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KEY=IN - HERRERA GARRETT

Critical Transitions in Nature and Society Princeton University Press How do we explain the remarkably abrupt changes that sometimes occur in nature and society--and can we predict why and when they happen? This book offers a comprehensive introduction to critical transitions in complex systems--the radical changes that happen at tipping points when thresholds are passed. Marten Scheffer accessibly describes the dynamical systems theory behind critical transitions, covering catastrophe theory, bifurcations, chaos, and more. He gives examples of critical transitions in lakes, oceans, terrestrial ecosystems, climate, evolution, and human societies. And he demonstrates how to deal with these transitions, offering practical guidance on how to predict tipping points, how to prevent "bad" transitions, and how to promote critical transitions that work for us and not against us. Scheffer shows the time is ripe for understanding and managing critical transitions in the vast and complex systems in which we live. This book can also serve as a textbook and includes a detailed appendix with equations. Provides an accessible introduction to dynamical systems theory Covers critical transitions in lakes, oceans, terrestrial ecosystems, the climate, evolution, and human societies Explains how to predict tipping points Offers strategies for preventing "bad" transitions and triggering "good" ones Features an appendix with equations Global Challenges, Governance, and Complexity Applications and Frontiers Edward Elgar Publishing There is an increased interest in integrating insights from the complexity sciences to studies of governance and policy. While the issue has been debated, and the term of 'complexity' has multiple and sometimes contested interpretations, it is also clear the field has spurred a number of interesting theoretical and empirical efforts. The book includes key thinkers in the field, elaborates on different analytical approaches in studying governance, institutions and policy in the face of complexity, and showcases empirical applications and insights. Handbook on Resilience of Socio-Technical Systems Edward Elgar Publishing The goal to improve the resilience of social systems - communities and their economies - is increasingly adopted by decision makers. This unique and comprehensive Handbook focuses on the interdependencies of these social systems and the technologies that support them. Special attention is given to the ways in which resilience is conceptualized by different disciplines, how resilience may be assessed, and how resilience strategies are implemented. Case illustrations are presented throughout to aid understanding. Complex Systems and Population Health Oxford University Press, USA Complex Systems and Computation in Public Health Sciences is the first comprehensive book in population health science that meaningfully integrates complex systems theory, methodology, modeling, computational simulation, and real-world applications while incorporating current population health perspectives. Global Environmental Governance, Technology and Politics The Anthropocene Gap Edward Elgar Publishing We live on an increasingly human-dominated planet. Our impact on the Earth has become so huge that researchers now suggest that it merits its own geological epoch - the 'Anthropocene' - the age of humans. Combining theory development and case s Ecosystem Collapse and Recovery Cambridge University Press Examines how ecosystems can collapse as a result of human activity, and the ecological processes underlying their subsequent recovery. Perturbation, Behavioural Feedbacks, and Population Dynamics in Social Animals When to Leave and Where to Go Oxford University Press, USA This novel, transdisciplinary work explains how perturbations (defined as strong disturbances or deviations to a system) can affect the population dynamics of social animals, including ourselves. Social responses to perturbations, especially dispersal processes, can also generate non-linear population dynamics, including the potential appearance of tipping points and critical population transitions, which can in turn lead to catastrophic shifts and collapses. The book describes the links between social behaviour (mainly the use of social information and social copying), and non-linear population dynamics at different spatial scales (local dynamics and meta-population dynamics), and their ecological and evolutionary consequences. Examples from the natural world illustrate each of the main themes (prospecting, habitat suitability, collective dispersal, and cultural evolution). Human warfare and conflict, referred to in several chapters together with quantitative and qualitative examples, is also viewed as a form of perturbation and represents a paradigmatic example of the rationale behind this book. This applicability to our own species is particularly timely, given increased interest in both ecosystem change, human migration, and the global refugee crisis. Perturbation, Behavioural Feedbacks, and Population Dynamics in Social Animals will appeal to applied, theoretical, and evolutionary ecologists, particularly those working on the population and behavioural ecology of any social animal including humans. Its overlap with the study of complexity will also ensure its relevance and use to scientists from other disciplines such as sociology, anthropology, physics, computational science, economics, and mathematics. Quantitative Models for Microscopic to Macroscopic Biological Macromolecules and Tissues Springer This book presents cutting-edge research on the use of physical and mathematical formalisms to model and quantitatively analyze biological phenomena ranging from microscopic to macroscopic systems. The systems discussed in this compilation cover protein folding pathways, gene regulation in prostate cancer, quorum sensing in bacteria to mathematical and physical descriptions to analyze anomalous diffusion in patchy environments and the physical mechanisms that drive active motion in large sets of particles, both fundamental descriptions that can be applied to different phenomena in biology. All chapters are written by well-known experts on their respective research fields with a vast amount of scientific discussion and references in order the interested reader can pursue a further reading. Given these features, we consider Quantitative Models for Microscopic to Macroscopic Biological Macromolecules and Tissues as an excellent and up-to-date resource and reference for advanced undergraduate students, graduate students and junior researchers interested in the latest developments at the intersection of physics, mathematics, molecular biology, and computational sciences. Such research field, without hesitation, is one of the most interesting, challenging and active of this century and the next. Resilience Practice Building Capacity to Absorb Disturbance and Maintain Function Island Press In 2006, Resilience Thinking addressed an essential question: As the natural systems that sustain us are subjected to shock after shock, how much can they take and still deliver the services we need from them? This idea caught the attention of both the scientific community and the general public. In Resilience Practice, authors Brian Walker and David Salt take the notion of resilience one step further, applying resilience thinking to real-world situations and exploring how systems can be managed to promote and sustain resilience. The book begins with an overview and introduction to resilience thinking and then takes the reader through the process of describing systems, assessing their resilience, and intervening as appropriate. Following each chapter is a case study of a different type of social-ecological system and how resilience makes a difference to that system in practice. The final chapters explore resilience in other arenas, including on a global scale. Resilience Practice will help people with an interest in the "coping capacity" of systems—from farms and catchments to regions and nations—to better understand how resilience thinking can be put into practice. It offers an easy-to-read but scientifically robust guide through the real-world application of the concept of resilience and is a must read for anyone concerned with the management of systems at any scale. An Introduction to Complex Systems Society, Ecology, and Nonlinear Dynamics Springer Nature Complex Systems lie at the heart of a variety of large-scale phenomena of great significance - global warming, ice ages, water, poverty, pandemics - and this text uses these case studies as motivations and contexts to explore complex systems and related topics of nonlinear dynamics and power-law statistics. Although detailed mathematical descriptions of these topics can be challenging, the consequences of a system being nonlinear, power-law, or complex are in fact quite accessible. This book blends a tutorial approach to the mathematical aspects of complex systems together with a complementary narrative on the global/ecological/societal implications of such systems. Nearly all engineering undergraduate courses focus on mathematics and systems which are small scale, linear, and Gaussian. Unfortunately there is not a single large-scale ecological or social phenomenon that is scalar, linear, and Gaussian. This book offers insights to better understand the large-scale problems facing the world and to realize that these cannot be solved by a single, narrow academic field or perspective. Instead, the book seeks to emphasize understanding, concepts, and ideas, in a way that is mathematically rigorous, so that the concepts do not feel vague, but not so technical that the mathematics get in the way. The book is intended for students in technical domains such as engineering, computer science, physics, mathematics, and environmental studies. This second edition adds nine new examples, over 30 additional problems, 50 additional figures, and three new chapters offering a detailed study of system decoupling, extensive solutions to chapter problems, and a timely discussion on the complex systems challenges associated with COVID-19 and pandemics in general. Environment and Development Economics Essays in Honour of Sir Partha Dasgupta Oxford University Press This book honours Partha Dasgupta, and the field he helped establish; environment and development economics. It concerns the relationship between social systems and natural systems. Above all, it concerns the poverty-environment nexus: the complex pathways by which people become or remain poor, and resources become or remain overexploited. Grand Challenges of Planetary Governance Global Order in Turbulent Times Edward Elgar Publishing In this timely book, leading scholar Oran Young reflects on the future of the global order. Developing new lenses through which to consider needs for governance arising on a global scale, Young investigates the grand challenges of the 21st century requiring the most urgent and sustained planetary responses: protecting the Earth's climate system; controlling the eruption of pandemics; suppressing disruptive uses of cyberspace; and guiding the biotechnology revolution. Addressing Tipping Points for a Precarious Future Oxford University Press Tipping points are zones or thresholds of profound changes in natural or social conditions with very considerable and largely unforecastable consequences. Tipping points may be dangerous for societies and economies, especially if the prevailing governing arrangements are not designed either to anticipate them or adapt to their arrival. Tipping points can also be transformational of cultures and behaviours so that societies can learn to adapt and to alter their outlooks and mores in favour of accommodating to more sustainable ways of living. This volume examines scientific, economic and social analyses of tipping points, and the spiritual and creative approaches to identifying and anticipating them. The authors focus on climate change, ice melt, tropical forest drying and alterations in oceanic and atmospheric circulations. They also look closely at various aspects of human use of the planet, especially food production, and at the loss of biodiversity, where alterations to natural cycles may be creating convulsive couplings of tipping points. They survey the various institutional aspects of politics, economics, culture and religion to see why such dangers persist. Aging Research - Methodological Issues Springer This is the second edition of a well received book that reviews classical epidemiological and clinical research designs, with a specific focus on aging. Chapters cover basic topics like the scientific method, ethics, and the consequences of certain exclusion criteria. The work also includes a look at clinical concepts like multimorbidity, frailty and functionality. New material includes chapters such as geroscience, health systems research, big data and data mining, financing and future of aging research. The authors reveal the issues and challenges for researchers of age and aging, and also consider, from basic to clinical, and from clinical to public policies of social and health care. The focus on aging is what gives this book its valuable perspective on research methodology. All authors have considerable experience in aging, geriatrics or gerontology, and each chapter includes both a theoretical framework and practical examples of studies in aging. Readers will discover study designs that are reviewed for basic structure, main flaws and advantages, and are analyzed for specific conditions and variables regarding aging. This text is suited to both health care professionals caring for older adults, and researchers who are new to research in aging. It is relevant across the disciplines, including medicine, psychology, social sciences and dentistry, and it supports learning with graphs and figures. Bots and Beasts What Makes Machines, Animals, and People Smart? MIT Press

An expert on mind considers how animals and smart machines measure up to human intelligence. Octopuses can open jars to get food, and chimpanzees can plan for the future. An IBM computer named Watson won on Jeopardy! and Alexa knows our favorite songs. But do animals and smart machines really have intelligence comparable to that of humans? In *Bots and Beasts*, Paul Thagard looks at how computers ("bots") and animals measure up to the minds of people, offering the first systematic comparison of intelligence across machines, animals, and humans. Thagard explains that human intelligence is more than IQ and encompasses such features as problem solving, decision making, and creativity. He uses a checklist of twenty characteristics of human intelligence to evaluate the smartest machines--including Watson, AlphaZero, virtual assistants, and self-driving cars--and the most intelligent animals--including octopuses, dogs, dolphins, bees, and chimpanzees. Neither a romantic enthusiast for nonhuman intelligence nor a skeptical killjoy, Thagard offers a clear assessment. He discusses hotly debated issues about animal intelligence concerning bacterial consciousness, fish pain, and dog jealousy. He evaluates the plausibility of achieving human-level artificial intelligence and considers ethical and policy issues. A full appreciation of human minds reveals that current bots and beasts fall far short of human capabilities.

Disasters and History The Vulnerability and Resilience of Past Societies [Cambridge University Press](#) Offers the first comprehensive overview of research into hazards and disasters from a historical perspective. This title is also available as Open Access on Cambridge Core. *An Integrated Approach to Environmental Management* [John Wiley & Sons](#) Covers the most recent topics in the field of environmental management and provides a broad focus on the theoretical and methodological underpinnings of environmental management. Provides an up-to-date survey of the field from the perspective of different disciplines. Covers the topic of environmental management from multiple perspectives, namely, natural sciences, engineering, business, social sciences, and methods and tools perspectives. Combines both academic rigor and practical approach through literature reviews and theories and examples and case studies from diverse geographic areas and policy domains. Explores local and global issues of environmental management and analyzes the role of various contributors in the environmental management process. Chapter contents are appropriately demonstrated with numerous pictures, charts, graphs, and tables, and accompanied by a detailed reference list for further readings.

Clinical Staging in Psychiatry [Cambridge University Press](#) Clinical staging is a solution to transform psychiatric diagnosis and improve mental health outcomes. *The Adaptive Challenge of Climate Change* [Cambridge University Press](#) This book presents a new perspective on climate change for researchers and policy makers in environmental social sciences and humanities. *YOUMARES 8 - Oceans Across Boundaries: Learning from each other* Proceedings of the 2017 conference for YOUNg MARine RESEARCHERS in Kiel, Germany [Springer](#) This open access book presents the proceedings volume of the YOUMARES 8 conference, which took place in Kiel, Germany, in September 2017, supported by the German Association for Marine Sciences (DGM). The YOUMARES conference series is entirely bottom-up organized by and for YOUNg MARine RESEARCHERS. Qualified early career scientists moderated the scientific sessions during the conference and provided literature reviews on aspects of their research field. These reviews and the presenters' conference abstracts are compiled here. Thus, this book discusses highly topical fields of marine research and aims to act as a source of knowledge and inspiration for further reading and research.

Evolutionary Theory A Hierarchical Perspective [University of Chicago Press](#) The natural world is infinitely complex and hierarchically structured, with smaller units forming the components of larger systems: genes are components genomes, cells are building blocks of tissues and organs, individuals are members of populations, which, in turn, are parts of species. In the face of such awe inspiring complexity, scientists need tools like the hierarchy theory of evolution, which provides a theoretical framework and an interdisciplinary research program that aims to understand the way complex biological systems work and evolve. The multidisciplinary approach looks at the structure of the myriad intricate interactions across levels of organization that range from molecules to the biosphere. *Evolutionary Theory: A Hierarchical Perspective* provides an introduction to the theory, which is currently driving a great deal of research in bioinformatics and evolutionary theory. Written by a diverse and renowned group of contributors, and edited by the founder of Hierarchy Theory Niles Eldredge, this work will help make transparent the fundamental patterns driving living systems.

Spatial Resilience in Social-Ecological Systems [Springer Science & Business Media](#) Spatial Resilience is a new and exciting area of interdisciplinary research. It focuses on the influence of spatial variation - including such things as spatial location, context, connectivity, and dispersal - on the resilience of complex systems, and on the roles that resilience and self-organization play in generating spatial variation. Prof. Cumming provides a readable introduction and a first comprehensive synthesis covering the core concepts and applications of spatial resilience to the study of social-ecological systems. The book follows a trajectory from concepts through models, methods, and case study analysis before revisiting the central problems in the further conceptual development of the field. In the process, the author ranges from the movements of lions in northern Zimbabwe to the urban jungles of Europe, and from the collapse of past societies to the social impacts of modern conflict. The many case studies and examples discussed in the book show how the concept of spatial resilience can generate valuable insights into the spatial dynamics of social-ecological systems and contribute to solving some of the most pressing problems of our time. Although it has been written primarily for students, this book will provide fascinating reading for interdisciplinary scientists at all career stages as well as for the interested public. "Graeme Cumming, central in the development of resilience thinking and theory, has produced a wonderful book on spatial resilience, the first ever on this topic. The book will become a shining star, a classic in the explosion of new ideas and approaches to studying and understanding social-ecological systems." Carl Folke, Stockholm Resilience Centre, Sweden

Sustainable Diets How Ecological Nutrition Can Transform Consumption and the Food System [Taylor & Francis](#) How can huge populations be fed healthily, equitably and affordably while maintaining the ecosystems on which life depends? The evidence of diet's impact on public health and the environment has grown in recent decades, yet changing food supply, consumer habits and economic aspirations proves hard. This book explores what is meant by sustainable diets and why this has to be the goal for the Anthropocene, the current era in which human activities are driving the mismatch of humans and the planet. Food production and consumption are key drivers of transitions already underway, yet policy makers hesitate to reshape public eating habits and tackle the unsustainability of the global food system. The authors propose a multi-criteria approach to sustainable diets, giving equal weight to nutrition and public health, the environment, socio-cultural issues, food quality, economics and governance. This six-pronged approach to sustainable diets brings order and rationality to what either is seen as too complex to handle or is addressed simplistically and ineffectually. The book provides a major overview of this vibrant issue of interdisciplinary and public interest. It outlines the reasons for concern and how actors throughout the food system (governments, producers, civil society and consumers) must engage with (un)sustainable diets.

Interprofessional Education in Patient-Centered Medical Homes Implications from Complex Adaptive Systems Theory [Springer](#) This book discusses the application of complex adaptive systems theory to the design and evaluation of patient-centered medical homes (PCMHs). The three defining goals of PCMHs are to spread patient-care roles among healthcare team members, focus on disease prevention and include the patient in the healthcare team. It explains why some PCMH pilots are highly successful while others do not show much benefit, covers specific sub-theories that allow for bracketing of different aspects of the clinic system and highlights strategies by which institutions can engage in this process. *Inter professional Education in Patient-Centered Medical Homes* is a valuable resource for faculty and managers of health professions teaching clinics, deans of medical and health professional schools and medical administrators.

Risk Intelligent Supply Chains How Leading Turkish Companies Thrive in the Age of Fragility [CRC Press](#) The Turkish economy is very dynamic and growing at phenomenal speeds. For instance, Turkey's first quarter GDP growth rate was 11 percent in 2011. This growth brings its own risks and benefits. The lessons learned from surviving and thriving in such an environment can be applied to supply chains in any country. Packed with interesting and timely examples from industries such as automotive, airline, and manufacturing, *Risk Intelligent Supply Chains: How Leading Turkish Companies Thrive in the Age of Fragility* presents strategic insights from various leading Turkish companies regarding their management of supply chain risks. Çağrı Haksöz brings the risk intelligent supply chain (RISC) concept to life for the first time. It answers the question of how to become a risk intelligent supply chain. He proposes the I-Quartet Model with four essential roles "Integrator, Inquirer, Improviser, and Ingenious," that any supply chain network must play to become risk intelligent. The book also presents never-before-published cases and practices of leading Turkish companies that thrive globally in the age of fragility with their supply chain risk intelligence. While providing real-life examples, the book also shares insights obtained in various scientific disciplines. It provides not only an industry focus but also details numerous industry approaches, analyzing their similarities and differences in a manner that allows each industry to learn from the other.

Encyclopedia of Energy, Natural Resource, and Environmental Economics [Newnes](#) Every decision about energy involves its price and cost. The price of gasoline and the cost of buying from foreign producers; the price of nuclear and hydroelectricity and the costs to our ecosystems; the price of electricity from coal-fired plants and the cost to the atmosphere. Giving life to inventions, lifestyle changes, geopolitical shifts, and things in-between, energy economics is of high interest to Academia, Corporations and Governments. For economists, energy economics is one of three subdisciplines which, taken together, compose an economic approach to the exploitation and preservation of natural resources: energy economics, which focuses on energy-related subjects such as renewable energy, hydropower, nuclear power, and the political economy of energy resource economics, which covers subjects in land and water use, such as mining, fisheries, agriculture, and forests environmental economics, which takes a broader view of natural resources through economic concepts such as risk, valuation, regulation, and distribution. Although the three are closely related, they are not often presented as an integrated whole. This Encyclopedia has done just that by unifying these fields into a high-quality and unique overview. The only reference work that codifies the relationships among the three subdisciplines: energy economics, resource economics and environmental economics. Understanding these relationships just became simpler! Nobel Prize Winning Editor-in-Chief (joint recipient 2007 Peace Prize), Jason Shogren, has demonstrated excellent team work again, by coordinating and steering his Editorial Board to produce a cohesive work that guides the user seamlessly through the diverse topics. This work contains in equal parts information from and about business, academic, and government perspectives and is intended to serve as a tool for unifying and systematizing research and analysis in business, universities, and government.

Complex Ecology Foundational Perspectives on Dynamic Approaches to Ecology and Conservation Research papers from the end of twentieth-century have been assembled, alongside expert commentary, for the first collected volume on complexity-based ecology. Population Ecology First Principles - Second Edition [Princeton University Press](#) Ecology is capturing the popular imagination like never before, with issues such as climate change, species extinctions, and habitat destruction becoming ever more prominent. At the same time, the science of ecology has advanced dramatically, growing in mathematical and theoretical sophistication. Here, two leading experts present the fundamental quantitative principles of ecology in an accessible yet rigorous way, introducing students to the most basic of all ecological subjects, the structure and dynamics of populations. John Vandermeer and Deborah Goldberg show that populations are more than simply collections of individuals. Complex variables such as distribution and territory for expanding groups come into play when mathematical models are applied. Vandermeer and Goldberg build these models from the ground up, from first principles, using a broad range of empirical examples, from animals and viruses to plants and humans. They address a host of exciting topics along the way, including age-structured populations, spatially distributed populations, and metapopulations. This second edition of *Population Ecology* is fully updated and expanded, with additional exercises in virtually every chapter, making it the most up-to-date and comprehensive textbook of its kind. Provides an accessible mathematical foundation for the latest advances in ecology. Features numerous exercises and examples throughout. Introduces students to the key literature in the field. The essential textbook for advanced undergraduates and graduate students. An online illustration package is available to professors.

Computational Methods in Systems Biology 20th International Conference, CMSB 2022, Bucharest, Romania, September 14-16, 2022, Proceedings [Springer Nature](#) This book constitutes the refereed proceedings of the 20th International Conference on Computational Methods in Systems Biology, CMSB 2022, held in Bucharest, Romania, in September 2022. The 13 full papers and 4 tool papers were carefully reviewed and selected from 43 submissions. CMSB focuses on modeling, simulation, analysis, design and control of biological systems. The papers are arranged thematically as follows: Chemical reaction networks; Boolean networks; continuous and hybrid models; machine learning; software. *Applied Panarchy Applications and Diffusion Across Disciplines* [Island Press](#) Although humans desire resiliency and stability in our lives to help us understand the world and survive, nothing in nature is permanently stable. How can society anticipate and adjust to the changes we see around us? Scientists use panarchy theory to understand how systems--whether forests, electrical grids, agriculture, coastal surges, public health, or human economies and governance--interact together in unpredictable ways. *Applied Panarchy*, the much-anticipated successor to Lance Gunderson and C.S. Holling's seminal 2002 volume *Panarchy*, documents the extraordinary advances in interdisciplinary panarchy scholarship and applications over the past two decades. Intended as a

text for graduate courses in environmental sciences and related fields, *Applied Panarchy* picks up where *Panarchy* left off, inspiring new generations of scholars, researchers, and professionals to put its ideas to work in practical ways. *Restoration Ecology The New Frontier* John Wiley & Sons Enlarged, enhanced and internationalized edition of the first restoration ecology textbook to be published, with foreword by Dr. Steven Whisnant of Texas A&M University and Chair of the Society of Ecological Restoration. Since 2006, when the first edition of this book appeared, major advances have taken place in restoration science and in the practice of ecological restoration. Both are now accepted as key components of the increasingly urgent search for sustainability at global, national, and community levels - hence the phrase 'New Frontier' in the title. While the first edition focused on ecosystems and landscapes in Europe, this new edition covers biomes and contexts all over the world. Several new chapters deal with broad issues such as biological invasions, climate change, and agricultural land abandonment as they relate to restoration science and ecological restoration. Case studies are included from Australia, North America, and the tropics. This is an accessible textbook for senior undergraduate and graduate level students, and early career scientists. The book also provides a solid scientific background for managers, volunteers, and mid-career professionals involved in the practice of ecological restoration. Review of the first edition: "I suspect that this volume will find its way onto the shelves of many restoration researchers and practitioners and will be used as a key text in graduate courses, where it will help fill a large void. My own copy is already heavily bookmarked, and will be a constant source of research ideas and lecture material." (Environmental Conservation) Companion Website: A companion website with downloadable figures is available at <http://www.wiley.com/go/vanandel/restorationecology> www.wiley.com/go/vanandel/restorationecology/a *Rethinking Nature Challenging Disciplinary Boundaries* Taylor & Francis Contemporary ideas of nature were largely shaped by schools of thought from Western cultural history and philosophy until the present-day concerns with environmental change and biodiversity conservation. There are many different ways of conceptualising nature in epistemological terms, reflecting the tensions between the polarities of humans as masters or protectors of nature and as part of or outside of nature. The book shows how nature is today the focus of numerous debates, calling for an approach which goes beyond the merely technical or scientific. It adopts a threefold - critical, historical and cross-disciplinary - approach in order to summarise the current state of knowledge. It includes contributions informed by the humanities (especially history, literature and philosophy) and social sciences, concerned with the production and circulation of knowledge about "nature" across disciplines and across national and cultural spaces. The volume also demonstrates the ongoing reconfiguration of subject disciplines, as seen in the recent emergence of new interdisciplinary approaches and the popularity of the prefix "eco-" (e.g. ecocriticism, ecospirituality, ecosophy and ecofeminism, as well as subdivisions of ecology, including urban ecology, industrial ecology and ecosystem services). Each chapter provides a concise overview of its topic which will serve as a helpful introduction to students and a source of easy reference. This text is also valuable reading for researchers interested in philosophy, sociology, anthropology, geography, ecology, politics and all their respective environmentalist strands. *Computational Science and Its Applications - ICCSA 2017 17th International Conference, Trieste, Italy, July 3-6, 2017, Proceedings, Part II* Springer The six-volume set LNCS 10404-10409 constitutes the refereed proceedings of the 17th International Conference on Computational Science and Its Applications, ICCSA 2017, held in Trieste, Italy, in July 2017. The 313 full papers and 12 short papers included in the 6-volume proceedings set were carefully reviewed and selected from 1052 submissions. Apart from the general tracks, ICCSA 2017 included 43 international workshops in various areas of computational sciences, ranging from computational science technologies to specific areas of computational sciences, such as computer graphics and virtual reality. Furthermore, this year ICCSA 2017 hosted the XIV International Workshop On Quantum Reactive Scattering. The program also featured 3 keynote speeches and 4 tutorials. *Scaling in Ecology with a Model System* Princeton University Press "Scale - the understanding of ecological phenomena through levels of biological organization across time and space - is one of most important concepts in ecology. It is often challenging for ecologists to find systems that lend themselves to study across scales; however, *Sarracenia*, a pitcher plant indigenous to the eastern United States, is unique because it can be studied at a hierarchy of scales: individuals, communities, and whole ecosystems. Ecologists Aaron Ellison and Nicolas Gotelli have studied *Sarracenia* for decades and, in this book, they synthesize their research and show how this system can inform the broad and challenging question of scaling in ecology. The authors' goal is to deepen the current understanding of major ecological processes, and how they operate across scales" -- *Interactions in the Marine Benthos* Cambridge University Press A comprehensive account of how abiotic and biotic interactions shape patterns of coastal marine biodiversity and ecosystem processes globally. *21st Century Economics Economic Ideas You Should Read and Remember* Springer Economics is a science that can contribute substantial powerful and fresh insights! This book collects essays by leading academics that evaluate the scholarly importance of contemporary economic ideas and concepts, thus providing valuable knowledge about the present state of economics and its progress. This compilation of short essays helps readers interested in economics to identify 21st century economic ideas that should be read and remembered. The authors state their personal opinion on what matters most in contemporary economics and reveal its fascinating and creative sides. *Berkshire Encyclopedia of Sustainability 5/10 Ecosystem Management and Sustainability* Berkshire Publishing Group *Ecosystem Management and Sustainability* analyzes myriad human-initiated processes and tools developed to foster sustainable natural resource use, preservation, and restoration. It also examines how humans interact with plant, marine, and animal life in both natural and human-altered environments. Experts explain the complex ecosystem relationships that result from invasive species, roads, fencing, and even our homes by addressing topics such as fire and groundwater management, disturbance, and ecosystem resilience. Because most people in the 21st century live in urban environments, the volume pays special attention to the ecology of cities, with detailed coverage on topics ranging from urban agriculture to landscape architecture. The volume focuses on how ecosystems across the world can be restored, maintained, and used productively and sustainably. *Handbook on the Temporal Dynamics of Organizational Behavior* Edward Elgar Publishing *Handbook on the Temporal Dynamics of Organizational Behavior* is designed to help scholars begin to address the temporal shortcomings in the extant organizational behavior literature. The handbook provides conceptual and methodological reasons to study organizational behavior from a dynamic perspective and offers new conceptual and theoretical insights on some of the most popular organizational behavior topics. Unlike many other handbooks, this one provides methodological and analytical tools, including syntax and example data files, to help researchers tackle dynamic research questions effectively. *Quantum International Relations A Human Science for World Politics* Oxford University Press In *Quantum International Relations*, James Der Derian and Alexander Wendt gather rising scholars and leading experts to make the case for quantum approaches to world politics. Contributors present the core principles of quantum mechanics-- entanglement, uncertainty, superposition, and the wave function--as significant catalysts and superior heuristics for an accelerating quantum future. Facing a reality which no longer corresponds to an outdated Newtonian worldview of states as billiard balls, individuals as rational actors or power as objective interest, Der Derian and Wendt issue an urgent call for a new human science of quantum International Relations. *The Survival of Easter Island* Cambridge University Press Jan J. Boersema reconstructs the ecological and cultural history of Easter Island and critiques the hitherto accepted theory of its collapse.