

## 海洋・気象関係書

—— 新刊・近刊ご案内(2017年6月)

外国出版社の新刊・近刊案内のなかから海洋学・気象学関係のものを選んでご案内致します。ご注文・お見積りなどお気軽にお申し込みください。

海洋学	1-25
気象学	26-57
海洋生物学・水産学	58-75
海洋工学	76-82
海の政治・経済・法律	83-99

### 海洋学

#### 1. 河口研究における古環境技術の応用

### Applications of Paleoenvironmental Techniques in Estuarine Studies

(Series: Developments in Paleoenvironmental Research, Vol 20)

Edited by K. Weckström, K. Saunders, & P. Skilbeck Gell

Springer - Feb 2017, 700 pages, Hardcover  
ISBN 9789402409888 ¥46,200

The aim of this edited volume is to introduce the scientific community to paleoenvironmental studies of estuaries, to highlight the types of information that can be obtained from such studies, and to promote the use of paleoenvironmental studies in estuarine management.

Readers will learn about the application of different paleoecological approaches used in estuaries that develop our understanding of their response to natural and human influences. Particular attention is given to the essential steps required for undertaking a paleoecological study, in particular with regard to site selection, core extraction and chronological techniques, followed by the range of indicators that can be used. A series of case studies are discussed in the book to demonstrate how paleoecological studies can be used to address key questions, and to sustainably manage these important coastal environments in the future. This book will appeal to professional scientists interested in estuarine studies and/or paleoenvironmental research, as well as estuarine managers who are interested in the incorporation of paleoenvironmental research into their management programs.

#### 2. 応用水中音響学

### Applied Underwater Acoustics: Leif Bjørnø

Edited by Thomas Neighbors, & David Bradley  
Elsevier - Feb 2017, 980 pages, Paperback  
ISBN 9780128112403 ¥40,580

Applied Underwater Acoustics meets the needs of scientists and engineers working in underwater acoustics and graduate students solving problems in, and preparing theses on, topics in underwater acoustics. The book is structured to provide the basis for rapidly assimilating the essential underwater acoustic knowledge base for practical application to daily research and analysis.

Each chapter of the book is self-supporting and focuses on a single topic and its relation to underwater acoustics. The chapters start with a brief description of the topic's physical background, necessary definitions, and a short description of the applications, along with a roadmap to the chapter. The subtopics covered within individual subchapters include most frequently used equations that describe the topic. Equations are not derived, rather, assumptions behind equations and limitations on the applications of each equation are emphasized. Figures, tables, and illustrations related to the sub-topic are presented in an easy-to-use manner, and examples on the use of the equations, including appropriate figures and tables are also included.

#### 3. 海岸域の危機

### Coasts in Crisis: A Global Challenge

by Gary Griggs

Univ. of California Pr. - Aug 2017, Hardcover: 360 pages, ISBN 9780520293618 ¥15,330

Coastal regions around the world have become increasingly crowded, intensively developed, and severely exploited. Hundreds of millions of people living in these low-lying areas are subject to short-term coastal hazards such as cyclones, hurricanes, and destruction due to El Niño, and are also exposed to the long-term threat of global sea-level rise. These massive concentrations of people expose often-fragile coastal environments to the runoff and pollution from municipal, industrial, and agricultural sources as well as the impacts of resource exploitation and a wide range of other human impacts. Can environmental impacts be reduced or mitigated and can coastal regions adapt to natural hazards?

Coasts in Crisis is a comprehensive assessment of the impacts that the human population is having on the coastal zone globally and the diverse ways in which coastal hazards impact human settlement and development. Gary Griggs provides a concise overview of the individual hazards, risks, and issues threatening the coastal zone.

#### 4. バルト海の南から東への海岸線変化

### Coastline Changes of the Baltic Sea from South to East

Past and Future Projection

(Coastal Research Library, Vol 19)

Edited by Jan Harff, Kazimierz Furmańczyk, & Hans von Storch

ISBN 9783319498928 ¥28,990

This book discusses sea-level and coastline changes. These topics are becoming increasingly important for populations living along the edge of the world's oceans and seas, especially in areas where eustatic sea-level rise is superimposed on isostatic subsidence and storm-induced coastal erosion. This is the case at the southern and eastern Baltic Sea coast: in the south, glacio-isostatic subsidence enhances the effect of climate-induced sea-level rise and strong storm effects are causing a continuous retreat of the coast. On the eastern coast glacio-isostatic uplift compensates for eustatic sea-level rise, but storm-induced waves are responsible for permanent morphodynamic changes to the coastline.

#### 5. 沿岸海洋科学における多様性

### **Diversity in Coastal Marine Sciences Historical Perspectives and Contemporary Research of Geology, Physics, Chemistry, Biology, and Remote Sensing**

(Series: Coastal Research Library, Vol 23)

Edited by Charles W. Finkl, & Christopher Makowski  
Springer - July 2017, Hardcover: 610 pages  
ISBN 9783319575766 **¥38,660**

This book integrates a wide range of subjects into a coherent purview of the status of coastal marine science. Designed for the professional or specialist in coastal science, oceanography, and related disciplines, this work will appeal to workers in multidisciplinary fields that strive for practical solutions to environmental problems in coastal marine settings around the world. Examples are drawn from many different geographic areas, including the Black Sea region. Subject areas covered include aspects of coastal marine geology, physics, chemistry, biology, and history. These subject areas were selected because they form the basis for integrative investigation of salient environmental problems or perspective solutions or interpretation of historical context.

#### 6. 海洋学入門・第8版

### **Essentials of Oceanography 8th Edition**

by Tom S. Garrison & Robert Ellis  
Brooks Cole - Jan 2017, Paperback: 298 pages  
ISBN 9781337098649 **¥45,080**

ESSENTIALS OF OCEANOGRAPHY introduces you to the complexities and uncertainties involved in ocean use and the importance of oceans in nurturing and sustaining life. Using exclusive content from the National Geographic Society, this book illustrates the complexity and beauty of the ocean in a way that is both compelling and relatable. With the 8th Edition, bestselling authors Tom Garrison and Robert Ellis illustrate the interdisciplinary nature of marine science and give you the most dynamic and current introduction to oceanography available today.

#### 7. 海洋学入門・第12版

### **Essentials of Oceanography, 12th Edition.**

By Alan P. Trujillo & Harold V. Thurman  
Pearson - 2017, 624 pages, Paperback  
ISBN 9780134073545 **¥34,260**

Essentials of Oceanography guides students through the complexities of what lies beneath the ocean. With an interdisciplinary approach and accessible writing style, the text is engaging for students of all majors. The Twelfth Edition discusses the ocean's biological, chemical, geological, and

physical components for an in-depth understanding of this vast and elaborate topic. Complex concepts are made engaging with extensively revised art, new animations and the interdisciplinary connections that keep students interested and excited about the material.

#### 8. 河口および海岸の水路と土砂輸送

### **Estuarine and Coastal Hydrography and Sediment Transport**

Edited by R. J. Uncles & S. B. Mitchell  
Cambridge U.P. - Oct 2017, Hardcover: 366  
pages, ISBN 9781107040984 **¥15,320**

A practical guide to the latest remote and in situ techniques used to measure sediments, quantify seabed characteristics, and understand physical properties of water and sediments and transport mechanisms in estuaries and coastal waters. Covering a broad range of topics from global reference frames and bathymetric surveying methods to the use of remote sensing for determining surface-water variables, enough background is included to explain how each technology functions. The advantages and disadvantages of each technology are explained, and a review of recent fieldwork experiments demonstrates how modern methods apply in real-life estuarine and coastal campaigns. Clear explanations of physical processes show links between different disciplines, making the book ideal for students and researchers in the environmental sciences, marine biology, chemistry and geology, whose work relies on an understanding of the physical environment and the way it is changing as a result of climate change, engineering and other influences.

#### 9. 地球環境研究のための流体力学

### **Fluid Dynamics for Global Environmental Studies**

Dept. Earth System Sci. and Tech., Kyushu  
Kyushu, Fukuoka, Japan

Springer - March 2017, 367 pages, Softcover  
ISBN 9784431564973 **¥28,990**

This book introduces the basic concepts of environmental fluid dynamics. It is intended for use by students, researchers, engineers, and specialists working not only in general fluid research but also in the atmospheric and oceanic research fields. The Earth is covered by atmosphere and oceans and is exposed to solar wind. Therefore, the knowledge of fluid dynamics is essential for tackling its environmental issues. Although many textbooks have treated fluid dynamics, practically no book has been published that clearly describes all essential ideas, from the fundamentals of fluid dynamics to advanced environmental sciences, with careful sequential explanations of the governing mathematics. This book has been developed to solve these educational problems and has actually been in use in lectures in the graduate school of Kyushu University for more than 15 years.

#### 10. 新熱帯魚類の遺伝資源

### **Genetic Resources of Neotropical Fishes**

by Alexandre W. S. Hilsdorf & Eric M. Hallerman  
Springer - July 2017, Hardcover: 254 pages  
ISBN 9783319558363 **¥30,340**

The aim of this book is to systematize and discuss population genetic studies of freshwater fish in a region that harbors the greatest diversity of species among all inland water ecosystems. This volume explores the genetic evaluation for a number of orders, families and species of Neotropical fishes,

and provides an overview on genetic resources and diversity and their relationships with fish domestication, breeding, and food production.

11. 流体力学と水質 - 河川、湖沼、河口のモデリング  
**Hydrodynamics and Water Quality  
Modeling Rivers, Lakes, and Estuaries 2nd  
Edition**

by Zhen-Gang Ji

Wiley - June 2017, Hardcover: 616 pages  
ISBN 9781118877159 **¥28,850**

This comprehensive text perfectly illustrates the principles, basic processes, mathematical descriptions, case studies, and practical applications associated with surface waters. It focuses on solving practical problems in rivers, lakes, estuaries, coastal waters, and wetlands. Most of the theories and technical approaches presented within have been implemented in mathematical models and applied to solve practical problems. Throughout the book, case studies are presented to demonstrate how the basic theories and technical approaches are implemented into models, and how these models are applied to solve practical environmental/water resources problems.

This new edition of Hydrodynamics and Water Quality: Modeling Rivers, Lakes, and Estuaries has been updated with more than 40% new information. It features several new chapters, including one devoted to shallow water processes in wetlands as well as another focused on extreme value theory and environmental risk analysis. It is also supplemented with a new website that provides files needed for sample applications, such as source codes, executable codes, input files, output files, model manuals, reports, technical notes, and utility programs.

12. 平均海面の統合的研究とその構成要素  
**Integrative Study of the Mean Sea  
Level and Its Components**

(Space Sciences Series of ISSI, Vol 58)

Edited by Anny Cazenave, Nicolas Champollion,  
Frank Paul, & Jérôme Benveniste

Springer - May 2017, Hardcover: 416 pages  
ISBN 9783319564890 **¥28,990**

This volume presents the most recent results of global mean sea level variations over the satellite altimetry era (starting in the early 1990s) and associated contributions, such as glaciers and ice sheets mass loss, ocean thermal expansion, and land water storage changes. Sea level is one of the best indicators of global climate changes as it integrates the response of several components of the climate system to external forcing factors (including anthropogenic forcing) and internal climate variability. Providing long, accurate records of the sea level at global and regional scales and of the various components causing sea level changes is of crucial importance to improve our understanding of climate processes at work and to validate the climate models used for future projections. The Climate Change Initiative project of the European Space Agency has provided a first attempt to produce consistent and continuous space-based records for several climate parameters observable from space, among them sea level. This book presents current knowledge of the sea level budget over the altimetry era and 20th century. Previously published in Surveys in Geophysics, Volume 38, Issue 1, 2017

13. 沿岸の嵐 - 政策的、科学的、および歴史的視点  
**Management of the Effects of Coastal  
Storms**

**Policy, Scientific and Historical Perspectives**

Edited by PHILIPPE QUEVAUVILLER, Belgium,  
PAOLO CIAVOLA & EMMANUEL GARNIER

Comm. of the Europ. Communities, Brussels, B  
Wiley - May 2017, 188 pages, Hardback  
ISBN 9781848217621 **¥21,640**

The book will focus on the knowledge base on extreme coastal storms (including storm surges) and include discussions on early warning system for the reliable prediction of morphological impacts due to marine storm events in support of civil protection mitigation strategies. A first part will review the current understanding of the processes generating the events, the morphological evolution of coastlines during and after the events, the methods for monitoring the process as it occurs or for post-event appraisal. A second part will provide insight into the policy framework related to coastal storms (and flooding), and a third part will describe the Xynthia case study.

14. 中国における海洋地質災害

**Marine Geo-Hazards in China**

by Yin-can YE

Elsevier - June 2017, Hardcover: 796 pages  
ISBN 9780128127261 **¥35,170**

Marine Geo-Hazards in China, the first book to focus specifically on potential marine geological hazards in China, includes 19 chapters with varying focus on key issues surrounding the topic.

Early chapters discuss the historical background, research progress, and geological environments in China's sea area. Next, multiple chapters present special topics on geological hazards in China's sea area, including its disaster pregnant environment, mechanisms of disaster change, the development regularity and disaster formation process, and existing or potential dangers and countermeasures. Final chapters present the latest information on the distribution, development, assessment, and risk analysis of marine geological hazards.

This book is an important source of information for government and local policymakers, environmental and marine scientists, and engineers.

15. 海洋汚染と気候変動

**Marine Pollution and Climate Change**

Edited by Andres Hugo Arias & Jorge Eduardo  
Marcovecchio

CRC Press - Sept 2017, 392 pages, 12 Color Illus.  
64 B/W Illus., Hardback: ISBN 9781482299434  
**¥26,340**

This book presents a broad overview of pollution issues facing climatic, economic, and legal globalization. Topics include changes in oceans from ancient times to the present, the importance of marine currents and changing climates, marine pollution linked to climate change (fossil fuels, global carbon dioxide, heavy metals, pesticides, plastics, emerging pollutants, and marine debris), global shipping and species invasion, global climate change in the Arctic and Antarctic environments, and regulatory responses to mitigate pollution and climate change in oceans.

## 16. 海洋学への手引き

### **The Oceanographer's Companion Essential Nautical Skills for Seagoing Scientists and Engineers**

By George Maul

CRC Press - Mar 2017, 190 pages, Paperback  
ISBN 9781498773065 ¥17,790

Scientists and engineers embarking on their first voyage for oceanographic or meteorological research are often unprepared for the experience. Going to sea involves learning a new language – that of the seaman. This is necessary for clear communications, for the safety and well-being of the members of the scientific party and the ship's crew. The Oceanographer's Companion is intended to familiarize a student with the basics of navigation, seamanship, marine engineering, communications, safety-of-life-at-sea, shiphandling, knots and splices, first aid, and so much more. The book will have a very practical feel with lots of examples.

## 17. 離岸流 - ビーチの安全性、海洋物理学

### **Rip Currents**

#### **Beach Safety, Physical Oceanography, and Wave Modeling**

Edited by Stephen Leatherman & John Fletemeyer  
CRC Press - Apr 2017, Now in Paperback: 310  
pages, ISBN 9781138075276 ¥12,710

Rip Currents' sixteen chapters run the gamut from technical aspects of rip currents to beach safety management strategies. Whether dealing with determining rip current occurrence, hydrodynamic processes, prediction, or mitigating rip current hazards to enhance beach safety, each chapter provides a vignette that is distinct in its own right but also linked to or integrated with other chapters in the book. This comprehensive treatment presents an integrated, international perspective on a coastal process that is only now becoming better understood by the scientific community, and which has great importance to public safety on the world's beaches.

## 18. 巨大波 - 数学的理論と応用

### **Rogue Waves**

#### **Mathematical Theory and Applications in Physics**

by Boling Guo

de Gruyter - Aug 2017, Hardcover: 210 pages  
ISBN 9783110469424 ¥20,190

This book gives an overview of the theoretical research on rogue waves and discusses solutions to rogue wave formation via the Darboux and bilinear transformations, algebro-geometric reduction, and inverse scattering and similarity transformations. Studies on nonlinear optics are included, making the book a comprehensive reference for researchers in applied mathematics, optical physics, geophysics, and ocean engineering.

## 19. 海底 - 海洋地質学入門・第4版

### **The Sea Floor: An Introduction to Marine Geology, 4th Edition**

(Springer Textbooks in Earth Sciences, Geography  
and Environment).

by Eugen Seibold & Wolfgang Berger

Springer - July 2017, Hardcover: 268 pages  
ISBN 9783319514116 ¥14,880

This textbook deals with the most important items in Marine Geology, including some pioneer work. The list of topics has

grown greatly in the last few decades beyond the items identified by Eugen Seibold as central and now includes prominently such things as methane and climate change; that is, the carbon cycle and the Earth system as a whole.

Relevant geophysical, geochemical, sedimentological and paleontological methods are shortly described. They should allow the reader to comment on new results about plate tectonics, marine sedimentation from the coasts to the deep sea, climatological aspects, paleoceanology and the use of the sea floor.

The text tries to transmit to the reader excitement of marine geological research both aboard and in modern laboratories. Basic mineralogical, geochemical, biological and other relevant data and a detailed list of books and symposia are given in an Appendix. This Introduction builds on the third edition of "The Sea Floor" by E. Seibold and W.H. Berger. While much of the original text was written by Seibold, a considerable portion of the material presented in this edition is new, taking into account the recent great shift in marine geological research, some of it with great relevance to human concerns arising in a rapidly changing world.

## 20. 海氷の分析と予測

### **Sea Ice Analysis and Forecasting Towards an Increased Reliance on Automated Prediction Systems**

Edited by Tom Carrieres, Mark Buehner, Jean-  
François Lemieux, & Leif Toudal Pedersen (Editor)  
Cambridge U.P. - Oct 2017, Hardcover  
ISBN 9781108417426 ¥22,540

This book provides an advanced introduction to the science behind automated prediction systems, focusing on sea ice analysis and forecasting. Starting from basic principles, fundamental concepts in sea ice physics, remote sensing, numerical methods, and statistics are explained at an accessible level. Existing operational automated prediction systems are described and their impacts on information providers and end clients are discussed. The book also provides insight into the likely future development of sea ice services and how they will evolve from mainly manual processes to increasing automation, with a consequent increase in the diversity and information content of new ice products. With contributions from world-leading experts in the fields of sea ice remote sensing, data assimilation, numerical modelling, and verification and operational prediction, this comprehensive reference is ideal for students, sea ice analysts, and researchers, as well as decision-makers and professionals working in the ice service industry.

## 21. 海底地形学

### **Submarine Geomorphology**

(Series: Springer Geology)

Edited by Aaron Micallef, Sebastian Krastel, &  
Alessandra Savini

Springer - Aug 2017, Hardcover: 599 pages  
ISBN 9783319578514 ¥28,990

This book on the current state of knowledge of submarine geomorphology aims to achieve the goals of the Submarine Geomorphology working group, set up in 2013, by establishing submarine geomorphology as a field of research, disseminating its concepts and techniques among earth scientists and professionals, and encouraging students to develop their skills and knowledge in this field.

Editors have invited 30 experts from around the world to contribute chapters to this book, which is divided into 4 sections – (i) Introduction & history, (ii) Data & methods, (iii) Submarine landforms & processes and (iv) Conclusions & future directions. Each chapter provides a review of a topic, establishes the state-of-the-art, identifies the key research

questions that need to be addressed, and delineates a strategy on how to achieve this. Submarine geomorphology is a priority for many research institutions, government authorities and industries globally. The book is useful for undergraduate and graduate students, and professionals with limited training in this field.

## 22. ヨーロッパ大陸棚の水中景観

### **Submerged Landscapes of the European Continental Shelf Quaternary Paleoenvironments**

Edited by GEOFF BAILEY, NICHOLAS C. FLEMMING, JAN HARFF, DELMINDA MOURA & ANTHONY BURGESS

Wiley - May 2017, 536 pages, Hardback  
ISBN 9781118922132 ¥21,640

Quaternary Paleoenvironments examines the drowned landscapes exposed as extensive and attractive territory for prehistoric human settlement during the Ice Ages of the Pleistocene, when sea levels dropped to 120m-135m below their current levels. This volume provides an overview of the geological, geomorphological, climatic and sea-level history of the European continental shelf as a whole, as well as a series of detailed regional reviews for each of the major sea basins. The nature and variable attractions of the landscapes and resources available for human exploitation are examined, as are the conditions under which archaeological sites and landscape features are likely to have been preserved, destroyed or buried by sediment during sea-level rise. The authors also discuss the extent to which we can predict where to look for drowned landscapes with the greatest chance of success, with frequent reference to examples of preserved prehistoric sites in different submerged environments. Quaternary Paleoenvironments will be of interest to archaeologists, geologists, marine scientists, palaeoanthropologists, cultural heritage managers, geographers, and all those with an interest in the drowned landscapes of the continental shelf.

## 23. 潮流口の流体力学と地形力学

### **Tidal Inlets Hydrodynamics and Morphodynamics**

by J. van de Kreeke & R. L. Brouwer  
Cambridge U.P. - June 2017, Hardcover: 220 pages  
ISBN 9781107194410 ¥22,540

This book describes the latest developments in the hydrodynamics and morphodynamics of tidal inlets, with an emphasis on natural inlets. A review of morphological features and sand transport pathways is presented, followed by an overview of empirical relationships between inlet cross-sectional area, ebb delta volume, flood delta volume and tidal prism. Results of field observations and laboratory experiments are discussed and simple mathematical models are presented that calculate the inlet current and basin tide. The method to evaluate the cross-sectional stability of inlets, proposed by Escoffier, is reviewed, and is expanded, for the first time, to include double inlet systems. This volume is an ideal reference for coastal scientists, engineers and researchers, in the fields of coastal engineering, geomorphology, marine geology and oceanography.

## 24. 流体の変分公式と地球物理流体力学

### **Variational Formulation of Fluid and Geophysical Fluid Dynamics**

## **Mechanics, Symmetries and Conservation Laws**

(Advances in Geophysical and Environmental Mechanics and Mathematics)

by Gualtiero Badin & Fulvio Crisciani

Springer - Nov 2017, Hardcover: 304 pages  
ISBN 9783319596945 ca. ¥19,330

This book describes the derivation of the equations of motion of fluids as well as the dynamics of ocean and atmospheric currents on both large and small scales through the use of variational methods. In this way the equations of Fluid and Geophysical Fluid Dynamics are re-derived making use of a unifying principle, that is Hamilton's Principle of Least Action. The equations are analyzed within the framework of Lagrangian and Hamiltonian mechanics for continuous systems. The analysis of the equations' symmetries and the resulting conservation laws, from Noether's Theorem, represent the core of the description. Central to this work is the analysis of particle relabeling symmetry, which is unique for fluid dynamics and results in the conservation of potential vorticity. Different special approximations and relations, ranging from the semi-geostrophic approximation to the conservation of wave activity, are derived and analyzed. Thanks to a complete derivation of all relationships, this book is accessible for students at both undergraduate and graduate levels, as well for researchers. Students of theoretical physics and applied mathematics will recognize the existence of theoretical challenges behind the applied field of Geophysical Fluid Dynamics, while students of applied physics, meteorology and oceanography will be able to find and appreciate the fundamental relationships behind equations in this field.

## 25. 地球科学者のための論文執筆法

### **Writing for Earth Scientists**

**52 Lessons in Academic Publishing**

By STEPHEN K. DONOVAN, University of the West Indies, Jamaica

Wiley - May 2017, 248 pages, Paperback  
ISBN 9781119216773 ¥8,110

There are many books on how to write and be published aimed at research students and other aspiring academics. Many of these are readable, comprehensive and provide good advice. This book is composed of numerous short chapters on this subject, all directly relevant to one or more aspects of academic publishing and aimed particularly at the Earth scientists in the broadest sense. Geologists will be encouraged to use the book as much as a reference as a reader, 'dipping in' to the chapters that contain relevant tips, hints and comments to enable them to improve the paper that they are currently writing. The book is intended to be informative, readable and, above all, of practical application for all readers. In summary, the volume will be a readable compilation investigating many facets of academic publishing relevant to the Earth sciences. It will be of particular interest to postgraduate students, postdocs and new academics

## 気象・気候学

## 26. 中国北部の乾燥傾向

### **Aridity Trend in Northern China**

(World Scientific Series on Asia-Pacific Weather and Climate, Vol 8)

by Congbin Fu & Huiting Mao

World Scientific - Feb 2017, Hardcover: 350 pages  
ISBN 9789814723534 ¥24,880

The continued aridity trend occurring in many regions worldwide is a manifestation of the response of the earth system to global change. It hinders severely the sustainable development of these regions. Northern China is one of the largest and most affected regions in the world. This book documents the climatic change in its arid and semi-arid areas on decadal to geological time scales based on analyses of various data sources. These analyses improved our understanding of the potential mechanisms driving the aridity trend, particularly in the second half of the 20th century. Based on these analyses and a systematic assessment of the impact of the aridity trend on the ecological and hydrological processes in northern China, measures of human adaptation to the aridity trend for socio-economic developments are proposed.

## 27. 大気および海洋の流体力学

### **Atmospheric and Oceanic Fluid Dynamics Fundamentals and Large-Scale Circulation, 2nd Edition**

by Geoffrey K. Vallis

Cambridge U.P. - July 2017, Hardcover: 1002 pages, ISBN 9781107065505 **¥19,830**

The atmosphere and ocean are two of the most important components of the climate system, and fluid dynamics is central to our understanding of both. This book provides a unified and comprehensive treatment of the field that blends classical results with modern interpretations. It takes the reader seamlessly from the basics to the frontiers of knowledge, from the equations of motion to modern theories of the general circulation of the atmosphere and ocean. These concepts are illustrated throughout the book with observations and numerical examples. As well as updating existing chapters, this full-color second edition includes new chapters on tropical dynamics, El Niño, the stratosphere and gravity waves. Supplementary resources are provided online, including figures from the book and problem sets, making this new edition an ideal resource for students in the atmospheric, oceanic and climate sciences, as well as in applied mathematics and engineering.

## 28. 大気化学

### **Atmospheric Chemistry: From the Surface to the Stratosphere**

(Essential Textbooks in Chemistry)

by G A D Ritchie

World Scientific - Feb 2017, Hardcover: 199 pages, ISBN 9781786341754 **¥17,670**

Understanding the composition and chemistry of the Earth's atmosphere is essential to global ecological and environmental policy making and research. Atmospheric changes as a result of both natural and anthropogenic activity have affected many of the Earth's natural systems throughout history, some more seriously than others, and such changes are ever more evident with increases in both global warming and extreme weather events. *Atmospheric Chemistry: from the Surface to the Stratosphere* considers in detail the physics and chemistry of our contemporary planet, and in particular its atmosphere, explaining the chemistry and physics of the air that we breathe, that gives rise to our weather systems and climate, soaks up our pollutants and protects us from solar UV radiation. The development of the complex chemistry occurring on Earth can be explained through application of basic principles of physical chemistry, as is discussed in this book. It is therefore accessible to intermediate and advanced undergraduates of chemistry, with an interdisciplinary approach relevant to meteorologists, oceanographers, and

climatologists. It also provides an ideal opportunity to bring together many different aspects of physical chemistry and demonstrate their relevance to the world we live in. This book was written in conjunction with *Astrochemistry: From the Big Bang to the Present Day*, Claire Vallance (2017) Grant Ritchie, @World Scientific Publishing.

## 29.

### **Atmospheric Frontal Dynamics**

by Mankin Mak

Cambridge U.P. - Oct 2017, Hardback

ISBN 9781107133204 **¥22,540**

*Atmospheric Frontal Dynamics* is the first book to present a self-contained and comprehensive coverage of the ubiquitous surface and upper-level fronts, which are boundaries separating two air masses of different densities. Atmospheric fronts are a product of interaction between planetary, synoptic, meso and small scales of motions. They are uniquely important in weather forecasting since many meteorological phenomena are closely associated with them. The discussions of the multifaceted aspects of basic frontal dynamics are based on illustrative analyses of a hierarchy of semi-geostrophic frontal models performed in physical, as opposed to geostrophic, coordinates. Such analyses enable us to systematically and quantitatively delineate the physical nature of different types of fronts in a relatively straightforward manner. They are further supplemented by two illustrative analyses using a state-of-the-art model. 'Learning-by-doing' is the guiding principle behind the book, making it an asset to both students and instructors in atmospheric science and meteorology.

## 30. 大気レーダー

### **Atmospheric Radar Application and Science of MST Radars in the Earth's Mesosphere, Stratosphere, Troposphere, and Weakly Ionized Regions**

by Wayne K. Hocking, Jürgen Röttger, Robert D. Palmer, Toru Sato, & Phillip B. Chilson

Cambridge U.P. - Jan 2017, Hardcover: 854 pages, ISBN 9781107147461 **¥22,540**

Richly illustrated, and including both an extensive bibliography and index, this indispensable guide brings together the theory, design, and applications of atmospheric radar. It explains the basic thermodynamics and dynamics of the troposphere, stratosphere, and mesosphere, and discusses the physical and engineering principles behind one of the key tools used to study these regions - MST radars. Key topics covered include antennas, signal propagation, and signal processing techniques. A wide range of practical applications are discussed, including the use of atmospheric radar to study wind profiles, tropospheric temperature, and gravity waves. A detailed overview of radar designs provides a wealth of knowledge and tools, providing readers with a strong basis for building their own instruments. This is an essential resource for graduate students and researchers working in the areas of radar engineering, remote sensing, meteorology, and atmospheric physics, as well as for practitioners in the radar industry.

## 31. 気候変動と大気汚染

### **Climate Change and Air Pollution The Impact on Developed and Developing Countries**

(Series: Springer Climate)

Edited by Rais Akhtar & Cosimo Palagiano

Springer - Nov 2017, Hardcover

ISBN 9783319613451 ca. ¥22,220

This book discusses regional and international climate-change, air-pollution and human-health scenarios. The research, from both industrialized and developing countries, focuses on region-specific perspectives of climate change impacts on air pollution. After analyzing the variations of climate data over recent decades, the authors consider the different effects of climate change on air pollution and health. As stressed by the IPCC, "pollen, smoke and ozone levels are likely to increase in a warming world, affecting the health of residents of major cities. Rising temperatures will worsen air quality through a combination of more ozone in cities, bigger wild fires and worse pollen outbreaks," according to a major UN climate report. The report follows the World Health Organization in finding that air pollution is the world's greatest environmental health risk, killing 7 million people in 2014 (compared to 0.4 million deaths due to malaria). Deteriorating air quality will most affect the elderly, children, people with chronic ill-health and expectant mothers. Another report suggests that more than 5.5 million people die prematurely each year due to air pollution with over half of those deaths occurring in China and India. In the face of future climate change, scientists have urged stronger emission controls to avoid worsening air pollution and the associated exacerbation of health problems, especially in more populated regions of the world. It is hoped that the implementation of the Paris Climate Agreement will help minimize air pollution.

32. 気候学・第4版

## **Climatology 4th Edition**

by Robert V. Rohli & Anthony J. Vega

Jones & Bartlett - June 2017, Paperback: 464 pages, ISBN 9781284119985 **¥27,040**

Welcome to the exciting journey of learning about one of the most widely discussed sciences. Praised for its detail and accuracy, Climatology continues to lead as the most comprehensive presentation of our dynamic climate system. The Fourth Edition features a completely revised, full-color art program that enhances clarity and gradation of all maps, climographs, and images to help readers better understand the diversity of climate within varying climate types. The text appeals to all students, as it covers the basics of atmospheric science in the early chapters and provides the breadth and depth of topics to challenge the more experienced reader. Climatology, Fourth Edition aims to improve students' communication skills, encourage critical-thinking, and invoke a sense of social responsibility, making it the clear choice in this rapidly developing science.

33. 沿岸の嵐 – その過程と影響

## **Coastal Storms**

### **Processes and Impacts**

(Series: Hydrometeorological Extreme Events)

By PAOLO CIAVOLA & GIOVANNI COCO

Wiley – April 2017, 280 pages, Hardback

ISBN 9781118937105 **¥24,340**

Coastal Storms offers students and professionals in the field a comprehensive overview and groundbreaking text that is specifically devoted to the analysis of coastal storms. Based on the most recent knowledge and contributions from leading researchers, the text examines coastal storms' processes and characteristics, the main hazards (such as overwash, inundation and flooding, erosion, structures overtopping), and how to monitor and model storms. The authors include information on the most advanced innovations in forecasting, prediction, and early warning, which serves as a foundation for accurate risk evaluation and developing adequate coastal indicators and management options.

34. 大気および気候科学における予測文化

## **Cultures of Prediction in Atmospheric and Climate Science Epistemic and Cultural Shifts in Computer-based Modelling and Simulation**

Edited by Matthias Heymann, Gabriele

Gramelsberger, & Martin Mahony

Routledge - Apr 2017, 256 pages, Hardback:

ISBN 9781138222984 **¥24,260**

Through a diverse range of case studies, spanning over a century of theoretical and practical developments in the atmospheric and environmental sciences, this book argues that computer modelling and simulation have substantially changed scientific and cultural practices and shaped the emergence of novel 'cultures of prediction'.

Making an innovative, interdisciplinary contribution to understanding the impact of computer modelling on research practice, institutional configurations and broader cultures, this volume will be essential reading for anyone interested in the past, present and future of climate change and the environmental sciences.

35. 中国の空を覆う塵、エアロゾル、深刻な霧

## **Dust, Aerosols and Heavy Haze over China**

### **Sources, Transformation, Transport, and Impact on the Regional and Global Environment**

by Guoshun Zhuang

Springer - Nov 2017, Hardcover

ISBN 9789811029806 **¥25,120**

This book systematically investigates the characteristics, distribution, transformation, source and sink of aerosols over typical regions in China based on long-term observations, revealing that the secondary aerosol, dust, and biomass burning are the main causes of widespread smog. It proposes that organic aerosol, sulfate, nitrate and black carbon are the main extinction components in smog. In addition it quantitatively determines the influence of transport on local and regional air quality, and argues that traffic emissions are the triggering factor for the wide range of smog in China. It also demonstrates the mixing and interaction mechanism of dust with anthropogenic pollutants in long-distance transport and the air-sea exchange. The research findings and the large number of first-hand data provided make this a valuable reference resource for those involved in atmospheric science, especially basic atmospheric chemistry and aerosol science research.

36. 気象学入門・第8版

## **Essentials of Meteorology: An Invitation to the Atmosphere, 8th Edition**

by C. Donald Ahrens & Robert Henson (Author)

Brooks Cole - Jan 2017, Paperback: 509 pages

ISBN 9781305628458 **¥34,250**

ESSENTIALS OF METEOROLOGY: AN INVITATION TO THE ATMOSPHERE is written by the most widely read and authoritative author in introductory meteorology, Donald Ahrens, together with a new coauthor -- meteorologist and award-winning science writer Robert Henson. Their ability to explain relatively complicated ideas in a student-friendly way allows both science and nonscience majors to visualize the principles of meteorology. The 8th edition's clear and inviting

narrative is supplemented by pedagogical features that encourage observing, calculating, and synthesizing information, and recent weather and climate events are incorporated to enhance student interest. Online animations available through MindTap help students to understand the underlying meteorological principles. Suggested activities to interact with the data make it easier to assign student projects for developing critical thinking and quantitative skills using meteorological data.

### 37. 気象学の進化

## The Evolution of Meteorology A Look into the Past, Present, and Future of Weather Forecasting

by Kevin Anthony Teague & Nicole Gallicchio  
Wiley-Blackwell - July 2017, Paperback: 272  
pages ISBN 9781119136149 **¥12,620**

This comprehensive review explores the evolution of the field of meteorology, from its infancy in 3000 bc, through the birth of fresh ideas and the naming of the field as a science, to the technology boom, to today. The Evolution of Meteorology reveals the full story of where meteorology was then to where it is now, where the field is heading, and what needs to be done to get the field to levels never before imagined. Authored by experts of the topic, this book includes information on forecasting technologies, organizations, governmental agencies, and world cooperative projects.

The authors explore the ancient history of the first attempts to understand and predict weather and examine the influence of the very early birth of television, computers, and technologies that are useful to meteorology. This modern-day examination of meteorology is filled with compelling research, statistics, future paths, ideas, and suggestions. This vital resource:

### 38. 洪水のモデリング、予測、緩和

## Flood Modeling, Prediction and Mitigation

by Zekai Sen  
Springer - May 2017, Hardcover: 590 pages  
ISBN 9783319523552 **¥19,330**

The work includes professional experience and expertise of the author in humid and arid regions. The basis of each model, algorithm and calculation methodologies are presented with rational, logical and analytical thinking directions so that the reader will become acquainted with the basic scientific philosophy about floods and their impacts on human life and property. Global warming and climate change trends are implemented in the book with documentations from relevant literature. Factual project applications are provided in each section so that the reader can grasp not only the theoretical aspects but their implementations in practical works. Flood risk assessments, vulnerability, combat and mitigation procedures are explained in a systematic manner so that the reader may apply them in a rational and effective manner. In the text not only numerical calculations through the formulations and equations are presented, but also linguistic knowledge and information sources are also given weight in the explanation of each chapter topic.

### 39. 大気境界層気象学の原理

## Fundamentals of Boundary-Layer Meteorology

(Series: Springer Atmospheric Sciences)  
by Xuhui Lee  
Springer - Nov 2017, Hardcover: 200 pages  
ISBN 9783319608518 **ca. ¥13,530**

This textbook introduces a set of fundamental equations that govern the conservation of mass (dry air, water vapor, trace gas), momentum and energy in the lower atmosphere. Simplifications of each of these equations are made in the context of boundary-layer processes. Extended from these equations the author then discusses a key set of issues, including (1) turbulence generation and destruction, (2) force balances in various portions of the lower atmosphere, (3) canopy flow, (4) tracer diffusion and footprint theory, (5) principles of flux measurement and interpretation, (6) models for land evaporation, (7) models for surface temperature response to land use change, and (8) boundary layer budget calculations for heat, water vapor and carbon dioxide. Problem sets are supplied at the end of each chapter to reinforce the concepts and theory presented in the main text. This volume offers the accumulation of insights gained by the author during his academic career as a researcher and teacher in the field of boundary-layer meteorology.

### 40. 熱帯気候力学原理

## Fundamentals of Tropical Climate Dynamics

(Series: Springer Atmospheric Sciences)

by Tim Li & Pang-chi Hsu  
Springer - July 2017, Hardcover: 170 pages  
ISBN 9783319595955 **¥14,880**

This textbook introduces fundamental dynamics of tropical atmosphere and ocean useful for advanced graduate courses in atmospheric and climate sciences. It presents an overview of simple atmospheric and oceanic models, as well as the observed phenomena associated with major climate modes in the tropics. It provides students with an up-to-date understanding of the dynamics of tropical climate and weather phenomena. A particular focus is given to scale interactions and atmosphere-ocean interactions associated with tropical mean climate (such as ITCZ asymmetry and annual cycles), synoptic-scale variability (such as synoptic wave trains, easterly waves and tropical cyclones), intraseasonal oscillations (such as Madden-Julian Oscillation and boreal summer intraseasonal oscillation), and interannual variability (such as El Niño-Southern Oscillation and Indian Ocean Dipole). Theoretical and conceptual models are presented for better understanding of physical mechanisms behind the observational phenomena. This book aims to motivate graduate students in atmospheric sciences and oceanography by providing them with the key methods and tools necessary to conduct research.

### 41. 干ばつおよび水不足ハンドブック

## Handbook of Drought and Water Scarcity (Three-Volume Set)

Edited by Saeid Eslamian, & Faezeh A. Eslamian  
CRC Press - July 2017, 3 Vols/1640 pages  
Hardback ISBN 9781498731089 **¥67,710**

This handbook includes over 100 chapters, written by experts from around the world. It examines drought and all of the issues relating to drought and water scarcity, including causes, impacts, modeling, capacity building, early-warning systems, management and policy, remote sensing, risk assessment, and more. It also explains how drought can affect different sectors in different ways, for example, rural and agricultural areas as compared to urban areas. It explains the environmental aspects of drought such as contamination, and also discusses how climate change affects drought conditions, and presents modeling for better understanding drought in uncertain and changing climates.

42. 衛星搭載合成開口レーダによるハリケーン監視

## Hurricane Monitoring With Spaceborne Synthetic Aperture Radar

(Series: Springer Natural Hazards)

Edited by Xiaofeng Li

Springer - May 2017, Hardcover: 398 pages

ISBN 9789811028922 ¥28,990

This book discusses in detail the science and morphology of powerful hurricane detection systems. It broadly addresses new approaches to monitoring hazards using freely available images from the European Space Agency's (ESA's) Sentinel-1 SAR satellite and benchmarks a new interdisciplinary field at the interface between oceanography, meteorology and remote sensing. Following the launch of the first European Space Agency (ESA) operational synthetic aperture radar satellite, Sentinel-1, in 2014, synthetic aperture radar (SAR) data has been freely available on the Internet hub in real-time. This advance allows weather forecasters to view hurricanes in fine detail for the first time. As a result, the number of synthetic aperture radar research scientists working in this field is set to grow exponentially in the next decade; the book is a valuable resource for this large and budding audience.

43. 微気象学

## Micrometeorology 2nd Edition

by Thomas Foken

Springer - Feb 2017, Hardcover: 362 pages

ISBN 9783642254390 ¥16,430

The book focusses on atmospheric processes, which directly affect human environments within the lowest 100–1000 meters of the atmosphere over regions of only a few kilometres in extent. The book is the translation into English of the third edition of the German book "Applied Meteorology – Micrometeorological Methods". It presents, with selected examples, the basics of micrometeorology applied to disciplines such as biometeorology, agrometeorology, hydrometeorology, technical meteorology, environmental meteorology, and biogeosciences. The important issues discussed in this book are the transport processes and fluxes between the atmosphere and the underlying surface. Vegetated and heterogeneous surfaces are special subjects. The author covers the areas of theory, measurement techniques, experimental methods, and modelling all in ways that can be used independently in teaching, research, or practical applications.

44. 混合相雲 - 観察とモデリング

## Mixed-Phase Clouds Observations and Modeling

Edited by Constantin Andronache

Elsevier - Oct 2017, Paperback: 350 pages

ISBN 9780128105498 ¥16,220

Mixed-phase clouds: Observations and Modeling presents advanced current research topics on mixed-phase clouds. As the societal impacts of extreme weather and its forecasting grow there is a continuous need to refine atmospheric observations techniques and numerical models. Understanding the role of clouds in the atmosphere is increasingly vital for current applications such as prediction and prevention of aircraft icing, weather modification, and assessment of the effects of cloud phase partition in climate models. This book will provide the essential information needed to address these problems, with a focus on current observations, simulations, and applications. It is suitable for graduate students, researchers, and others involved current applications of clouds physics. Written by experts in their

fields, chapters cover topics from observations, remote sensing methods, numerical modeling, and applications.

45. 大気化学の数理モデリング

## Modeling of Atmospheric Chemistry

by Guy P. Brasseur & Daniel J. Jacob

Cambridge U.P. - June 2017, Hardcover: 632

pages, ISBN 9781107146969 ¥16,230

Mathematical modeling of atmospheric composition is a formidable scientific and computational challenge. This comprehensive presentation of the modeling methods used in atmospheric chemistry focuses on both theory and practice, from the fundamental principles behind models, through to their applications in interpreting observations. An encyclopaedic coverage of methods used in atmospheric modeling, including their advantages and disadvantages, makes this a one-stop resource with a large scope. Particular emphasis is given to the mathematical formulation of chemical, radiative, and aerosol processes; advection and turbulent transport; emission and deposition processes; as well as major chapters on model evaluation and inverse modeling. The modeling of atmospheric chemistry is an intrinsically interdisciplinary endeavour, bringing together meteorology, radiative transfer, physical chemistry and biogeochemistry, making the book of value to a broad readership. Introductory chapters and a review of the relevant mathematics make this book instantly accessible to graduate students and researchers in the atmospheric sciences.

46. 数十年の気候の変動性

## Natural Decadal Climate Variability Societal Impacts

(Drought and Water Crises)

by Vikram M. Mehta

CRC Press - Apr 2017, Hardcover: 332 pages

ISBN 9781466554528 ¥26,340

Natural Decadal Climate Variability: Societal Impacts is an important work for understanding the natural decadal climate variability (DCV), a phenomenon which has made long lasting impacts on civilizations, especially on water availability and agriculture. This book comprehensively covers multiyear to decadal variations in instrument measured precipitation and temperature, water availability and river flows, crop production, agricultural irrigation, inland water-borne transportation, hydroelectricity generation, and fish and crustacean captures since the 1960s. A longer term perspective is provided with the use of multi-century data on dry and wet epochs based on tree ring information, and corroborating evidence from other literature. This valuable work will benefit climate scientists, meteorologists, hydrologists, agronomists, water transportation planners, resource economists, policymakers, professors, and graduate students and anyone else who has an interest in learning how natural climate phenomena has influenced societies for at least the past 1000 years.

47. 非線形確率気候力学

## Nonlinear and Stochastic Climate Dynamics

Edited by Christian L. E. Franzke & Terence J. O'Kane

Cambridge U.P. - Jan 2017, Hardcover: 468

pages, ISBN 9781107118140 ¥27,950

It is now widely recognized that the climate system is governed by nonlinear, multi-scale processes, whereby memory effects and stochastic forcing by fast processes, such

as weather and convective systems, can induce regime behavior. Motivated by present difficulties in understanding the climate system and to aid the improvement of numerical weather and climate models, this book gathers contributions from mathematics, physics and climate science to highlight the latest developments and current research questions in nonlinear and stochastic climate dynamics. Leading researchers discuss some of the most challenging and exciting areas of research in the mathematical geosciences, such as the theory of tipping points and of extreme events including spatial extremes, climate networks, data assimilation and dynamical systems. This book provides graduate students and researchers with a broad overview of the physical climate system and introduces powerful data analysis and modeling methods for climate scientists and applied mathematicians.

#### 48. 私たちの温暖化する惑星

### **Our Warming Planet: Topics in Climate Dynamics**

(Lectures in Climate Change)

Edited by Cynthia Rosenzweig, David Rind, Andrew Lacis, & Danielle Peters

World Scientific - Jan 2017, Hardcover: 444 pages  
ISBN 9789813148772 **¥15,870**

The processes and consequences of climate change are extremely heterogeneous, encompassing many different fields of study. Dr David Rind in his career at the NASA Goddard Institute for Space Studies and as a professor at Columbia University has had the opportunity to explore many of these subjects with colleagues from these diverse disciplines. It was therefore natural for the Lectures in Climate Change series to begin with his colleagues contributing lectures on their specific areas of expertise.

This first volume, entitled *Our Warming Planet: Topics in Climate Dynamics*, encompasses topics such as natural and anthropogenic climate forcing, climate modeling, radiation, clouds, atmospheric dynamics/storms, hydrology, clouds, the cryosphere, paleoclimate, sea level rise, agriculture, atmospheric chemistry, and climate change education. Included with this publication are downloadable PowerPoint slides of each lecture for students and teachers around the world to be better able to understand various aspects of climate change.

The lectures on climate change processes and consequences provide snapshots of the cutting-edge work being done to understand what may well be the greatest challenge of our time, in a form suitable for classroom presentation.

#### 49. 放射輸送モデリング

### **Radiative Transfer Modeling Physical Basis and Numerical Aspects**

(Environmental Earth Sciences)

by Vladimir Budak, & Alexander A. Kokhanovsky

Series: Environmental Earth Sciences

Springer - Apr 2017, Hardcover: 500 pages  
ISBN 9783642288326 **¥25,120**

The textbook is devoted to the description of the light field formation in turbid media, such as atmosphere and ocean. By the light field is understood the description of the electromagnetic field propagation (transfer) in the ray approximation. The basis of presentation is the physical theory of radiation transfer, which allows covering the whole range of issues relating to the transfer of polarized radiation in a turbid medium with a physical level of rigor: electrodynamics basis of photometric and the vectorial radiative transfer equation (VRTE), analysis of absorption and scattering of light in a medium, methods for solving VRTE for different geometries of a turbid medium and boundary conditions. The presentation peculiarity is bringing all the proposed solutions to the practical

algorithms with their illustrations by concrete codes in the Matlab. All parts of codes are interconnected that allows showing the light fields calculation in real turbid media at the end of textbook.

#### 50. アエロゾル、雲、降雨のリモートセンシング

### **Remote Sensing of Aerosols, Clouds, and Precipitation**

Edited by Tanvir Islam, Yongxiang Hu, Alexander A. Kokhanovsky, & Jun Wang

Elsevier - Oct 2017, Paperback: 300 pages  
ISBN 9780128104378 **¥21,640**

*Remote Sensing of Aerosols, Clouds, and Precipitation* compiles recent advances in aerosol, cloud, and precipitation remote sensing from new satellite observations. The book examines a wide range of measurements from microwave (both active and passive), visible, and infrared portions of the spectrum. Contributors are experts conducting state-of-the-art research in atmospheric remote sensing using space, airborne, and ground-based datasets, focusing on supporting earth observation satellite missions for aerosol, cloud, and precipitation studies. A handy reference for scientists working in remote sensing, earth science, electromagnetics, climate physics, and space engineering. Valuable for operational forecasters, meteorologists, geospatial experts, modelers, and policymakers alike.

#### 51. 気候変動論争における言語の役割

### **The Role of Language in the Climate Change Debate**

Edited by Kjersti Flottum

Routledge - April 2017, 178 pages, 23 B/W Illus.  
Hardback: ISBN 9781138209596 **¥24,260**

This volume takes a distinctive look at the climate change debate, already widely studied across a number of disciplines, by exploring the myriad linguistic and discursive perspectives and approaches at play in the climate change debate as represented in a variety of genres. The book focuses on key linguistic themes, including linguistic polyphony, lexical choices, metaphors, narration, and framing, and uses examples from diverse forms of media, including scientific documents, policy reports, op-eds, and blogs, to shed light on how information and knowledge on climate change can be represented, disseminated, and interpreted and in turn, how they can inform further discussion and debate. Featuring contributions from a global team of researchers and drawing on a broad array of linguistic approaches, this collection offers an extensive overview of the role of language in the climate change debate for graduate students, researchers, and scholars in applied linguistics, environmental communication, discourse analysis, political science, climatology, and media studies.

#### 52. 衛星気象学・第2版

### **Satellite Meteorology, 2nd Edition**

By R R Kelkar

CRC Press - May 2017, 301 pages, 8 Color Illus.  
Hardback: ISBN 9781138060661 **¥28,890**

*Satellite Meteorology* is the youngest and fastest growing branch of the science of meteorology and the present book traces its fascinating history, describes the current state of art, and envisions its potential and possibilities. The last decade has witnessed a significant improvement in the accuracy of short and medium range weather forecasting the world over, particularly in the tropics. Numerical weather prediction models seem to be taking over from synoptic meteorologists and may

even be doing better. With the support of high power computers, numerical models have indeed become sophisticated and highly capable. However, it is undeniable that their recent success has been largely due to the real time assimilation of satellite data and products. Against the backdrop of these developments, revision of Satellite Meteorology had become overdue. The second edition retains the basic structure and style of previous edition but the updated content reflects more realistically the state of art in this ever-evolving field of science and technology. It incorporates the most recent factual and technical information, research results and references to the latest publications.

#### 53. 衛星気象学と大気リモートセンシング

### **Satellite Meteorology and Atmospheric Remote Sensing: An Introduction**

by Kenneth Bowman & Ping Yang

Wiley-VCH - Aug 2017, Paperback: 320 pages

ISBN 9783527409112 ¥16,230

Filling the gap for a comprehensive one-stop reference and textbook geared towards graduate students and practicing specialists, this book provides complete coverage of the relevant atmospheric parameters derived using satellites today, as well as a sound understanding of the underlying physics, thus helping readers apply and optimize the methods. Following a refresher in radiative transfer and celestial mechanics, this text covers imaging and sounding, treating the retrieval of ozone, clouds, aerosols, and surface properties. Throughout, the mathematical derivations are given, and each chapter includes between five and ten exercises with the solutions available separately.

A must have for environmental and atmospheric researchers, as well as for those working in industrial sectors involved with satellite based sounding systems.

#### 54. 大気の流れにおける自己組織化臨界現象と予測可能性

### **Selforganised Criticality and Predictability in Atmospheric Flows The Quantum World of Clouds and Rain**

(Springer Atmospheric Sciences)

A. M. Selvam, Retd.from IITM Ministry of Earth Sci., Govt. of India, Pune, India

Springer – April 2017, ca. 125 pages, Softcover

ISBN 9783319545455 ¥9,660

Presents a new concept of General Systems Theory and its application to atmospheric physics y Includes a universal quantification for the signature of self-organized criticality, namely an inverse power law form for fractal fluctuations in terms of the golden ratio y Offers a universal inverse power law form for fractal fluctuations that rules out linear secular trends in climate parameters This book presents a new concept of General Systems Theory and its application to atmospheric physics.

#### 55. 総観解析と予測

### **Synoptic Analysis and Forecasting: An Introductory Toolkit**

by Shawn Milrad

Elsevier - Oct 2017, Paperback: 350 pages

ISBN 9780128092477 ¥22,540

Synoptic Analysis and Forecasting: An Introductory Toolkit provides the bridge between the introductory

fundamentals of a meteorology course and advanced synoptic-dynamic analysis for undergraduate students. It helps students to understand the principles of weather analysis, which will complement computer forecast models. This valuable reference also imparts qualitative weather analysis and forecasting tools and techniques to non-meteorologist end users, such as emergency/disaster managers, aviation experts, and environmental health and safety experts who need to have a foundational knowledge of weather forecasting.

#### 56. 時間的な気候変化と異常気象

### **Temporal Climatology and Anomalous Weather Analysis**

(Series: Springer Atmospheric Sciences)

by Weihong Qian

Springer - Mar 2017, Hardcover: 687 pages

ISBN 9789811036408 ¥21,070

By breaking down atmospheric variables into temporal climatologies and anomalies, this book demonstrates that all weather extremes and climatic events are directly associated with the anomaly component of atmospheric motion. We can use the anomaly-based synoptic chart and dynamical parameters to objectively describe these extremes and events. The conception and differences of weather, climate and general circulation tend to confuse us, because there are no clear physical definitions available for them.

Weather extremes such as heat waves, cold surges, freezing rains, heavy rains, severe drought, unusual storm tracks, and tornados are common on our planet's surface. Climatic events such as Arctic warming and declining sea ice have become hot topics in recent years. An approach based on breaking down total variables into temporal climatologies and anomalies can be used to identify general circulation, analyze climatic anomalies and forecast weather extremes. Accordingly, this book will appeal to students, teachers and forecasters in the field of weather and climate alike.

#### 57. 都市の気候

### **Urban Climates**

by Dr T. R. Oke, Dr G. Mills, Dr A. Christen & J. A. Voogt

Cambridge U.P. - July 2017, Hardcover: 582

pages, ISBN 9780521849500 ¥27,050

Urban Climates is the first full synthesis of modern scientific and applied research on urban climates. The book begins with an outline of what constitutes an urban ecosystem. It develops a comprehensive terminology for the subject using scale and surface classification as key constructs. It explains the physical principles governing the creation of distinct urban climates, such as airflow around buildings, the heat island, precipitation modification and air pollution, and it then illustrates how this knowledge can be applied to moderate the undesirable consequences of urban development and help create more sustainable and resilient cities.

## 海洋生物学・水産学

#### 58. 海洋哺乳動物へのストレスの累積的効果

### **Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals**

by National Academies of Sciences

National Academies Press - Apr 2017, Paperback: 146 pages, ISBN 9780309440486 ¥11,720

Marine mammals face a large array of stressors, including loss of habitat, chemical and noise pollution, and bycatch in fishing, which alone kills hundreds of thousands of marine mammals per year globally. To discern the factors contributing to population trends, scientists must consider the full complement of threats faced by marine mammals. Once populations or ecosystems are found to be at risk of adverse impacts, it is critical to decide which combination of stressors to reduce to bring the population or ecosystem into a more favorable state. Assessing all stressors facing a marine mammal population also provides the environmental context for evaluating whether an additional activity could threaten it.

Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals builds upon previous reports to assess current methodologies used for evaluating cumulative effects and identify new approaches that could improve these assessments. This review focuses on ways to quantify exposure-related changes in the behavior, health, or body condition of individual marine mammals and makes recommendations for future research initiatives.

59. 養殖におけるバイオインフォマティクス

## **Bioinformatics in Aquaculture Principles and Methods**

Edited by ZHANJIANG (JOHN) LIU  
Wiley - April 2017, 592 pages, Hardback  
ISBN 9781118782354 ¥43,280

Bioinformatics in Aquaculture provides the most up to date reviews of next generation sequencing technologies, their applications in aquaculture, and principles and methodologies for the analysis of genomic and transcriptomic large datasets using bioinformatic methods, algorithm, and databases. The book is unique in providing guidance for the best software packages suitable for various analysis, providing detailed examples of using bioinformatic software and command lines in the context of real world experiments.

This book is a vital tool for all those working in genomics, molecular biology, biochemistry and genetics related to aquaculture, and computational and biological sciences.

60. 世界のワタリガニの生物学と養殖

## **Biology and Culture of Portunid Crabs of World Seas**

By Ramasamy Santhanam  
Apple Academic Press - Aug 2017, 395 pages,  
20 Color Illus. 259 B/W Illus. Hardback:  
ISBN 9781771885904 ¥30,270

Marine crabs play an important role directly or indirectly in the livelihood of millions of people around the world. They have been reported to make up about 20% of all marine crustaceans caught, farmed, and consumed worldwide. Among these marine crabs, portunid crabs or swimming crabs of the family Portunidae (Class: Crustacea; Order: Decapoda; Infraorder: Brachyura) assume greater significance in the marine industry owing to their delicate meat with nutritional qualities. Although, several species of portunid crabs are edible and commercially important, only a few species of Scylla and Portunus have been widely cultivated. This is largely due to the lack of information on the biology of portunid crabs. Keeping this in view, this new volume presents the biology and aquaculture of marine portunid crabs.

This volume will be of great use for researchers and students of disciplines such as fisheries science, marine biology, aquatic biology and fisheries and zoology and will also serve as a standard reference for college, university, and research libraries around the world.

61. ブダイの生物学と生態学

## **The Biology and Ecology of Parrotfishes**

Edited by Andrew Scott Hoey & Roberta Martini Bonaldo

CRC Press - Nov 2017, Hardcover: 450 pages  
ISBN 9781482224016 ¥34,250

Parrotfishes (subfamily Scarinae, family Labridae), named for their brightly colored bodies and beaklike jaw, are a unique group of marine fishes that have captured the attention of researchers, conservationists and the general public worldwide. This book brings together the world's leading authorities on the evolution, biology, ecology, fisheries and conservation of parrotfishes. In doing so, it provides a comprehensive summary of the research conducted on this unique group of fishes and highlights emerging topics and future direction.

62. 有毒エイの生物学と生態学

## **Biology and Ecology of Venomous Stingrays**

(Biology and Ecology of Marine Life)

by Ramasamy Santhanam

Apple Academic Press - July 2017, Hardcover:  
325 pages ISBN 9781771885386 ¥24,960

This comprehensive book on the venomous stingrays of the world seas and freshwater systems provides first-hand information on the diversity, biology, and ecology of venomous stingrays of freshwater, brackish, and marine ecosystems. Each year thousands of injuries to swimmers and surfers are reported, with 750 to 1,500 stingray injuries reported each year in the US alone. As more vacationers spend their leisure time exploring coasts and tropical reefs, often in isolated areas without immediate access to advanced health care, there will be greater potential for stingray injuries. A thorough understanding about the diversity of stingrays of marine and freshwater ecosystems and their injuries and envenomations would largely improve the public health community's ability to better manage and to prevent stingray injuries. This volume fills that gap.

63. バルト海の海洋生物学

## **Biological Oceanography of the Baltic Sea**

Edited by Pauline Snoeijs-Leijonmalm, Hendrik Schubert, & Teresa Radziejewska

Springer - Apr 2017, Hardcover: 683 pages  
ISBN 9789400706675 ¥19,330

This is the first comprehensive science-based textbook on the biology and ecology of the Baltic Sea, one of the world's largest brackish water bodies. The aim of this book is to provide students and other readers with knowledge about the conditions for life in brackish water, the functioning of the Baltic Sea ecosystem and its environmental problems and management. It highlights biological variation along the unique environmental gradients of the brackish Baltic Sea Area (the Baltic Sea, Belt Sea and Kattegat), especially those in salinity and climate.

64. 気候変動、海の酸性化、海綿

## **Climate Change, Ocean Acidification and Sponges**

**Impacts Across Multiple Levels of Organization**

Edited by José Luis Carballo & James Bell

Springer - Aug 2017, Hardcover: 525 pages  
ISBN 9783319590073 ¥44,270

While sponges represent a very simple group of organisms, which are represented by over 8000 species, there is considerable interest in the increasing role they may play in future marine ecosystems. While we still have a comparatively limited understanding of how sponges will respond to ocean warming and acidification there is evidence that some species may have the ability to acclimate or even adapt to these stressors. This comprehensive collection of articles describes our current understanding of the impacts of ocean acidification and warming on sponges across multiple levels of biological organisation, and from the geological past to the present. With expert contributions from across the world this book represents the most up-to-date view on sponge responses to climate change. This book will be of interest to a wide audience of marine scientists and managers, who are grappling with how to manage, conserve and protect marine ecosystems.

#### 65. 魚貝類の病気と管理

### Diagnosis and Control of Diseases of Fish and Shellfish

By BRIAN AUSTIN, Heriot Watt University, Edinburgh  
Wiley - April 2017, 304 pages, Hardback  
ISBN 9781119152101 ¥35,170

There has been a continual expansion in aquaculture, such that total production is fast approaching that of wild caught fisheries. Yet, the expansion is marred by continued problems of disease. New pathogens emerge, and others become associated with new conditions. Some of these pathogens become well established, and develop into major killers of aquatic species.

Diagnosis and Control of Diseases of Fish and Shellfish focuses on the diagnosis and control of diseases of fish and shellfish, notably those affecting aquaculture. Divided into 12 chapters, the book discusses the range of bacterial, viral and parasitic pathogens; their trends; emerging problems, and the relative significance to aquaculture. Developments in diagnostics and disease management, including the widespread use of serological and molecular methods are presented. Application/dose and mode of action of prebiotics, probiotics, and medicinal plant products used to control disease are examined, as well as the management and hygiene precautions that can be taken to prevent/control the spread of disease. This book will be a valuable resource for researchers, students, diagnosticians, veterinarians, fish pathologists, and microbiologists concerned with the management of diseases of fish and shellfish.

#### 66. 海洋哺乳類百科事典・第3版

### Encyclopedia of Marine Mammals, 3rd Edition

Edited by Bernd Würsig, J.G.M. Thewissen, & Kit M. Kovacs  
Academic Pr. - Sept 2017, Hardcover: 1488 pages  
ISBN 9780128043271 ¥26,070

The Encyclopedia of Marine Mammals, Third Edition, features revisions of comprehensive coverage in previous editions on such topics as taxonomy, systematics, evolution, anatomy/morphology, behavioral and physiological ecology, and more, as well as new content on topics of anthropogenic concern and modern information on the results of emerging threats, such as ocean noise (including intensive navy, industrial and other sources), impacts of climate change and cutting-edge research and results on various aspects of evolutionary biology. The latter includes new systematics information, with several re-considerations of taxonomy.

With contributions from, and edited by, world experts, this new edition is a critical resource for those in marine biology, from upper level undergraduate students attempting to get into a particular research topic, to more established graduate students, researchers and professionals. The book also functions as a useful reference, with more information on specific topics for those from related fields, such as ecologists, evolutionary biologists and environmental scientists.

#### 67. 海洋生態系の環境管理

### Environmental Management of Marine Ecosystems

Edited by Md. Nazrul Islam & Sven Erik Jorgensen  
CRC Press - Oct 2017, 368 pages, Hardback:  
ISBN 9781498767729 ¥39,290

This book will illustrate the current status, trends and effects of climate, natural disturbances and anthropogenic stressors on marine ecosystems. It shows how to integrate different management tools and models in an up-to-date, multidisciplinary approach to environmental management. Through several case studies, it provides a powerful framework for identifying management tools and their applications in coral reefs, fisheries, migratory species, marine islands and associated ecosystems such as mangroves and sea grass beds, including their ecosystem services, the threats to their sustainability, and the actions needed to protect them.

#### 68. マリンバイオポリマーの工業的応用

### Industrial Applications of Marine Biopolymers

Edited by Parappurath Narayanan Sudha  
CRC Press - June 2017, 608 pages, 101 B/W  
Illus, Hardback: ISBN 9781498731485 ¥33,510

Industrial Applications of Marine Biopolymers presents different classes of marine biopolymers and their industrial applications, demonstrating the precious value of ocean resources to society. This timely volume discusses the exceedingly useful polymers derived from these materials that are biodegradable, biocompatible, and at times water soluble. Direct use or chemically modified forms of such biomaterials have many chemical sites, making them suitable for varied types of industrial applications. In addition, this book also addresses current global challenges of conservation, including extended drought conditions and the need for improved agricultural methods, together with new bio-medical developments. It is suitable for anyone who has an interest in the industrial applications of biopolymers.

#### 69. 海洋生物学・第5版

### Marine Biology Function, Biodiversity, Ecology, 5th edition

By Jeffrey Levinton  
Oxford U.P. - July 2017, Paperback, 608pp  
ISBN 9780190625276 ¥29,930  
USD 165.95

Levinton's Marine Biology is regarded by many as the best, most authoritative text for the sophomore/junior/senior marine biology course. The text is characterized by its exceptionally clear and conversational writing style, comprehensive coverage, and sophisticated presentation featuring organismal and ecosystem ecology topics from an evolutionary perspective. Over the course of five editions, Jeff Levinton has balanced his organismal and ecological focus by including the latest developments from the world of molecular biology, global climate change, and ocean processes.

70. 海産酵素のバイオテクノロジー

## **Marine Enzymes Biotechnology: Production and Industrial Applications, Part III - Application of Marine Enzymes**

(Advances in Food and Nutrition Research, Vol 80)

Edited by Se-Kwon Kim & Fidel Toldra

Academic Pr. - Mar 2017, Hardcover: 228 pages

ISBN 9780128095874 **¥32,820**

Marine Enzymes Biotechnology: Production and Industrial Applications, Part III, Application of Marine Enzymes provides a huge treasure trove of information on marine organisms and how they are not only good candidates for enzyme production, but also a rich source of biological molecules that are of potential interest to various industries.

Marine enzymes such as amylases, carboxymethylcellulases, proteases, chitinases, keratinases, xylanases, agarases, lipases, peroxidase, and tyrosinases are widely used in the industry for the manufacture of pharmaceuticals, foods, beverages, and confectioneries, as well as in textile and leather processing and waste water treatment.

The majority of the enzymes used in the industry are of microbial origin because microbial enzymes are relatively more stable than the corresponding enzymes derived from plants and animals.

71. 沿岸低酸素のモデリング

## **Modeling Coastal Hypoxia Numerical Simulations of Patterns, Controls and Effects of Dissolved Oxygen Dynamics**

Edited by Dubravko Justic, Kenneth A. Rose, Robert D. Hetland, & Katja Fennel

Springer - June 2017, Hardcover: 433 pages

ISBN 9783319545691 **¥41,370**

This book provides a snapshot of representative modeling analyses of coastal hypoxia and its effects. Hypoxia refers to conditions in the water column where dissolved oxygen falls below levels that can support most metazoan marine life (i.e., 2 mg O<sub>2</sub> l<sup>-1</sup>). The number of hypoxic zones has been increasing at an exponential rate since the 1960s; there are currently more than 600 documented hypoxic zones in the estuarine and coastal waters worldwide. Hypoxia develops as a synergistic product of many physical and biological factors that affect the balance of dissolved oxygen in seawater, including temperature, solar radiation, wind, freshwater discharge, nutrient supply, and the production and decay of organic matter. A number of modeling approaches have been increasingly used in hypoxia research, along with the more traditional observational and experimental studies. Modeling is necessary because of rapidly changing coastal circulation and stratification patterns that affect hypoxia, the large spatial extent over which hypoxia develops, and limitations on our capabilities to directly measure hypoxia over large spatial and temporal scales. This book consists of 15 chapters that are broadly organized around three main topics: (1) Modeling of the physical controls on hypoxia, (2) Modeling of biogeochemical controls and feedbacks, and, (3) Modeling of the ecological effects of hypoxia. The final chapter is a synthesis chapter that draws generalities from the earlier chapters, highlights strengths and weaknesses of the current state-of-the-art modeling, and offers recommendations on future directions.

72. 海洋学と海洋生物アニュアルレビュー・第55巻

## **Oceanography and Marine Biology: An Annual Review, Volume 55**

Edited by S. J. Hawkins, A. J. Evans, A.C. Dale, L. B. Firth, D. J. Hughes, & I. P. Smith

CRC Pr. - July 2017, Hardcover: 232 pages

ISBN 9781138197862 **¥33,510**

Ever-increasing interest in oceanography and marine biology and their relevance to global environmental issues create a demand for authoritative reviews summarizing the results of recent research. Oceanography and Marine Biology: An Annual Review has catered to this demand since its founding by the late Harold Barnes more than 50 years ago. Its objectives are to consider, annually, the basic areas of marine research, returning to them when appropriate in future volumes; to deal with subjects of special and topical importance; and to add new subjects as they arise.

The favourable reception and complimentary reviews accorded to all the volumes shows that the series is fulfilling a very real need. Volume 55 follows closely the objectives and style of the earlier volumes, continuing to regard the marine sciences—with all their various aspects—as a unity. Physical, chemical, and biological aspects of marine science are dealt with by experts actively engaged in these fields.

The series is an essential reference text for researchers and students in all fields of marine science and related subjects, and it finds a place in libraries of universities, marine laboratories, research institutes and government departments. It is consistently among the highest ranking series in terms of impact factor in the marine biology category of the citation indices compiled by the Institute for Scientific Information/Web of Science.

73. 軟体動物の生殖と発生

## **Reproduction and Development in Mollusca**

(Reproduction and Development in Aquatic Invertebrates, Vol 2)

by T. J. Pandian

CRC Press - June 2017, Hardcover: 320 pages

ISBN 9781138710450 **¥33,510**

This book is perhaps the first attempt to comprehensively project the uniqueness of molluscs, covering almost all aspects of reproduction and development from aplousobranchs to vampyromorphic cephalopods. Molluscs are unique for the presence of protective external shell, defensive inking, geographic distribution from the depth of 9,050 m to an altitude of 4,300 m, gamete diversity, the use of nurse eggs and embryos to accelerate the first few mitotic divisions in embryos, the natural occurrence of androgens in a couple of bivalves, viable induced tetraploids, gigantism induced by elevated ploidy, the complementary role played by mitochondrial genome in sex determination by nuclear genes and the uptake and accumulation of steroid hormone from surrounding waters. In molluscs, sexuality comprises of gonochorism (< 75 %) and hermaphroditism, which itself includes simultaneous (> 24%), protandry (< 1 %), Marian and serial. In them, the presence of shell affords iteroparity and relatively longer life span in prosobranchs and bivalves but its absence semelparity and short life span in opisthobranchs and cephalopods. Within semelparity, gonochorism facilitates faster growth and larger body size but hermaphroditism small body size. In them, sex is irrevocably determined at fertilization by a few unknown genes and is not amenable to any environmental influence. However, the sex determining mechanism is more a family trait in bivalves. Primary sex differentiation is also fixed and not amenable to environmental factor but secondary differentiation is labile, protracted and amenable to environmental factors. Both sex differentiation and reproductive cycle are accomplished and controlled solely

by neurohormones. In these processes, the role of steroid hormones may be alien to molluscs.

#### 74. シベリアのチョウザメ・第1巻

### **The Siberian Sturgeon (*Acipenser baerii*, Brandt, 1869) Volume 1 - Biology**

Edited by Patrick Williot, Guy Nonnotte, Denise Vizziano-Cantonnet, & Mikhail Stepanovich Chebanov

Springer - Oct 2017, Hardcover  
ISBN 9783319616629 **¥28,990**

The biology of the Siberian sturgeon, *Acipenser baerii* Brandt 1869, has become a very attractive subject of investigation for biologists since the 1980s. This volume 1 is part of a two-volume set devoted to the species, the second of which focuses on farming. The present volume is divided into three parts: Biology and ecology, Biology and physiology of reproduction, and Ecophysiology, i.e. adaptation to the environment.

The first part addresses a broad range of topics, such as: the ecology, including a new approach to species-specificity, a new insight on the mineralization of vertebral elements, two approaches to sex determination, transposable elements in the gonads, early ontogeny, olfaction and gustation, nutrition and swimming. The second part includes neurochemical and anatomical descriptions of the central nervous system and an updated version of the oogenesis, the characteristics of both sperm and spermatozoa, and a synthesis on gonadal steroids (synthesis, plasmatic levels and biological activities). In turn, the third part reveals how the physiology of the species changes depending on environmental factors such as oxygen, ammonia, and nitrite. Some fundamental consequences of ammonia are developed (sublethal and lethal levels, effects on gill epithelium and haematology, acid-base balance, on AA and adenylyl nucleotides levels in plasma, brain and muscle tissue). In addition, the book includes two methodological chapters dealing with fish dorsal aortic cannulation and respiration physiology.

#### 75. シベリアのチョウザメ・第2巻

### **The Siberian Sturgeon (*Acipenser baerii*, Brandt, 1869) Volume 2 - Farming**

Edited by Patrick Williot, Guy Nonnotte, & Mikhail Stepanovich Chebanov

Springer - Oct 2017, Hardcover  
ISBN 9783319616742 **¥28,990**

The Siberian sturgeon, *Acipenser baerii* Brandt 1869 is the most widely farmed sturgeon species. Continuing from Volume 1, which focuses on the biology of the species, the present Volume 2 in turn examines farming aspects. It is divided into six parts, the first of which deals with reproduction and early ontogenesis, i.e. reproductive cycles, controlled reproduction, sperm cryoconservation, and weaning of larvae. The second covers the growing phase with a focus on food and feeding (management, fish meal replacement, potential endocrine disruptions, usefulness of prebiotics and immunostimulants, and nitrogen excretion). Production-related data are the focus of the third part and include: characteristics (countries, structures of production, evolution in production, economic features) of the gross production of the species (meat and caviar) worldwide, a method for assessing the quality of caviars, off-flavors management, and an example of production of fingerlings for restocking. Part four addresses selected long-term management issues: genetic variability of brood stocks, genome manipulation and sex control, and the

advantages of hybrids. The next three chapters constitute the fifth part, which is devoted to health status (immunology and welfare). In closing, the absence of ecological risks of introducing the species in non-native waters is shown using two long-term documented examples (Russia and France). Three methodological chapters round out the volume, covering: in vitro incubation of ovarian follicles, a richly illustrated library of echographies and photos, and a detailed presentation of oxygen demand studies.

## 海洋工学

#### 76. 深海採鉱 - 潜在資源、技術と環境問題

### **Deep-Sea Mining Resource Potential, Technical and Environmental Considerations**

Edited by Rahul Sharma

Springer - Mar 2017, Hardcover: 535 pages  
ISBN 9783319525563 **¥38,660**

This comprehensive book contains contributions from specialists who provide a complete status update along with outstanding issues encompassing different topics related to deep-sea mining. Interest in exploration and exploitation of deep-sea minerals is seeing a revival due to diminishing grades and increasing costs of processing of terrestrial minerals as well as availability of several strategic metals in seabed mineral resources; it therefore becomes imperative to take stock of various issues related to deep-sea mining. The authors are experienced scientists and engineers from around the globe developing advanced technologies for mining and metallurgical extraction as well as performing deep sea exploration for several decades. They invite readers to learn about the resource potential of different deep-sea minerals, design considerations and development of mining systems, and the potential environmental impacts of mining in international waters.

#### 77. 流体-構造物の相互作用と不確実性

### **Fluid-Structure Interactions and Uncertainties**

**Ansys and Fluent Tools**

Wiley - April 2017, 284 pages, Hardback  
ISBN 9781848219397 **¥22,540**

By BOUCHAIB RADI & ABDELKHALAK EL HAMI

This book is dedicated to the general study of fluid structure interaction with consideration of uncertainties. The fluidstructure interaction is the study of the behavior of a solid in contact with a fluid, the response can be strongly affected by the action of the fluid. These phenomena are common and are sometimes the cause of the operation of certain systems, or otherwise manifest malfunction. The vibrations affect the integrity of structures and must be predicted to prevent accelerated wear of the system by material fatigue or even its destruction when the vibrations exceed a certain threshold.

#### 78. 海岸および海岸工学ハンドブック・改訂版

### **Handbook of Coastal and Ocean Engineering In 2 Vols (2nd Edition)**

Edited by: Young C Kim (California State University, World Scientific - Dec 2017, 2 Vols/1900 pages, Hardback ISBN 9789813204010 **¥89,270**

The handbook contains a comprehensive compilation of topics that are the forefront of many of the technical advances in ocean waves, coastal, and ocean engineering. More than 110

internationally recognized authorities in the field of coastal and ocean engineering have contributed articles on their areas of expertise to this handbook. These international luminaries are from highly respected universities and renowned research and consulting organizations from all over the world.

#### Contents:

Shallow-Water Waves. Water Level Fluctuations. Coastal and Offshore Structures. Wave-Structure-Soil Interaction. Ports and Harbors. Coastal Sediment Processes. Environmental Problems. Sustainable Coastal Development. Coastal Hazards. Ocean Energy. Physical Modeling and Numerical Model Validation. Coastal Engineering Practice and Education.

#### 79. インド洋の資源と技術

### Indian Ocean Resources and Technology

By Ganpat Singh Roonwal

CRC Press - Nov 2017, 264 pages, 23 Color Illus., 41 B/W Illus. Hardcover: ISBN 9781138095342 **¥35,820**

The current scenario provides an ideal opportunity to confer higher priority to the marine resources of the Indian Ocean, particularly in terms of integrated management of the deep sea, shallow sea and coastal resources. This will maximize their potential in the sustainable development goal (SDG) pattern, leading to an appropriate environmental management. Therefore, this book aims to provide an overview of the area and to highlight the potential market opportunities represented by this vast and rapidly developing nation. In doing so the following aspects have been covered:

Exclusive title focussing on mineral resources of Indian ocean.

Discusses living, nonliving, ocean waves and tidal energy, ocean environment and protection aspects.

Includes information on key themes, details of organizations associated with the Indian Ocean.

Illustrates deep sea mining technology and environmental perspectives.

Covers hydrocarbons-sub sea oil and gas, minerals from placer deposits to deep sea nodules, sea floor massive sulphides and cobalt rich encrustations.

#### 80. サブメソスケールの動的海洋過程の合成開口レーダー衛星による検出

### Satellite SAR Detection of Sub-Mesoscale Ocean Dynamic Processes

(Advanced Series on Ocean Engineering)

by Quanan Zheng (University of Maryland, College Park, USA)

World Scientific - Mar 2017, 300 pages, Hardcover ISBN 9789814749008 **¥23,800**

Synthetic-aperture radar (SAR) as a form of radar to create images of objects, uses the motion of the radar antenna over a targeted region to provide finer spatial resolution than is possible with conventional beamsweeping radars by mounting the antenna on a moving platform such as an aircraft or spacecraft. As antenna aperture (the "size" of the antenna) is defined by the distance the SAR device travels over a target in the time taken for the radar pulses to return to the antenna, the larger the aperture is, the higher the image resolution, therefore, this enables SAR to create high resolution images with comparatively small physical antennas.

This special book aims to provide the updated theories and methods for the use of synthetic aperture radar (SAR) onboard satellites to detect ocean processes, i.e., SAR ocean remote sensing. It is a hi-tech application field having been developed

since late 1970s and become a powerful tool for obtaining dynamic signatures from the remote and broad ocean.

#### 81. 海洋表面波の理論と応用・第3版

### Theory and Applications of Ocean Surface Waves (In 2 Volumes) 3rd Edition

Advanced Series on Ocean Engineering - Volume 42 by Chiang C Mei (MIT), Michael Stiassnie (Technion-Israel Institute of Technology, Israel), Dick K-P Yue (MIT)

World Scientific - April 2017, 2 Vols/1500 pages, Hardcover ISBN 9789813147171 **¥35,710**

This book set is a revised version of the 2005 edition of Theory and Applications of Ocean Surface Waves. It presents theoretical topics on ocean wave dynamics, including basic principles and applications in coastal and offshore engineering as well as coastal oceanography. Advanced analytical and numerical techniques are demonstrated. In this revised version, five chapters on recent developments in linear and nonlinear aspects have been added. The first is on detailed analyses in Wave/Structure Interactions. The second is a new section on Waves through a Marine Forest, a topic motivated by its possible relevance to tsunami reduction. The third is on Long Waves in Shallow Water and the fourth is an update on Broad-Banded Nonlinear Surface Waves in the Open Sea to include new findings in this topic. The fifth is an expanded chapter on Numerical Simulation of Nonlinear Wave Dynamics to include predictions of nonlinear spectral evolution and rogue wave occurrence and dynamics using large-scale phase-resolved simulations. This revised version also includes recent developments in precorrected-FFT accelerated  $O(N \log N)$  low- and high-order boundary element methods for the computation of fully nonlinear wave-wave and wave-body interactions.

#### 82. 壁乱流の制御

### Wall Turbulence Control

By SEDAT TARDU

Wiley - April 2017, 198 pages, Hardcover ISBN 9781848215597 **¥21,640**

Wall turbulence control is a major subject, the investigation of which involves significant industrial, environmental and fundamental consequences. Wall Turbulence Control addresses recent advances achieved in active and passive wall turbulence control over the past two decades. This valuable reference for scientists, researchers and engineers provides an updated view of the research into this topic, including passive control, optimal and suboptimal control methodology, linear control and control using adaptive methods (neural networks), polymer and bubble injection, electromagnetic control and recent advances in control by plasma.

政治・経済・法律・その他

#### 83. ビーチの管理ツール

### Beach Management Tools Concepts, Methodologies and Case Studies

(Coastal Research Library, Vol 24)

Edited by Camilo M. Botero, Omar D. Cervantes, & Charles W. Finkl

Springer - Sept 2017, Hardcover: 390 pages

ISBN 9783319583037 ¥28,990

This book provides an overview of beach management tools, including carrying capacity, beach nourishment, environmental and tourism awards (like Blue Flag or others), bathing water quality, zoning, beach typologies, quality index, user's perception, interdisciplinary beach monitoring, coastal legislation, shore protection, social and economic indicators, ecosystem services, and coastal governance (applied in beach case studies).

Beaches are one of the most intensely used coastal ecosystems and are responsible for more than half of all global tourism revenues, and as such the book introduces a wide range of state-of-the-art tools that can be used to deal with a variety of beach challenges. Each chapter features specific types of tools that can be applied to advantage in beach management practices. With examples of local and regional case studies from around the globe, this is a valuable resource for anyone involved in beach management.

#### 84. 水管理の文化

### **The Cultures of Water Management**

(Global Environmental Studies)

Edited by Hiroshi Nawata, & Makoto Taniguchi  
Springer - Dec 2017, Hardcover: 235 pages

ISBN 9784431542124 ¥18,540

This book assesses the importance of the cultural dimensions of water management, which differ from one region of the world to another, from humid Southeast Asia to arid parts of the Middle East and Africa. Water is a vital resource, and water circulation brings invaluable benefits in many ways. Too much or too little water can also create disasters, however, including flooding and drought. Water is considered "too much to control" in humid areas and "too little to survive" in arid regions. There is a great storehouse of traditional and scientific knowledge on water management as an expression of culture in both arid and humid areas. The qanat, for example, is used in some arid regions to control the transport of water underground. In humid areas, people have long existed under the threat of heavy flooding by drawing upon traditional knowledge for survival. Once-effective water management is threatened, however, by climate change such as global warming and by the globalization and urbanization of society. Adaptive water management is now imperative as climate and society undergo changes. Not only political and institutional solutions are called for. As well, adaptations of traditional methods must be introduced into modern systems of water management. This book provides valuable guidance on how that synthesis can be achieved.

#### 85. 国連世界海洋評価

### **The First Global Integrated Marine Assessment**

**World Ocean Assessment I**

Edited by United Nations (Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs)

Cambridge U.P. -- April 2017, Hardback

ISBN 9781316510018 ¥27,050

The World Ocean Assessment - or, to give its full title, The First Global Integrated Marine Assessment - is the outcome of the first cycle of the United Nations' Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects. The Assessment provides vital, scientifically-grounded bases for the consideration of ocean issues, including climate change, by governments, intergovernmental agencies, non-governmental agencies and all other stakeholders and policymakers involved in ocean affairs. Together with future assessments and related initiatives, it will support the implementation of the recently adopted 2030 Agenda for

Sustainable Development, particularly its ocean-related goals. Moreover, it will also form an important reference text for marine science courses.

#### 86. 漁業、漁獲量割当ての管理と移転

### **Fisheries, Quota Management and Quota Transfer: Rationalization**

**through Bio-economics**

(MARE Publication Series, Vol 15)

Edited by Gordon M. Winder

Springer - Aug 2017, Hardcover: 227 pages,

ISBN 9783319591674 ¥17,390

This volume examines the impact of fish stock assessment and catch share arrangements in context through case studies and in terms of ecosystem, economy and society. It examines the rationalizing work of bio-economic projects, especially the institutionalization of individual transferable quota (ITQ) in fisheries: what impact have they had on fisheries and fishers? The contributing authors understand ITQ and quota management as bio-economic projects, that is, as widely deployed but locally constituted projects that combine biological and economic logics to rationalize production and, in this case, fish. Politicians and managers use these projects and the models that justify them to rationalize fisheries in favor of modern technology and for capital and species efficiency. Aimed at a diverse interdisciplinary fisheries management readership, and designed as a guide to issues emerging in any assessment of ITQ, the book is a timely investigation of the origins and diverse experiences of ITQ projects, including resistance to them, attempts to develop fisheries management around them, and experiences of the risks that come with them.

#### 87. 海洋法の将来

### **The Future of the Law of the Sea Bridging Gaps Between National, Individual and Common Interests**

Edited by Gemma Andreone

Springer - Mar 2017, Hardcover: 269 pages,

ISBN 9783319512730 ¥9,660

It explores the diverse phenomena which are challenging the international law of the sea today, using the unique perspective of a simultaneous analysis of the national, individual and common interests at stake. This perspective, which all the contributors bear in mind when treating their own topic, also constitutes a useful element in the effort to bring today's legal complexity and fragmentation to a homogenous vision of the sustainable use of the marine environment and of its resources, and also of the international and national response to maritime crimes.

The volume analyzes the relevant legal frameworks and recent developments, focusing on the competing interests which have influenced State jurisdiction and other regulatory processes.

An analysis of the competing interests and their developments allows us to identify actors and relevant legal and institutional contexts, retracing how and when these elements have changed over time.

#### 88. 海洋環境保護ハンドブック

### **Handbook on Marine Environment Protection**

**Science, Impacts and Sustainable Management**

Edited by Markus Salomon & Till Markus

Springer - Aug 2017, Hardcover

ISBN 9783319601540 ca. ¥19,320

This handbook is the first of its kind to provide a clear, accessible, and comprehensive introduction to the most important scientific and management topics in marine environmental protection. Leading experts discuss the latest perspectives and best practices in the field with a particular focus on the functioning of marine ecosystems, natural processes, and anthropogenic pressures. The book familiarizes readers with the intricacies and challenges of managing coasts and oceans more sustainably, and guides them through the maze of concepts and strategies, laws and policies, and the various actors that define our ability to manage marine activities. Providing valuable thematic insights into marine management to inspire thoughtful application and further study, it is essential reading for marine environmental scientists, policy-makers, lawyers, practitioners and anyone interested in the field.

#### 89. 国際海洋経済 - 法と政策

### **International Marine Economy: Law and Policy**

(Center for Oceans Law and Policy, Vol 20)

Edited by Myron H Nordquist, John Norton Moore, & Ronan Long

Brill/Nijhoff - Apr 2017, Hardcover: 445 pages  
ISBN 9789004323438 **¥33,000**

International Marine Economy offers contributions from marine experts around the globe on the economic impacts of recent developments in international waters. From the South China Arbitration Award to the Bay of Bengal Case, this text includes important writings on Arctic Shipping and Fisheries, the deep seabed, resources and maritime boundary regimes and studies the possibility of a new international agreement regulating the conservation of biological diversity in areas beyond national jurisdiction. Finally, it concludes by considering the challenges and opportunities of whaling in the Antarctic Case, ocean governance issues in Southeast Asia, and the exercise of control over foreign merchant vessels and state liability for wrong assessments. This volume offers much needed contemporary commentary from renowned scholars on rapidly evolving maritime topics.

#### 90. 国際海底機構と予防原則

### **The International Seabed Authority and the Precautionary Principle**

(Publications on Ocean Development, Vol 83)

by Aline L. Jaeckel

Brill/Nijhoff - Jan 2017, Hardcover: 382 pages,  
ISBN 9789004332270 **¥33,360**

With the transition to the commercial-scale exploitation of deep seabed minerals, the International Seabed Authority's obligation to protect the marine environment is being tested. In *The International Seabed Authority and the Precautionary Principle*, Aline L. Jaeckel provides the first in-depth analysis of the Authority's work in regulating and managing deep seabed minerals. This book examines whether and to what extent the Authority is implementing the precautionary principle in practice. This includes the development of adequate environmental protection standards as well as procedural safeguards and decision-making processes that facilitate risk assessment and risk management. In doing so, the author offers an insightful example of how the precautionary principle can be translated into a practical management tool.

#### 91. ジョン・ロックの政治思想と海洋

### **Locke's Political Thought and the Oceans**

#### **Pirates, Slaves, and Sailors**

by Sarah Pemberton

Lexington Books - May 2017, Hardcover: 178 pages,  
ISBN 9781498538213 **¥16,230**

This book outlines and analyzes John Locke's political thought about the oceans with a focus on law and freedom at sea. The book examines the *Two Treatises of Government*, in which Locke argues that the seas are collectively owned by all humans and are governed by universal natural laws that prohibit piracy. Locke's *Two Treatises* provides a systematic political theory of the seas that contributes to theories of international law and maritime law, but his text does not answer the practical question of how to enforce law effectively at sea. The book also considers how Locke translated his theoretical ideas into practice when he was involved in policymaking as a member of England's Board of Trade during the 1690s. On the Board, Locke waged a war against pirates by proposing an anti-piracy treaty between Europe's major maritime states, by successfully advocating a new English piracy law, and by supporting the deployment of the English Navy against pirates. Locke's war against pirates was consistent with the natural law theory in the *Two Treatises*, and helped to build English empire on land and at sea. There is also consistency between Locke's theoretical views about slavery and his work on the Board of Trade. As a Board member, Locke advocated forced migration and forced labor for English convicts, which is consistent with the theory of penal slavery in the *Two Treatises* and suggests that his theory was intended to justify the enslavement of English convicts. However, there are tensions between Locke's arguments in the *Two Treatises* and the policies of forced naval service that he supported on the Board. Locke's theories of law and freedom at sea shaped his vision of English national identity, and influenced the English government's policies about slavery and piracy.

#### 92. 海洋生態系をベースにした管理

### **Marine Ecosystem-Based Management in Practice**

#### **Different Pathways, Common Lessons**

by Julia M. Wondolleck & Steven Lewis Yaffee

Island Press - Feb 2017, Hardcover: 288 pages,  
ISBN 9781610917988 **¥12,620**

*Marine Ecosystem-Based Management in Practice* is the first practical guide for the marine conservation realm. In a unique collection of case studies, the authors showcase successful collaborative approaches to ecosystem-based management. The authors introduce the basic concepts of ecosystem-based management and five different pathways for making progress from community to multinational levels. They spotlight the characteristics that are evident in all successful cases — the governance structures and social motivations that make it work. Case analyses ranging from the Gulf of Maine to the Channel Islands in Southern California comprise the bulk of the book, augmented by text boxes showcasing examples of guiding documents important to the process. They devote several ending chapters to discussion of the interpersonal relationships critical to successful implementation of marine ecosystem-based management. The book concludes with a discussion of the implications for policy and on-the-ground practice.

### 93. 明日の海洋

## **The Ocean of Tomorrow Investment Assessment of Multi-Use Offshore Platforms: Methodology and Applications - Volume 1**

(Environment & Policy, Vol 56)

by Phoebe Koundouri

Springer - June 2017, Hardcover: 143 pages

ISBN 9783319557700 ¥26,090

This book develops and applies an integrated socio-economic assessment of multi-use offshore platforms in European marine locations. The sites assessed regard infrastructures in the North Sea, the Baltic Sea, the Mediterranean Sea and the Atlantic coast. The assessment uses the results from the natural and engineering sciences as inputs, boundaries and constraints to the socio-economic analysis. The content of the book develops in a step-by-step, coherent and integrated manner. The presentation and the discussion on the methodology are followed by the detailed assessment of specific multi-use offshore platforms. A detailed risk analysis follows in which the results of the socio-economic assessment are integrated. This is complemented with sensitivity analysis. The book, offers insights that result from a multi-disciplinary approach which combines a broad range of expertise in hydraulics, wind engineering, aquaculture, renewable energy, marine environment, project management, socio-economics and governance. The analysis follows views and assessment of world experts from all relevant disciplines from academia, big companies and potential investors that have joined forces in the MERMAID project ([vliz.be/projects/mermaidproject](http://vliz.be/projects/mermaidproject)). The book is a valuable reading for academics, technicians, policy-makers and relevant stakeholders.

### 94. 南シナ海紛争再考

## **Rethinking South China Sea Disputes**

### **The Untold Dimensions and Great Expectations**

By Katherine Hui-Yi Tseng

Routledge - Dec 2016, 176 pages, Hardback,:

ISBN 9781138942721 ¥25,420

The proposed book draws on the on-going South China Sea dispute, and the multifaceted challenges wrought by the South China Sea issue that requires an inter-disciplinary perspective. It employs legal-analytical methods, to emphasize the nuances of the role and interpretation of international law and treaties by China in different periods, while taking into account policy and strategic concerns, which generally cast great sways in decision-making. The re-introduction of interdisciplinary concerns straddling law and history illustrates that the historical dimension, which has long been neglected, is an emerging concern that poses looming dangers that may unexpectedly radicalize the friction. Contributing to debunking the mystique wrought by confrontations between a historical and a law-dominated perspective, these perspectives are supported by a more nuanced analytical framework, featuring theoretical concerns with a tinge of practicality. The South China Sea Dispute aims to unveil a nuanced evolution of the issue with a confluence of inter-temporal law, policy and maritime practices in the South China Sea.

### 95. 法を通じて海を守る

## **Saving the Oceans Through Law The International Legal Framework for the Protection of the Marine Environment**

by James Harrison

Oxford U.P. - Nov 2017, Hardcover: 300 pages,

ISBN 9780198707325 ¥16,170

Starting with a detailed analysis of the United Nations Convention on the Law of the Sea, the book considers the main treaties and other legal texts that seeks to prevent, reduce, and control damage to the marine environment caused by navigation, seabed exploitation, fishing, dumping, and land-based activities, as well as emerging pressures such as ocean noise and climate change. The book demonstrates how international institutions have expanded their mandates to address a broader range of marine environmental issues, beyond basic problems of pollution control to include the conservation of marine biological diversity and an ecosystems approach to regulation. It also discusses the development of diverse regulatory tools to address anthropogenic impacts on the marine environment and the extent to which states have adopted a precautionary approach in different maritime sectors. Whilst many advances have been made in these matters, this book highlights the need for greater coordination between international institutions, as well as the desirability of developing stronger enforcement mechanisms for international environmental rules.

### 96. 債務の海 – 西インド洋の法的・経済的生活

## **A Sea of Debt**

### **Law and Economic Life in the Western Indian Ocean, 1780-1950**

(Series: Asian Connections)

Cambridge U.P. - March 2017, 288 pages,

Hardcover ISBN 9781107155657 ¥18,030

In this innovative legal history of economic life in the Western Indian Ocean, Bishara examines the transformations of Islamic law and Islamicate commercial practices during the emergence of modern capitalism in the region. In this time of expanding commercial activity, a *mélange* of Arab, Indian, Swahili and Baloch merchants, planters, jurists, judges, soldiers and seamen forged the frontiers of a shared world. The interlinked worlds of trade and politics that these actors created, the shared commercial grammars and institutions that they developed and the spatial and socio-economic mobilities they engaged in endured until at least the middle of the twentieth century. This major study examines the Indian Ocean from Oman to India and East Africa over an extended period of time, drawing together the histories of commerce, law and empire in a sophisticated, original and richly textured history of capitalism in the Islamic world.

### 97. 持続可能な捕鯨体制に向けて

## **Toward a Sustainable Whaling Regime**

Edited by Robert Friedheim

University of Washington Press - May 2017,

Hardcover: 392 pages, ISBN 9780295996462

¥16,230

Toward a Sustainable Whaling Regime examines the international management of whales and whaling, a subject of intense controversy involving some of the most powerful nations in the world and issues of international law and negotiation, human versus animal rights, traditional and emerging values and morality, and the role of science in environmental management. The conflict centers on the International Whaling Commission. The majority of IWC members favor continuing the current whaling moratorium, while a minority endorse a sustainable-use approach to whaling which would allow the controlled hunting of species whose populations are not threatened. Both sides adhere strongly to their core beliefs and claim moral correctness; abundant suspicious and accusations have made meaningful dialogue nearly impossible. Because of the impasse, the IWC is unable to attract new members (some 60 states take cetaceans in their near shore waters, but only about 40 states

are members of the IWC) and some-notably Canada and Iceland-have left the Commission. This is the first book that takes a critical look at the contemporary whaling regime, subjecting it to sophisticated political, legal, and anthropological analysis. Contributors consider how to develop an international environmental regime that represents a consensus of most world peoples so that its rules will be obeyed; that allows for sufficient variance from universal norms so as not to disadvantage indigenous peoples and other small-holders; that illustrates how to properly use science to provide the basis of a sustainable whaling regime; and that demonstrates sufficient civility in negotiation to promote cooperation on other, perhaps more important, environmental issues.

98. 海洋考古学

## Under the Sea

### Archaeology and Palaeolandscapes

(Coastal Research Library, Volume 20)

Edited by **G. N. Bailey**, University of York, York, UK;  
**J. Harff**, University of Szczecin, Szczecin, Poland; **D. Sakellariou**, Hellenic Centre for Marine Research, Anavyssos, Greece

Springer – April 2017, 609 pages, Hardcover  
ISBN 9783319531588 **¥28,990**

This book focuses on issues of method and interpretation in studies of submerged landscapes, concentrating on illustrations and case studies from around Europe with additional examples from other parts of the world. Such landscapes were once exposed as dry land during the low sea levels that prevailed during the glacial periods that occupied most of the past million years and provided extensive new territories for human exploitation. Their study today involves underwater investigation, using techniques and strategies which are clearly set out in these chapters. The underwater landscape provides a rich source of information about the archaeology of human settlement and long-term changes in environment, climate and sea-level. This book highlights how such information can be revealed and interpreted.

The examples presented here and the focus on techniques make this book of worldwide relevance. Chapters describe examples of underwater archaeological investigation as well as collaboration with offshore industries and legal, management and training issues relating to underwater cultural heritage. Such studies point to the significance of this drowned landscape, and readers are invited to consider its human impact in terms of past settlement and population dispersal through palaeolandscape reconstruction and interpretation in relation to broader themes in human prehistory.

This volume shares collated results of a four-year multi-disciplinary and multi-national research programme funded through the European Cooperation in Science and Technology (COST) program and has

something to benefit all those with an interest in the sea floor of the continental shelf and the archaeological and social impact of sea-level change, including archaeologists, marine scientists, geographers, cultural-heritage managers, commercial and governmental organisations, policy makers and interested members of the public.

99. 北アメリカにおける環境政策 - 視野を広げて

## Widening the Scope of Environmental Policies in North America

### Towards Blue Approaches

(Governance, Development, and Social Inclusion in Latin America)

Edited by Gustavo Sosa-Nunez

Palgrave Macmillan - July 2017, Hardcover: 306 pages, ISBN 9783319562353 **¥27,060**

This edited volume provides a variety of insights into the context in which ocean and wetlands policy is placed at the sub-continental level. The governments of Mexico, Canada, and United States of America have recognized the importance of conserving, protecting, and enhancing the environment in their territories. As a result, they have developed an institutional structure aimed at furthering environmental cooperation. However, marine environment has played a secondary role, characterized by scientific cooperation that does not develop into regional policies. This project analyzes how ocean and wetlands preservation is omitted from the North American Agreement on Environmental Cooperation, meaning that collaborative efforts under-perform or remain largely sidelined from mainstream issues. As contributors come from a mix of the social and natural sciences (politics, international relations, law studies, sociology, oceanology, and oceanography), this book presents diverse viewpoints on how to address wetlands protection, deep ocean research collaboration, and the marine context of the Sustainable Development Goals.



有限会社 **ブックマン**

〒113-0033

東京都文京区本郷3丁目 4-8-501

Tel 03-5684-0561 Fax 03-5684-0562

E-Mail : [sales@e-bookman.co.jp](mailto:sales@e-bookman.co.jp)

ホームページ: <http://e-bookman.co.jp/>

ご注文・お問い合わせは下記へお申し込み下さい。

(有)ブックマン

**関西・中部・東海・統括事務所**

〒465-0097 愛知県名古屋市名東区平和が丘 3-76-602

Tel 052-740-1829

Fax 052-782-4771

[chubu@e-bookman.co.jp](mailto:chubu@e-bookman.co.jp)

**広島海外(株)**

Tel 082-236-3522

Fax 082-236-3530

[books@dear.ne.jp](mailto:books@dear.ne.jp)

**福岡海外(株)**

Tel 092-741-2685

Fax 092-741-8418

[fkaigai@lime.ocn.ne.jp](mailto:fkaigai@lime.ocn.ne.jp)