

Roads And Ecological Infrastructure Concepts And Applications For Small Animals Wildlife Management And Conservation 2015 04 27

Wildlife Management and Conservation presents a clear overview of the management and conservation of animals, their habitats, and how people influence both. The relationship among these three components of wildlife management is explained in chapters written by leading experts and is designed to prepare wildlife students for careers in which they will be charged with maintaining healthy animal populations; finding ways to restore depleted populations while reducing overabundant, introduced, or pest species; and managing relationships among various human stakeholders. Topics covered in this book include • The definitions of wildlife and management • Human dimensions of wildlife management • Animal behavior • Predator–prey relationships • Structural decision making • Issues of scale in wildlife management • Wildlife health • Historical context of wildlife management and conservation • Hunting and trapping • Nongame species • Nutrition ecology • Water management • Climate change • Conservation planning

This book offers the reader a deeper understanding of the eThekwinI Metropolitan Municipality's green and ecological infrastructure policy landscape. The author utilises the PULSE3 analytical framework to conduct an in-depth examination and to show how experts frame and implement the municipality's green and ecological infrastructure strategies and projects. Although the initial purpose of this book was to investigate the role of green and ecological infrastructures in eThekwin's water security aspirations, the author realised that climate change adaptation and mitigation play a more central role in motivating the municipality to develop and implement such science-driven projects. To be sure, science that is informed by a positivist paradigm, guides how, where and when the municipality should develop green and ecological infrastructures. Furthermore, a positivistic stance is generated in this policy landscape, where science and politics meet at a local government level, and the book offers an insight into the science-policy interface, as well as the normative and value orientations that positivism often ignores. The book also shows the usefulness of the PULSE3 framework and how it can assist scientists in all fields to gain a deeper understanding of the complications that are faced by humankind. This book fills a market gap by providing a view of how scientists think about problems and how to solve them by using established paradigms and theories.

Publisher description

Connectivity in Landscape Ecology

Parks

Historical Trends and Current Challenges

Wiley Pathways Hazard Mitigation and Preparedness

Roads and Ecological Infrastructure

Ecological Networks in Estonia

Sustainable Approaches to the Construction of Roads and Other Infrastructure in the Hindu Kush-Himalayas

This books focuses on improving outcomes where transportation needs and small animal habitats overlap. Exploring challenges and solutions from both transportation and ecological perspectives, the volume covers various themes including animal behavior related to roads, the impacts of roads in sensitive areas, and design approaches that mitigate the negative effects of highways on wildlife. The chapter authors -- from transportation experts to university researchers -- each provide the goal of realistic problem solving.

An introduction to ecological economics, an emerging discipline combining economics, natural science, and philosophy in the study of the interaction between humans and the natural world. The nine contributors collate their individual knowledge in these traditionally isolated fields producing essays that speak to the roles of science and ethics, evolution in biology, physics, and economics, the relationship between a philosophical experience and an environmental reality, and test cases in linking ecology and economy in the chemical industry. Annotation copyright by Book News, Inc., Portland, OR

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 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.

February 10-12, 1998, Fort Myers, Florida

Road Infrastructure Policies in Kenya

World Highways

Roads and the Environment

Landscape Infrastructure

Strategic Planning for Water

A Handbook

The establishment of ecological networks in Europe and greenways in America has required some of the most advanced applications of the principles of landscape ecology to land use planning. This book provides a thorough overview of recent developments in this emerging field, combining theoretical concepts of landscape ecology with the actual practice of landscape planning and management. In addition to biological and physical considerations important to biodiversity protection and restoration, equal weight is given to cultural and aesthetic issues to illustrate how sympathetic, sustainable land use policies can be implemented. Examples are given for large scale areas (Estonia and Florida) as well as regional areas such as Milano, Chicago and the Argentinian Yungas. This invaluable book will provide a wealth of information for all those concerned with biodiversity conservation through networks and greenways and their relevance to the planning process, whether researcher, land manager or policy maker.

Recoqe: 1.The policy context - 2.Why focus on urban infrastructure? - 3.Towards an analytical framework - 4.Forms of urban infrastructure and they influence well-being - 5.The importance of scale - 6.Creating and managing urban infrastructure - 7.Policy implications and conclusions.

With this book, readers will learn how to apply their knowledge and skills in order to create communities that are more resilient to the impacts of hazards. It clearly presents the major principles involved in preparing for and mitigating the impacts of hazards in emergency management. This resource also provides real-world examples of different tools and techniques that emergency managers can use to reduce the impact of different types of hazards.

Science and Solutions

Strategic Environmental Assessment Legislation and Procedures in the Community

The Effects of Human Transport on Ecosystems

2003 National Urban Forest Conference Proceedings

Root Ecology

Annual Meeting Proceedings

Transportation Research Record

Vermillion Highlands was established in 2006 as a 2,282 acre parcel to be jointly managed by the University of Minnesota and the Minnesota Department of Natural Resources (DNR) in conjunction with Dakota County. It is located in Dakota County adjacent to the University of Minnesota Outreach, Research and Education (UMore) Park. The 3 parties selected the Center for Rural Design at the University to develop this concept master plan.

With more than half of the world's population now living in urban areas, it is vitally important that towns and cities are healthy places to live. The principal aim of this book is to synthesize the disparate literature on the use of vegetation in the built environment and its multifunctional benefits to humans. The author reviews issues such as: contact with wildlife and its immediate and long-term effects on psychological and physical wellbeing; the role of vegetation in removing health-damaging pollutants from the air; green roofs and green walls, which provide insulation, reduce energy use and decrease the carbon footprint of buildings; and structural vegetation such as street trees, providing shading and air circulation whilst also helping to stop flash-floods through surface drainage. Examples are used throughout to illustrate the practical use of vegetation to improve the urban environment, and deliver ecosystem services. Whilst the underlying theme is the value of biodiversity, the emphasis is less on existing high-value green spaces (such as nature reserves, parks and gardens), than on the sealed surfaces of urban areas (building surfaces, roads, car parks, plazas, etc.). The book shows how these, and the spaces they encapsulate, can be modified to meet current and future environmental challenges including climate change. The value of existing green space is also covered to provide a comprehensive textbook of international relevance.

You're overseeing a large-scale project, but you're not an engineering or construction specialist, and so you need an overview of the related sustainability concerns and processes. To introduce you to the main issues, experts from the fields of engineering, planning, public health, environmental design, architecture, and landscape architecture review current sustainable large-scale projects, the roles team members hold, and design approaches, including alternative development and financing structures. They also discuss the challenges and opportunities of sustainability within infrastructural systems, such as those for energy, water, and waste, so that you know what's possible. And best of all, they present here for the first time the Zofnass Environmental Evaluation Methodology guidelines, which will help you and your team improve infrastructure design, engineering, and construction.

Concepts and Applications For Small Animals

eThekwinI's Green and Ecological Infrastructure Policy Landscape

Incorporating Plants and Enhancing Biodiversity in Buildings and Urban Environments

Case Studies by SWA

Proceedings of the 2nd International Seminar of the International Association for Landscape Ecology, Münster, 1987

Ecological Economics

Based on a Binational Conference Held November 23, 1999 sponsored by the Greater Detroit American Heritage River Initiative and Partners

This book presents proceedings of a biology seminar held in the Royal Irish Academy in 2003. The contributors consider ecosystems as diverse in location, type and scale as the Mediterranean, hedgerows, Galapagos, bridges, the Antarctic, roadside verges and Bermuda, to illustrate the profound impact that the transport of people has had on the environment. The fragmentation of habitats, pollution, the introduction of alien species and the spread of disease are among the topics discussed by these leading scientists from Ireland, the United Kingdom, Israel and Bermuda.

Winner of the IENE Project Award 2016. This authoritative volume brings together some of the world's leading researchers, academics, practitioners and transportation agency personnel to present the current status of the ecological sustainability of the linear infrastructure – primarily road, rail and utility easements – that dissect and fragment landscapes globally. It outlines the potential impacts, demonstrates how this infrastructure is being improved, and how broad ecological principles are applied to mitigate the impact of road networks on wildlife. Research and monitoring is an important aspect of road ecology, encompassing all phases of a transportation project. This book covers research and monitoring to span the entire project continuum – starting with planning and design, through construction and into maintenance and management. It focuses on impacts and solutions for species groups and specific regions, with particular emphasis on the unique challenges facing Asia, South America and Africa. Other key features: Contributions from authors originating from over 25 countries, including from all continents Each chapter summarizes important lessons, and includes lists of further reading and thoroughly up to date references Highlights principles that address key points relevant to all phases in all road projects Explains best-practices based on a number of successful international case studies Chapters are "stand-alone", but they also build upon and complement each other; extensive cross-referencing directs the reader to relevant material elsewhere in the book Handbook of Road Ecology offers a comprehensive summary of approximately 30 years of global efforts to quantify the impacts of roads and traffic and implement effective mitigation. As such, it is essential reading for those involved in the planning, design, assessment and construction of new roads; the management and maintenance of existing roads; and the modifying or retrofitting of existing roads and problem locations. This handbook is an accessible resource for both developed and developing countries, including government transportation agencies, government environmental/conservation agencies, NGOs, and road funding and donor organisations.

"This book is a review of the ecological effects of roads. These effects include pollution, impacts on plant and animal habitats and disturbance to ecological systems. Many animals are killed by traffic. More importantly, new roads fragment natural habitats. By far the greatest effects are the cumulative effects over time." "This is a textbook for students and a manual for the practitioner. It provides a detailed account of the methods used to address the ecological effects of roads. Controversial in parts (e.g. it is argued that some roads should be decommissioned), this book will prompt much discussion and will prompt action to prevent the damaging effects of roads on nature."--BOOK JACKET.Title Summary field provided by Blackwell North America, Inc. All Rights Reserved

The Transcript, Recommendations, and Papers of the Solidarity Seminar on the Environment

Our Threatened Heritage

Handbook of Road Ecology

Wildlife Management and Conservation

Summary Report of Thirteen Joint Workshops

Connecting Open Space in North American Cities

This book is open access under a CC BY 4.0 license. This book provides a unique overview of the impacts of railways on biodiversity, integrating the existing knowledge on the ecological effects of railways on wildlife, identifying major knowledge gaps and research directions and presenting the emerging field of railway ecology. The book is divided into two major parts: Part one offers a general review of the major conceptual and theoretical principles of railway ecology. The chapters consider the impacts of railways on wildlife populations and concentrate on four major topics: mortality, barrier effects, species invasions and disturbances (ranging from noise to chemical pollution). Part two focuses on a number of case studies from Europe, Asia and North America written by an international group of experts.

Conceptual and practical, this book will influence the next decade or more of road design in ecologically sensitive areas and should prevent countless unnecessary wildlife fatalities.

Roads and Ecological InfrastructureConcepts and Applications for Small AnimalsJHU Press

Final Report

Solidarity

Ecological Engineering

Ecological Effects of Roads

Towards a Deeper Understanding

Ecological Networks and Greenways

Integrating Transport Infrastructures with Living Landscapes

Infrastructure is a much discussed topic within the field of landscape architecture. It regards the entire urban and rural space as a network that calls for an integrated planning and urban design approach. Natural and man-made infrastructures are viewed as forming a single, overarching whole. The book examines this robust and ecologically sustainable approach with essays by well-known experts in the field. It also documents 14 international case studies by SWA landscape architects and urban designers, among them the technologically innovative roof domes for Renzo Piano's California Academy of Science in San Francisco, the restoration of the Buffalo Bayou in Houston, and several master plans for ecological corridors in China and Korea. Other projects develop smart re-use concepts for railroad tracks that no longer serve their original purpose, such as Kyung-Chun railway in Seoul or Katy Trail in Dallas. All projects are described extensively with technical diagrams and plans. The publication offers ideas for reinventing, repurposing, and repositioning infrastructure as a viable medium for addressing issues of ecology, transit, urbanism, and habitat.

Road Ecology links ecological theories and concepts with transportation planning, engineering, and travel behavior. With more than 100 illustrations and examples from around the world, it is an indispensable and pioneering work for anyone involved with transportation.

All phases of road development€from construction and use by vehicles to maintenance€affect physical and chemical soil conditions, water flow, and air and water quality, as well as plants and animals. Roads and traffic can alter wildlife habitat, cause vehicle-related mortality, impede animal migration, and disperse nonnative pest species of plants and animals. Integrating environmental considerations into all phases of transportation is an important, evolving process. The increasing awareness of environmental issues has made road development more complex and controversial. Over the past two decades, the Federal Highway Administration and state transportation agencies have increasingly recognized the importance of the effects of transportation on the natural environment. This report provides guidance on ways to reconcile the different goals of road development and environmental conservation. It identifies the ecological effects of roads that can be evaluated in the planning,

design, construction, and maintenance of roads and offers several recommendations to help better understand and manage ecological impacts of paved roads.

Road Ecology

International Studies in Shipping Policy and Management

The Land Reconstruction and Management

Assessing and Managing the Ecological Impacts of Paved Roads

September 17-20, 2003, San Antonio, Texas

Bridging Between Ecology and Civil Engineering

Cars and Planes, Boats and Trains : Proceedings of a Seminar of the National Committee for Biology 1st and 2nd April 2003

Strategic Planning for Water examines the neglected relationship between planning for water and spatial planning. It provides the background to sustainable water management and assistance to spatial planners in understanding the complex water environment. This extremely topical book examines the challenges of: how to ensure that water supplies are adequate to meet our future needs how to reduce the risk of flooding as we are faced by stormier winters and rises in sea levels how to better manage our waste water how to further improve the water quality of our rivers in response to the Water Framework Directive. Essential reading for planners, developers and all those who must in future effectively incorporate water issues into their plans, developments and lifestyles if these are to be truly sustainable.

Infrastructure Sustainability and Design

Green Infrastructure

Concept, Design, Implementation

Concepts and Applications

Best Management Practices for Soft Engineering of Shorelines

Road Infrastructure Rehabilitation and Safety Strategies in Central and Eastern Europe

Challenges for Urban Infrastructure in the European Union