

Chapter 3 Communities And Biomes Reinforcement Study Guide Answers

Recognizing the mannerism ways to get this ebook **Chapter 3 Communities And Biomes Reinforcement Study Guide Answers** is additionally useful. You have remained in right site to begin getting this info. get the Chapter 3 Communities And Biomes Reinforcement Study Guide Answers colleague that we come up with the money for here and check out the link.

You could buy guide Chapter 3 Communities And Biomes Reinforcement Study Guide Answers or get it as soon as feasible. You could quickly download this Chapter 3 Communities And Biomes Reinforcement Study Guide Answers after getting deal. So, next you require the ebook swiftly, you can straight acquire it. Its appropriately enormously simple and as a result fats, isnt it? You have to favor to in this announce

Science Notebook Douglas Fisher 2006-06-01

Alpine Plant Life Christian Körner 2013-06-29 Generations of plant scientists have been fascinated by alpine plant lifean ecosystem that experiences dramatic climatic gradients over a very short distance. This comprehensive book examines a wide range of topics including alpine climate and soils, plant distribution and the treeline phenomenon, plant stress and development, global change at high elevation, and the human impact on alpine vegetation. Geographically, the book covers all parts of the world including the tropics.

Restoring Natural Capital James Aronson 2012-09-26 How can environmental degradation be stopped? How can it be reversed? And how can the damage already done be repaired? The authors of this volume argue that a two-pronged approach is needed: reducing demand for ecosystem goods and services and better management of them, coupled with an increase in supply through environmental restoration. Restoring Natural Capital brings together economists and ecologists, theoreticians, practitioners, policy makers, and scientists from the developed and developing worlds to consider the costs and benefits of repairing ecosystem goods and services in natural and socioecological systems. It examines the business and practice of restoring natural capital, and seeks to establish common ground between economists and ecologists with respect to the restoration of degraded ecosystems and landscapes and the still broader task of restoring natural capital. The book focuses on developing strategies that can achieve the best outcomes in the shortest amount of time as it: • considers conceptual and theoretical issues from both an economic and ecological perspective • examines specific strategies to foster the restoration of natural capital and offers a synthesis and a vision of the way forward Nineteen case studies from around the world illustrate challenges and achievements in setting targets, refining approaches to finding and implementing restoration projects, and using restoration of natural capital as an economic opportunity. Throughout, contributors make the case that the restoration of natural capital requires close collaboration among scientists from across disciplines as well as

local people, and when successfully executed represents a practical, realistic, and essential tool for achieving lasting sustainable development.

Life Science William L. Ramsey 1986-06

Plant Functional Diversity Eric Garnier 2016 "This book is based on 'Diversitae fonctionnelle des Plantes - Traits des Organismes, Structure des Communautaes, Propriaetaes des Ecosystaemes' authored by Eric Garnier and Marie-Laure Navas, and published in 2013 by De Boeck. It has been substantially enriched compared to the French version, and some chapters have been extensively revised and completed"--Page vii.

The State of the World's Land and Water Resources for Food and Agriculture Food and Agriculture Organization of the United Nations 2013-06-17 The State of the World's Land and Water Resources for Food and Agriculture is FAO's first flagship publication on the global status of land and water resources. It is an 'advocacy' report, to be published every three to five years, and targeted at senior level decision makers in agriculture as well as in other sectors. SOLAW is aimed at sensitizing its target audience on the status of land resources at global and regional levels and FAO's viewpoint on appropriate recommendations for policy formulation. SOLAW focuses on these key dimensions of analysis: (i) quantity, quality of land and water resources, (ii) the rate of use and sustainable management of these resources in the context of relevant socio-economic driving factors and concerns, including food security and poverty, and climate change. This is the first time that a global, baseline status report on land and water resources has been made. It is based on several global spatial databases (e.g. land suitability for agriculture, land use and management, land and water degradation and depletion) for which FAO is the world-recognized data source. Topical and emerging issues on land and water are dealt with in an integrated rather than sectoral manner. The implications of the status and trends are used to advocate remedial interventions which are tailored to major farming systems within different geographic regions.

Test Bank CD-ROM COMAP 2003-04

The Economics of Climate Change in Southeast Asia Asian Development Bank 2009-04-01 This publication reviews the economics of climate

change in Southeast Asia, with a particular focus on Indonesia, Philippines, Singapore, Thailand, and Viet Nam. It confirms that the region is highly vulnerable to climate change, demonstrates that a wide range of adaptation measures are already being applied, and that it has great potential to contribute to the reduction of greenhouse gas emissions globally. It shows that the cost to the region and globally of taking no early action against climate change far outweighs the cost of action. The publication urges Southeast Asia to play an important part in working toward a global solution to climate change, and to apply all feasible and economically viable adaptation and mitigation measures as key elements of poverty reduction and sustainable development strategies. It also argues that the current global economic crisis offers Southeast Asia an opportunity to start a transition towards a climate-resilient and low-carbon economy by introducing green stimulus programs that can simultaneously shore up economies, create jobs, reduce poverty, lower carbon emissions, and prepare for the worst effects of climate change.

The Protected Landscape Approach Jessica Brown 2005 The traditional patterns of land use that have created many of the world's cultural landscapes contribute to biodiversity, support ecological processes, provide important environmental services, and have proven sustainable over the centuries. Protected landscapes can serve as living models of sustainable use of land and resources, and offer important lessons for sustainable development. Examples of these landscapes and the diverse strategies needed to maintain this essential relationship between people and the land are provided.

Riparian Areas National Research Council 2002-10-10 The Clean Water Act (CWA) requires that wetlands be protected from degradation because of their important ecological functions including maintenance of high water quality and provision of fish and wildlife habitat. However, this protection generally does not encompass riparian areas—the lands bordering rivers and lakes—even though they often provide the same functions as wetlands. Growing recognition of the similarities in wetland and riparian area functioning and the differences in their legal protection led the NRC in 1999 to undertake a study of riparian areas, which has culminated in *Riparian Areas: Functioning and Strategies for Management*. The report is intended to heighten awareness of riparian areas commensurate with their ecological and societal values. The primary conclusion is that, because riparian areas perform a disproportionate number of biological and physical functions on a unit area basis, restoration of riparian functions along America's waterbodies should be a national goal.

Environmental Biology and Ecology Laboratory Manual Les Lynn 1999-06-01

Principles and Methods in Landscape Ecology Almo Farina 2008-01-22 Landscape ecology is an integrative and multi-disciplinary science and *Principles and Methods in Landscape Ecology* reconciles the geological, botanical, zoological and human perspectives. In particular ,new

paradigms and theories such as percolation, metapopulation, hierarchies, source-sink models have been integrated in this last edition with the recent theories on bio-complexity, information and cognitive sciences. Methods for studying landscape ecology are covered including spatial geometry models and remote sensing in order to create confidence toward techniques and approaches that require a high experience and long-time dedication. *Principles and Methods in Landscape Ecology* is a textbook useful to present the landscape in a multi-vision perspective for undergraduate and graduate students of biology, ecology, geography, forestry, agronomy, landscape architecture and planning. Sociology, economics, history, archaeology, anthropology, ecological psychology are some sciences that can benefit of the holistic vision offered by this textbook.

Rewilding European Landscapes Henrique M. Pereira 2015-05-04 Some European lands have been progressively alleviated of human pressures, particularly traditional agriculture in remote areas. This book proposes that this land abandonment can be seen as an opportunity to restore natural ecosystems via rewilding. We define rewilding as the passive management of ecological successions having in mind the long-term goal of restoring natural ecosystem processes. The book aims at introducing the concept of rewilding to scientists, students and practitioners. The first part presents the theory of rewilding in the European context. The second part of the book directly addresses the link between rewilding, biodiversity, and habitats. The third and last part is dedicated to practical aspects of the implementation of rewilding as a land management option. We believe that this book will both set the basis for future research on rewilding and help practitioners think about how rewilding can take place in areas under their management.

Soil Fauna Assemblages Uffe N. Nielsen 2019-03-28 A holistic overview of soil fauna, their contributions to ecosystem function, and implications of global change belowground.

Size- and Age-Related Changes in Tree Structure and Function Frederick C. Meinzer 2011-06-29 Millions of trees live and grow all around us, and we all recognize the vital role they play in the world's ecosystems. Publicity campaigns exhort us to plant yet more. Yet until recently comparatively little was known about the root causes of the physical changes that attend their growth. Since trees typically increase in size by three to four orders of magnitude in their journey to maturity, this gap in our knowledge has been a crucial issue to address. Here at last is a synthesis of the current state of our knowledge about both the causes and consequences of ontogenetic changes in key features of tree structure and function. During their ontogeny, trees undergo numerous changes in their physiological function, the structure and mechanical properties of their wood, and overall architecture and allometry. This book examines the central interplay between these changes and tree size and age. It also explores the impact these changes can have, at the level of the individual

tree, on the emerging characteristics of forest ecosystems at various stages of their development. The analysis offers an explanation for the importance of discriminating between the varied physical properties arising from the nexus of size and age, as well as highlighting the implications these ontogenetic changes have for commercial forestry and climate change. This important and timely summation of our knowledge base in this area, written by highly respected researchers, will be of huge interest, not only to researchers, but also to forest managers and silviculturists.

Rights-based Approaches Jessica Campese 2009-01-01

Soil Ecology and Ecosystem Services Valerie Behan-Pelletier 2013-07-18

This multi-contributor, international volume synthesizes contributions from the world's leading soil scientists and ecologists, describing cutting-edge research that provides a basis for the maintenance of soil health and sustainability. The book covers these advances from a unique perspective of examining the ecosystem services produced by soil biota across different scales - from biotic interactions at microscales to communities functioning at regional and global scales. The book leads the user towards an understanding of how the sustainability of soils, biodiversity, and ecosystem services can be maintained and how humans, other animals, and ecosystems are dependent on living soils and ecosystem services. This is a valuable reference book for academic libraries and professional ecologists worldwide as a statement of progress in the broad field of soil ecology. It will also be of interest to both upper level undergraduate and graduate students taking courses in soil ecology, as well as academic researchers and professionals in the field requiring an authoritative, balanced, and up-to-date overview of this fast expanding topic.

Critical Political Ecology Timothy Forsyth 2004-11-23

Critical Political Ecology brings political debate to the science of ecology. As political controversies multiply over the science underlying environmental debates, there is an increasing need to understand the relationship between environmental science and politics. In this timely and wide-ranging volume, Tim Forsyth uses an innovative approach to apply political analysis to ecology, and demonstrates how more politicised approaches to science can be used in environmental decision-making. Critical Political Ecology examines: *how social and political factors frame environmental science, and how science in turn shapes politics *how new thinking in philosophy and sociology of science can provide fresh insights into the biophysical causes and impacts of environmental problems *how policy and decision-makers can acknowledge the political influences on science and achieve more effective public participation and governance.

Glencoe Biology, Student Edition McGraw-Hill Education 2016-06-06

Sustaining Marine Fisheries National Research Council 1999-02-19

Fluctuations and declines in marine fish populations have caused growing concern among marine scientists, fisheries managers, commercial and recreational fishers, and the public. Sustaining Marine Fisheries explores the nature of marine ecosystems and the complex interacting factors that

shape their productivity. The book documents the condition of marine fisheries today, highlighting species and geographic areas that are under particular stress. Challenges to achieving sustainability are discussed, and shortcomings of existing fisheries management and regulation are examined. The volume calls for fisheries management to adopt a broader ecosystem perspective that encompasses all relevant environmental and human influences. Sustaining Marine Fisheries offers new approaches to building workable fisheries management institutions, improving scientific data, and developing management tools. The book recommends ways to change current practices that encourage overexploitation of fish resources. It will be of special interest to marine policymakers and ecologists, fisheries regulators and managers, fisheries scientists and marine ecologists, fishers, and concerned individuals.

Selected Studies in Biodiversity Bülent Önen 2018-06-20 The present book offers an overall up-to-date overview of the biological diversity, comprising many interesting chapters focussing on the different aspects of biodiversity. Most of the chapters include findings of investigations and observations on biodiversity, whilst a few are based on statistically and theoretically derived information. The book produced sufficient information on the occurrence and distribution of many plant and animal species or groups of organisms with environmental estimates from a wide variety of interesting terrestrial and aquatic habitats. With 18 interesting and elaborately prepared chapters, the present book would definitely be an ideal source of scientific information to the advanced students, junior researchers, scientists and a portion of the public involved in ecology and other research areas involving biodiversity studies. It will also help to the development of the growing awareness of the close linkage between the conversation of biodiversity and economic development.

Prentice Hall Exploring Life Science 1997

World Geography Today 2004-05 Student text -- Teacher's ed., -- Chapter and unit test with answer key --Daily quizzes with answer key -- Chapter and united tests for english lanuage learners and special- needs student with answer key --Critical thinking activities with answer key.

Encyclopedia of Ecology 2014-11-03 The groundbreaking Encyclopedia of Ecology provides an authoritative and comprehensive coverage of the complete field of ecology, from general to applied. It includes over 500 detailed entries, structured to provide the user with complete coverage of the core knowledge, accessed as intuitively as possible, and heavily cross-referenced. Written by an international team of leading experts, this revolutionary encyclopedia will serve as a one-stop-shop to concise, stand-alone articles to be used as a point of entry for undergraduate students, or as a tool for active researchers looking for the latest information in the field. Entries cover a range of topics, including: Behavioral Ecology Ecological Processes Ecological Modeling Ecological Engineering Ecological Indicators Ecological Informatics Ecosystems Ecotoxicology Evolutionary Ecology General Ecology Global Ecology Human Ecology

System Ecology The first reference work to cover all aspects of ecology, from basic to applied Over 500 concise, stand-alone articles are written by prominent leaders in the field Article text is supported by full-color photos, drawings, tables, and other visual material Fully indexed and cross referenced with detailed references for further study Writing level is suited to both the expert and non-expert Available electronically on ScienceDirect shortly upon publication

Ex Situ Plant Conservation Center for Plant Conservation 2013-02-22

Faced with widespread and devastating loss of biodiversity in wild habitats, scientists have developed innovative strategies for studying and protecting targeted plant and animal species in "off-site" facilities such as botanic gardens and zoos. Such ex situ work is an increasingly important component of conservation and restoration efforts. *Ex Situ Plant Conservation*, edited by Edward O. Guerrant Jr., Kayri Havens, and Mike Maunder, is the first book to address integrated plant conservation strategies and to examine the scientific, technical, and strategic bases of the ex situ approach. The book examines where and how ex situ investment can best support in situ conservation. *Ex Situ Plant Conservation* outlines the role, value, and limits of ex situ conservation as well as updating best management practices for the field, and is an invaluable resource for plant conservation practitioners at botanic gardens, zoos, and other conservation organizations; students and faculty in conservation biology and related fields; managers of protected areas and other public and private lands; and policymakers and members of the international community concerned with species conservation.

Root Ecology Hans de Kroon 2013-06-29 In the course of evolution, a great variety of root systems have learned to overcome the many physical, biochemical and biological problems brought about by soil. This development has made them a fascinating object of scientific study. This volume gives an overview of how roots have adapted to the soil environment and which roles they play in the soil ecosystem. The text describes the form and function of roots, their temporal and spatial distribution, and their turnover rate in various ecosystems. Subsequently, a physiological background is provided for basic functions, such as carbon acquisition, water and solute movement, and for their responses to three major abiotic stresses, i.e. hard soil structure, drought and flooding. The volume concludes with the interactions of roots with other organisms of the complex soil ecosystem, including symbiosis, competition, and the function of roots as a food source.

Guidelines for Applying Protected Area Management Categories Nigel Dudley 2008 IUCN's Protected Areas Management Categories, which classify protected areas according to their management objectives, are today accepted as the benchmark for defining, recording, and classifying protected areas. They are recognized by international bodies such as the United Nations as well as many national governments. As a result, they are increasingly being incorporated into government legislation. These

guidelines provide as much clarity as possible regarding the meaning and application of the Categories. They describe the definition of the Categories and discuss application in particular biomes and management approaches.

The Cerrados of Brazil Paulo S. 2013-02-05 The massive grasslands of Brazil -- known as the cerrados -- which cover roughly a quarter of its land surface and are among the most threatened regions in South America, have received little media attention. This book brings together leading researchers on the area to produce the first detailed account in English of the natural history and ecology of the cerrado/savanna ecosystem. Given their extent and threatened status, the richness of their flora and fauna, and the lack of familiarity with their unique ecology at the international level, the cerrados are badly in need of this important and timely work.

Restoration Ecology Jelte van Andel 2012-05-21 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 www.wiley.com/go/vanandel/restorationecology

The Atlantic Forest Marcia C. M. Marques 2021-01-13 The Atlantic Forest is one of the 36 hotspots for biodiversity conservation worldwide. It is a unique, large biome (more than 3000 km in latitude; 2500 in longitude), marked by high biodiversity, high degree of endemic species and, at the same time, extremely threatened. Approximately 70% of the Brazilian population lives in the area of this biome, which makes the conflict between biodiversity conservation and the sustainability of the human population a relevant issue. This book aims to cover: 1) the historical

characterization and geographic variation of the biome; 2) the distribution of the diversity of some relevant taxa; 3) the main threats to biodiversity, and 4) possible opportunities to ensure the biodiversity conservation, and the economic and social sustainability. Also, it is hoped that this book can be useful for those involved in the development of public policies aimed at the conservation of this important global biome.

Restoration Ecology Jelte van Andel 2012-04-12 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

Forgotten Grasslands of the South Reed F. Noss 2012-12-03 *Forgotten Grasslands of the South* is the study of one of the biologically richest and most endangered ecosystems in North America. In a seamless blend of science and personal observation, renowned ecologist Reed Noss explains the natural history of southern grasslands, their origin and history, and the physical determinants of grassland distribution, including ecology, soils, landform, and hydrology. In addition to offering fascinating new information about these little-studied ecosystems, Noss demonstrates how natural history is central to the practice of conservation. Although theory and experimentation have recently dominated the field of ecology, ecologists are coming to realize how these distinct approaches are not divergent but complementary, and that pursuing them together can bring greater knowledge and understanding of how the natural world works and how we

can best conserve it. This long-awaited work sets a new standard for scientific literature and is essential reading for those who study and work to conserve the grasslands of the South as well as for everyone who is fascinated by the natural world.

Discover Science: Teacher's annotated edition 1991 Science content helps develop the skills needed to understand how science works, learn new concepts, solve problems, and make decisions in today's technological society.

Structured Decision Making Robin Gregory 2012-03-19 This book outlines the creative process of making environmental management decisions using the approach called Structured Decision Making. It is a short introductory guide to this popular form of decision making and is aimed at environmental managers and scientists. This is a distinctly pragmatic label given to ways for helping individuals and groups think through tough multidimensional choices characterized by uncertain science, diverse stakeholders, and difficult tradeoffs. This is the everyday reality of environmental management, yet many important decisions currently are made on an ad hoc basis that lacks a solid value-based foundation, ignores key information, and results in selection of an inferior alternative. Making progress – in a way that is rigorous, inclusive, defensible and transparent – requires combining analytical methods drawn from the decision sciences and applied ecology with deliberative insights from cognitive psychology, facilitation and negotiation. The authors review key methods and discuss case-study examples based in their experiences in communities, boardrooms, and stakeholder meetings. The goal of this book is to lay out a compelling guide that will change how you think about making environmental decisions. Visit www.wiley.com/go/gregory/sdm to access the figures and tables from the book.

Wildlife Conservation on Farmland Volume 2 David W. Macdonald 2015-07-30 Many of the encounters between farming and wildlife, especially vertebrates, involve some level of conflict which can cause disadvantage to both the wildlife and the people involved. Through a series of WildCRU case-studies, this volume investigates the sources of the problems, and ultimately of the threats to conservation, discussing a variety of remedies and mitigations, and demonstrating the benefits of evidence-based, inter-disciplinary policy.

Prentice Hall Scientific Learning System Prentice-Hall Staff 1994

Biological Science Biological Sciences Curriculum Study 1995

Rediscovering Geography Rediscovering Geography Committee 1997-04-11 As political, economic, and environmental issues increasingly spread across the globe, the science of geography is being rediscovered by scientists, policymakers, and educators alike. Geography has been made a core subject in U.S. schools, and scientists from a variety of disciplines are using analytical tools originally developed by geographers. *Rediscovering Geography* presents a broad overview of geography's renewed importance in a changing world. Through discussions and

highlighted case studies, this book illustrates geography's impact on international trade, environmental change, population growth, information infrastructure, the condition of cities, the spread of AIDS, and much more. The committee examines some of the more significant tools for data collection, storage, analysis, and display, with examples of major contributions made by geographers. *Rediscovering Geography* provides a blueprint for the future of the discipline, recommending how to strengthen its intellectual and institutional foundation and meet the demand for geographic expertise among professionals and the public.

Tropical Forest Community Ecology Walter Carson 2011-08-31 Historically, tropical ecology has been a science often content with descriptive and demographic approaches, which is understandable given the difficulty of studying these ecosystems and the need for basic demographic information. Nonetheless, over the last several years, tropical ecologists have begun to test more sophisticated ecological theory and are now beginning to address a broad array of questions that are of particular importance to tropical systems, and ecology in general. Why are there are so many species in tropical forests and what mechanisms are responsible for the maintenance of that vast species diversity? What factors control species coexistence? Are there common patterns of species abundance and distribution across broad geographic scales? What is the role of trophic interactions in these complex ecosystems? How can these fragile ecosystems be conserved? Containing contributions from some of the

world's leading tropical ecologists, *Tropical Forest Community Ecology* provides a summary of the key issues in the discipline of tropical ecology: Includes contributions from some of the world's leading tropical ecologists Covers patterns of species distribution, the maintenance of species diversity, the community ecology of tropical animals, forest regeneration and conservation of tropical ecosystems

Biodiversity Monitoring and Conservation Ben Collen 2013-02-14 As the impacts of anthropogenic activities increase in both magnitude and extent, biodiversity is coming under increasing pressure. Scientists and policy makers are frequently hampered by a lack of information on biological systems, particularly information relating to long-term trends. Such information is crucial to developing an understanding as to how biodiversity may respond to global environmental change. Knowledge gaps make it very difficult to develop effective policies and legislation to reduce and reverse biodiversity loss. This book explores the gap between global commitments to biodiversity conservation, and local action to track biodiversity change and implement conservation action. High profile international political commitments to improve biodiversity conservation, such as the targets set by the Convention on Biological Diversity, require innovative and rapid responses from both science and policy. This multi-disciplinary perspective highlights barriers to conservation and offers novel solutions to evaluating trends in biodiversity at multiple scales.