement and recruitment, genetics, disease, management of culture systems and more. The book encompasses many different species of marine mussels: genus *Mytilus*, other important commercial marine genera such as *Perna*, *Aulacomya* and *Choromytilus*, and non-commercial...



Fish and Fisheries in Estuaries, 2 Volume Set : A Global Perspective

Alan K. Whitfield, Kenneth W. Able, Stephen J. M. Blaber, Michael Elliott

9781444336672

Pub Date: 2/7/22

\$495.00 USD

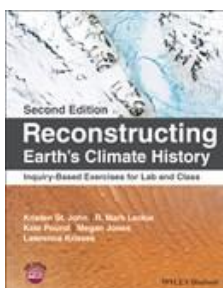
1120 pages

Hardcover

Technology & Engineering / Fisheries & Aquaculture

Summary: *Fish and Fisheries in Estuaries: A Global Perspective* brings together the current state of knowledge of estuarine fish in one inclusive work. Featuring contributions by more than fifty internationally-recognized researchers and estuarine ichthyological specialists, this landmark resource covers fish assemblages and functional groups, recruitment and production in estuaries, feeding ecology and trophic dynamics, fisheries and the conservation of estuarine fish, and much more.

Thirteen in-depth chapters and two method appendices examine major aspects of fish and fisheries in estuaries throughout the world. The text describes the biology of estuarine fish and their connections with estuaries...



Reconstructing Earth's Climate History : Inquiry-Based Exercises for Lab and Class
(2nd Edition)

Kristen St. John, R. Mark Leckie, Kate Pound, Megan Jones, Lawrence Krissek

9781119544111

Pub Date: 10/5/21

\$95.95 USD

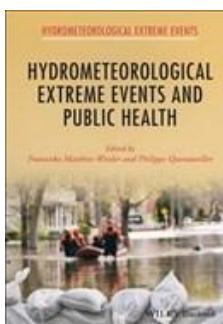
560 pages

Paperback

Science / Earth Sciences / Meteorology & Climatology

Summary: Reconstructing Earth's Climate History

There has never been a more critical time for students to understand the record of Earth's climate history, as well as the relevance of that history to understanding Earth's present and likely future climate. There also has never been a more critical time for students, as well as the public-at-large, to understand **how we know**, as much as **what we know**, in science. This book addresses these needs by placing you, the student, at the center of learning. In this book, you will actively use inquiry-based explorations of authentic scientific data to develop skills that are essential in all disciplines: making observations, developing and testing hypoth...



Hydrometeorological Extreme Events and Public Health

Franziska Matthies-Wiesler, Philippe Quevauviller

9781119259305

Pub Date: 3/28/22

\$100.00 USD

128 pages

Hardcover

Science / Earth Sciences / Meteorology & Climatology

Series: Hydrometeorological Extreme Events

Summary: CONTINGENCY PLANNING FOR INCREASED FLOODS AND DROUGHTS RESULTING FROM CLIMATE CHANGE TO PROTECT HUMAN HEALTH

Hydrometeorological Extreme Events and Public Health outlines the links between climate change, trends in hydrometeorological extreme events, and the effects on human health, and describes new developments in health adaptation and disaster risk management. The work provides technical facts, examples of international and national approaches and scientific projects, and covers key issues such as multi-sectoral collaboration, disaster preparedness, response and recovery, as well as stakeholder involvement, and costs.

Readers will find:

- Specific observed and projected health effects...



Weather For Dummies (2nd Edition)

John D. Cox

9781119811008

Pub Date: 8/24/21

\$24.99 USD

400 pages

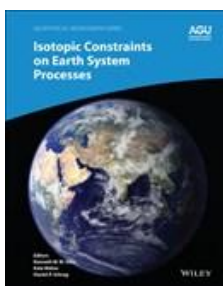
Paperback

Nature / Weather

Summary: What in the world is going on up there?

Look up! It's a bird; it's a plane; it's a Polar mesospheric cloud! When you look to the sky, do you wonder why the Sun is so bright or why the clouds are white or why the sky is blue? Then, *Weather For Dummies* is your resource to fuel your curiosity about the weather. It takes you on an exciting journey through the Earth's atmosphere and the ways it behaves. You'll get an overview of rain, Sun, clouds, storms and other phenomena.

With helpful photographs and illustrations, you can easily visualize different weather types and relate them into the world around you. The scientific words and phrases are explained in detail (what is barometric pr...



Isotopic Constraints on Earth System Processes

Kenneth W. W. Sims, Katharine (Kate) Maher,
Daniel P. Schrag
9781119594970
Pub Date: 6/1/22
\$199.95 USD
352 pages
Hardcover
Science / Earth Sciences
Series: Geophysical Monograph Series

Summary: Using isotopes as a tool for understanding Earth processes

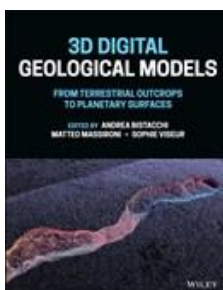
From establishing the absolute age of the Earth to providing a stronger understanding of the nexus between geology and life, the careful measurement and quantitative interpretation of minor variations in the isotopic composition of Earth's materials has provided profound insight into the origins and workings of our planet.

Isotopic Constraints on Earth System Processes presents examples of the application of numerous different isotope systems to address a wide range of topical problems in Earth system science.

Volume highlights include:

- examination of the natural fractionation of non-traditional stable isotopes

Wiley



3D Digital Geological Models : From Terrestrial Outcrops to Planetary Surfaces

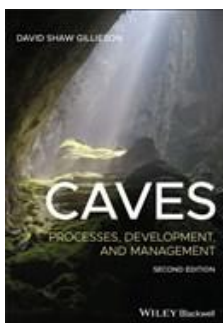
Andrea Bistacchi, Matteo Massironi, Sophie Viseur
9781119313885
Pub Date: 4/5/22
\$140.00 USD
240 pages
Hardcover
Science / Physics / Geophysics
Series: Geophysical Monograph Series

Summary: 3D DIGITAL GEOLOGICAL MODELS

Discover the practical aspects of modeling techniques and their applicability on both terrestrial and extraterrestrial structures

A wide overlap exists in the methodologies used by geoscientists working on the Earth and those focused on other planetary bodies in the Solar System. Over the course of a series of sessions at the General Assemblies of the European Geosciences Union in Vienna, the intersection found in 3D characterization and modeling of geological and geomorphological structures for all terrestrial bodies in our solar system revealed that there are similar datasets and common techniques for the study of all planets—Earth and beyond—from a geol...

Wiley-Blackwell

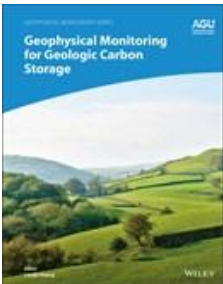


Caves : Processes, Development, and Management (2nd Edition)

David Shaw Gillieson
9781119455578
Pub Date: 6/14/21
\$64.95 USD
528 pages
Paperback
Science / Earth Sciences / Geology

Summary:

People have been interested in caves for a very long time. Our distant ancestors used them for shelter, as sources of water, and as places in which to conduct essential rituals. They adorned their walls with quite sophisticated artwork depicting both their existential and spiritual concerns. Caves feature in our mythology, they are used as places of worship in many cultures, and they are used throughout the world as places in which to store prized foodstuffs and wine. For at least two hundred years they have attracted scientists, artists, photographers, and recreational cavers. This book aims examines how caves form, the light they shed on past environments and climates, and the val...



Geophysical Monitoring for Geologic Carbon Storage
Lianjie Huang
9781119156833
Pub Date: 4/5/22
\$189.95 USD
464 pages
Hardcover
Science / Earth Sciences / Geology
Series: Geophysical Monograph Series

Summary: Methods and techniques for monitoring subsurface carbon dioxide storage

Storing carbon dioxide in underground geological formations is emerging as a promising technology to reduce carbon dioxide emissions in the atmosphere. A range of geophysical techniques can be deployed to remotely track carbon dioxide plumes and monitor changes in the subsurface, which is critical for ensuring for safe, long-term storage.

Geophysical Monitoring for Geologic Carbon Storage provides a comprehensive review of different geophysical techniques currently in use and being developed, assessing their advantages and limitations.

Volume highlights include:

- Geodetic and surface monitoring techniques
- Subsurface m...

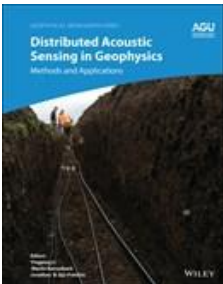


The Field Description of Metamorphic Rocks
(2nd Edition)
Dougal Jerram, Mark Caddick
9781118618752
Pub Date: 4/12/22
\$31.00 USD
192 pages
Paperback
Science / Earth Sciences / Geology
Series: Geological Field Guide

Summary: The Field Description of Metamorphic Rocks

The Field Description of Metamorphic Rocks, Second Edition

This pocket-sized field guide describes how metamorphic rocks and rock masses may be observed, recorded and mapped in the field. Written at a level suitable for Earth Science undergraduate students, this book is an essential tool for any geologist — student, professional or amateur — faced with the task of making a general description of an area of metamorphic rocks. A clear, systematic framework, together with numerous colour diagrams, illustrations and checklists, enables readers with different backgrounds to produce useful descriptions, despite possible differences of background or...



Distributed Acoustic Sensing in Geophysics : Methods and Applications
Yingping Li, Martin Karrenbach, Jonathan Ajo-Franklin
9781119521792
Pub Date: 1/26/22
\$199.95 USD
320 pages
Hardcover
Science / Physics / Geophysics
Series: Geophysical Monograph Series

Summary: Distributed Acoustic Sensing in Geophysics

Distributed Acoustic Sensing in Geophysics

Methods and Applications

Distributed Acoustic Sensing (DAS) is a technology that records sound and vibration signals along a fiber optic cable. Its advantages of high resolution, continuous, and real-time measurements mean that DAS systems have been rapidly adopted for a range of applications, including hazard mitigation, energy industries, geohydrology, environmental monitoring, and civil engineering.

Distributed Acoustic Sensing in Geophysics: Methods and Applications presents experiences from both industry and academia on using DAS in a range of geophysical applications.

... ..



Applied Multidimensional Geological Modeling : Informing Sustainable Human Interactions with the Shallow Subsurface

Alan Keith Turner, Holger Kessler, Michiel J. van der Meulen

9781119163121

Pub Date: 6/21/21

\$210.00 USD

672 pages

Hardcover

Science / Earth Sciences / Geology

Summary: Over the past decades, geological survey organizations have digitized their data handling and holdings, unlocking vast amounts of data and information for computer processing. They have undertaken 3-D modeling alongside, and in some cases instead of, conventional geological mapping and begun delivering both data and interpretations to increasingly diverse stakeholder communities. *Applied Multidimensional Geological Modeling* provides a citable central source that documents the current capabilities and contributions of leading geological survey organization and other practitioners in industry and academia that are producing multidimensional geological models.

This book focuses on appli...



Geology and Mineralogy of Gemstones

David P. Turner, Lee A. Groat

9781119299851

Pub Date: 3/2/22

\$99.95 USD

288 pages

Paperback

Science / Earth Sciences / Mineralogy

Series: AGU Advanced Textbooks

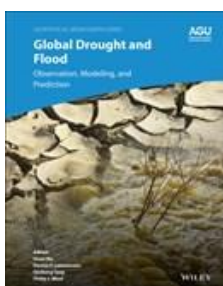
Summary: Understanding gemstones in a geological context

Gemstones are colorful treasures of the Earth that have captivated humans for thousands of years. The physical and chemical characteristics of each type of gem provides insights into the geological processes that created them.

Geology and Mineralogy of Gemstones is a textbook aimed at upper-level undergraduate and graduate students. It presents the basic mineralogical and geological knowledge needed to understand gemstones and examines the characteristics and geological origins of different types of gemstone.

Volume highlights include:

- Concepts in mineralogy
- Structure and chemical composition of minerals



Global Drought and Flood : Monitoring, Prediction, and Adaptation

Huan Wu, Dennis P. Lettenmaier, QiuHong Tang, Philip J. Ward

9781119427308

Pub Date: 9/8/21

\$169.95 USD

352 pages

Hardcover

Science / Earth Sciences / Geology

Series: Geophysical Monograph Series

Summary: Recent advances in the modeling and remote sensing of droughts and floods

Droughts and floods are causing increasing damage worldwide, often with devastating short- and long-term impacts on human society. Forecasting when they will occur, monitoring them as they develop, and learning from the past to improve disaster management is vital.

Global Drought and Flood: Observation, Modeling, and Prediction presents recent advances in the modeling and remote sensing of droughts and floods. It also describes the techniques and products currently available and how they are being used in practice.

Volume highlights include:

- Remote sensing approaches for mapping droughts and floods



Remote Sensing of Water-Related Hazards

Ke Zhang, Yang Hong, Amir AghaKouchak
9781119159124

Pub Date: 4/19/22

\$189.95 USD

272 pages

Hardcover

Science / Earth Sciences / Geology

Series: Geophysical Monograph Series

Summary: Applications of remote sensing technology for monitoring and predicting water-related hazards

Water-related hazards such as floods and droughts have serious impacts on society. Their incidence has increased in recent decades, a trend set to continue with ongoing climate change. Adaptation and mitigation measures require accurate detection, monitoring, and forecasting, much of which comes from remote sensing technologies.

Remote Sensing of Water-Related Hazards takes an interdisciplinary approach, presenting recent advances in the available data, sensors, models, and indicators developed for monitoring and prediction.

Volume highlights include:

- Progress in remote sensing of precipitation...

Wiley



Wetland Carbon and Environmental Management

Ken W. Krauss, Zhiliang Zhu, Camille L. Stagg
9781119639282

Pub Date: 11/23/21

\$229.95 USD

480 pages

Hardcover

Science / Physics / Geophysics

Series: Geophysical Monograph Series

Summary: Wetland Carbon and Environmental Management

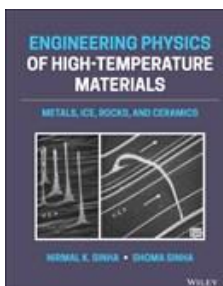
Wetlands are vital natural assets, including their ability to take-up atmospheric carbon and restrict subsequent carbon loss to facilitate long-term storage. They can be deliberately managed to provide a natural solution to mitigate climate change, as well as to help offset direct losses of wetlands from various land-use changes and natural drivers.

Wetland Carbon and Environmental Management presents a collection of wetland research studies from around the world to demonstrate how environmental management can improve carbon sequestration while enhancing wetland health and function.

Volume highlights include:

- Overview of carbon storage in the ...

Wiley



Engineering Physics of High-Temperature Materials : Metals, Ice, Rocks, and Ceramics

Nirmal K. Sinha, Shoma Sinha

9781119420484

Pub Date: 3/29/22

\$199.95 USD

432 pages

Hardcover

Technology & Engineering / Materials Science

Summary: ENGINEERING PHYSICS OF HIGH-TEMPERATURE MATERIALS

Discover a comprehensive exploration of high temperature materials written by leading materials scientists

In *Engineering Physics of High-Temperature Materials: Metals, Ice, Rocks, and Ceramics* distinguished researchers and authors Nirmal K. Sinha and Shoma Sinha deliver a rigorous and wide-ranging discussion of the behavior of different materials at high temperatures. The book discusses a variety of physical phenomena, from plate tectonics and polar sea ice to ice-age and intraglacial depression and the postglacial rebound of Earth's crust, stress relaxation at high temperatures, and microstructure and crack-enhanced Elasto Delayed El...



Remote Sensing Physics : An Introduction to Observing Earth from Space

Rick Chapman, Richard Gasparovic

9781119669074

Pub Date: 3/15/22

\$149.95 USD

496 pages

Paperback

Technology & Engineering / Remote Sensing &

Geographic Information Systems

Series: AGU Advanced Textbooks

Summary: Remote Sensing Physics

ADVANCED TEXTBOOK SERIES

Remote Sensing Physics

An Introduction to Observing Earth from Space

The development of spaceborne remote sensing technology has led to a new understanding of the complexity of our planet by allowing us to observe Earth and its environments on spatial and temporal scales that are unavailable to terrestrial sensors.

Remote Sensing Physics: An Introduction to Observing Earth from Space is a graduate-level text that examines the underlying physical principles and techniques used to make remote measurements, along with the algorithms used to extract geophysical information from those measurements.



Earth Observation Using Python : A Practical Programming Guide

Rebekah B. Esmaili

9781119606888

Pub Date: 8/24/21

\$169.95 USD

304 pages

Hardcover

Science / Earth Sciences / Meteorology &

Climatology

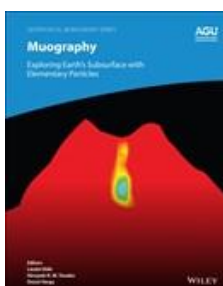
Series: Special Publications

Summary: Learn basic Python programming to create functional and effective visualizations from earth observation satellite data sets

Thousands of satellite datasets are freely available online, but scientists need the right tools to efficiently analyze data and share results. Python has easy-to-learn syntax and thousands of libraries to perform common Earth science programming tasks.

Earth Observation Using Python: A Practical Programming Guide presents an example-driven collection of basic methods, applications, and visualizations to process satellite data sets for Earth science research.

- Gain Python fluency using real data and case studies
- Read and write common scientific data formats, like netCDF



Muography : Exploring Earth's Subsurface with Elementary Particles

László Oláh, Hiroaki K. M. Tanaka, Dezső Varga

9781119723028

Pub Date: 3/2/22

\$199.95 USD

320 pages

Hardcover

Science / Physics / Geophysics

Series: Geophysical Monograph Series

Summary: Muography

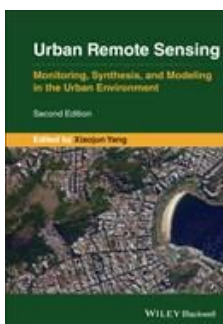
Muography

Exploring Earth's Subsurface with Elementary Particles

Hidden out of sight in Earth's subsurface are a range of geophysical structures, processes, and material movements. Muography is a passive and non-destructive remote sensing technique that visualizes the internal structure of solid geological structures at high resolution, similar in process to X-ray radiography of human bodies.

Muography: Exploring Earth's Subsurface with Elementary Particles explores the application of this imaging technique in the geosciences and how it can complement conventional geophysical observations.

Volume highlights include:



Urban Remote Sensing : Monitoring, Synthesis and Modeling in the Urban Environment (2nd Edition)

Xiaojun X. Yang

9781119625841

Pub Date: 10/11/21

\$155.00 USD

528 pages

Hardcover

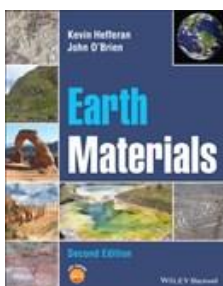
Technology & Engineering / Remote Sensing & Geographic Information Systems

Summary: Urban Remote Sensing

The second edition of **Urban Remote Sensing** is a state-of-the-art review of the latest progress in the subject. The text examines how evolving innovations in remote sensing allow to deliver the critical information on cities in a timely and cost-effective way to support various urban management activities and the scientific research on urban morphology, socio-environmental dynamics, and sustainability.

Chapters are written by leading scholars from a variety of disciplines including remote sensing, GIS, geography, urban planning, environmental science, and sustainability science, with case studies predominately drawn from North America and Europe.

- A review of the ess...



Earth Materials (2nd Edition)

Kevin Hefferan, John O'Brien

9781119512172

Pub Date: 6/8/22

\$66.00 USD

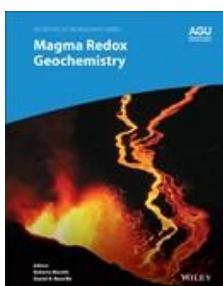
688 pages

Paperback

Science / Earth Sciences / Seismology & Volcanism

Summary: Earth Materials

Earth materials encompass the minerals, rocks, soil and water that constitute our planet and the physical, chemical and biological processes that produce them. Since the expansion of computer technology in the last two decades of the twentieth century, many universities have compressed or eliminated individual course offerings such as mineralogy, optical mineralogy, igneous petrology, sedimentology and metamorphic petrology and replaced them with Earth materials courses. Earth materials courses have become an essential curricular component in the fields of geology, geoscience, Earth science, and many related areas of study. This textbook is designed to address the need...



Magma Redox Geochemistry

Roberto Moretti, Daniel R. Neuville

9781119473251

Pub Date: 10/26/21

\$199.95 USD

432 pages

Hardcover

Science / Physics / Geophysics

Series: Geophysical Monograph Series

Summary: Explores the many facets of redox exchanges that drive magma's behavior and evolution, from the origin of the Earth until today

The redox state is one of the master variables behind the Earth's forming processes, which at depth concern magma as the major transport agent. Understanding redox exchanges in magmas is pivotal for reconstructing the history and compositional make-up of our planet, for exploring its mineral resources, and for monitoring and forecasting volcanic activity.

Magma Redox Geochemistry describes the multiple facets of redox reactions in the magmatic realm and presents experimental results, theoretical approaches, and unconventional and novel techniques.

Volume highl...



A Mid-Ordovician Brachiopod Evolutionary Hotspot in Southern Kazakhstan

Leonid E. Popov, L. Robin M. Cocks

9781119781875

Pub Date: 5/2/22

\$75.00 USD

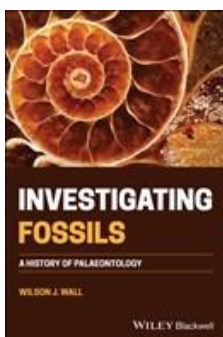
160 pages

Paperback

Science / Paleontology

Series: Fossils and Strata Monograph Series

Summary: Discover a crucial period and location in the study of brachiopod evolution Part of the Fossils and Strata Monograph Series, A Mid-Ordovician Brachiopod Evolutionary Hotspot in Southern Kazakhstan offers readers an illuminating and engrossing look at brachiopods from the mid-Ordovician period in Southern Kazakhstan. The book explores the geological setting, brachiopod associations, and their implications for biodiversity. It also considers specific localities of interest, systematic paleontology, and provides over two dozen instructive figures and illustrations.



Investigating Fossils : A History of Palaeontology

Wilson J. Wall

9781119698456

Pub Date: 7/13/21

\$45.00 USD

256 pages

Paperback

Science / Paleontology

Summary: INVESTIGATING FOSSILS

INVESTIGATING FOSSILS A HISTORY OF PALAEOLOGY

Investigating Fossils – A History of Palaeontology is a concise and accessible look at changing attitudes to palaeontology in general, and fossils in particular. From the existential and philosophical debates arising from fossils – such as their implications for the age of the Earth – to their role as markers in Darwin's theory of evolution, fossils have been the centre of highly charged debate for over two centuries.

This book, which is aimed at anyone with an interest in the history and philosophy of science, not only describes the process of fossil formation and the history of the discovery of fossils. It goes fur...



Mantle Convection and Surface Expressions

Hauke Marquardt, Maxim Ballmer, Sanne Cottaar, Jasper Konter

9781119528616

Pub Date: 7/7/21

\$249.95 USD

512 pages

Hardcover

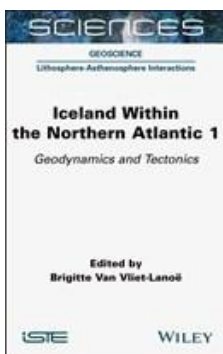
Science / Physics / Geophysics

Series: Geophysical Monograph Series

Summary: A multidisciplinary perspective on the dynamic processes occurring in Earth's mantle

The convective motion of material in Earth's mantle, powered by heat from the deep interior of our planet, drives plate tectonics at the surface, generating earthquakes and volcanic activity. It shapes our familiar surface landscapes, and also stabilizes the oceans and atmosphere on geologic timescales.

Mantle Convection and Surface Expressions brings together perspectives from observational geophysics, numerical modelling, geochemistry, and mineral physics to build a holistic picture of the deep Earth. It explores the dynamic processes occurring in the mantle as well as the associated heat and materi...



Iceland Within the Northern Atlantic, Volume 1 : Geodynamics and Tectonics

Brigitte Van Vliet-Lanoë

9781789450149

Pub Date: 8/31/21

\$165.00 USD

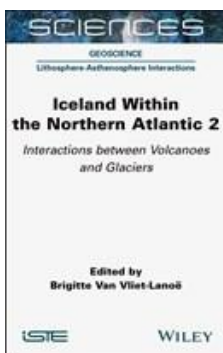
256 pages

Hardcover

Technology & Engineering / Electronics

Summary: The volcanic island of Iceland is a unique geological place due both to its position in the middle of the Atlantic Ocean and its repeated glaciations. It has been an accurate recorder of geodynamic and regional climatic evolutions for at least the last 15 million years.

This book traces the history of Iceland, which is linked to the opening of the North Atlantic and the reactivation of the ancient suture of the Iapetus Ocean. It gives a view of climate evolution that is partly controlled by the dynamics of the ocean floor and analyzes the movement of the Jan Mayen tectonic plate and the progressive insularization of the Greenland–Faroe Ridge, which gave birth to Iceland. It also tries...



Iceland Within the Northern Atlantic, Volume 2 : Interactions between Volcanoes and Glaciers

Brigitte Van Vliet-Lanoë

9781789450156

Pub Date: 8/24/21

\$165.00 USD

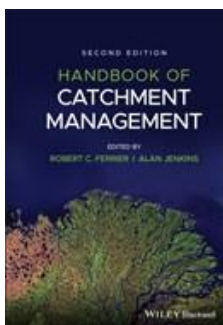
272 pages

Hardcover

Science / Earth Sciences / Geology

Summary: The volcanic island of Iceland is a unique geological place due both to its position in the middle of the Atlantic Ocean and its repeated glaciations. It has been an accurate recorder of geodynamic and regional climatic evolutions for at least the last 15 million years.

This book studies the Quaternary magmatism associated with the deep Iceland hotspot and, in particular, its distinctive geochemical and volcanological characteristics. It also analyzes that Arctic glacierization as it relates to the opening of the North Atlantic and the appearance of today's ocean currents. We will also investigate the Quaternary glaciation as it affected Iceland in its oceanic context, particularly o...



Handbook of Catchment Management (2nd Edition)

Robert C. Ferrier, Alan Jenkins

9781119531227

Pub Date: 7/13/21

\$175.00 USD

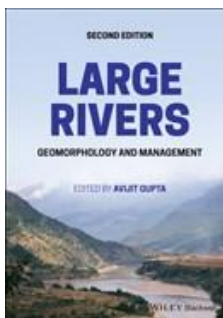
656 pages

Hardcover

Science / Earth Sciences / Hydrology

Summary: HANDBOOK OF CATCHMENT MANAGEMENT

In 2010, the first edition of the *Handbook of Catchment Management* provided a benchmark on how our understanding and actions in water management within a catchment context had evolved in recent decades. Over ten years on, the catchment management concept is entering a new phase of development aligned to contemporary and future challenges. These include climate change uncertainty, further understanding in ecological functioning under change, the drive for a low-carbon, energy efficient and circular society, multiple uses of water, the emergence of new pollutants of concern, new approaches to valuation, finance and pricing mechanisms, stewardship and co...



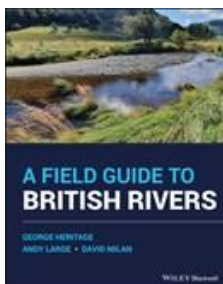
Large Rivers : Geomorphology and Management (2nd Edition)

Avijit Gupta
9781119412601
Pub Date: 5/2/22
\$315.00 USD
1040 pages
Hardcover
Science / Earth Sciences / Hydrology

Summary: An updated treatment of management and geomorphology of large rivers around the world

The newly revised Second Edition of *Large Rivers: Geomorphology and Management* delivers a thoroughly updated exploration of the form and function of major rivers. The book brings together a set of papers on the large rivers of the world, offering readers an insightful examination of a demanding subject. The new Second Edition of the book includes fully updated and revised chapters, as well as two entirely new chapters on the Ayeyarwady and the Arctic rivers.

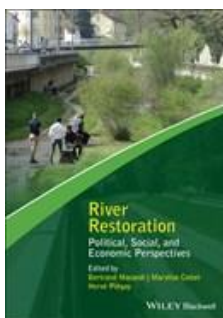
This fascinating volume describes the environmental requirements for creating and maintaining a major river system, case studies on over a dozen...



A Field Guide to British Rivers : Implications for Restoration

George Heritage, Andy Large, David Milan
9781118487983
Pub Date: 10/11/21
\$129.95 USD
208 pages
Hardcover
Science / Earth Sciences / Hydrology

Summary: Temperate rivers are influenced by many factors including geology, climate, soils, sediment type, flow, as well as human activity. The complex interactions of the non-anthropogenic controlling factors have led to a wonderful diversity of river type throughout the British Isles. Sadly, almost all rivers in the UK have suffered significant and long-lasting modification by unsympathetic management, that has all but destroyed this variety, creating watercourses that are simplified conduits for water and sediment, designed primarily to drain the land and reduce flood risk. This volume aims to help reverse this, illustrating using over 200 images and descriptions, this variety of rivers i...



River Restoration : Political, Social, and Economic Perspectives

Bertrand Morandi, Marylise Cottet, Hervé Piégay
9781119409984
Pub Date: 9/27/21
\$100.00 USD
384 pages
Hardcover
Science / Earth Sciences / Hydrology
Series: Advancing River Restoration and Management

Summary: River Restoration

River restoration initiatives are now widespread across the world. The research efforts undertaken to support them are increasingly interdisciplinary, focusing on ecological, chemical, physical as well as societal issues. *River Restoration: Political, Social, and Economic Perspectives* provides a comprehensive overview of research in the field of river restoration in humanities and the social sciences. It illustrates how, in the last thirty years or so, such approaches have evolved and strengthened within the restoration sciences.

The scientific community working in this domain has structured itself, often regionally and circumstantially, to critically assess and impr...



Open Channel Design : Fundamentals and Applications

Ernest W. Tollner

9781119664246

Pub Date: 9/20/21

\$125.00 USD

336 pages

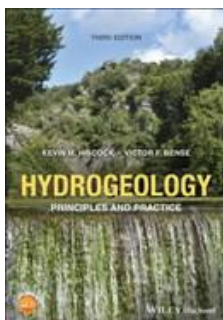
Hardcover

Science / Earth Sciences / Hydrology

Summary: OPEN CHANNEL DESIGN

A fundamental knowledge of flow in open channels is essential for the planning and design of systems to manage water resources. Open channel design has applications within many fields, including civil engineering, agriculture, hydrology, geomorphology, sedimentology, environmental fluid and sediment dynamics and river engineering.

Open Channel Design: Fundamentals and Applications covers permissible velocity, tractive force, and regime theory design methodologies and applications. Hydraulic structures for flow control and measurement are covered. Flow profiles and their design implications are covered. Sediment transport mechanics and moveable boundaries in channel...



Hydrogeology : Principles and Practice (3rd Edition)

Kevin M. Hiscock, Victor F. Bense

9781119569534

Pub Date: 11/8/21

\$95.95 USD

768 pages

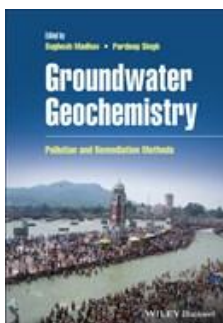
Paperback

Technology & Engineering / Environmental / Water Supply

Summary: HYDROGEOLOGY

Hydrogeology: Principles and Practice provides a comprehensive introduction to the study of hydrogeology to enable the reader to appreciate the significance of groundwater in meeting current and future environmental and sustainable water resource challenges. This new edition has been thoroughly updated to reflect advances in the field since 2014 and includes over 350 new references.

The book presents a systematic approach to understanding groundwater starting with new insights into the distribution of groundwater in the Earth's upper continental crust and the role of groundwater as an agent of global material and elemental fluxes. Following chapters explain the fundamenta...



Groundwater Geochemistry : Pollution and Remediation Methods

Sughosh Madhav, Pardeep Singh

9781119709695

Pub Date: 7/6/21

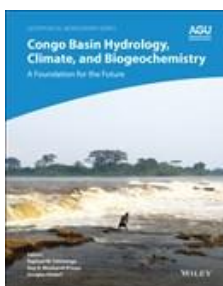
\$200.00 USD

448 pages

Hardcover

Technology & Engineering / Environmental / Water Supply

Summary: This book contains both practical and theoretical aspects of groundwater resources relating to geochemistry. Focusing on recent research in groundwater resources, this book helps readers to understand the hydrogeochemistry of groundwater resources. Dealing primarily with the sources of ions in groundwater, the book describes geogenic and anthropogenic input of ions into water. Different organic, inorganic and emerging contamination and salinity problems are described, along with pollution-related issues affecting groundwater. New trends in groundwater contamination remediation measures are included, which will be particularly useful to researchers working in the field of water conse...



Congo Basin Hydrology, Climate, and Biogeochemistry : A Foundation for the Future

Alsdorf

9781119656975

Pub Date: 3/22/22

\$219.95 USD

592 pages

Hardcover

Science / Earth Sciences / Hydrology

Series: Geophysical Monograph Series

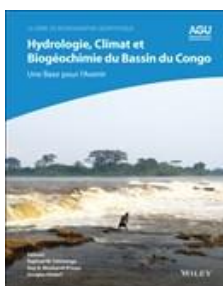
Summary: New scientific discoveries in the Congo Basin as a result of international collaborations

The Congo is the world's second largest river basin and home to 120 million people. Understanding the cycling of water, sediments, and nutrients is important as the region faces climatic and anthropogenic change.

Congo Basin Hydrology, Climate, and Biogeochemistry: A Foundation for the Future explores variations in and influences on rainfall, hydrology and hydraulics, and sediment and carbon dynamics. It features contributions from experts in the region and their international collaborators.

Volume highlights include:

- New in-situ and remotely sensed measurements and model results



Hydrologie, climat et biogéochimie du bassin du Congo : Une Base pour l'Avenir

Alsdorf

9781119842095

Pub Date: 3/22/22

\$219.95 USD

624 pages

Hardcover

Science / Earth Sciences / Hydrology

Series: Geophysical Monograph Series

Summary: Nouvelles découvertes scientifiques dans le bassin du Congo grâce à des collaborations internationales

Le Congo est le deuxième plus grand bassin fluvial du monde et abrite 120 millions d'habitants. La compréhension du cycle de l'eau, des sédiments et des nutriments est importante car la région est confrontée à des changements climatiques et anthropiques.

Hydrologie, climat et biogéochimie du bassin du Congo : une base pour l'avenir explore les variations et les influences sur les précipitations, l'hydrologie et l'hydraulique, et la dynamique des sédiments et du carbone. Il présente des contributions d'experts de la région et de leurs collaborateurs internationaux.

Les points forts du ...



Climate Impacts on Sustainable Natural Resource Management

Pavan Kumar, Ram Kumar Singh, Manoj Kumar, Meenu Rani, Pardeep Sharma

9781119793373

Pub Date: 12/1/21

\$200.00 USD

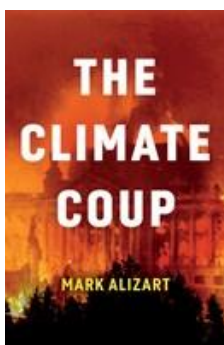
384 pages

Hardcover

Political Science / Public Policy / Environmental Policy

Summary: CLIMATE IMPACTS ON SUSTAINABLE NATURAL RESOURCE MANAGEMENT

Climate change has emerged as one of the predominant global concerns of the 21st century. Statistics show that the average surface temperature of the Earth has increased by about 1.18°C since the late 19th century and the sea levels are rising due to the melting of glaciers. Further rise in the global temperature will have dire consequences for the survival of humans on the planet Earth. There is a need to monitor climatic data and associated drivers of changes to develop sustainable planning. The anthropogenic activities that are linked to climate change need scientific evaluation and must be curtailed before it is too late....

**The Climate Coup**

Mark Alizart

9781509546145

Pub Date: 9/14/21

\$12.95 USD

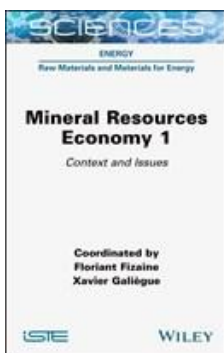
120 pages

Paperback

Political Science / Public Policy / Environmental Policy

Summary: Inaction by governments in the face of climate change is often attributed to a lack of political will or a denial of the seriousness of the situation, but as Mark Alizart argues in this provocative book, we shouldn't exclude the possibility that part of the reluctance might be motivated by cynicism and even sheer evil: for some people, there are real financial and political benefits to be gained from the chaos that will ensue from environmental disaster. The climate crisis creates its winners – individuals who orchestrate environmental chaos and bet on the collapse of the world as they bet on declining share values.

In the face of this veritable 'carbofascist' coup targeting humanity...

**Mineral Resources Economy 1 : Context and Issues**

Floriant Fizaine, Xavier Galiegue

9781789450248

Pub Date: 8/24/21

\$165.00 USD

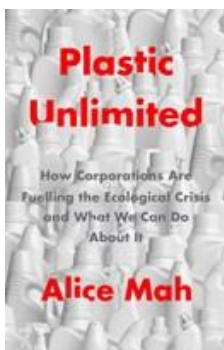
272 pages

Hardcover

Business & Economics / Development / Sustainable Development

Summary: The constant increase in the consumption of mineral resources, as well as the growing awareness of their exploitation, is causing deep concern within the scientific community. This concern is justified by the fact that the energy transition will increase the pressure on these resources, as renewable energies require an increased and more diversified quantity of mineral materials.

This book presents an overview of the exploitation of these mineral resources, where the natural, regulatory and environmental constraints interfere with economic, financial and geopolitical interests. By mobilizing the fields of the humanities, geosciences and engineering, it also analyzes the challenges th...

**Plastic Unlimited : How Corporations Are Fuelling the Ecological Crisis and What We Can Do About It**

A Mah

9781509549467

Pub Date: 7/26/22

\$19.95 USD

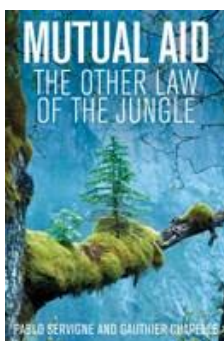
196 pages

Paperback

Political Science / Public Policy / Environmental Policy

Summary: Despite the global movement to tackle plastic pollution, demand for plastics continues to rise. As the world transitions away from fossil fuels, plastics are set to be the biggest driver of oil demand. Single-use plastics – deemed essential in the fight against COVID-19 – have been given a new lease of life. In a world beset with crisis fatigue, what can we do to curb the escalating plastics crisis?

In this book, Alice Mah reveals how petrochemical and plastics corporations have fought relentlessly to protect and expand plastics markets in the face of existential threats to business. From denying the toxic health effects of plastics to co-opting circular economy solutions to plastic ...



Mutual Aid : The Other Law of the Jungle

Pablo Servigne, Gauthier Chapelle, Andrew Brown
9781509547920

Pub Date: 1/18/22

\$24.95 USD

310 pages

Paperback

Political Science / Public Policy / Environmental
Policy

Summary: In the merciless arena of life, we are all subject to the law of the jungle, to ruthless competition and the survival of the fittest – such is the myth that has given rise to a society that has become toxic for our planet and for our and future generations.

But today the lines are shifting. A growing number of new movements and thinkers are challenging this skewed view of the world and reviving words such as 'altruism', 'cooperation', 'kindness' and 'solidarity'. A close look at the wide spectrum of living beings reveals that, at all times and in all places, animals, plants, microorganisms and human beings have practised different forms of mutual aid. And those which survive difficul...



Plastic and Microplastic in the Environment : Management and Health Risks

Arif Ahamad, Pardeep Singh, Dhanesh Tiwary

9781119800781

Pub Date: 4/4/22

\$140.00 USD

320 pages

Hardcover

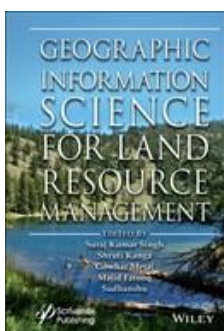
Political Science / Public Policy / Environmental
Policy

Summary: ORGANIC REACTIONS

Thought-provoking discussions of the challenges posed by—and potential solutions to—plastic and microplastic pollution

In *Plastic and Microplastic in the Environment: Management and Health Risks*, a team of distinguished environmental researchers delivers an up-to-date exploration of plastic and microplastic environmental contamination, conventional and advanced plastics management techniques, and the policies adopted across the globe to combat the phenomenon of plastics contamination.

Containing a balanced focus on both conventional plastics and microplastics, this book discusses the potential health issues related to plastic and microplastic infiltration in a variety...



Geographic Information Science for Land Resource Management

Suraj Kumar Singh, Shruti Kanga, Gowhar Meraj,
Majid Farooq, Sudhanshu

9781119786320

Pub Date: 7/27/21

\$236.95 USD

432 pages

Hardcover

Political Science / Public Policy / Environmental
Policy

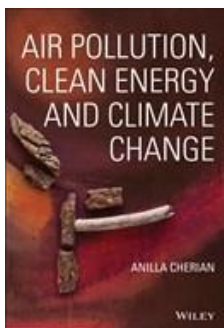
Summary: *Geographic Information Science for Land Resource Management* is a comprehensive book focusing on managing land resources using innovative techniques of spatial information sciences and satellite remote sensing. The enormous stress on the land resources over the years due to anthropogenic activities for commercialization and livelihood needs has increased manifold. The only solution to this problem lies in stakeholder awareness, which can only be attained through scientific means. The awareness is the basis of the sustainable development concept, which involves optimal management of natural resources, subject to the availability of reliable, accurate, and timely information from the g...

No Image
Available

Mankind and Deserts 3 : Wind in Deserts and Civilizations

Fernand Joly, Guilhem Bourrié
9781786306326
Pub Date: 8/17/21
\$165.00 USD
208 pages
Hardcover
Nature / Ecology

Summary: The wild beauty of deserts has always been a source of fascination the world over. Mankind and Deserts 3 – the third and final volume – focuses on wind, frequently present in all deserts, either hot or cold. Wind plays a major role in aridity and landscapes bear numerous forms due to its action, erosion, transportation and surface formations, some discreet and others spectacular, such as vast expanses of towering yardangs. Aeolian dynamics lead to dune formation, simple or associated with sand ridges or ergs, as in the Sahara. Mankind has attempted, to varying degrees of success, to cope with sand accumulation; ignoring aeolian dynamics has led many development projects to failure. ...

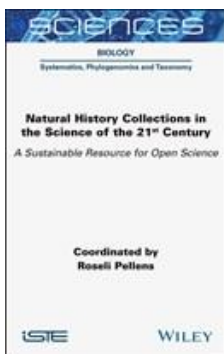


Air Pollution, Clean Energy and Climate Change

Anilla Cherian
9781119771586
Pub Date: 3/28/22
\$125.00 USD
288 pages
Hardcover
Technology & Engineering / Environmental / Pollution Control

Summary: AIR POLLUTION, CLEAN ENERGY AND CLIMATE CHANGE

Anthropogenic climate change is a globally recognized threat multiplier. Yet, decades of intergovernmental negotiations have failed to curb toxic levels of fossil fuel energy-related air pollution which the World Health Organization (WHO) has identified as the world's largest, single environmental health risk. Lying in plain view are the troubling truths about the morbidity and ill-health burdens associated with anthropogenic climate change that are borne by those who have done the least to contribute to per capita emissions of greenhouse gas emissions. Ignoring the nexus between air pollution, lack of access to clean energy and climate ...

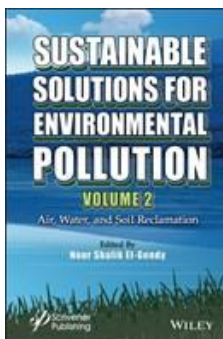


Natural History Collections in the Science of the 21st Century : A Sustainable Resource for Open Science

Roseli Pellens
9781789450491
Pub Date: 12/29/21
\$165.00 USD
416 pages
Hardcover
Science / Life Sciences / Biology

Summary: Natural history collections have recently acquired an unprecedented place of importance in scientific research. Originally created in the context of systematics and taxonomy, they are now proving to be fundamental for answering various scientific and societal questions that are as significant as they are current.

Natural History Collections in the Science of the 21st Century presents a wide range of questions and answers raised by the study of collections. The billions of specimens that have been collected from all around the world over more than two centuries provide us with information that is vital in our quest for knowledge about the Earth, the universe, the diversity of life and...



Sustainable Solutions for Environmental Pollution, Volume 2 : Air, Water, and Soil Reclamation

Nour Shafik El-Gendy

9781119827511

Pub Date: 5/24/22

\$225.00 USD

576 pages

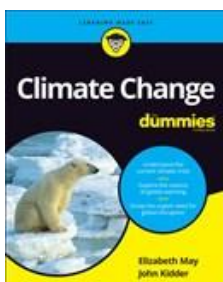
Hardcover

Science / Environmental Science

Summary: SUSTAINABLE SOLUTIONS FOR ENVIRONMENTAL POLLUTIONS

This second volume in a broad, comprehensive two-volume set, "Sustainable Solutions for Environmental Pollution", concentrates on air, water, and soil reclamation, some of the biggest challenges facing environmental engineers and scientists today.

This second, new volume in the two-volume set, *Sustainable Solutions for Environmental Pollution*, picks up where volume one left off, covering the remediation of air, water, and soil environments. Outlining new methods and technologies for all three environmental scenarios, the authors and editor go above and beyond, introducing naturally-based techniques in addition to changes and advances ...



Climate Change For Dummies

Elizabeth May, John Kidder

9781119703105

Pub Date: 4/26/22

\$24.99 USD

384 pages

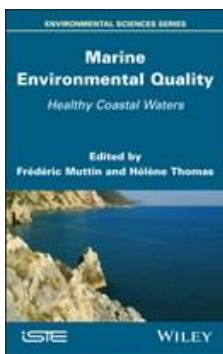
Paperback

Science / Global Warming & Climate Change

Summary: Master the hottest—and most chilling—topic in the world today

More and more frequent extreme weather events occur each year, and wildlife everywhere is increasingly endangered. Science fiction or science fact, most climate experts see this as our world on climate change—and, according to polls, a majority of people around the globe agree. *Climate Change For Dummies* allows you to investigate this hottest of hotly debated issues for yourself—examining its causes, the way it affects our lives, and what we can all do to make a difference.

This straightforward guide—cowritten by the former leader of Canada's Green Party and the Canadian Chief of Staff to the Minister of Natural Resources—s...



Marine Environmental Quality : Healthy Coastal Waters

Frederic Muttin, Helene Thomas

9781786307583

Pub Date: 10/26/21

\$165.00 USD

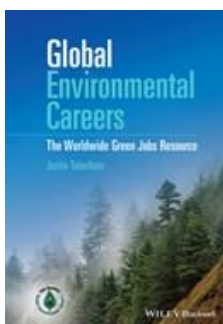
208 pages

Hardcover

Technology & Engineering / Environmental / Water Supply

Summary: Understanding marine pollution and the contamination of coastal environments requires knowledge from a variety of scientific fields. *Marine Environmental Quality* promotes a multidisciplinary approach to investigations, drawing on not only natural sciences, but also applied mathematics and social sciences.

The investigations in this book focus on both organic and inorganic pollutants, firstly in a study conducted in the city of La Rochelle, on the North Atlantic French coast, then expanding the areas under examination to regions of English and Portuguese waters and, lastly, to the Mediterranean Sea. The improvement such research can bring to biomarkers, models and experiments enables ...



Global Environmental Careers : The Worldwide Green Jobs Resource

Justin Taberham

9781119052845

Pub Date: 9/27/21

\$45.00 USD

304 pages

Hardcover

Science / Environmental Science

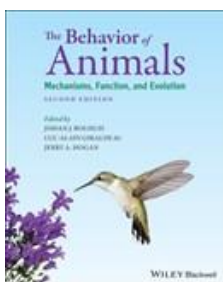
Summary: Global Environmental Careers

Global Environmental Careers – The Worldwide Green Jobs Resource

This book is the ideal guide to equipping you with the tools and know-how to develop an environmental career. It is filled with practical advice, case studies, personal profiles and top tips across the global environment sector.

An essential resource for anyone, from school students to those who are already in work but dreaming of a more meaningful career.

'This new book comes at exactly the right moment. There has never been a more critical time for effective, international action on our common ecological crisis, and success in that work requires a new generation of 21st Century environmental ...



The Behavior of Animals : Mechanisms, Function, and Evolution (2nd Edition)

Johan J. Bolhuis, Luc-Alain Giraldeau, Jerry A.

Hogan

9781119109501

Pub Date: 12/29/21

\$89.95 USD

528 pages

Paperback

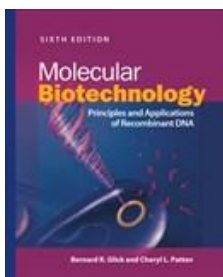
Science / Life Sciences / Zoology

Summary: The Behavior of Animals

An updated view of animal behavior studies, featuring global experts

The Behavior of Animals, Second Edition provides a broad overview of the current state of animal behavior studies with contributions from international experts. This edition includes new chapters on hormones and behavior, individuality, and human evolution. All chapters have been thoroughly revised and updated, and are supported by color illustrations, informative callouts, and accessible presentation of technical information.

- Provides an introduction to the study of animal behavior
- Looks at an extensive scope of topics- from perception, motivation and emotion, biological rhythms, and animal lea...



Molecular Biotechnology : Principles and Applications of Recombinant DNA (6th Edition)

Bernard R. Glick, Cheryl L. Patten

9781683673644

Pub Date: 3/15/22

\$139.95 USD

896 pages

Hardcover

Medical / Biotechnology

Series: ASM Books

Summary: Molecular Biotechnology

Molecular Biotechnology

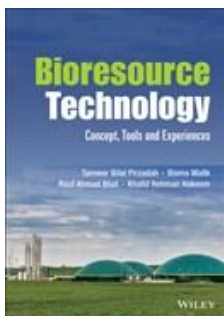
Principles and Applications of Recombinant DNA

SIXTH EDITION

An authoritative introduction to the fast-changing world of molecular biotechnology

In continuous publication since 1994 and now in its sixth edition, *Molecular Biotechnology: Principles and Applications of Recombinant DNA* has been effective in introducing this complex field to students for more than 25 years. This textbook covers essentially every aspect of the field of molecular biotechnology, which is constantly changing and adapting in light of new advances.

This edition includes the latest techniques in DNA sequencing



Bioresource Technology : Concept, Tools and Experiences

T Pirzadah

9781119789383

Pub Date: 3/21/22

\$200.00 USD

544 pages

Hardcover

Science / Biotechnology

Summary: Bioresource Technology

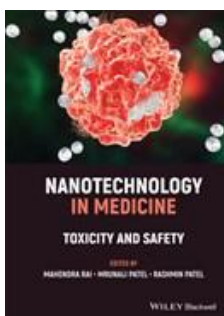
Discover the latest developments in the field of bioresource technology with this practical handbook

The management and cultivation of bioresources are critical components of the economic survival of nations. Significantly underexplored, recent advances in bioresource technologies have breathed new life into the research and development of new bioresource techniques and capabilities.

In *Bioresource Technology: Concept, Tools, and Experiences*, a team of distinguished researchers delivers a comprehensive work intended to bridge the gap between field-oriented taxonomists and ecologists and lab-oriented functional and molecular biologists.

The book is divided into thr...

Wiley-Blackwell



Nanotechnology in Medicine : Toxicity and Safety

Mahendra Rai, Mrunali Patel, Rashmin Patel

9781119769866

Pub Date: 10/25/21

\$157.00 USD

448 pages

Hardcover

Science / Biotechnology

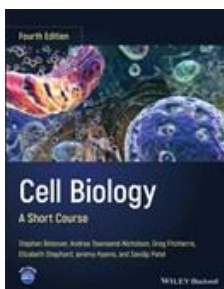
Summary: NANOTECHNOLOGY IN MEDICINE

Discover thorough insights into the toxicology of nanomaterials used in medicine

In *Nanotechnology in Medicine: Toxicity and Safety*, an expert team of nanotechnologists delivers a robust and up-to-date review of current and future applications of nanotechnology in medicine with a special focus on neurodegenerative diseases, cancer, diagnostics, nano-nutraceuticals, dermatology, and gene therapy. The editors offer resources that address nanomaterial safety, which tends to be the greatest hurdle to obtaining the benefits of nanomedicine in healthcare.

The book is a one-stop resource for recent and comprehensive information on the toxicological and safety aspects...

Wiley-Blackwell



Cell Biology : A Short Course (4th Edition)

Stephen R. Bolsover, Andrea Townsend-Nicholson, Greg FitzHarris, Elizabeth A. Shephard, Jeremy S. Hyams, Sandip Patel

9781119757764

Pub Date: 3/21/22

\$100.95 USD

336 pages

Paperback

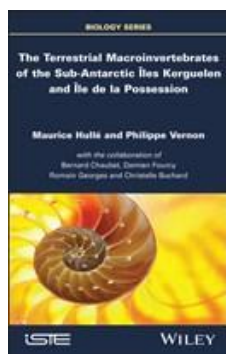
Science / Life Sciences / Cell Biology

Series: Short Course

Summary: An accessible and straightforward intro to cell biology

In the newly revised Fourth Edition of *Cell Biology: A Short Course*, a distinguished team of researchers delivers a concise and accessible introduction to modern cell biology, integrating knowledge from genetics, molecular biology, biochemistry, physiology, and microscopy. The book places a strong emphasis on drawing connections between basic science and medicine.

Telling the story of cells as the units of life in a colorful and student-friendly manner, *Cell Biology: A Short Course* takes an "essentials only" approach. It conveys critical points without overburdening the reader with extraneous or secondary information. Clear diagrams...



The Terrestrial Macroinvertebrates of the Sub-Antarctic Iles Kerguelen and Ile de la Possession

Maurice Hulle, Philippe Vernon

9781786307606

Pub Date: 8/24/21

\$165.00 USD

240 pages

Hardcover

Science / Life Sciences / Ecology

Summary: The sub-Antarctic islands are remote and isolated environments with original flora and fauna composed of a few species that are highly adapted to cold oceanic conditions. Their peculiar naturalness makes these ecosystems intrinsically fragile.

This book focuses on terrestrial ecosystems and, in particular, on invertebrates - earthworms, mollusks, spiders and insects - that inhabit the French sub-Antarctic islands of the South Indian Ocean. All native and introduced species are presented in the form of individual fact sheets, which include the main identification criteria, geographical distribution and principal ecological traits. Numerous summary tables, distribution maps of introduc...



Ecological Transition in Education and Research

Hassan Ait Haddou, Dimitri Toubanos, Philippe Villien

9781786307163

Pub Date: 1/26/22

\$165.00 USD

288 pages

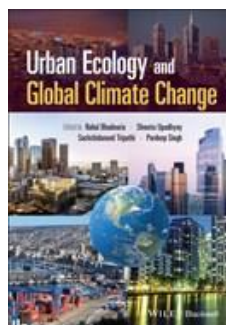
Hardcover

Science / Life Sciences / Ecology

Summary: This book centers on climate change, a pressing issue in the ecological transition, particularly for landscape and architecture schools.

The scientific realities and consequences of this phenomenon are becoming increasingly well-known and it is now evident that architecture, urban planning and landscaping all have the potential to mitigate these consequences.

Ecological Transition in Education and Research is a multidisciplinary collective work, intended to raise awareness of adaptation and mitigation strategies such as action-research, educational innovations and concrete transition practices that embrace different schools of thought. The overall goal is to promote educational practi...



Urban Ecology and Global Climate Change

Rahul Bhadouria, Shweta Upadhyay, Sachchidanand Tripathi, Pardeep Singh

9781119807186

Pub Date: 4/4/22

\$115.00 USD

368 pages

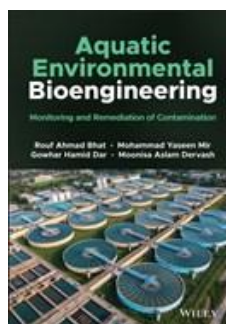
Hardcover

Science / Life Sciences / Ecology

Summary: Urban Ecology and Global Climate Change

Urban Ecology and Global Climate Change contains the latest practical and theoretical concepts of the emerging issues in urban ecological studies. The authors highlight some of the major challenges currently impeding ecological restoration goals in urbanized regions across the globe. It is sobering that the majority of sustainable development projects are being defeated by the increasing pace of two particular phenomena – namely climate change and urbanization. This book includes coverage of the major threats to biodiversity conservation and the most significant contributors to the deterioration of urban ecosystems.

In addition, various case stu...



Aquatic Environmental Bioengineering : Monitoring and Remediation of Contamination

Rouf Ahmad Bhat, Mohammad Yaseen Mir, Gowhar Hamid Dar, Moonisa Aslam Dervash

9781119760948

Pub Date: 5/16/22

\$150.00 USD

240 pages

Hardcover

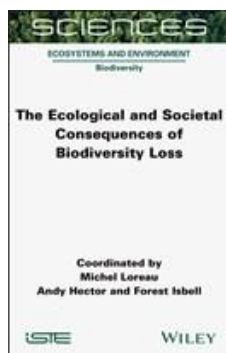
Science / Life Sciences / Ecology

Summary: Aquatic Environmental Bioengineering

Discover the importance of remediation efforts for aquatic ecosystems

Most contamination of water bodies stem from human activity, and the pollution in our water is one of the most important environmental concerns facing future generations. The most significant of these pollutants are halogenated organic compounds, petroleum hydrocarbons, radionuclides, metal and metalloids, pharmaceutical drugs, microbial toxins, and flame retardants. With such a vast array of potential contaminants and dangerously cumulating contamination levels in fragile marine environments, reparative action is more essential than ever.

Aquatic Environmental Bioengineering: Mon...



The Ecological and Societal Consequences of Biodiversity Loss

Michel Loreau, Andy Hector, Forest Isbell

9781789450729

Pub Date: 3/15/22

\$165.00 USD

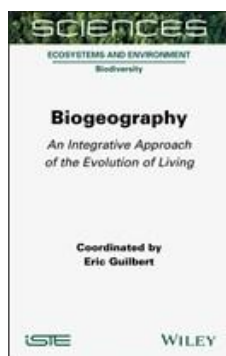
384 pages

Hardcover

Science / Life Sciences / Ecology

Summary: The idea that changes in biodiversity can impact how ecosystems function has, over the last quarter century, gone from being a controversial notion to an accepted part of science and policy. As the field matures, it is high time to review progress, explore the links between this new research area and fundamental ecological concepts, and look ahead to the implementation of this knowledge.

This book is designed to both provide an up-to-date overview of research in the area and to serve as a useful textbook for those studying the relationship between biodiversity and the functioning, stability and services of ecosystems. The Ecological and Societal Consequences of Biodiversity Loss is a...



Biogeography : An Integrative Approach of the Evolution of Living

Eric Guilbert

9781789450606

Pub Date: 1/26/22

\$165.00 USD

368 pages

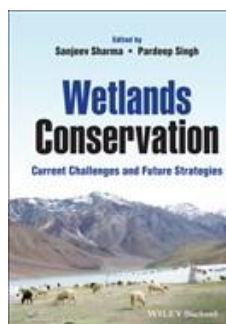
Hardcover

Science / Environmental Science

Summary: The recent progress in analytical methods, aided by bringing in a wide range of other disciplines, opens up the study to a broader field, which means that biogeography now goes far beyond a simple description of the distribution of living species on Earth.

Originating with Alexander von Humboldt, biogeography is a discipline in which ecologists and evolutionists aim to understand the way that living species are organized in connection with their environments. Today, as we face major challenges such as global warming, massive species extinction and devastating pandemics, biogeography offers hypotheses and explanations that may help to provide solutions.

This book presents as wide an ov...



Wetlands Conservation : Current Challenges and Future Strategies

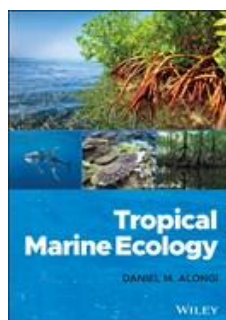
Sanjeev Sharma, Pardeep Singh
9781119692683
Pub Date: 9/27/21
\$165.00 USD
320 pages
Hardcover
Science / Life Sciences

Summary: Wetlands Conservation

An up-to-date overview of approaches for addressing wetlands degradation and its effects on ecosystem services, human health, and other ecosystems

Wetlands are essential sources of biodiversity, water purification, groundwater replenishment, flood control, storm protection, sediment retention, recreation and tourism, and more. Human exploitation of natural resources over the past 200 years has caused significant wetlands degradation and loss. Although the Ramsar Convention of 1971 drafted policies for wetland conservation and responsible use, many wetland sites remain inadequately conserved or managed. Maintaining the ecological balance and equilibrium of wetlands...

Life Sciences

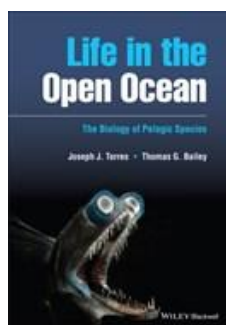


Tropical Marine Ecology

Daniel M. Alongi
9781119568865
Pub Date: 12/13/21
\$135.00 USD
688 pages
Hardcover
Nature / Animals / Marine Life

Summary: No realm on Earth elicits thoughts of paradise more than the tropics. The tropical marine realm is special in myriad ways and for many reasons from seas of higher latitude, in housing iconic habitats such as coral reefs, snow white beaches, crystal clear waters, mangrove forests, extensive and rich seagrass meadows and expansive river deltas, such as the exemplar, the Amazon. But the tropics also has an even more complex side: tropical waters give rise to cyclones, hurricanes and typhoons, and unique oceanographic phenomena including the El Niño- Southern Oscillation which affects global climate patterns.

Tropical Marine Ecology documents the structure and function of tropical mar...



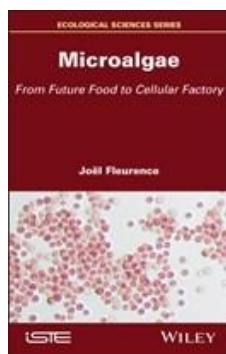
Life in the Open Ocean : The Biology of Pelagic Species

Joseph J. Torres, Thomas G. Bailey
9781405145299
Pub Date: 1/31/22
\$102.95 USD
1008 pages
Hardcover
Nature / Animals / Marine Life

Summary: Life in the Open Ocean

Life in the Open Ocean: The Biology of Pelagic Species provides in-depth coverage of the different marine animal groups that form the communities inhabiting the ocean's pelagic realm. This comprehensive resource explores the physical environment, foraging strategies, energetics, locomotion, sensory mechanisms, global and vertical distributions, special adaptations, and other characteristics of a wide array of marine taxa.

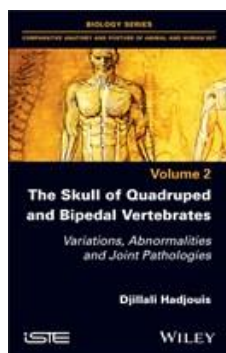
Bringing together the most recent information available in a single volume, authors Joseph J. Torres and Thomas G. Bailey cover the Cnidaria (stinging jellies), the ctenophores (comb jellies), pelagic nemerteans, pelagic annelids, crustaceans, ...



Microalgae : From Future Food to Cellular Factory

Joel Fleurence
9781786305879
Pub Date: 9/15/21
\$165.00 USD
192 pages
Hardcover
Nature / Ecology

Summary: Microalgae and cyanobacteria are the first organisms in the oceanic food chain and are essential producers of oxygen and effective carbon dioxide traps. They are traditional sources of food proteins for Aztec, African and Asian populations, and some of them have even acquired the status of superfoods. Microalgae reviews the biological, ecological and biochemical characteristics of microalgae and cyanobacteria. They are true cellular factories, producing substances of interest such as original pigments, proteins and polysaccharides with biological activities. Their use covers many sectors of human activity including aquaculture, livestock breeding, agri-food, and human and veterinary...

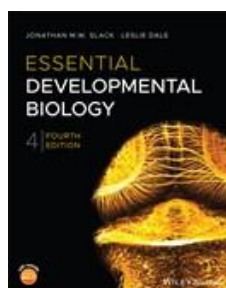


The Skull of Quadruped and Bipedal Vertebrates : Variations, Abnormalities and Joint Pathologies

Djillali Hadjouis
9781786306074
Pub Date: 6/29/21
\$165.00 USD
256 pages
Hardcover
Science / Life Sciences / Evolution

Summary: This book forms part of the set, *Comparative Anatomy and Posture of Animal and Human*, and focuses on the skulls of Quaternary mammals and of Man since the acquisition of upright posture. Although the vast majority of the quadruped fossil species have a balanced postural adaptation, with no asymmetries or maxillo-mandibular dysmorphoses, the Hominine species that has acquired this readjustment of the body as well as a bipedal adaptation to the ground, will experience a series of postural imbalances starting with malocclusion in the genus Homo.

In order to arrive at this conclusion, the cranio-facial architectural biodynamics of several species of fossil and current mammals have been a...



Essential Developmental Biology (4th Edition)

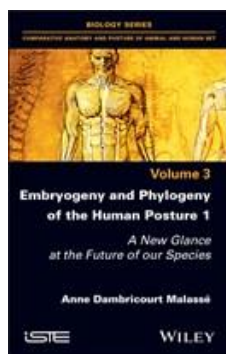
Jonathan M. W. Slack, Leslie Dale
9781119512851
Pub Date: 12/1/21
\$119.95 USD
544 pages
Paperback
Science / Life Sciences / Developmental Biology

Summary: ESSENTIAL DEVELOPMENTAL BIOLOGY

Discover the foundations of developmental biology with this up to date and focused resource from two leading experts

The newly revised Fourth Edition of *Essential Developmental Biology* delivers the fundamentals of the developmental biology of animals. Designed as a core text for undergraduate students in their first to fourth years, as well as graduate students in their first year, the book is suited to both biologically based and medically oriented courses. The distinguished authors presume no prior knowledge of development, animal structure, or histology.

The new edition incorporates modern single cell transcriptome sequencing and CRISPR/Cas9, as well ...



Embryogeny and Phylogeny of the Human Posture 1 : A New Glance at the Future of our Species

Anne Dambricourt Malasse

9781786306067

Pub Date: 9/15/21

\$165.00 USD

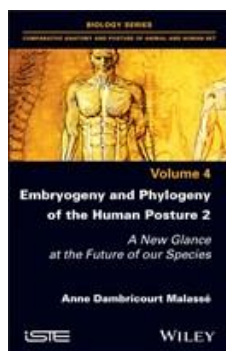
256 pages

Hardcover

Science / Life Sciences / Biology

Summary: The future of the human posture is in the spotlight. The 200-year-old locomotion paradigm can no longer resist the advancement of knowledge, yet 2,500 years of thinking on the place of verticalized human anatomy and its reflexive consciousness in the natural history of life and the Earth, is more relevant than ever.

This book retraces these reflections from pre-Socratic philosophers, focusing on the link between verticality and the most complex and consciously reflexive nervous system on the top rung of the ladder of living beings. The origin of animated forms, or animals, was considered metaphysical until the 19th century but reflection on their inception, from fertilization, paved ...



Embryogeny and Phylogeny of the Human Posture 2 : A New Glance at the Future of our Species

Anne Dambricourt Malasse

9781786307293

Pub Date: 1/26/22

\$165.00 USD

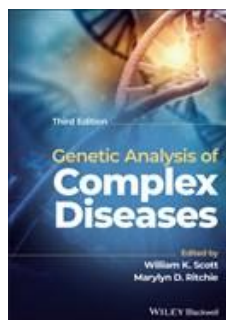
272 pages

Hardcover

Science / Life Sciences / Biology

Summary: The future of the human posture is in the spotlight. The 200-year-old locomotion paradigm can no longer resist the advancement of knowledge, yet 2,500 years of thinking on the place of verticalized human anatomy and its reflexive consciousness in the natural history of life and the Earth, is more relevant than ever.

This book retraces these reflections from pre-Socratic philosophers, focusing on the link between verticality and the most complex and consciously reflexive nervous system on the top rung of the ladder of living beings. The origin of animated forms, or animals, was considered metaphysical until the 19th century but reflection on their inception, from fertilization, paved ...



Genetic Analysis of Complex Disease (3rd Edition)

William K. Scott, Marylyn D. Ritchie

9781118123911

Pub Date: 12/6/21

\$129.95 USD

336 pages

Paperback

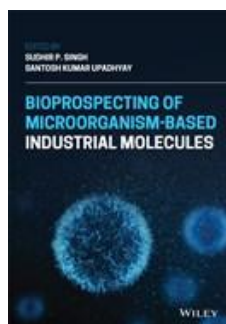
Science / Life Sciences / Genetics & Genomics

Summary: Genetic Analysis of Complex Diseases

An up-to-date and complete treatment of the strategies, designs and analysis methods for studying complex genetic disease in human beings

In the newly revised Third Edition of *Genetic Analysis of Complex Diseases*, a team of distinguished geneticists delivers a comprehensive introduction to the most relevant strategies, designs and methods of analysis for the study of complex genetic disease in humans. The book focuses on concepts and designs, thereby offering readers a broad understanding of common problems and solutions in the field based on successful applications in the design and execution of genetic studies.

This edited volume contains contribu...



Bioprospecting of Microorganism-Based Industrial Molecules

Sudhir P. Singh, Santosh Kumar Upadhyay

9781119717249

Pub Date: 12/13/21

\$200.00 USD

448 pages

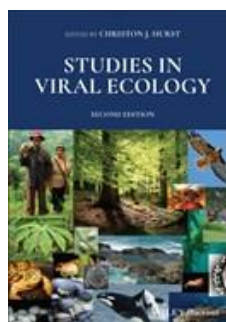
Hardcover

Science / Life Sciences / Microbiology

Summary: Discover a comprehensive and current overview of microbial bioprospecting written by leading voices in the field

In *Bioprospecting of Microorganism-Based Industrial Molecules*, distinguished researchers and authors Sudhir P. Singh and Santosh Kumar Upadhyay deliver global perspectives of bioprospecting of biodiversity. The book covers diverse aspects of bioprospecting of microorganisms demonstrating biomass value of nutraceutical, pharmaceutical, biomedical, and bioenergetic importance.

The authors present an amalgamation of translational research on bioresource utilization and ecological sustainability that will further the reader's knowledge of the applications of different microbial...



Studies in Viral Ecology (2nd Edition)

Christon J. Hurst

9781119608363

Pub Date: 8/23/21

\$185.00 USD

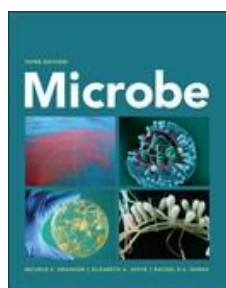
672 pages

Hardcover

Science / Life Sciences / Microbiology

Summary: This second edition of *Studies in Viral Ecology* is designed to serve as a means of updating the knowledge of virologists regarding the broader aspects of viral ecology.

As with the first edition, this book explains the ecology of viruses by examining their interactive dynamics with their hosting species (covering both animals and plants), including the types of transmission cycles that viruses have evolved encompassing principal and alternate hosts, vehicles and vectoring species. Examining virology from an organismal biology approach and focusing on the concept that viral infections represent areas of overlap in the ecologies of the involved species, *Viral Ecology* is essential for s...



Microbe (3rd Edition)

Michele S. Swanson, Elizabeth A. Joyce, Rachel E.

A. Horak

9781683673705

Pub Date: 6/15/22

\$119.95 USD

752 pages

Paperback

Science / Life Sciences / Microbiology

Series: ASM Books

Summary: Microbe

Microbe THIRD EDITION

Brings the excitement, breadth, and power of the modern microbial sciences to the next generation of students and scientists.

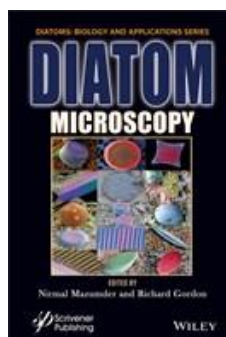
This third edition of the bestselling *Microbe* textbook is an eloquent and highly readable introduction to microbiology that will engage and excite science majors and pre-health professionals. The authors have carefully crafted a lively narrative with stunning, detailed illustrations to bring key concepts to life and promote a lifelong passion for the microbial sciences.

Microbe is replete with case studies, ranging from a MRSA (methicillin-resistant *Staphylococcus aureus*) outbreak in an NFL locker room to the search for life outside ...



Microbiology

Dave Wessner, Christine Dupont, Trevor Charles,
Josh Neufeld
9781119701767
Pub Date: 3/6/22
\$69.99 USD
1024 pages
Paperback



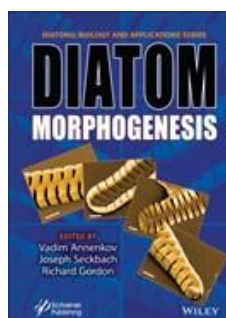
Diatom Microscopy

Nirmal Mazumder, Richard Gordon
9781119711537
Pub Date: 7/6/22
\$249.00 USD
368 pages
Hardcover
Medical / Neuroscience
Series: Diatoms: Biology and Applications

Summary: DIATOM MICROSCOPY

The main goal of the book is to demonstrate the wide variety of microscopy methods being used to investigate natural and altered diatom structures.

This book on *Diatom Microscopy* gives an introduction to the wide panoply of microscopy methods being used to investigate diatom structure and biology, marking considerable advances in recent technology including optical, fluorescence, confocal and electron microscopy, surface-enhanced Raman spectroscopy (SERS), atomic force microscopy (AFM) and spectroscopy as applied to diatoms. Each chapter includes a tutorial on a microscopy technique and reviews its applications in diatom nanotechnology and diatom research. The number...



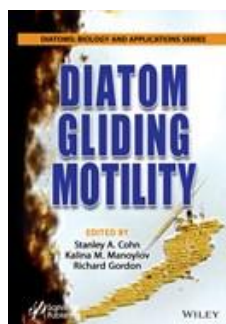
Diatom Morphogenesis

Vadim V. Annenkov, Joseph Seckbach, Richard
Gordon
9781119487951
Pub Date: 11/23/21
\$249.00 USD
448 pages
Hardcover
Science / Life Sciences / Biology
Series: Diatoms: Biology and Applications

Summary: DIATOM MORPHOGENESIS

A unique book presenting the range of silica structures formed by diatoms, theories and hypotheses of how they are made, and applications to nanotechnology by use or imitation of diatom morphogenesis.

There are up to 200,000 species of diatoms, each species of these algal cells bearing an ornate, amorphous silica glass shell. The silica is structured at 7 orders of magnitude size range and is thus the most complex multiscalar solid structure known. Recent research is beginning to unravel how a single cell marshals chemical, physical, biochemical, genetic, and cytoskeletal processes to produce these single-cell marvels. The field of diatom nanotechnology is advanci...



Diatom Gliding Motility : Biology and Applications

Stanley A. Cohn, Kalina M. Manoylov, Richard Gordon

9781119526353

Pub Date: 9/8/21

\$249.00 USD

480 pages

Hardcover

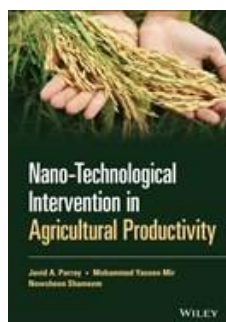
Science / Life Sciences / Biology

Summary: DIATOM GLIDING MOTILITY

Moving photosynthetic organisms are still a great mystery for biologists and this book summarizes what is known and reports the current understanding and modeling of those complex processes.

The book covers a broad range of work describing our current state of understanding on the topic, including: historic knowledge and misconceptions of motility; evolution of diatom motility; diatom ecology & physiology; cell biology and biochemistry of diatom motility, anatomy of motile diatoms; observations of diatom motile behavior; diatom competitive ability, unique forms of diatom motility as found in the genus *Eunotia*; and models of motility.

This is the first book attempt...



Nano-Technological Intervention in Agricultural Productivity

Javid A. Parray, Mohammad Yaseen Mir, Nowsheen Shameem

9781119714859

Pub Date: 7/13/21

\$200.00 USD

208 pages

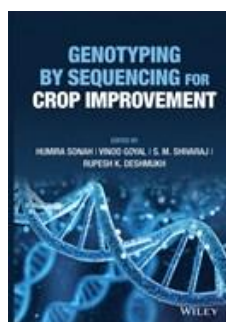
Hardcover

Science / Life Sciences / Biology

Summary: Provides detailed information about the use of nanotechnology in remediating waste and pollution in agriculture

Nano-Technological Intervention in Agricultural Productivity explores sustainable, eco-friendly technologies for remediating wastes and contaminated areas in both water and land ecosystems. Focusing on nano-technological innovations that use microbes and microbial agents to improve the quality and pollutant discharge of contaminated sites, this comprehensive volume also discusses molecular approaches for the characterization of nanoparticles, the biosynthetic pathways of microbes, gene and protein expression studies for bio-deterioration techniques, and more.

Organized int...



Genotyping by Sequencing for Crop Improvement

Humira Sonah, Vinod Goyal, S. M. Shivaraj, Rupesh K. Deshmukh

9781119745655

Pub Date: 3/28/22

\$175.00 USD

400 pages

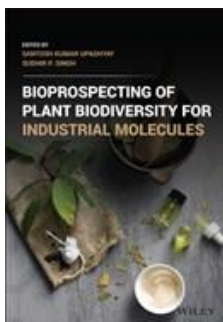
Hardcover

Science / Life Sciences / Biology

Summary: OGENOTYPING BY SEQUENCING FOR CROP IMPROVEMENT

A thoroughly up-to-date exploration of genotyping-by-sequencing technologies and related methods in plant science

In *Genotyping by Sequencing for Crop Improvement*, a team of distinguished researchers delivers an in-depth and current exploration of the latest advances in genotyping-by-sequencing (GBS) methods, the statistical approaches used to analyze GBS data, and its applications, including quantitative trait loci (QTL) mapping, genome-wide association studies (GWAS), and genomic selection (GS) in crop improvement. This edited volume includes insightful contributions on a variety of relevant topics, like advanced molecular markers, high...



Bioprospecting of Plant Biodiversity for Industrial Molecules

Santosh Kumar Upadhyay, Sudhir P. Singh
9781119717218

Pub Date: 8/23/21

\$199.99 USD

464 pages

Hardcover

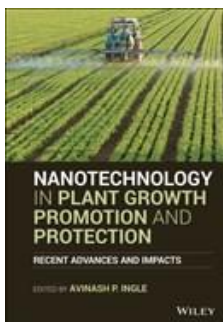
Science / Life Sciences / Biology

Summary: BIOPROSPECTING OF PLANT BIODIVERSITY FOR INDUSTRIAL MOLECULES

A comprehensive collection of recent translational research on bioresource utilization and ecological sustainability

Bioprospecting of Plant Biodiversity for Industrial Molecules provides an up-to-date overview of the ongoing search for biodiverse organic compounds for use in pharmaceuticals, bioceuticals, agriculture, and other commercial applications. Bringing together work from a panel of international contributors, this comprehensive monograph covers natural compounds of plants, endophyte enzymes and their applications in industry, plant bioprospecting in cosmetics, marine bioprospecting of seaweeds, and more.

Providing ...



Nanotechnology in Plant Growth Promotion and Protection : Recent Advances and Impacts

Avinash P. Ingle

9781119745853

Pub Date: 8/16/21

\$200.00 USD

352 pages

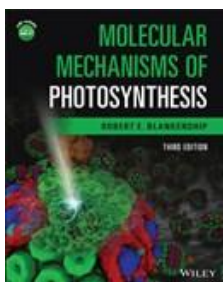
Hardcover

Science / Life Sciences / Biology

Summary: Discover the role of nanotechnology in promoting plant growth and protection through the management of microbial pathogens

In *Nanotechnology in Plant Growth Promotion and Protection*, distinguished researcher and author Dr. Avinash P. Ingle delivers a rigorous and insightful collection of some of the latest developments in nanotechnology particularly related to plant growth promotion and protection. The book focuses broadly on the role played by nanotechnology in growth promotion of plants and their protection through the management of different microbial pathogens.

You'll learn about a wide variety of topics, including the role of nanomaterials in sustainable agriculture, how nano-f...



Molecular Mechanisms of Photosynthesis

(3rd Edition)

Robert E. Blankenship

9781119800019

Pub Date: 8/2/21

\$84.95 USD

352 pages

Paperback

Science / Life Sciences / Botany

Summary: MOLECULAR MECHANISMS OF PHOTOSYNTHESIS

Rediscover the foremost introduction to molecular photosynthesis on the market today

In the comprehensively revised Third Edition of *Molecular Mechanisms of Photosynthesis*, distinguished researcher and professor Robert E. Blankenship delivers a brand-new update to the most authoritative textbook on the subject of photosynthesis. In addition to thorough coverage of foundational topics in photosynthesis, the book discusses cutting-edge advances in research in this area, including new structures and new information about the mechanism of oxygen production.

The author also describes advancements in the understanding of the regulation of photosynthesis...

Plant Breeding Reviews, Volume 45

Irwin Goldman

9781119828181

Pub Date: 12/21/21

\$245.00 USD

464 pages

Hardcover

Science / Life Sciences / Botany

Series: Plant Breeding Reviews

Plant
Breeding
Reviews



Edited by
IRWIN GOLDMAN

WILEY

Summary: *Plant Breeding Reviews* presents state-of-the-art reviews on plant genetics and the breeding of all types of crops by both traditional means and molecular methods. Many of the crops widely grown today stem from a very narrow genetic base; understanding and preserving crop genetic resources is vital to the security of food systems worldwide. The emphasis of the series is on methodology, a fundamental understanding of crop genetics, and applications to major crops.

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