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Biology and Evolution of Ferns and

Lycophytes - Tom A. Ranker 2008-06-19

With their team of contemporary scholars, the editors present a thorough coverage of fundamental topics necessary for obtaining an up-to-date understanding of the biology of ferns and lycophytes. The book is organized into major topics that build from the individual and its biochemistry and structure, to genetics and populations, to interactions among individuals and the conservation of species, and concludes with perspectives on evolutionary history and classification. Each chapter is organized to review past work, explore current questions, and suggest productive directions for continued discoveries about these fascinating groups of organisms. Written for upper undergraduates, graduates and academic researchers, *Biology and Evolution of Ferns and Lycophytes* fills a major gap in biological, organism-level, evolutionary literature by providing a review of the biology and evolution of this important group of vascular land plants.

[Biodiversity, Conservation and Sustainability in Asia](#) - Münir Ahmet Öztürk 2022

Of the worlds seven continents, Asia is the largest. Its physical landscapes, political units, and ethnic groups are both wide-ranging and many. Southwest, South and Middle Asia are highly populated regions which, as a whole, cover an extremely large area of varied geography. In total, this domain is unique in its plant diversity and large vegetation zones with different communities and biomes. It is rich in

endemics, with specific and intraspecific diversity of fruit trees and medicinal plants, including a number of rare, high value, species. At the same time, much of the land in the region is too dry or too rugged, with many geographical extremes. Overgrazing, oil and mineral extraction, and poaching are the major threats in the area. This two-volume project focuses on the dynamic biodiversity of the region with in-depth analysis on phytosociology, plants, animals and agroecology. There are also chapters that explore new applications as well as approaches to overcome problems associated with climate change. Much of the research and analysis are presented here for the first time. We believe this work is a valuable resource for professionals and researchers working in the fields of plant diversity and vegetation, animal diversity and animal populations, and geo-diversity and sustainable land use, among others. The first volume guides our readers to West Asia and the Caucasus region, while volume two focuses on issues unique to South and Middle Asia.

[Current Advances in Fern Research](#) - Helena Fernández 2018-03-24

Ferns, collectively, represent an ancient species of vascular plant which has a direct connection to the beginning of life on Earth. Today they are valued for their ornamental appeal, environmental benefit or as sources of health benefiting metabolites. Current pteridology, the study of fern, encompasses a wide range of research activities including, but not limited to, plant physiology, stress tolerance, genetics and

genomics. The goal of this book is to compile the most relevant research done with ferns during the last decade. It is organized into four parts: I, Biology and Biotechnology; II, Evolution and Conservation; III, Metabolism and Genetic Resources, and IV, Environment. Each section reveals the utilization of ferns as a tool to explore challenges unique to plant development and adaptation. This project represents our collective effort to raise the awareness of ferns as a model system to study higher plant functions. Among the distinctive features of our proposed book are: (i) a wide range of topics with contributing researchers from all around the world, and (ii) recent advances of theoretic and applied knowledge with implications to crop species of economic value.

Vascular Epiphytes - David H. Benzing
2008-01-07

Epiphytes (plants which grow on other plants, not parasitically but for support), comprise more than one-third of the total vascular flora in some tropical forests. Growing within tropical forest canopies, epiphytes are subject to severe environmental constraints, and their diverse adaptations make them a rich resource for studies of water balance, nutrition, reproduction and evolution. This book synthesizes the body of information from research on epiphytes and their relations with other tropical biota, and provides a comprehensive overview of basic functions, life history, evolution, and the place of epiphytes in complex tropical communities. Tropical ecologists and zoologists as well as plant scientists will find this volume a useful guide to research on the twenty-five thousand species of epiphytes which root in the crowns of tropical trees.

General Technical Report RM. - 1995

Pesticides - Marcelo L. Larramendy 2019-07-17
The book, "Pesticides - Use and Misuse and their Impact in the Environment", contains relevant information on diverse pesticides encountered in both anthropogenic and natural environments. This book provides valuable information about the toxicity of several agrochemicals that can negatively influence the health of humans and ecosystems.

[Brazilian Medicinal Plants](#) - Luzia Valentina Modolo 2019-11-11

The vast and exciting Brazilian flora biodiversity is still underexplored. Several research groups are devoted to the study of the chemical structure richness found in the different Biomes. This volume presents a comprehensive account of the research collated on natural products produced from Brazilian medicinal plants and focuses on various aspects of the field. The authors describe the key natural products and their extracts with emphasis upon sources, an appreciation of these complex molecules and applications in science. Many of the extracts are today associated with important drugs, nutrition products, beverages, perfumes, cosmetics and pigments, and these are highlighted. Key Features: Presents Brazilian biodiversity: its flora, its people, and its research Describes the emergence of natural products research in Brazil Emphasizes the increasing global interests in botanical drugs Aids the international natural product communities to better understand the herbal resources in Brazil Discusses Brazilian legislation to work with native plants

Ecology, Conservation and Management of Wild Pigs and Peccaries - Mario Melletti 2017-11-23
Wild pigs inhabit vast areas in Europe, Southern Asia and Africa, and have been introduced in North and South America, while feral pigs are widespread in Australia and New Zealand. Many wild pig species are threatened with extinction, but Eurasian wild boar populations, however, are increasing in many regions. Covering all wild pig and peccary species, the Suidae and Tayassuidae families, this comprehensive review presents new information about the evolution, taxonomy and domestication of wild pigs and peccaries alongside novel case studies on conservation activities and management. One hundred leading experts from twenty five countries synthesise understanding of this group of species; discussing current research, and gaps in the knowledge of researchers, conservation biologists, zoologists, wildlife managers and students. This beautifully illustrated reference includes the long history of interactions between wild pigs and humans, the benefits some species have brought us and their role and impact on natural ecosystems.

The Biology of Vines - Francis E. Putz 1991
This 1992 book is a treatment of what was

known about climbing plants, written by a group of experts.

Working with Ferns - Helena Fernández

2010-11-11

This well timed volume features a selection of chapters composed by experts in their respective fields. It covers a broad range of topics, from its fundamental biology to the fern's population genetics and environmental and therapeutic applications.

Functional and Ecological Xylem Anatomy -

Uwe Hacke 2015-04-20

The book will describe the xylem structure of different plant groups, and will put the findings in a physiological and ecological context. For instance, when differences in vessel diameter are featured, then there will be an explanation why this matters for water transport efficiency and safety from cavitation. The focus is on the hydraulic function of xylem, although mechanical support and storage will also be covered. Featured plant groups include ferns (which only have primary xylem), conifers (tracheid-based xylem), lianas (extremely wide and long vessels), drought-adapted shrubs as well as the model systems poplar and grapevine. The book chapters will draw on the expertise and cutting edge research of a diversified group of internationally known researchers working in different anatomical and physiological sub-disciplines. Over the last two decades, much progress has been made in understanding how xylem structure relates to plant function.

Implications for other timely topics such as drought-induced forest dieback or the regulation of plant biomass production will be discussed.

Costa Rican Natural History - Daniel H. Janzen

2018-12-14

This volume is a synthesis of existing knowledge about the flora and fauna of Costa Rica. The major portion of the book consists of detailed accounts of agricultural species, vegetation, amphibians, reptiles, mammals, birds, and insects. "This is an extraordinary, virtually unique work. . . . The tremendous amount of original, previously unpublished, firsthand information is remarkable."—Peter H. Raven, Director, Missouri Botanical Garden "An essential resource for anyone interested in tropical biology. . . . It can be used both as an encyclopedia—a source of facts on specific

organisms—and as a source of ideas and generalizations about tropical ecology."—Alan P. Smith, *Ecology*

Avian Energetics and Nutritional Ecology - C.

Carey 2012-12-06

A symposium held in 1973 chaired and organized by William R. Dawson was the first major attempt to summarize and synthesize the existing information in the then emerging field of avian energetics. The symposium featured papers by James R. King, William A. Calder III, Vance A. Tucker, and Robert E. Ricklefs and commentaries by George A. Bartholomew, S. Charles Kendeigh, and Eugene P. Odum. The proceedings of the symposium, *Avian Energetics* (Paynter 1974), played a critical role in stimulating interest and research in the field of avian energetics. Some twenty-odd years later, we are making another attempt to summarize the information in the field of avian energetics. Some obvious differences exist between its predecessor and this volume. Numerous improvements in methodology, such as the use of doubly labeled water to estimate metabolism in free-living birds, now allow researchers to ask questions that could not be addressed previously. Second, consideration of nutrition is now inseparable from that of energetics. This merger is necessary not only because food intake is the source of both energy and nutrients but also because one or more nutrients, rather than energy, can be limiting for a given species in a particular instance. Finally, the study of energetics and nutritional ecology, particularly in birds and mammals, has grown so dramatically that a single volume can now only partially cover the range of possible topics and can catalogue only a sampling of all the studies on the subject.

Bird Life of Coasts and Estuaries - P. N. Ferns

2009-06-25

Bird Life of Coasts and Estuaries describes the bird life of the British coastline and adjacent offshore waters from an ecological point of view, using information from research to show how bird distribution and abundance are related to important environmental variables such as marine currents, weather, coastal landform and the influence of man. First published in 1992, the book will appeal to the layman who wants to know more about coastal birds, the birder who

wants to find out how birds interact with their environment and all those who are interested in the habitats that make up what is arguably Britain's most important natural asset.

Biodiversity and the Management of the Madrean Archipelago - Leonard F. DeBano
1999-10-01

This conference brought together scientists and managers from government, universities, and private organizations to examine the biological diversity and management challenges of the unique "sky island" ecosystems of the mountains of the southwestern U.S. and northwestern Mexico. Session topics included: floristic resources, plant ecology, vertebrates, invertebrates, hydrology and riparian systems, aquatic resources, fire, conservation and management, human uses through time, and visions for the future. Illustrated.

Plant Genetic Resources, Inventory, Collection and Conservation - Siva Ramamoorthy
2022-06-22

This edited book deals with plant genetic resources and their status, availability, and ecological niche in natural habitat. Usage and conservation practices followed by various tribal communities and their rationale are also discussed in the book. The book explores application of biological tools to conserve plant species and optimization protocols for conservation and elicitation of secondary metabolites and other value addition products. The book is organized into sub-themes covering: (i) Ecological status of plant genetic resources (ii) Traditional ethnobotanical knowledge and conservation practices (iii) Ex-situ conservation practices and bioprospecting Globally, plant genetic resources are deeply rooted in culture and economy. Since the early 1990s, the changing socio-economic situation has increasingly put pressure on plant genetic resources, in some cases leading to a severe loss of their diversity. For this reason, most vulnerable areas at risk of genetic erosion have been demarcated and protected by forest laws and regulations. Therefore, this book brings to light the opinions of leading experts in the area of ecology, conservation biodiversity, ethnobotany, and bioprospecting of plant genetic resources. The book is for use by graduate and advanced undergraduate students

and researchers in plant physiology, molecular biology, biochemistry, and agriculture. Additionally, it is extremely useful as a general reference on conservation of flora and large-scale cultivation.

Journal of Science and Technology, Kumasi, Ghana - 2007

Handbook of Biodiversity Methods - David Hill
2005-08-04

This Handbook, first published in 2005, provides standard procedures for planning and conducting a survey of any species or habitat and for evaluating the data.

Plant Reproductive Ecology : Patterns and Strategies - Jon and Lesley Lovett-Doust
Professor of Biology the University of Windsor
1988-07-07

This collection of reviews by leading investigators examines plant reproduction and sexuality within a framework of evolutionary ecology, providing an up-to-date account of the field. The contributors discuss conceptual issues, showing the importance of sex allocation, sexual selection and inclusive fitness, and the dimensions of paternity and maternity in plants. The evolution, maintenance, and loss of self-incompatibility in plants, the nature of 'sex choice' in plants, and sex dimorphism are all explored in detail. Specific forms of biotic interactions shaping the evolution of plant reproductive strategy are discussed, and a taxonomically based review of the reproductive ecology of non-angiosperm plant groups, such as bryophytes, ferns, and algae, is presented. Together these studies focus on the complexities of plant life cycles and the distinctive reproductive biologies of these organisms, while showing the similarities between nonflowering plants and the more thoroughly documented flowering species.

Ferns - Johnson Marimuthu
2022

Ferns are representative of genetic inheritance of great value as they include species of ancient vascular plants, which have direct connection with the evolution of plant life on Earth. This volume brings a selection of chapters covering a range of themes on fern biology, its development and growth, useful protocols for propagation and conservation purposes, genetic diversity, as well as medicinal and environmental applications.

The content is organized into four parts:
Biotechnology of Ferns Propagation of Ferns
Ferns in Medicines Environmental Regulation
This wide spectrum of the contributions provides quick access to information on the enormous potential of this plant group. This book brings together most recent research work and novel techniques, which is far from the traditional perspective usually followed. It is of interest to teachers, researchers, and botanists. Also the book serves as additional reading material for undergraduate and graduate students of agriculture, botany, forestry, and ecology. .

Tropical Montane Cloud Forests - L. A.

Bruijnzeel 2011-01-06

This volume represents a uniquely comprehensive overview of our current knowledge on tropical montane cloud forests. 72 chapters cover a wide spectrum of topics including cloud forest distribution, climate, soils, biodiversity, hydrological processes, hydrochemistry and water quality, climate change impacts, and cloud forest conservation, management, and restoration. The final chapter presents a major synthesis by some of the world's leading cloud forest researchers, which summarizes our current knowledge and considers the sustainability of these forests in an ever-changing world. This book presents state-of-the-art knowledge concerning cloud forest occurrence and status, as well as the biological and hydrological value of these unique forests. The presentation is academic but with a firm practical emphasis. It will serve as a core reference for academic researchers and students of environmental science and ecology, as well as practitioners (natural resources management, forest conservation) and decision makers at local, national, and international levels.

Ecology of Lianas - Stefan Schnitzer

2014-12-31

Lianas are woody vines that were the focus of intense study by early ecologists, such as Darwin, who devoted an entire book to the natural history of climbing plants. Over the past quarter century, there has been a resurgence in the study of lianas, and liana are again recognized as important components of many forests, particularly in the tropics. The increasing amount of research on lianas has resulted in a fundamentally deeper

understanding of liana ecology, evolution, and life-history, as well as the myriad roles lianas play in forest dynamics and functioning. This book provides insight into the ecology and evolution of lianas, their anatomy, physiology, and natural history, their global abundance and distribution, and their wide-ranging effects on the myriad organisms that inhabit tropical and temperate forests.

Behavioral Ecology of Insect Parasitoids -

Eric Wajnberg 2008-04-30

Written by a team of leading international specialists, Behavioral Ecology of Insect Parasitoids examines the optimal behaviors that parasitoids exhibit in order to maximize long term offspring production. It is an essential reference for research scientists and students studying these fascinating insects or for anyone involved in using parasitoids in biological control programs. Reviews topical issues, including cutting edge research on parasitoid decision making and the implications for biological control Explores applications in other fields, provides information on the latest research methods, and includes helpful case studies and statistical tools Creates a deeper understanding of the link between behavioural strategies and host mortality, resulting in more efficient selective pest management programs "Overall, this is a fascinating volume that provides a significant contribution to the literature on parasitoid insects. It goes a long way toward providing insights into numerous aspects of parasitoid behavior and will stimulate a diversity of future projects, something that should be the goal of any such text. I highly recommend Wajnberg et al. for all of those working on the biology or evolution of parasitoids." Palaios 2009
The Dynamic Landscape - Nigel Dunnett
2004-07-15

The last quarter of the twentieth century witnessed a burgeoning of interest in ecological or naturally-inspired use of vegetation in the designed landscape. More recently, a strong aesthetic element has been added to what was formerly a movement aimed at creating nature-like landscapes. This book advances an innovative fusion of scientific and ecological planting design philosophies which can address the need for more sustainable designed landscapes. It is a major statement on the

design, implementation and management of ecologically-inspired landscape vegetation. With contributions from experts at the forefront of development in this area across Europe and North America, this work gives the reader a valuable synthesis of current thinking.

The Ferns of Britain and Ireland - C. N. Page
1997-09-18

A user-friendly, illustrated field-guide to the ferns, clubmosses, quillworts and horsetails native to Britain.

Mexican Natural Resources Management and Biodiversity Conservation - Alfredo Ortega-Rubio
2018-07-20

This book presents valuable and recent lessons learned regarding the links between natural resources management, from a Socio-Ecological perspective, and the biodiversity conservation in Mexico. It address the political and social aspects, as well as the biological and ecological factors, involved in natural resources management and their impacts on biodiversity conservation. It is a useful resource for researchers and professionals around the globe, but especially those in Latin American countries, which are grappling with the same Bio-Cultural heritage conservation issues.

Plant Ecology and Conservation - Andrew Lack
2022-06-22

Plant Ecology & Conservation is an introduction to the world of plant ecology. It includes the main areas of current research including ideas about plant populations, nutrition and plant community ecology and has a particular emphasis on the interactions of plants with animals, fungi and microorganisms whose important is being increasingly demonstrated. With the world's environmental problems having such a high profile, the book focusses on the human impact on the world's plant species. Conservation of the terrestrial world starts with plants as they form the basis of all ecosystems on land. We can only understand how best to conserve the world's biodiversity with an understanding of the central role of plant ecology. This theme runs throughout with numerous examples of the disruption of ecosystems by human activity emphasising the connection between plant ecology and conservation. Key Features: Boxes present case studies, important statistics and interesting

asides Full-colour photos depict key species and habitats and superb line drawings illustrate many concepts Important data are presented in Tables and Figures throughout Each chapter has Key Concepts and review questions to test a reader's grasp of the content Key References and Further Reading are given for each chapter to point the reader towards the most important and influential literature Jargon is kept to a minimum and a full Glossary of all technical terms is presented The book is aimed primarily at undergraduate and graduate students in any aspect of ecology or plant science. It should also appeal to anyone interested in how plants function and are concerned about what is needed for the conservation of the world's ecosystems.

Origin of Tropical Diversity: From Clades to Communities - James Edward Richardson
2017-01-12

In this volume we aimed to assess progress in determining the processes by which current patterns of tropical biodiversity were established and are maintained. Tropical regions are highly species-rich and we present studies that have improved our understanding of the generation of that diversity at local, regional and global scales. We demonstrate how diverse fields from molecular phylogenetics, phylogeography, palaeontology and palaeoecology continue to improve our understanding of the natural history of the tropics.

Wetlands Through Time - Stephen F. Greb
2006-01-01

Encyclopedia of Ecology and Environmental Management - 2009-07-15

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.

The Ecology and Management of Breeding Waterfowl - 1992

Early Events in Monocot Evolution - Paul Wilkin
2013-05-30

Tracing the evolution of one of the most ancient major branches of flowering plants, this is a wide-ranging survey of state-of-the-art research on the early clades of the monocot phylogenetic tree. It explores a series of broad but linked themes, providing for the first time a detailed and coherent view of the taxa of the early monocot lineages, how they diversified and their importance in monocots as a whole. Featuring contributions from leaders in the field, the chapters trace the evolution of the monocots from largely aquatic ancestors. Topics covered include the rapidly advancing field of monocot fossils, aquatic adaptations in pollen and anther structure and pollination strategies and floral developmental morphology. The book also presents a new plastid sequence analysis of early monocots and a review of monocot phylogeny as a whole, placing in an evolutionary context a plant group of major ecological, economic and horticultural importance.

Fern Ecology - Klaus Mehlreter 2010-06-03
Ferns are an integral part of the world's flora, appreciated for their beauty as ornamentals, problematic as invaders and endangered by human interference. They often dominate forest understories but also colonize open areas, invade waterways and survive in nutrient-poor wastelands and eroded pastures. Presented here

is the first comprehensive summary of fern ecology, with worldwide examples from Siberia to the islands of Hawaii. Topics include a brief history of the ecological study of ferns, a global survey of fern biogeography, fern population dynamics, the role of ferns in ecosystem nutrient cycles, their adaptations to xeric environments and future directions in fern ecology. Fully illustrated concepts and processes provide a framework for future research and utilization of ferns for graduate students and professionals in ecology, conservation and land management.

The Biology of Disturbed Habitats -

Lawrence R. Walker 2012

Providing a global summary of the biology of disturbance ecology, this text offers both the conceptual underpinnings and practical advice required to comprehend and address the unprecedented environmental challenges facing humans. It examines both natural and anthropogenic disturbances in aquatic and terrestrial habitats.

Primary Succession and Ecosystem Rehabilitation - Lawrence R. Walker

2003-02-13

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Seeds - Carol C. Baskin 2014-02-20

The new edition of *Seeds* contains new information on many topics discussed in the first edition, such as fruit/seed heteromorphism,

breaking of physical dormancy and effects of inbreeding depression on germination. New topics have been added to each chapter, including dichotomous keys to types of seeds and kinds of dormancy; a hierarchical dormancy classification system; role of seed banks in restoration of plant communities; and seed germination in relation to parental effects, pollen competition, local adaptation, climate change and karrikinolide in smoke from burning plants. The database for the world biogeography of seed dormancy has been expanded from 3,580 to about 13,600 species. New insights are presented on seed dormancy and germination ecology of species with specialized life cycles or habitat requirements such as orchids, parasitic, aquatics and halophytes. Information from various fields of science has been combined with seed dormancy data to increase our understanding of the evolutionary/phylogenetic origins and relationships of the various kinds of seed dormancy (and nondormancy) and the conditions under which each may have evolved. This comprehensive synthesis of information on the ecology, biogeography and evolution of seeds provides a thorough overview of whole-seed biology that will facilitate and help focus research efforts. Most wide-ranging and thorough account of whole-seed dormancy available Contains information on dormancy and germination of more than 14,000 species from all the continents - even the two angiosperm species native to the Antarctica continent Includes a taxonomic index so researchers can quickly find information on their study organism(s) and Provides a dichotomous key for the kinds of seed dormancy Topics range from fossil evidence of seed dormancy to molecular biology of seed dormancy Much attention is given to the evolution of kinds of seed dormancy Includes chapters on the basics of how to do seed dormancy studies; on special groups of plants, for example orchids, parasites, aquatics, halophytes; and one chapter devoted to soil seed banks Contains a revised, up-dated classification scheme of seed dormancy, including a formula for each kind of dormancy Detailed attention is given to physiological dormancy, the most common kind of dormancy on earth

The Evolution of Plant Physiology - Alan R. Hemsley 2004-02-05

Coupled with biomechanical data, organic geochemistry and cladistic analyses utilizing abundant genetic data, scientific studies are revealing new facets of how plants have evolved over time. This collection of papers examines these early stages of plant physiology evolution by describing the initial physiological adaptations necessary for survival as upright structures in a dry, terrestrial environment. The Evolution of Plant Physiology also encompasses physiology in its broadest sense to include biochemistry, histology, mechanics, development, growth, reproduction and with an emphasis on the interplay between physiology, development and plant evolution. Contributions from leading neo- and palaeo-botanists from the Linnean Society Focus on how evolution shaped photosynthesis, respiration, reproduction and metabolism. Coverage of the effects of specific evolutionary forces -- variations in water and nutrient availability, grazing pressure, and other environmental variables

Encyclopedia of Evolutionary Biology - 2016-04-14

Encyclopedia of Evolutionary Biology is the definitive go-to reference in the field of evolutionary biology. It provides a fully comprehensive review of the field in an easy to search structure. Under the collective leadership of fifteen distinguished section editors, it is comprised of articles written by leading experts in the field, providing a full review of the current status of each topic. The articles are up-to-date and fully illustrated with in-text references that allow readers to easily access primary literature. While all entries are authoritative and valuable to those with advanced understanding of evolutionary biology, they are also intended to be accessible to both advanced undergraduate and graduate students. Broad topics include the history of evolutionary biology, population genetics, quantitative genetics; speciation, life history evolution, evolution of sex and mating systems, evolutionary biogeography, evolutionary developmental biology, molecular and genome evolution, coevolution, phylogenetic methods, microbial evolution, diversification of plants and fungi, diversification of animals, and applied evolution. Presents fully comprehensive content, allowing easy access to fundamental information and links to primary research

Contains concise articles by leading experts in the field that ensures current coverage of each topic Provides ancillary learning tools like tables, illustrations, and multimedia features to assist with the comprehension process

Environmental Concerns and Sustainable Development - Vertika Shukla 2019-04-30

The current global environmental crisis is primarily the result of non-standardized parameters for environmental regulation, and is impacting e.g. clean air, safe drinking water and the quality of food, particularly in developing nations. Due to their poor/lax execution of EIA protocols, newly developing countries are preferred destinations for establishing pollution-emitting industries, which results in the degradation and depletion of their natural resources. Lack of environmental policy intervention is another major incentive to base “dirty” industries in these nations. In order to ensure sustainable development, the highest-

priority issues include the monitoring and eradication of environmental problems stemming from economic development; virtually every form of economic development primarily results in the loss of forests and thus biodiversity, followed by declining air quality and the contamination of natural resources. Sustainable development ensures responsible interactions with the environment, so as to minimize the depletion or degradation of natural resources and preserve environmental quality. It involves integrated approaches to understanding the importance of environmental management systems and policy measures that lead to improved environmental performance. This book addresses the environmental concerns associated with economic development, and with approaches to attaining sustainable economic development, which include monitoring the quality of water resources, soil erosion and degradation of the natural environment.