

Plant Biodiversity And Its Conservation

Plant Conservation Science and Practice
Women and Plants
Principles and Practice of Plant Conservation
China Plant Red Data Book
National Parks
Global Biodiversity
Plant Conservation and Biodiversity
Plant Conservation Genetics
Woody Plant Biodiversity
Conservation and Ecosystem Services in the Forest-agriculture Mosaic of Southwestern Ethiopia
Ex Situ Plant Conservation
Encyclopedia of Biodiversity
Plant Evolution in the Mediterranean
Taxonomy and Plant Conservation
Ex Situ Plant Conservation
Biodiversity and Its Significance
Microorganisms in Plant Conservation and Biodiversity
Global Biodiversity Conservation Measures
Plant Conservation and Biodiversity
Understanding the Changing Planet
Biodiversity and Human Health
The Conservation of Plant Biodiversity
Microorganisms in Plant Conservation and Biodiversity
Biodiversity and Biomedicine
Plant Conservation
Methods for Risk Assessment of Transgenic Plants
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Plant Conservation
Biodiversity and Conservation
Textbook of Biodiversity
Forest Environment and Biodiversity
Precious Heritage
Evolutionary Dynamics of Plant-Pathogen Interactions
Plant Biodiversity
Biodiversity and Conservation
Plant Biotechnology and Biodiversity Conservation

Plant Conservation Science and Practice

This practical and bold book unifies multiple aspects of plant conservation into a single coherent concept, linking theory and methodology.

Women and Plants

This book illustrates the key role played by taxonomy in the conservation and sustainable utilisation of plant biodiversity. It is a tribute to the work of Professor Vernon Heywood who has done so much to highlight the importance of sound scholarship, training and collaboration for plant conservation. Divided into four parts, the book opens with an overview of the place of taxonomy in science and in implementing the Convention on Biological Diversity. Part 2 outlines the theoretical basis of taxonomy, how it is done and how it contributes to measuring diversity. The third part explains how taxonomy is used to establish conservation priorities and actions and the concluding part illustrates taxonomy in the practice and measurement of effective conservation action. With contributions from taxonomists and also the users of taxonomy, the volume will provide a balanced treatment, suitable for advanced students, researchers and conservation professionals.

Principles and Practice of Plant Conservation

The 7-volume Encyclopedia of Biodiversity, Second Edition maintains the reputation of the highly regarded original, presenting the most current information available in this globally crucial area of research and study. It brings together the dimensions of biodiversity and examines both the services it provides and the measures to protect it. Major themes of the work include the evolution of biodiversity, systems for classifying and defining biodiversity, ecological patterns and theories of biodiversity, and an assessment of contemporary patterns and trends in biodiversity. The science of biodiversity has become the science of our future. It is an interdisciplinary field spanning areas of both physical and life sciences. Our awareness of the loss of biodiversity has brought a long overdue appreciation of the magnitude of this loss and a determination to develop the tools to protect our future. Second edition includes over 100 new articles and 226 updated articles covering this multidisciplinary field— from evolution to habits to economics, in 7 volumes The editors of this edition are all well respected, instantly recognizable academics operating at the top of their respective fields in biodiversity research; readers can be assured that they are reading material that has been meticulously checked and reviewed by experts Approximately 1,800 figures and 350 tables complement the text, and more than 3,000 glossary entries explain key terms

China Plant Red Data Book

This volume provides an enlightening and pragmatic approach to preserving biological diversity by gathering a wide range of peer-reviewed scientific content from biodiversity researchers and conservators from around the world. It brings comprehensive knowledge and information on the present status of conservation of biological diversity including floral, faunal, and microbial diversity. A detailed account of recent trends in conservation and applications under changing climate conditions, focusing mainly on agriculturally and industrially important microbes and their sustainable utilization, is presented as well. Over the past five decades, extensive research work has been done on many aspects of biodiversity conservation and sustainable utilization of biological resources. This book examines this crucial issue. Chapters discuss biodiversity concepts, benefits, and values for economic and sustainable development; explores applications and strategies for biodiversity preservation; and considers the role of biodiversity conservation in public awareness services and cultural significance. The volume also examines the process of evolution and the future of biodiversity in conjunction with climate change factors, with special reference to infectious diseases.

National Parks

Forests play important role in combating desertification, preventing erosion problems, other protective functions, climatic

change and acting as carbon reservoirs and sinks. Forests, the biodiversity they contain and the ecological function they maintain, are a heritage of mankind. The vital role of forests in protecting fragile ecosystems, watersheds and freshwater reservoirs and as storehouses of rich biodiversity should be recognized. Forests contain not only woody species and wild animals but also a wealth of other species of actual or potentially socio-economic importance at the global, national and local levels, including wild relatives of important crop species. Biodiversity is the variety and variability of plant, animal and micro organism in a ecosystem. Biodiversity, in wild and domesticated forms, is the source for most of humanity food, medicine, clothing and housing, most of the cultural diversity and most of the intellectual and spiritual inspirations. In other words, it is the very basis of man s being. Currently, there is severe and widespread loss of biodiversity because of a variety of factors and therefore its conservation is of utmost importance. Conservation and development are partners in the process of environmental protection. To maintain and increase the ecological, biological, climatic, socio-cultural and economic contributions of forests, their conservation and management are urgently required. Biological diversity (biodiversity) is also to be preserved to achieve sustainable development. The book is a sincere effort of the authors to provide compiled information on the subject matter of forest environment and diversity. It includes the impact of forests on environment, basic concept, status and extent of biodiversity, its loss and suggests ways and means of conservation for achieving sustainable development. Contents Chapter 1: Introduction; Chapter 2: Land Use, Forest Area and Population; Chapter 3: History of Forestry in India; Chapter 4: Ecological Perceptions; Chapter 5: Ecology of Indian Forests; Chapter 6: Forests and Environments; Chapter 7: Ecosystem Theory and Application; Chapter 8: Forests and Environment: Soil Erosion and Floods; Chapter 9: Wildlife and Biosphere Reserves; Chapter 10: Atmosphere; Chapter 11: Socio-Economic Effects and Constraints; Chapter 12: Women and Environment; Chapter 13: Macro Issues: Pressure on Forests; Chapter 14: Forestry and Rural Development; Chapter 15: Peoples Participation in Afforestation; Chapter 16: Environmental Considerations; Chapter 17: The Environmental Scenario; Chapter 18: Environmental Problems; Chapter 19: Introduction to Environmental Impact Assessment; Chapter 20: Methods of Impact Analysis; Chapter 21: Some Case Studies of Environmental Impact Assessment; Chapter 22: Pollution: An Appraisal; Chapter 23: Air Pollution; Chapter 24: Water Pollution; Chapter 25: Biological Diversity; Chapter 26: Management of Forests for Wildlife; Chapter 27: Conservation of Biodiversity; Chapter 28: Action Plan for National Biodiversity Strategy; Chapter 29: Social Biota for Biodiversity; Chapter 30: Biodiversity Loss and Threat; Chapter 31: Biological Diversity Convention; Chapter 32: Conservation of Biodiversity in Indian Scenario; Chapter 33: Diversity in Community; Chapter 34: Bioresources Protection; Chapter 35: Biodiversity of Threatened Species of Medicinal Plants in India: An Appraisal; Chapter 36: Vegetative Propagation; Chapter 37: Tree Improvement through Biotechnological Tools; Chapter 38: Forest Resources and its Management; Chapter 39: Production and Receipt of Forest Products. C

Global Biodiversity

Original studies address key aspects of the conservation and biodiversity of plants. Articles are all peer-reviewed primary

research papers, contributed by leading biodiversity researchers from around the world. Collectively, these articles provide a snapshot of the major issues and activities in global plant conservation. Many of the articles can serve as excellent case studies for courses in ecology, restoration, biodiversity, and conservation.

Plant Conservation and Biodiversity

A practical guide that covers both in situ and ex situ techniques for plant diversity conservation. The conservation and sustainable use of plant genetic resources is of increasing importance globally. Plant Conservation Genetics addresses this issue by providing an extensive overview of this emerging area of science, exploring various practical strategies and the latest technology for conservation of plant biodiversity. Leading specialists and experts discuss topics ranging from the science's foundations through every aspect of plant conservation genetics. This informative text includes several ex situ (outside of natural habitat) and in situ (inside of natural habitat) techniques for plant conservation useful for researchers, educators, and students. Plant Conservation Genetics first reviews the importance, opportunities, and numerous advantages of this type of conservation, then explores various effective ex situ (for specific species) and in situ (for certain species on up to full ecosystems and habitats) techniques for conservation. Essential detailed information is presented on collection strategies, botanic gardens, DNA banks, biodiversity management, and genetic resources in seedbanks. Each specialist reveals his or her personal experience of working in the field, allowing direct experience to illustrate and provide expert perspective on the key issues of plant conservation. The book is carefully referenced and includes tables and figures to enhance clarity of data. Plant Conservation Genetics topics include: strategies for plant conservation opportunities for application of plant conservation genetics botanic garden conservation DNA extraction and storage field genebanks in vitro techniques cryopreservation germplasm collection and management collecting missions genetic and biological property rights and benefit-sharing database and sample management for genebank collections monitoring and maintaining ecosystems in in situ conservation habitat fragmentation molecular analysis of plant genetic resources molecular marker analysis nuclear, mitochondrial, and chloroplast genome analysis genomics in the management of plant biodiversity Plant Conservation Genetics is a comprehensive desktop resource perfect for botanists, plant scientists, agricultural scientists, environmentalists, gardeners, and educators and students.

Plant Conservation Genetics

Discusses the various options for conserving plants at the level of the gene, species and community.

Woody Plant Biodiversity Conservation and Ecosystem Services in the Forest-agriculture Mosaic of Southwestern Ethiopia

Ex Situ Plant Conservation

A broad view of plant-pathogen interactions illustrating the fundamental reciprocal role pathogens and hosts play in shaping each other's ecology and evolution.

Encyclopedia of Biodiversity

This Book Contains Chapters Contributed By Scientists Working In England, Uk, United States Of America Etc. Pertaining To Measures Taken For Biodiversity Conservation. The Contents Includes: 1. Biodiversity: An Overview 2. Economic Aspects Of Conservation Of Global Biodiversity 3. The Global Importance Of Plant Diversity 4. Plant Biotechnology: A Powerful Tool To Use Plant Resources And To Improve The Environmental Impact Of Agriculture 5. Agricultural Biodiversity And The Role Of Research And Development In Kuwait 6. Biodiversity In Aravalli Forest Of Rajasthan 7. Conserving Biodiversity Through Traditional Forest Use: Case Studies From Nepal And Northern Thailand 8. Joint Forest Management As Biodiversity Conservation Measures In Rajasthan 9. Measuring Rural Resource Users Motivation For Various Conserving Actions: Implications For Biodiversity Conservation Outside Protected Areas 10. Biodiversity Conservation By Indigenous Communities At Karanambu Ranch, Rupununi Savannah, Guyana 11. Biodiversity Conservation In The Philippines 12. The Sanctuary Movement In Australia 13. Restoration Of Desert Ecosystems Through Wildlife Management: The Saudi Arabian Experience 14. Status Of Vegetation And An Assessment Of The Impact Of Overgrazing In An Area North Of Jubail, Saudi Arabia 15. Biodiversity In Indian Wetlands: Keoladeo National Park 16. Select Bibliography 17. Appendices

Plant Evolution in the Mediterranean

From the lush forests of Appalachia to the frozen tundra of Alaska, and from the tallgrass prairies of the Midwest to the subtropical rainforests of Hawaii, the United States harbors a remarkable array of ecosystems. These ecosystems in turn sustain an exceptional variety of plant and animal life. For species such as salamanders and freshwater turtles, the United States ranks as the global center of diversity. Among the nation's other unique biological features are California's coast redwoods, the world's tallest trees, and Nevada's Devils Hole pupfish, which survives in a single ten-by-seventy-foot desert pool, the smallest range of any vertebrate animal. Precious Heritage draws together for the first time a quarter century of information on U.S. biodiversity developed by natural heritage programs from across the country. This richly illustrated volume not only documents those aspects of U.S. biodiversity that are particularly noteworthy, but also considers how our species and ecosystems are faring, what is threatening them, and what is needed to protect the nation's remaining natural inheritance. Above all, Precious Heritage is a celebration of the extraordinary biological diversity of the United States.

Taxonomy and Plant Conservation

Biodiversity and Human Health brings together leading thinkers on the global environment and biomedicine to explore the human health consequences of the loss of biological diversity.

Ex Situ Plant Conservation

Biodiversity and Its Significance

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.

Microorganisms in Plant Conservation and Biodiversity

Global Biodiversity Conservation Measures

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Plant Conservation and Biodiversity

Original studies address key aspects of the conservation and biodiversity of plants. Articles are all peer-reviewed primary research papers, contributed by leading biodiversity researchers from around the world. Collectively, these articles provide a snapshot of the major issues and activities in global plant conservation. Many of the articles can serve as excellent case studies for courses in ecology, restoration, biodiversity, and conservation.

Understanding the Changing Planet

Biodiversity and Human Health

Global Biodiversity is the most comprehensive compendium of conservation information ever published. It provides the first systematic report on the status, distribution, management, and utilisation of the planet's biological wealth.

The Conservation of Plant Biodiversity

Plant conservation is increasingly recognised as an outstanding global priority, yet despite considerable efforts over the last few decades, the number of threatened species continues to rise. The practice of plant conservation has for too long been a rather hit-or-miss mixture of methods. While microorganisms have been recognised as a crucial and essential element in supporting the lifecycles of plant species, there has been limited recognition of the relationships between macro level conservation facilitating ecosystem functioning at the micro level. This book addresses the role of microorganisms in conservation - both their support functions and deleterious roles in ecosystem processes and species survival. Importantly, a number of authors highlight how microbial diversity is, itself, now under threat from the many and pervasive influences of man. What is clear from this volume is that like many contemporary treatments of plant and animal conservation, the solution to mitigate the erosion of biodiversity is not simple. This book represents an attempt to bring to the fore the ecological underwriting provided by microorganisms.

Microorganisms in Plant Conservation and Biodiversity

Biodiversity and Biomedicine

The rapid fragmentation and habitat change in natural environments have created a need for management and conservation, which will ensure areas are protected from anthropogenic interference. These protected areas are necessary to provide adequate location for biodiversity conservation, environmental monitoring, and scientific research where a complete understanding of the natural process and full protection of ecosystems can be attained. This book highlights various approaches for managing and conserving protected areas in temperate and tropical regions to respond to some pressing global challenges today. It is divided into five main sections, viz., protected area management, fish and wildlife conservation, biodiversity conservation, ecotourism and recreation, and local community participation. The book enhances the understanding of the important roles national parks play in the environment and society.

Plant Conservation

In this, the latest in the People and Plants series, plant conservation is described in the context of livelihoods and development, and ways of balancing the conservation of plant diversity with the use of plants and the environment for human benefit are discussed. A central contention in this book is that local people must be involved if conservation is to be successful. Also examined are ways of prioritizing plants and places for conservation initiatives, approaches to in situ and ex situ conservation, and how to approach problems of unsustainable harvesting of wild plants. Roles for botanists, foresters, sociologists, development workers and others are discussed. This book acts as a unifying text for the series, integrating case studies and methodologies considered in previous volumes and pointing out in a comprehensive, accessible volume the valuable lessons to be learned.

Methods for Risk Assessment of Transgenic Plants

Proceedings of the XIVth AETFAT Congress, 22-27 August 1994, Wageningen, the Netherlands

Plant Genetic Resources Conservation and Use in China

The complex and important relationship between public expenditure and economic performance has been the subject of numerous econometric studies. But the studies remain inconclusive; some results have shown positive relationships, while others are negative. Thus there is no conventional wisdom backed by statistical evidence on this relationship, nor is there any sort of clear theoretical underpinning that explains how the aggregate of government spending acts on the growth of

total output. This book studies the role of public expenditures in a noneconometric way by examining a number of specific instances of these expenditures and their direct effect on economic performance. Specifically, the authors presents scenarios from Botswana, Ghana, Guinea, Kenya, and Zambia and ask a series of questions to identify and illuminate the impact of these instances of public expenditure on a number of variables that help measure economic performance. These examples are then used to make generalizations about the relationship between public spending and economic performance.

The Biodiversity of African Plants

From the oceans to continental heartlands, human activities have altered the physical characteristics of Earth's surface. With Earth's population projected to peak at 8 to 12 billion people by 2050 and the additional stress of climate change, it is more important than ever to understand how and where these changes are happening. Innovation in the geographical sciences has the potential to advance knowledge of place-based environmental change, sustainability, and the impacts of a rapidly changing economy and society. Understanding the Changing Planet outlines eleven strategic directions to focus research and leverage new technologies to harness the potential that the geographical sciences offer.

Biodiversity and Conservation of Woody Plants

Only a green world, rich in plants, can sustain us and the millions of other species with which we share this planet. But, in an era of global change, nature is on the retreat. Like the communities they form, many plant species are becoming rarer, threatened even to the point of extinction. The worldwide community of almost three thousand botanic gardens are holders of the most diverse living collections of plants and have the unique potential to conserve plant diversity. Conservation biology is a fast moving and often controversial field, and, as the contributions within these pages from experts in the field demonstrate, plant conservation is multifaceted, mirroring the complexity of the biodiversity it aims to protect, and striving not just to protect threatened plants but to preserve ecosystem services and secure the integrity of the biosphere.

Biodiversity and Its Conservation in India

Principles and Practice of Plant Conservation is the first exhaustive and systematic treatment of the issues of plant conservation, other books on the subject having been collections of articles on specialized topics or of a regional nature. This book, growing out of a major sponsorship effort by two of the world's leading conservation organizations to 'assert the fundamental importance of plants in all conservation activities', provides the well-integrated coverage that arises from an expert's thoughtful analysis of the entire subject. Commissioned by the World Wide Fund for Nature and IUCN - The World

Conservation Union as part of their joint endeavor of 'building the capacity to conserve', this work by David R. Given elucidates the concepts that underlie successful conservation efforts. Drawing on his own work and involving international collaboration, the author also presents a large number of real-life case studies that illustrate the principles of conservation in action. Chapters are devoted to the natural - and unnatural - causes of plant rarity and endangerment, and the management of plant populations in natural habitats, in modified landscapes, and off-site to preserve germplasm. Going beyond the biology of conservation, other chapters are devoted to the ethical, educational, and economic aspects of plant conservation. Cyrille de Klemm, an expert on international law, has contributed a chapter on conservation legislation. Plants play critical roles in the web of life, providing the food and shelter on which animals depend. As human population and development pressures on the world's biota increase, it is in the best interest of all to use plant resources wisely and sustainably. That will be possible only if plant diversity is maintained, and Principles and Practice of Plant Conservation is an essential reference for those concerned with how best to preserve what we have.

Medicinal Plants

Since the first edition of this book published in 2005, there has been an immense amount of new and fascinating work on the history, ecology, and evolution of the Mediterranean flora. During this time, human impacts have continued to increase dramatically, significantly influencing both the ecology and evolution of the region's biota. This timely and comprehensive update of the original text integrates a diverse and scattered literature to produce a synthetic account of Mediterranean plant evolutionary ecology. It maintains the accessible style of its previous version whilst incorporating recent work in a new structural framework. This is not a traditional "plant science" book per se, but a novel integration of history, ecology, biogeography, and evolution, all set in the context of a dramatically increasing human footprint. There is a particular emphasis on the role of human activities as an ecological factor and their subsequent impact on plant evolution.

Conversely, it demonstrates how an understanding of the evolutionary ecology of the region's flora can be used to provide insights into its future conservation and management. Plant Evolution in the Mediterranean is aimed at all those who are interested in the biology of the Mediterranean region, whether it is taxonomy, ecology, evolution, conservation policy and management, or the regional history of its biodiversity in general. It will be of relevance and use to all graduate students and researchers of Mediterranean-type ecosystem ecology and geography, as well as professional ecologists, evolutionary biologists, conservation biologists, and environmental practitioners requiring a concise, authoritative overview of the topic.

The Cyber Plant Conservation Project: Promoting Plant Biodiversity Conservation through ICT

For centuries, TK has been used almost exclusively by its creators, that is, indigenous and local communities. Access to, use of and handing down of TK has been regulated by local laws, customs and traditions. Some TK has been freely accessible by

all members of an indigenous or local community and has been freely exchanged with other communities; other TK has only been known to particular individuals within these communities such as shamans, and has been handed down only to particular individuals of the next generation. Over many generations, indigenous and local communities have accumulated a great deal of TK which has generally been adapted, developed and improved by the generations that followed. For a long time, Western anthropologists and other scientists have generally been able to freely access TK and have documented it in their works. Still, this TK was only seldom used outside the indigenous and local communities that created it. More recently, however, Western scientists have become aware that TK is neither outdated nor valueless knowledge, but, instead, it can be useful to solve some of the problems facing today's world. Modern science, for example, has shown an increased interest in some forms of TK as knowledge that can be used in R&D activities and be integrated in modern innovations. This holds especially true for TK regarding genetic resources, which has been integrated in modern pharmaceuticals, agro-chemicals and seed.

Plant Conservation

Plant conservation is increasingly recognised as an outstanding global priority, yet despite considerable efforts over the last few decades, the number of threatened species continues to rise. The practice of plant conservation has for too long been a rather hit-or-miss mixture of methods. While microorganisms have been recognised as a crucial and essential element in supporting the lifecycles of plant species, there has been limited recognition of the relationships between macro level conservation facilitating ecosystem functioning at the micro level. This book addresses the role of microorganisms in conservation - both their support functions and deleterious roles in ecosystem processes and species survival. Importantly, a number of authors highlight how microbial diversity is, itself, now under threat from the many and pervasive influences of man. What is clear from this volume is that like many contemporary treatments of plant and animal conservation, the solution to mitigate the erosion of biodiversity is not simple. This book represents an attempt to bring to the fore the ecological underwriting provided by microorganisms.

Biodiversity and Conservation

Biodiversity and Biomedicine: Our Future provides a new outlook on Earth's animal, plant, and fungi species as vital sources for human health treatments. While there are over 10 million various species on the planet, only 2 million have been discovered and named. This book identifies modern ways to incorporate Earth's species into biomedical practices and emphasizes the need for biodiversity conservation. Written by leading biodiversity and biomedical experts, the book begins with new insights on the benefits of biologically active compounds found in fungi and plants, including a chapter on the use of wild fruits as a treatment option. The book goes on to discuss the roles of animals, such as amphibians and reptiles, and

how the threatened presence of these species must be reversed to conserve biodiversity. It also discusses marine organisms, including plants, animals, and microbes, as essential in contributing to human health. Biodiversity and Biomedicine: Our Future is a vital source for researchers and practitioners specializing in biodiversity and conservation studies. Students in natural medicine and biological conservation will also find this useful to learn of the world's most bio-rich communities and the molecular diversity of various species. Presents new developments in documenting and identifying species for biodiversity conservation and ethical considerations for biodiversity research Examines biodiversity as an irreplaceable resource for biomedical breakthroughs using available species for medical research Discusses challenges and opportunities for biodiversity protection and research in biosphere reserves

Textbook of Biodiversity

Forest Environment and Biodiversity

This book provides complete, comprehensive, and broad subject-based reviews for students, teachers, researchers, policymakers, conservationists, and NGOs interested in the biodiversity and conservation of woody plants. Forests cover approximately 31 percent of the world's total landmass; 93 percent is natural forest and only 7 percent consists of planted trees. Forest decline is progressing at an alarming rate worldwide. In addition to human activities (logging, deforestation, and exploiting forest lands for agriculture and industrial use), a number of other factors – including pests and diseases, drought, soil acidity, radiation, and ozone – are cumulatively contributing to global forest decline. The present situation forces us to focus on forest conservation strategies for the present and future. Gene conservation and maintaining genetic diversity in forest ecosystems are crucial to the preservation of forest genetic resources. This calls for integrated action to implement both the in situ (on site) preservation of forest stands and ex situ (distant from the original site) strategies for the conservation of woody plants' genetic resources. Selected priority areas include: 1) assessing patterns of genetic diversity and threats, 2) understanding the biological processes regulating genetic diversity, 3) assessing the impact of human activities and climate change on genetic diversity, and 5) finding methods for prioritizing species and populations for the conservation of forest trees genetic resources. All chapters were written by leading scientists in their respective fields, which include: woody plant diversity, ecology and evolution; assessment of genetic diversity in forest tree populations; conservation planning under climate change; and in situ and ex situ strategies, including biotechnological approaches, for the conservation of woody plants genetic resources.

Precious Heritage

Over the last two decades, an increasing body of information has been added to the biodiversity science and the subject matter has become more and more voluminous. Biodiversity has now become a multidisciplinary subject in which concepts, ideas and methodologies have been contributed by a number of other disciplines. However, there is a dearth of comprehensive textbooks on biodiversity science which could serve undergraduate and graduate students. This book presents the concepts, themes and ideas on this ever-growing multi-disciplinary subject.

Evolutionary Dynamics of Plant-Pathogen Interactions

Results of regular monitoring of the species diversity and structure of plant communities is used by conservation biologists to help understand impacts of perturbations caused by humans and other environmental factors on ecosystems worldwide. Changes in plant communities can, for example, be a reflection of increased levels of pollution, a response to long-term climate change, or the result of shifts in land-use practices by the human population. This book presents a series of essays on the application of plant biodiversity monitoring and assessment to help prevent species extinction, ecosystem collapse, and solve problems in biodiversity conservation. It has been written by a large international team of researchers and uses case studies and examples from all over the world, and from a broad range of terrestrial and aquatic ecosystems. The book is aimed at any graduate students and researchers with a strong interest in plant biodiversity monitoring and assessment, plant community ecology, biodiversity conservation, and the environmental impacts of human activities on ecosystems.

Plant Biodiversity

Biodiversity and its Significance deals with the various fundamental aspects of biodiversity, which have a direct and strong impact on human beings and their environment. It comprises 20 articles contributed by renowned experts in their areas. This pioneering book has been designed for the students and research scholars of Plant Sciences, Agricultural Science and Bioinformatics.

Biodiversity and Conservation

This volume provides an enlightening and pragmatic approach to preserving biological diversity by gathering a wide range of peer-reviewed scientific content from biodiversity researchers and conservators from around the world. It brings comprehensive knowledge and information on the present status of conservation of biological diversity including floral, faunal, and microbial diversity. A detailed account of recent trends in conservation and applications under changing climate conditions, focusing mainly on agriculturally and industrially important microbes and their sustainable utilization, is presented as well. Over the past five decades, extensive research work has been done on many aspects of biodiversity

conservation and sustainable utilization of biological resources. This book examines this crucial issue. Chapters discuss biodiversity concepts, benefits, and values for economic and sustainable development; explores applications and strategies for biodiversity preservation; and considers the role of biodiversity conservation in public awareness services and cultural significance. The volume also examines the process of evolution and the future of biodiversity in conjunction with climate change factors, with special reference to infectious diseases.

Plant Biotechnology and Biodiversity Conservation

These in-depth case studies from Latin America, Asia, Africa, Europe and North America provide a state of the art overview of the gender dimensions of people-plant relations. The contributors reveal, among other things, the crucial role of women in plantbiodiversity management.

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