

## Principles Of Conservation Biology 2nd Edition

Wildlife Restoration links restoration ecology and wildlife management in an accessible and comprehensive guide to restoring wildlife and the habitats upon which they depend. It offers readers a thorough overview of the types of information needed in planning a wildlife-habitat restoration project and provides the basic tools necessary for developing and implementing a rigorous monitoring program. The book: explains the concepts of habitat and niche: their historic development, components, spatial-temporal relationships, and role in land management reviews how wildlife populations are identified and counted considers captive breeding, reintroduction, and translocation of animals discusses how wildlife and their habitat needs can be incorporated into restoration planning develops a solid justification for monitoring and good sampling design in restoration projects discusses and critiques case histories of wildlife analysis in restoration projectsThe author does not offer a "cookbook" approach, but rather provides basic tools for understanding ecological concepts that can be used to design restoration projects with specific goals for wildlife. He focuses on developing an integrated approach to large-scale landscape restoration. In addition, he provides guidance on where more advanced and detailed literature can be found.Wildlife Restoration sets forth a clear explanation of key principles of wildlife biology for the restorationist, and will allow wildlife biologists to bring the insights of their field to restoration projects. It is an essential source of information for everyone involved with studying, implementing, or managing wildlife restoration projects, including students, ecologists, administrators, government agency staff, and volunteer practitioners.

Conservation medicine is an emerging discipline, focussing on the intersection of ecosystem health, animal health, and human health. Work in the biomedical and veterinary sciences is now being folded into conservation biology; to explore the connections between animal and human health; trace the environmental sources of pathogens and pollutants; develop an understanding of the ecological causes of changes in human and animal health; and understand the consequences of diseases to populations and ecological communities. Conservation Medicine defines this new discipline. It examines ecological health issues from various standpoints, including the emergence and resurgence of infectious disease agents; the increasing impacts of toxic chemicals and hazardous substances; and the health implications of habitat fragmentation and degradation and loss of biodiversity. It will provide a framework to examine the connections between the health of the planet and the health of all species and challenge practitioners and students in the health sciences and natural sciences to think about new, collaborative ways to address ecological health concerns.

The Oxford Handbook of Interdisciplinarity provides a synoptic account of the current state of interdisciplinary research, education, and administration-knowledge that spans the disciplines, and crosses the space between the academic community and society at large. Its 36 chapters and 14 case studies provide a snapshot of the state of knowledge integration as interdisciplinarity approaches its century mark. The last fifteen years have been a period of dramatic change, both in the world at large and within the fields of ecology and conservation. The end of the Cold War, the dot-com boom and bust, the globalizing economy, and the attacks of September 11, among other events and trends, have reshaped our worldview and the political environment in which we find ourselves. At the same time, emerging knowledge, needs, and opportunities have led to a rapid evolution in our understanding of the scientific foundations and social context of conservation. Correction Lines is a new collection of essays from one of our most thoughtful and eloquent writers on conservation, putting these recent changes into perspective and exploring the questions they raise about the past, present, and future of the conservation movement. The essays explore interrelated themes: the relationship between biological and social dimensions; the historic tension between utilitarian and preservationist approaches; the integration of varied cultural perspectives; the enduring legacy of Aldo Leopold; the contrasts and continuities between conservation and environmentalism; the importance of political reform; and the need to "retool" conservation to address twenty-first-century realities. Collectively the essays assert that we have reached a critical juncture in conservation-a "correction line" of sorts. Correction Lines argues that we need a more coherent and comprehensive account of the past if we are to understand our present circumstances and move forward under unprecedented conditions. Meine brings together a deep sense of history with powerful language and compelling imagery, yielding new insights into the origins and development of contemporary conservation. Correction Lines will help us think more clearly about the forces that have changed, and are changing, conservation, and inspire us to address current realities and future needs.

Table of Contents. Preface. 1. Introduction. 2. River Turtle Diversity, Adaptations, and Roles in the River. 3. Communities and Habitats. 4. Traditional Exploitation Methods, Efficiency, and Consequences for. 5. River Turtle Exploitation: Past and Present. 6. Indirect Factors Contributing to Extinction. 7. Conservation, Management, and Rehabilitation. Epilogue. Literature Cited. Index.

Continental Conservation provides conservationists and biologists with the latest scientific principles for protecting living nature at spatial scales that encompass entire regions and continents. Continental Conservation is an important guide book that can serve a vital role in helping fashion a radically honest scientifically rigorous land-use agenda. It will be required reading for scientists and professionals at all levels involved with ecosystem and land management.

Drafting a Conservation Blueprint lays out for the first time in book form a step-by-step planning process for conserving the biological diversity of entire regions. In an engaging and accessible style, the author explains how to develop a regional conservation plan and offers experience-based guidance that brings together relevant information from the fields of ecology, conservation biology, planning, and policy. Individual chapters outline and discuss the main steps of the planning process, including: • an overview of the planning framework • selecting conservation targets and setting goals • assessing existing conservation areas and filling information gaps • assessing population viability and ecological integrity • selecting and designing a portfolio of conservation areas • assessing threats and setting priorities A concluding section offers advice on turning conservation plans into action, along with specific examples from around the world.The book brings together a wide range of information about conservation planning that is grounded in both a strong scientific foundation and in the realities of implementation.

The first edition of Mike Alexander's Management Planning for Nature Conservation, brought a new dimension to the modern literature on conservation management. This second edition, a significant enhancement of the original, deals with the development both, conceptual and practical, of adaptive management planning for nature conservation. It is about preparing management plans, and guides the reader through the entire process. Case-studies, including a conservation and access plan, demonstrate the planning process in action. This approach to planning can be applied to any place which is managed entirely, or in part, for wildlife. It can be applied to the management of species or habitats in any circumstance, regardless of site designation. The process is fully compatible with the Convention on Biological Diversity's 'ecosystem approach' to conservation management. Mike Alexander has long been at the forefront of developing management planning for conservation, with experience ranging from Uganda to Estonia, and from Costa Rica to Wales. He is the General Secretary of the Conservation Management System Consortium, a group of organisations with a common aim of raising standards and developing best practice in conservation management and planning. In 2012 Mike Alexander was elected a Fellow of the Society of Biology in recognition of his contribution to nature conservation and in particular management planning. This book has drawn on the experiences and expertise of the CMS consortium and other leaders in both conservation research and wildlife management from around the world. It is essential reading for professional conservation managers and any student studying management planning for conservation within a range of degree and postgraduate courses.

The success of the first volume of The Biology of Sea Turtles revealed a need for broad but comprehensive reviews of major recent advances in sea turtle biology. Biology of Sea Turtles, Volume II

emphasizes practical aspects of biology that relate to sea turtle management and to changes in marine and coastal ecosystems. These topics i

This book provides a current synthesis of principles and applications in landscape ecology and conservation biology. Bringing together insights from leaders in landscape ecology and conservation biology, it explains how principles of landscape ecology can help us understand, manage and maintain biodiversity. Gutzwiller also identifies gaps in current knowledge and provides research approaches to fill those voids.

Fred Van Dyke's new textbook, *Conservation Biology: Foundations, Concepts, Applications*, 2nd Edition, represents a major new text for anyone interested in conservation. Drawing on his vast experience, Van Dyke's organizational clarity and readable style make this book an invaluable resource for students in conservation around the globe. Presenting key information and well-selected examples, this student-friendly volume carefully integrates the science of conservation biology with its implications for ethics, law, policy and economics.

The *Encyclopedia of Ecology and Environmental Management* addresses the core definitions and issues in pure and applied ecology. It is neither a short entry dictionary nor a long entry encyclopedia, but lies somewhere in between. The mixture of short entry definitions and long entry essays gives a comprehensive and up-to-date alphabetical guide to over 3000 topics, and allows any subject to be accessed to varying levels of detail; while the longer entries provide general reviews of subjects, the short definitions provide specific details on more specialised areas. An important feature of the *Encyclopedia* which sets it apart from other similar works is the comprehensive cross-referencing. The most comprehensive and up-to-date reference work in pure and applied ecology. Definitions cover the entire spectrum of pure and applied ecological research. Distinguished editorial board: Dr Peter Moore, Professor John Grace, Professor Bryan Shorrocks, Professor Steven Stearns, Professor Don Falk. International team of distinguished authors - over 200 contributors from 20 countries. 3000 headwords defined. Over 250 long entries review major topics. Heavily illustrated, with a section of colour plates. Complete one volume guide to pure and applied ecology. Presents cutting edge definitions in emerging fields as well as grounding in well-established areas of ecology.

"This is the first comprehensive treatment of the biology of the Monstersauria in nearly 50 years, during which time our knowledge has increased dramatically. It gives the reader an unprecedented opportunity to understand the evolution, ecology, and behavior of gila monsters and beaded lizards, as well as insights into folklore, venom, and threats to the existence of these fabled animals."--William Cooper, Indiana University-Purdue University at Fort Wayne "Beck is the foremost authority on these animals and has published extensively on them. He provides a highly readable and fascinating summary of their biology."--Jonathan Campbell, author of *Venomous Reptiles of Latin America*

The population of the Persian leopard (*Panthera pardus saxicolor*) has drastically declined; this Asian leopard subspecies has disappeared from some parts of its former range. Containing large areas of potential habitats with leopard presence across almost all of its provinces, Iran is known to be the last stronghold for the Persian leopard in the region. This book comprehensively covers research, management and conservation practices of the Persian leopard, including:

- The first phase of the Persian Leopard National Action Plan in Iran together with an innovative leopard insurance program and a contingent valuation practice with respect to the wildlife trafficking law enforcement in Iran
- Research on a hypothesis about the risk of a major fragmentation and splitting the leopard distribution range in Iran into a northern and a southern parts
- An innovative and empirically fitted species- and region-specific approach for assessing the cumulative effect of land use and land cover changes on the leopard persistence
- Distribution modeling of leopard potential habitats on a regional basis, accompanied by ground validation techniques
- An evaluation to three threshold rules to define the habitat suitability indices
- Persian leopard habitats and relative corridors in the trans-boundary areas of the East Azarbaijan province of the northwest of Iran in the Caucasus Ecoregion.

The innovative research and conservation approaches presented in this book will be of great interest to those studying the leopard and other large carnivore species. The innovative models presented in this book about cumulative effect of the land use and land cover changes will be beneficial to land use managers, planners and decision makers in selecting wildlife friendly solutions for development programs. The strategic and action planning model as well as the leopard compensation program as an insurance scheme are developed specifically for the local condition and leopard status in Iran.

This edited volume will provide a treatment of evolutionary conservation biology that introduces and explains major concepts and also unifies recent theoretical and empirical advances.

Critics of environmental laws complain that such rules often burden people unequally, restrict individual liberty, and undercut private property rights. In formulating responses to these criticisms, the conservation effort has stumbled badly, says Eric T. Freyfogle in this thought-provoking book. Conservationists and environmentalists haven't done their intellectual homework, he contends, and they have failed to offer an understandable, compelling vision of healthy lands and healthy human communities. Freyfogle explores why the conservation movement has responded ineffectually to the many cultural and economic criticisms leveled against it. He addresses the meaning of good land use, describes the many shortcomings of "sustainability," and outlines six key tasks that the cause must address. Among these is the crafting of an overall goal and a vision of responsible private ownership. The book concludes with a stirring message that situates conservation within America's story of itself and with an extensive annotated bibliography of conservation's most valuable voices and texts—important information for readers prepared to take conservation more seriously.

"Provides an in-depth review of current print and electronic tools for research in numerous disciplines of biology, including dictionaries and encyclopedias, method guides, handbooks, on-line directories, and periodicals. Directs readers to an associated Web page that maintains the URLs and annotations of all major Internet resources discussed in th

Reflecting what a new generation of conservation biologists is doing and thinking, this vital and far ranging second edition explores where conservation biology is heading. It challenges many conventions of conservation biology by exposing certain weaknesses of widely accepted principles. Combining contributions from both the school and the new breed of conservation biologists, this insightful text focuses primarily on topics that are integral to the daily activities of conservation biologists. Several chapters address ecosystem restoration and biotic invasions as well as the mechanics of population viability analyses, which are now a routine facet of conservation efforts. A case history approach is implemented throughout the book, with the use of practical real-world examples. Furthermore, an in-depth look at quantitative analyses is presented, allowing for models and mathematical analyses to pinpoint limitations in existing data and guide research toward those aspects of biology that are most likely to be critical to the dynamics of a species or an ecosystem.

Many people working toward sustainability recognize the important role of conservation but are inadequately prepared to deal with the large spatial, temporal and complexity scales that are involved in large-scale conservation efforts. Problems in large-scale conservation require navigating an intermixture of geophysical, biological and political dimensions. Coming to grips with these many natural and human forces and factors at large scales, much less the myriad details in any single case, is challenging in the extreme and becomes more critical with each day that passes. Large-scale conservation poses many complex challenges that single disciplines, approaches or methods cannot fully address alone. Interdisciplinarity can significantly strengthen large-scale conservation efforts. Throughout *Large-Scale Conservation in the Common Interest* the editors and authors argue that a more holistic and genuinely interdisciplinary approach is required to solve the complex and growing challenges associated with large-scale conservation. The chapters within offer such an approach and define key terms, bring challenges to light and employ case studies to offer concrete practical and strategic recommendations to help those who are engaged in the interactive tasks of promoting sustainability and human dignity. This book is intended for a broad audience, including students and professors new to the field of large-scale

conservation, experienced field-based practitioners in science and management and decision and policy makers who set specific and strategic direction for large landscapes. Professors can use this book to introduce students to the challenges of successful large-scale conservation design and implementation and to teach interdisciplinarity as a framework, concept and tool. Professionals will find this book offers a new way of using science, management and policy to make decisions. Finally, this volume can be used as a guide to set up workshops, seminars, or projects involving diverse people and perspectives.

Conservation Biology Foundations, Concepts, Applications Springer Science & Business Media

Biology of Marine Birds provides the only complete summary of information about marine birds ever published. It both summarizes and analyzes their breeding biology, ecology, taxonomy, evolution, fossil history, physiology, energetics, and conservation. The book covers four orders of marine birds: penguins (Sphenisciformes); albatross, shearwaters, petrels (Procellariiformes); pelicans, boobies, frigatebirds, tropicbirds, cormorants (Pelecaniformes); and gulls, terns, guillemots, auks (Charadriiformes - Families Laridae and Alcidae). Two summary chapters address the biology of shorebirds and wading birds and their lives in the marine environment. This comprehensive book contains numerous summary tables that give you exhaustive information on various aspects of their life histories, breeding biology, physiology and energetics, and demography. It also discusses research techniques and future research needed, providing a guide to ornithologists and students for research projects. Written by acknowledged experts in this field, Biology of Marine Birds is the ideal resource. The authors not only present known information, but provide new analyses and insights into marine bird biology. You will find no other book that covers all the major seabird groups and all the major topics with this depth of detail. Whether you are studying, researching, or managing marine environments, you will find yourself reaching for this resource repeatedly.

Today's natural resource managers must be able to navigate among the complicated interactions and conflicting interests of diverse stakeholders and decisionmakers. Technical and scientific knowledge, though necessary, are not sufficient. Science is merely one component in a multifaceted world of decision making. And while the demands of resource management have changed greatly, natural resource education and textbooks have not. Until now. Ecosystem Management represents a different kind of textbook for a different kind of course. It offers a new and exciting approach that engages students in active problem solving by using detailed landscape scenarios that reflect the complex issues and conflicting interests that face today's resource managers and scientists. Focusing on the application of the sciences of ecology and conservation biology to real-world concerns, it emphasizes the intricate ecological, socioeconomic, and institutional matrix in which natural resource management functions, and illustrates how to be more effective in that challenging arena. Each chapter is rich with exercises to help facilitate problem-based learning. The main text is supplemented by boxes and figures that provide examples, perspectives, definitions, summaries, and learning tools, along with a variety of essays written by practitioners with on-the-ground experience in applying the principles of ecosystem management. Accompanying the textbook is an instructor's manual that provides a detailed overview of the book and specific guidance on designing a course around it. Ecosystem Management grew out of a training course developed and presented by the authors for the U.S. Fish and Wildlife Service at its National Training Center in Shepherdstown, West Virginia. In 20 offerings to more than 600 natural resource professionals, the authors learned a great deal about what is needed to function successfully as a professional resource manager. The book offers important insights and a unique perspective derived from that invaluable experience.

Large Carnivores and the Conservation of Biodiversity brings together more than thirty leading scientists and conservation practitioners to consider a key question in environmental conservation: Is the conservation of large carnivores in ecosystems that evolved with their presence equivalent to the conservation of biological diversity within those systems? Building their discussions from empirical, long-term data sets, contributors including James A. Estes, David S. Maehr, Tim McClanahan, Andrés J. Novaro, John Terborgh, and Rosie Woodroffe explore a variety of issues surrounding the link between predation and biodiversity: What is the evidence for or against the link? Is it stronger in marine systems? What are the implications for conservation strategies? Large Carnivores and the Conservation of Biodiversity is the first detailed, broad-scale examination of the empirical evidence regarding the role of large carnivores in biodiversity conservation in both marine and terrestrial ecosystems. It contributes to a much more precise and global understanding of when, where, and whether protecting and restoring top predators will directly contribute to the conservation of biodiversity. Everyone concerned with ecology, biodiversity, or large carnivores will find this volume a unique and thought-provoking analysis and synthesis.

A new and completely revised edition of a classic book on the tropical rain forest.

In this book, coastal dune specialists from tropical and temperate latitudes cover a wide set of topics, including: geomorphology, community dynamics, ecophysiology, biotic interactions and environmental problems and conservation. The book offers recommendations for future research, identifying relevant topics where detailed knowledge is still lacking. It also identifies management tools that will promote and maintain the rich diversity of the dune environments in the context of continuing coastal development.

How are greenways designed? What situations lead to their genesis, and what examples best illustrate their potential for enhancing communities and the environment? Designing greenways is a key to protecting landscapes, allowing wildlife to move freely, and finding appropriate ways to bring people into nature. This book brings together examples from ecology, conservation biology, aquatic ecology, and recreation design to illustrate how greenways function and add value to ecosystems and human communities alike. Encompassing everything from urban trail corridors to river floodplains to wilderness-like linkages, greenways preserve or improve the integrity of the landscape, not only by stemming the loss of natural features, but also by engendering new natural and social functions. From 19th-century parks and parkways to projects still on the drawing boards, Designing Greenways is a fascinating introduction to the possibilities-and pitfalls-involved in these ambitious projects. As towns and cities look to greenways as a new way of reconciling man and nature, designers and planners will look to Designing Greenways as an invaluable compendium of best practices.

As the human population inexorably grows, its cumulative impact on the Earth's resources is hard to ignore. The ability of the Earth to support more humans is dependent on the ability of humans to manage natural resources wisely. Because disturbance alters resource levels, effective management requires understanding of the ecology of disturbance. This book is the first to take a global approach to the description of both natural and anthropogenic disturbance regimes that physically impact the ground. Natural disturbances such as erosion, volcanoes, wind, herbivory, flooding and drought plus anthropogenic disturbances such as forestry, grazing, mining, urbanization and military actions are considered. Both disturbance impacts and the biotic recovery are addressed as well as the interactions of different types of disturbance. Other chapters cover processes that are important to the understanding of disturbance of all types including soil processes, nutrient cycles, primary productivity, succession, animal behaviour and competition. Humans react to disturbances by avoiding, exacerbating, or restoring them or by passing environmental legislation. All of these issues are covered in this book. Managers need better predictive models and robust data-collections that help determine both site-specific and generalized responses to disturbance. Multiple disturbances have a complex effect on both physical and biotic processes as they interact. This book provides a wealth of detail about the process of disturbance and recovery as well as a synthesis of the current state of knowledge about disturbance theory, with extensive documentation.

This Encyclopedia of Tropical Biology and Conservation Management is a component of the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one

Encyclopedias. Tropical environments cover the most part of still preserved natural areas of the Earth. The greatest biodiversity, as in terms of animals and plants, as microorganisms, is placed in these hot and rainy ecosystems spread up and below the Equator line. Additionally, the most part of food products, with vegetal or animal origin, that sustain nowadays human beings is direct or undirected dependent of tropical productivity. Biodiversity should be looked at and evaluated not only in terms of numbers of species, but also in terms of the diversity of interactions among distinct organisms that it maintains. In this sense, the complexity of web structure in tropical systems is a promise of future to nature preservation on Earth. In the chemicals of tropical plant and animals, could be the cure to infinite number of diseases, new food sources, and who knows what more. Despite these facts tropical areas have been exploited in an irresponsible way for more than 500 years due the lack of an ecological conscience of men. Exactly in the same way we did with temperate areas and also tropical areas in the north of Equator line. Nowadays, is estimated that due human exploitation, nation conflicts and social problems, less than 8% of tropical nature inside continental areas is still now untouchable. The extension of damage in the tropical areas of oceans is unknown. Thus so, all knowledge we could accumulate about tropical systems will help us, as in the preservations of these important and threatened ecosystems as in a future recuperation, when it was possible. Only knowing the past and developing culture, mainly that directed to peace, to a better relationship among nations and responsible use and preservation of natural resources, human beings will have a long future on Earth. These volumes, Tropical Biology and Natural Resources was divided in sessions to provide the reader the better comprehension possible of issue and also to enable future complementation and improvements in the encyclopedia. Like we work with life, we intended to transform this encyclopedia also in a "life" volume, in what new information could be added in any time. As president of the encyclopedia and main editor I opened the theme with an article titled: "Tropical Biology and Natural resources: Historical Pathways and Perspectives", providing the reader an initial view of the origins of human knowledge about the tropical life, and what we hope to the future. In the sequence we have more than 100 chapters distributed in ten sessions: Tropical Ecology (TE); Tropical Botany (TB); Tropical Zoology (TZ); Savannah Ecosystems (SE); Desert Ecosystems (DE); Tropical Agriculture (TA); Natural History of Tropical Plants (NH); Human Impact on Tropical Ecosystems (HI); Tropical Phytopathology and Entomology (TPE); Case Studies (CS). This 11-volume set contains several chapters, each of size 5000-30000 words, with perspectives, applications and extensive illustrations. It is the only publication of its kind carrying state-of-the-art knowledge in the fields of Tropical Biology and Conservation Management and is aimed, by virtue of the several applications, at the following five major target audiences: University and College Students, Educators, Professional Practitioners, Research Personnel and Policy Analysts, Managers, and Decision Makers and NGOs.

Conservation Biology in Sub-Saharan Africa comprehensively explores the challenges and potential solutions to key conservation issues in Sub-Saharan Africa. Easy to read, this lucid and accessible textbook includes fifteen chapters that cover a full range of conservation topics, including threats to biodiversity, environmental laws, and protected areas management, as well as related topics such as sustainability, poverty, and human-wildlife conflict. This rich resource also includes a background discussion of what conservation biology is, a wide range of theoretical approaches to the subject, and concrete examples of conservation practice in specific African contexts. Strategies are outlined to protect biodiversity whilst promoting economic development in the region. Boxes covering specific themes written by scientists who live and work throughout the region are included in each chapter, together with recommended readings and suggested discussion topics. Each chapter also includes an extensive bibliography. Conservation Biology in Sub-Saharan Africa provides the most up-to-date study in the field. It is an essential resource, available on-line without charge, for undergraduate and graduate students, as well as a handy guide for professionals working to stop the rapid loss of biodiversity in Sub-Saharan Africa and elsewhere.

Anyone working in biodiversity conservation or field ecology should understand and utilize the common-sense process of scientific inquiry: observing surroundings, framing questions, answering those questions through well-designed studies, and, in many cases, applying results to decision making. Yet the interdisciplinary nature of conservation means that many workers are not well versed in the methods of science and may misunderstand or mistrust this indispensable tool. Designing Field Studies for Biodiversity Conservation addresses that problem by offering a comprehensible, practical guide to using scientific inquiry in conservation work. In an engaging and accessible style, award-winning tropical ecologist and teacher Peter Feinsinger melds concepts, methods, and intellectual tools into a unique approach to answering environmental questions through field studies. Focusing on the fundamentals of common sense, independent thinking, and natural history, he considers: framing the question and designing the study interpreting and applying results through judicious use of statistical inference taking into account the natural history of plants, animals, and landscapes monitoring and assessing progress through approaches such as "bioindicator species" or "species diversity measures" helping other interested parties (park guards, local communities, school teachers) use scientific inquiry in addressing their own concerns Detailed appendixes explain technical issues, while numerous sidebars and illustrations provide important background and thought-provoking exercises. Throughout, the author challenges the reader to integrate conceptual thinking with on-the-ground practice in order to make conservation truly effective. Feinsinger concentrates on examples from Latin America but stresses that the approach applies to local conservation concerns or field biology questions in any landscape. Designing Field Studies for Biodiversity Conservation is an essential handbook for staff and researchers working with conservation institutions or projects worldwide, as well as for students and professionals in field ecology, wildlife biology, and related areas.

Corridor Ecology presents guidelines that combine conservation science and practical experience for maintaining, enhancing, and creating connectivity between natural areas with an overarching goal of conserving biodiversity. It offers an objective, carefully interpreted review of the issues and is a one-of-a-kind resource for scientists, landscape architects, planners, land managers, decision-makers, and all those working to protect and restore landscapes and species diversity.

Hanski, a leading thinker in metapopulation ecology, studies checkerspot butterfly populations in Finland. Ehrlich, one of the leading ecologists and conservation biologist, investigates checkerspot butterfly populations in California. This book reports on and synthesizes the major long-term research of both workers' careers on the population biology of checkerspot butterflies.

"The biological diversity of the planet is being rapidly depleted due to the direct and indirect consequences of human activity. As the size of wild animal and plant populations decreases and fragmentation increases, inbreeding reduces fitness and loss of genetic diversity reduces their ability to adapt to changes in the environment. Many small isolated populations are going extinct unnecessarily. In many cases, such populations can be genetically rescued by gene flow from another population within the species, but this is very rarely done. This book provides a practical guide to the genetic management of fragmented animal and plant populations"--

Human colonization of New Zealand has dramatically altered the resident biota, introduced numerous alien organisms to these once remote islands, and exported local species to the world. This book reviews invasions, investigates what controls the success of invaders and studies the consequences for ecosystems both on land and offshore. The book tests current theories about the success of invaders and evaluates principles for effective management of biological invasions worldwide.

These proceedings contain papers on insect conservation biology that are classified under 3 themes: (1) the current status of insect conservation, and major avenues for progress and hindrances (6 papers); (2) insects as model organisms in conservation biology (6 papers); and (3) future directions in insect conservation biology (6 papers).

In 1970 Earth Day was first celebrated marking the dawn of worldwide environmental consciousness and the passing of many environmental laws. In part, these events were the result of the maturing of the

science of ecology which recognized the interdependence of the web and cycles of nature. This volume explores the relationship between ecology and environmental law, beginning with a description of the two very different disciplines. This description is followed by a history of their episodic interactions: the early period of origin, the mid-century formative period from 1950 to 1970, the initial serious period of interaction after Earth Day in 1970 and the testing of the relationship during the next two decades. Utilizing a number of case studies, examinations of the key 'linkage persons', legal instruments and the migration of ecological concepts and frameworks, this book analyzes the final flowering of an ecosystem regime which embraces the connections between the two disciplines of ecology and environmental law. Concluding with an inventory of the problems posed by the relationship between the two disciplines and an agenda for future research, this clearly structured, comprehensive and stringent book is an essential resource for all serious scholars and students of ecology and environmental law.

This impressive author team brings the wealth of advances in conservation genetics into the new edition of this introductory text, including new chapters on population genomics and genetic issues in introduced and invasive species. They continue the strong learning features for students - main points in the margin, chapter summaries, vital support with the mathematics, and further reading - and now guide the reader to software and databases. Many new references reflect the expansion of this field. With examples from mammals, birds,...

Essential reading for undergraduate students of conservation biology and living natural resource management.

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