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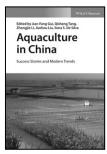
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AQUACULTURE





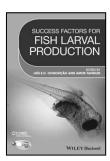
Aquaculture in China

Success Stories and Modern Trends

Jian-Fang Gui, Qisheng Tang, Zhongjie Li, Jiashou Liu & Sena S. De Silva

Fish have been a major component of our diet and it has been suggested that fish/seafood consumption contributed to the development of the human brain, and this together with the acquisition of bipedalism, perhaps made us what we are. In the modern context global fish consumption is increasing. However, unlike our other staples, until a few years back the greater proportion of our fish supplies were of a hunted origin. This scenario is changing and a greater proportion of fish we consume now is of farmed origin. Aquaculture, the farming of waters, is thought to have originated in China, many millennia ago. This book attempts to capture some of the key elements and practices that have contributed to the success of Chinese aquaculture. The book entails contributions from over 100 leading experts in China, and provides insights into some aquaculture practices that are little known to the rest of the world. This book will be essential reading for aquaculturists, practitioners, researchers and students, and planners and developers.

ISBN: 978-1-119-12074-2 • Cloth • US\$259.95 • Jun 2018 • 720pp



Success Factors for Fish Larval Production

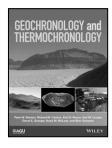
Luís E. C. Conceição & Amos Tandler

Success Factors for Fish Larval Production is a vital resource that includes the most current understanding of larval biology, in the context of larval production. The text covers topics such as how external (environmental and nutritional) and internal (molecular/ developmental/ physiological/ behavioral/ genetic) factors interact in defining the phenotype and quality of fish larvae and juveniles. The expert contributors review broodstock genetics and husbandry, water quality, larval nutrition and feeding, growth physiology, health, metamorphosis, underlying molecular mechanisms, including epigenetics, for development, larval behavior and environmental conditions. Compiled by members of a European Union-funded consortium of top researchers, Success Factors for Fish Larval Production provides a wide-range of authoritative information for the aquaculture industry and academia. In addition to a wealth of information, the authors review research and commercially applicable larval quality indicators and predictors.



ISBN: 978-1-119-07216-4 • Cloth • US\$225.00 • Jan 2018 • 512pp

GEOCHEMISTRY & MINERALOGY



Geochronology and Thermochronology

Peter W. Reiners, Richard W. Carlson, Paul R. Renne, Kari M. Cooper, Darryl E. Granger, Noah M. McLean & Blair Schoene



This book is a welcome introduction and reference for users and innovators in geochronology. It provides modern perspectives on the current state-of-the art in most of the principal areas of geochronology and thermochronology, while recognizing that they are changing at a fast pace. It emphasizes fundamentals and systematics, historical perspective, analytical methods, data interpretation, and some applications chosen from the literature. This book complements existing coverage by expanding on those parts of isotope geochemistry that are concerned with dates and rates and insights into Earth and planetary science that come from temporal perspectives. *Geochronology and Thermochronology* is designed for graduate and upper-level undergraduate students with a solid background in mathematics, geochemistry, and geology.





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GEOLOGY & GEOPHYSICS



ISBN 978-1-119-21786-2

Global Flood Hazard

Applications in Modeling, Mapping and Forecasting

Guy J-P. Schumann, Paul D. Bates, Heiko Apel & Giuseppe T. Aronica

Flooding is a costly natural disaster in terms of damage to land, property and infrastructure. This volume describes the latest tools and technologies for modeling, mapping, and predicting large-scale flood risk. It also presents readers with a range of remote sensing data sets successfully used for predicting and mapping floods at different scales. These resources can enable policymakers, public planners, and developers to plan for, and respond to, flooding with greater accuracy and effectiveness. It describes the latest large-scale modeling approaches, including hydrological models, 2-D flood inundation models, and global flood forecasting models and showcases new tools and technologies such as Aqueduct, a new web-based tool used for global assessment and projection of future flood risk under climate change scenarios. It also features case studies describing best-practice uses of modeling techniques, tools, and technologies.

ISBN: 978-1-119-21786-2 • Cloth • US\$169.95 • Jun 2018 • 276pp

Pre-Earthquake Processes A Moldistiglinury Approach to Certhquake Prediction Studies

Pre-Earthquake Processes

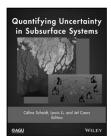
A Multidisciplinary Approach to Earthquake Prediction Studies

Dimitar Ouzounov, Sergey Pulinets, Katsumi Hattori & Patrick Taylor

Pre-Earthquake signals are advanced warnings of a larger seismic event. A better understanding of these processes can help to predict the characteristics of the subsequent mainshock. This volume presents the latest research on earthquake forecasting and prediction based on observations and physical modeling in China, Greece, Italy, Japan, Russia, Taiwan, and the United States. The book describes the earthquake processes and the observed physical signals that precede them and explores the relationship between pre-earthquake activity and the characteristics of subsequent seismic events. It encompasses physical, atmospheric, geochemical, and historical characteristics of pre-earthquakes and illustrates thermal infrared, seismo--ionospheric, and other satellite and ground-based pre-earthquake anomalies.



ISBN: 978-1-119-15693-2 • Cloth • US\$199.95 • Jun 2018 • 414pp



Quantifying Uncertainty in Subsurface Systems

Céline Scheidt, Lewis Li & Jef Caers

The integration of subsurface systems involves weighing the enormous uncertainties of harnessing the Earth's geological resources with high costs and considerable risks. Such valuation involves assessing discordant factors to produce a decision model that is functional and sustainable. *Quantifying Uncertainty in Subsurface Systems* will provide a multi-disciplinary treatment of uncertainty quantification towards practical engineering applications and decision making. Volume highlights include five substantial case studies on decision making under uncertainty for subsurface systems; forecasting total volume and future revenue stream in giant oilfields; designing heat pumps for heating buildings in shallow geothermal systems; optimizing data acquisition for uranium contaminated sites; managing aquifer recharge in the groundwater system; and characterizing the risk of misclassification of mining blocks in function of drill-hole quality and spacing.

1SBN 978-1-119-32583-3

ISBN: 978-1-119-32583-3 • Cloth • US\$189.95 • Jun 2018 • 288pp

GEOPHYSICS



Reservoir Modelling A Practical Guide

Steve Cannon

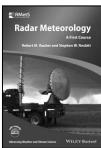


Reservoir Modelling offers a comprehensive guide to the procedures and workflow for building a 3-D model. Designed to be practical, the principles outlined can be applied to any modelling project regardless of the software used. This essential guide follows a general workflow from data QC and project management, structural modelling, facies and property modelling to upscaling and the requirements for dynamic modelling. The author discusses structural elements of a model and reviews both seismic interpretation and depth conversion, which are known to contribute most to volumetric uncertainty and shows how large-scale stratigraphic relationships are integrated into the reservoir framework. The text puts the focus on geostatistical modelling of facies and heterogeneities that constrain the distribution of reservoir properties including porosity, permeability and water saturation. In addition, the author discusses the role of uncertainty analysis in the static model and its impact on volumetric estimation.



ISBN: 978-1-119-31346-5 • Cloth • US\$97.95 • Apr 2018 • 328pp

METEOROLOGY



Radar Meteorology A First Course

Robert M. Rauber & Stephen W. Nesbitt





Written by leading experts in the field, Radar Meteorology, A First Course offers an introduction to meteorological radar systems and applications, with emphasis on observation and interpretation of physical processes in clouds and weather systems. This comprehensive introduction to the subject offers an overview of the quantities essential to radar meteorology incl.ding the radar reflectivity factor, and Doppler, dual-polarization, and multi-wavelength radar variables. The authors highlight wind retrieval from single and multiple Doppler radars, precipitation estimation and hydrometeorological applications, with chapters dedicated to interpretation of radar data from warm season mid-latitude severe weather, winter storms, tropical cyclones and more. In addition, Radar Meteorology highlights research applications of this burgeoning technology, exploring dynamic applications such as space-borne and ground-based vertically pointing radar systems, and cloud, airborne and mobile radars.

ISBN: 978-1-118-43262-4 • Cloth • US\$80.00 • Apr 2018 • 488pp

PALEONTOLOGY, PALEOBIOLOGY & GEOBIOLOGY



Genomic Approaches in Earth and Environmental Sciences New Analytical Methods in Earth and Environmental Science Gregory Dick



Genomic Approaches in Earth and Environmental Sciences begins by covering the role of microorganisms in earth and environmental processes. It then goes on to discuss how omics approaches provide new windows into geobiological processes. It delves into the DNA sequencing revolution and the impact that genomics has made on the geosciences. The book then discusses the methods used in the field, beginning with an overview of current technologies. After that it offers in-depth coverage of single cell genomics, metagenomics, metatranscriptomics, metaproteomics, and functional approaches, before finishing up with an outlook on the future of the field. The very first synthesis of an important new family of techniques; it shows strengths and limitations (both practical and theoretical) of the techniques and deals with both theoretical and laboratory basics. The book shows use of techniques in a variety of applications, including various aspects of environmental science, geobiology, and evolution.

ISBN: 978-1-118-70824-8 • Cloth • US\$130.00 • May 2018 • 100pp

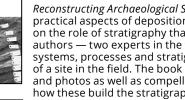
Reconstructing Archaeological Sites

SOIL SCIENCE & GEOARCHAEOLOGY

Reconstructing Archaeological Sites Understanding the Geoarchaeological Matrix

Panagiotis Karkanas & Paul Goldberg





Reconstructing Archaeological Sites offers an important text that puts the focus on basic theoretical and practical aspects of depositional processes in an archaeological site. It contains an in-depth discussion on the role of stratigraphy that helps determine how deposits are organised in time and space. The authors — two experts in the field — include the information needed to help recognise depositional systems, processes and stratigraphic units that aid in the interpreting the stratigraphy and deposits of a site in the field. The book is filled with practical tools, numerous illustrative examples, drawings and photos as well as compelling descriptions that help visualise depositional processes and clarify how these build the stratigraphy of a site. Based on the authors' years of experience, the book offers a holistic approach to the study of archaeological deposits that spans the broad fundamental aspects to the smallest details.

ISBN: 978-1-119-01640-3 • Cloth • US\$100.00 • Jul 2018 • 320pp

WATER RESOURCE MANAGEMENT



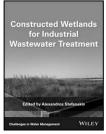
Smart Water Technologies and Techniques Data Capture and Analysis for Sustainable Water Management David A. Lloyd Owen

Inland water supplies are under increasing pressure. Climate, social, and demographic change have begun tipping the balance toward demand management, as supplies begins to dwindle. Water and wastewater infrastructure will play a central role in the management of this increasingly valuable resource, and Smart Water Technologies and Techniques: Data Capture and Analysis for Sustainable Water Management provides insight on a key part of the solution. This book brings together the core principles, key developments, and current state-of-the-art into a single resource that considers smart water within operational, economic, policy, and regulatory contexts and provides a comprehensive overview of the smart water concept and the latest advances in the field. The book examines key considerations and objections raised to date and discusses the potential value of smart water, from perception to policy. It shows how smart water systems can optimize efficiency and flexibility of water and wastewater management and explores future directions for smart water development in the pursuit of balanced supply and demand.



ISBN: 978-1-119-07864-7 • Cloth • US\$120.00 • Mar 2018 • 256pp

ECOTOXICOLOGY & POLLUTION SCIENCE



Constructed Wetlands for Industrial Wastewater Treatment

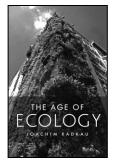
Alexandros Stefanakis

Constructed Wetlands for Industrial Wastewater Treatment contains a review of the state-of-the-art applications of constructed wetland technology for industrial wastewater treatment. This green technology offers many economic, environmental, and societal advantages. The text examines the many unique uses and the effectiveness of constructed wetlands for the treatment of complex and heavily polluted wastewater from various industrial sources. This important resource offers the first, groundbreaking text on constructed wetlands use for industrial wastewater treatment and provides a single reference with summarized information and the state-of-the-art knowledge of the use of Constructed Wetlands in the industrial sector through case studies, research outcomes and review chapters. It covers a range of industrial applications such as hydrocarbons/oil and gas industry, food and beverage, wood and leather processing, agro-industries, pharmaceuticals and many others and includes best practices drawn by a collection of international case studies.

15BN 978-1-119-26834-5

ISBN: 978-1-119-26834-5 • Cloth • US\$160.00 • Jul 2018 • 584pp

ENVIRONMENTAL CHANGE



The Age of Ecology

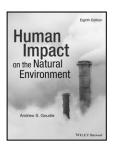
Joachim Radkau

This book is the first major study of the history of environmentalism, from its origins in romanticism and the nature cults of the late 18th century to the global environmental movements of today. Radkau shows that this is not a single story of the steady ascent of environmentalism but rather a multiplicity of stories, each with its own dramatic tension: between single-issue movements and the challenges posed by the interconnection of environmental issues, between charismatic leaders and bureaucratic organizations, and between grassroot movements and global players. While the history can be traced back several centuries, environmentalism has flourished since the 'environmental revolution' of1970, spurred on by the Chernobyl nuclear disaster in 1986 and the growing concern about global warming. While environmentalists often opposed the scientific mainstream, they were also often led by scientific knowledge. Environmentalism is the true Enlightenment of our time so much so that we can call our era 'the age of ecology'.



ISBN: 978-0-7456-6217-6 • Paper • US\$24.95 • Mar 2018 • 600pp

ENVIRONMENTAL SCIENCE



Human Impact on the Natural Environment 8th Edition

Andrew S. Goudie



This classic text explores the multitude of impacts that humans have had over time upon vegetation, animals, soils, water, landforms, and the atmosphere. It considers the ways in which climate changes and modifications in land cover may change the environment in coming decades. Thoroughly revised to cover the remarkable transformation in interest that humans are having in the environment, this book examines previously uncovered topics, such as rewilding, ecosystem services, techniques for study, novel and no analogue ecosystems, and more. It also presents the latest views on big themes such as human origins, the anthropocene, domestication, extinctions, and ecological invasions. The book also takes a deep look at our future impact on the planet and its resources — our affect on the coastal environments, the cryosphere and the drylands, as well as the hydrological and geomorphological impacts.



ISBN: 978-1-119-40355-5 • Paper • US\$TBA • Jul 2018 • 448pp



QGIS and Applications in Agriculture and Forest Volume 2

Nicolas Baghdadi, Clément Mallet & Mehrez Zribi

These four volumes present innovative thematic applications implemented using the open source software QGIS. These are applications that use remote sensing over continental surfaces. The volumes detail applications of remote sensing over continental surfaces, with a first one discussing applications for agriculture. A second one presents applications for forest, a third presents applications for the continental hydrology, and finally the last volume details applications for environment and risk issues.

ISBN: 978-1-78630-188-8 • Cloth • US\$154.95 • Feb 2018 • 364pp





ISBN 978-1-78630-187-1

QGIS and Generic Tools

Volume 1

Nicolas Baghdadi, Clément Mallet & Mehrez Zribi

These four volumes present innovative thematic applications implemented using the open source software QGIS. These are applications that use remote sensing over continental surfaces. The volumes detail applications of remote sensing over continental surfaces, with a first one discussing applications for agriculture. A second one presents applications for forest, a third presents applications for the continental hydrology, and finally the last volume details applications for environment and risk issues.

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