

Ungulates are an extraordinarily important group of animals worldwide. In many cases, they are keystone species with a disproportionate effect on the functioning of the wider ecological systems of which they form a part. They can also serve as dominant species acting as ecological engineers and as a prey base for endangered or expanding populations of large carnivores. They are important culturally and economically, as a major source of protein in subsistence cultures and because of their wide exploitation in recreational hunting, which is still a major form of land use in many countries. The book considers a number of aspects of the balance of cost and benefit of ungulates and their management in Europe. Through a synthesis of the underlying biology and a comparison of the management techniques adopted in different countries, management approaches which seem effective within their respective circumstances are explored. Each chapter is written by experts in their own fields, ensuring that they are aware of the most up-to-date literature on that topic and can also offer an experienced and informed review based on their own research experience.

This book reports research on policy and legal issues, anaerobic digestion of solid waste under processing aspects, industrial waste, application of GIS and LCA in waste management, and a couple of research papers relating to leachate and odour management.

The first book to summarise management objectives for ungulates across Europe.

This book brings together the latest information on tropical ungulates in different Latin American countries. These animals are not only important from the point of view of their role in different ecosystems, but also have cultural value for people. The book also discusses topics such as habitat transformation and hunting as these species are an important source of food in many places. Addressing ungulate natural communities in diverse ecosystems and countries, the book provides information on specific aspects of each of the most representative species, and highlights topics to help readers better understand these species and develop effective management and conservation strategies. The information presented also reveals the need for more knowledge and will hopefully provide the incentive for continued studies on this important group of animals. This publication serves as a reference for academic research on ungulate ecology, behavior and dynamics, as well as the basis for conservation strategies.

This is a book about one of nature's most remarkable accomplishments. When deer grow antlers they are actually regenerating anatomically complex appendages - something that no other mammal can do. The rate at which antler elongate makes them the fastest growing structures in the animal kingdom. Profoundly affected by male hormones, these secondary sex characters grow into massive tumors if the deer possessing them is castrated. These and other unique characteristics have made antlers the focus of extensive scientific research that addresses some provocative questions: From what tissues do antlers develop? By what morphogenetic mechanisms are they regenerated every year? What social functions prompted their initial evolution? How are they influenced by hormones, and by the seasonal daylength fluctuations that regulate their annual replacement cycles? These and many other questions are considered in this comprehensive account of antlerology. Students of development, evolution, and behavior will find much to appreciate in this volume, as will ecologists, wildlife biologists, and zookeepers. It is a rich source of information for endocrinologists and physiologists interested in the relationship of antlers to the reproductive cycle. The orthopedists will find the study of antlers a valuable model of skeletal growth and bone disease, and the purported medicinal properties of velvet antlers will be a subject of interest to the pharmacologist. *Deer Antlers: Regeneration, Function, and Evolution* is as scientifically accurate as it is readable. It does not answer all questions about these unique appendages, but it is certain to arouse curiosity about the many unsolved problems of how antlers grow, die, and are shed in the course of a single year.

Presents solutions to turn conflict into tolerance and coexistence, with an emphasis on the human dimensions of human-wildlife interactions. How can nature be protected and biodiversity be preserved while the threats of zoonotic diseases are minimised? Expanding nature areas and creating ecological networks across Europe is not only beneficial for wildlife, but also for the pathogens they carry. A prominent case is Lyme borreliosis, which has risen from relative obscurity to become a major public health problem in Europe. The Dutch research program 'Shooting the messenger' took a 'One Health' approach aiming at the development of sustainable measures for the prevention of Lyme borreliosis. An interdisciplinary network of researchers, public health experts, and nature managers gained and shared knowledge in the ecological processes of ticks, Lyme spirochaetes and their vertebrate hosts as well as in the human epidemiology of tick bites and Lyme borreliosis. These new insights, together with new intervention methods and strategies, are described in this book.

Discusses the benefits and risks, as well as the economic and socio-political realities, of rewilding as a novel conservation tool.

This book considers a number of problems posed by ungulates and their management in Europe. Through a synthesis of the underlying biology and a comparison of the management techniques adopted in different countries, the book explores which management approaches seem effective - and in which circumstances. Experts in a number of different areas of applied wildlife biology review various management problems and alternative solutions, including the impact of large ungulates on agriculture, forestry and conservation habitats, the impact of disease and predation on ungulate populations and the involvement of ungulates in road traffic accidents and possible measures for mitigation. This book is directed at practising wildlife managers, those involved in research to improve methods of wildlife management, and policy-makers in local, regional and national administrations.

"Landscape Bionomics," or "Bio-integrated Landscape Ecology," radically transforms the main principles of traditional Landscape Ecology by recognizing the landscape as a living entity rather than merely the spatial distribution of species and communities on the territory, often analysed in separate themes (water, species, pollution, etc.). To be more exact, the landscape is identified as the "life organization integrating a set of plants, animals and human communities and its system of natural, semi-natural, and human cultural ecosystems in a certain spatial configuration." This new perspective inevitably leads to significant changes in how to assess and manage the environment. This book represents the culmination of an endeavor begun by the author, with the support of Richard Forman and Zev Naveh, more than a dozen years ago. It builds on the author's previous successful publication, *Landscape Ecology, A Widening Foundation*, by addressing a range of additional topics and discussing the new theoretical and methodological concepts that have emerged during the past decade of research. Particular attention is paid to the fact that interventions in the landscape can be made with the best intentions yet cause serious damage! Against this background, the author explains the need to study "landscape units" by applying methods comparable to those used in clinical diagnosis - hence ecologists can be viewed as the "physicians" of ecological systems.

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.

New Directions of Conservation Medicine: Applied Cases of Ecological Health covers topics from emerging diseases and toxicants to the EcoHealth/One Health explosion. It challenges the notion that human health is an isolated concern removed from the bounds of ecology and species interactions.

The knowledge on the ecology of ungulates (orders Perissodactyla and Artiodactyla) inhabiting eastern Europe and northern and central Asia is of special importance for those interested in zoology, ecology, nature conservation, hunting and management. There are 26 species of ungulates 20°E-169°W within the 22.4 million km² area, between 35-82°N and 20°S and they occupy several vegetation zones from arctic deserts to the subtropics. In our opinion, the advancement of science can be retarded and general conclusions will be difficult to make, if the knowledge of the organisms inhabiting one sixth of the world's land surface, covered by this vast region, is not included. The language barrier, as well as the lack of international accessibility of local publications, makes it difficult to make use of the great volume of scientific information gathered within the territory of the former USSR. The only complete ecological review of ungulates of the Soviet Union, *Mammals of the Soviet Union*, vol. 1. Ungulates, was published by V. G. Heptner, A. A. Nasimovich, and A. G. Bannikov in 1961 (in Russian, Heptner and Naumov 1961) and 1989 (the English translation, Heptner and Naumov 1989). This excellent book does not, however, contain scientific contributions published after 1959. This is unfortunate, because during the following 40 years, intense and highly qualified research on the ecology and behavior of ungulates was performed.

Deer have been central to human cultures throughout time and space: whether as staples to hunter-gatherers, icons of Empire, or the focus of sport. Their social and economic importance has seen some species transported across continents, transforming landscape as they went with the establishment of menageries and parks. The fortunes of other species have been less auspicious, some becoming extirpated, or being in threat of extinction, due to pressures of over-hunting and/or human-instigated environmental change. In spite of their diverse, deep-rooted and long standing relations with human societies, no multi-disciplinary volume of research on cervids has until now been produced. This volume draws together research on deer from wide-ranging disciplines and in so doing substantially advances our broader understanding of human-deer relationships in the past and the present. Themes include species dispersal, exploitation patterns, symbolic significance, material culture and art, effects on the landscape and management. The temporal span of research ranges from the Pleistocene to the modern day and covers Europe, North America and Asia. Papers derived from international conferences held at the University of Lincoln and in Paris.

The frontier images of America embrace endless horizons, majestic herds of native ungulates, and romanticized life-styles of nomadic peoples. The images were mere reflections of vertebrates living in harmony in an ecosystem driven by the unpredictable local and regional effects of drought, fire, and grazing. Those effects, often referred to as ecological "disturbances," are rather the driving forces on which species depended to create the spatial and temporal heterogeneity that favored ecological prerequisites for survival. A landscape viewed by European descendants as monotony interrupted only by extremes in weather and commonly referred to as the "Great American Desert," this country was to be rushed through and cursed, a barrier that hindered access to the deep soils of the Oregon country, the rich minerals of California and Colorado, and the religious freedom sought in Utah. Those who stayed (for lack of resources or stamina) spent a century trying to moderate the ecological dynamics of Great Plains prairies by suppressing fires, planting trees and exotic grasses, poisoning rodents, diverting waters, and homogenizing the dynamics of grazing with endless fences—all creating bound an otherwise boundless vistas. Historically, travelers and settlers referred to the area of tall grasses along the western edge of the deciduous forest and extending midway across Kansas as the "True Prairie." The grasses thinned and became shorter to the west, an area known then as the Great Plains.

This book is focused on the challenges to implement sustainability in diverse contexts such as agribusiness, natural resource systems and new technologies. The experiences made by the researchers of the School of Agricultural, Forestry, Food and Environmental Science (SAFE) of the University of Basilicata offer a wide and multidisciplinary approach to the identification and testing of different solutions tailored to the economic, social and environmental characteristics of the region and the surrounding areas. Basilicata's productive system is mainly based on activities related to the agricultural sector and exploitation of natural resources but it has seen, in recent years, an industrial development driven by the discovery of oil fields. SAFE research took up the challenge posed by market competition to create value through the sustainable use of renewable and non-renewable resources of the territory. Moreover, due to its unique geographical position in the middle of the Mediterranean basin, Basilicata is an excellent "open sky" laboratory for testing sustainable solutions adaptable to other Mediterranean areas. This collection of multidisciplinary case studies and research experiences from SAFE researchers and their scientific partners is a stimulating contribution to the debate on the development of sustainable techniques, methods and applications for the Mediterranean regions. Invasive alien plants and animals are known for their disruption of ecosystems and threat to biodiversity. This book highlights their major impact on human health. This includes not only direct effects through contact with the species via bites, wounds and disease, but also indirect effects caused by changes induced in ecosystems by invasive species, such as more water hyacinth increasing mosquito levels and thereby the potential for malaria. Covering a wide range of case studies from different taxa (animals and plants), and giving an overview of the diverse impacts of invasive species on health in developed and developing countries, the book is a significant contribution that will help in prioritizing approaches to controlling invasive species and mitigating their health effects. It covers invasive plants, marine species, spiders and other arachnids, ticks and dust mites, insects, mosquitos and other diptera, freshwater species (invertebrates and fishes), amphibians and reptiles, birds and mammals. The broad spectrum of the analyzed case studies will ensure the appeal of the book to a wide public, including researchers of biological invasions, doctors, policy-makers and managers, and students of invasive species in ecology, animal and plant biology and public health medicine.

This book offers the first comprehensive assessment of the ecology and behavior of mountain goats, setting forth the results of a remarkable 16-year longitudinal study of more than 300 marked individuals in a population in Alberta, Canada. The authors' thorough, long-term study allowed them to draw important conclusions about mountain goat ecology—including individual reproductive strategies, population dynamics, and sensitivity to human disturbance—and to use those conclusions in offering guidance for developing effective conservation strategies.

Explains how satellite remote sensing informs and helps deliver successful conservation management through case studies, which highlight practitioner experience.

La sobreabundancia ocurre cuando afecta la vida o el bienestar humanos, afecta la aptitud de las especies sobreabundantes, reduce la densidad de especies con un valor económico o estético, o causa disfunciones en el ecosistema. Los problemas debidos a la sobreabundancia incluyen efectos adversos sobre el medio ambiente, daños a la silvicultura y la agricultura y, sobre todo, infecciones compartidas con seres humanos.

Hunters in Transition analyses the emergence of post-glacial hunter-gatherer communities and the development of farming.

European Ungulates and Their Management in the 21st Century Cambridge University Press

In a world where habitats are constantly changing and the impact of anthropization on the environment is increasingly intense, interactions between human and wildlife are becoming more and more complex. Some species pose problems for human activities while many others need to be helped in order to continue to exist. This book follows the first volume called 'Problematic Wildlife', edited by F.M. Angelici and published by Springer in 2016, which has had considerable success with readers and critics. The volume includes 21 chapters divided into 7 parts devoted specific topics which are approached in a multidisciplinary way. There are both review chapters and specific cases, always bearing in mind the interest for an international audience. The book is useful both for scientists, wildlife specialists, conservationists, zoologists, ecologists, university students, nature managers, and for those who live in contact with wildlife and its problems, such as farmers, shepherds, hunters, urban planners, and staff of parks and nature reserves. Its ultimate goal is to offer scientific and pragmatic approaches to manage each categories of problematic species.

Consciously or not, wildlife managers generally act from a theoretical basis, although they may not be fully versed in the details or ramifications of that theory. In practice, the predictions of the practitioners sometimes prove more accurate than those of the theoreticians. Practitioners and theoreticians need to work together, but this proves difficult when new management ideas and cutting-edge ecological theory are often published in separate scientific outlets with distinctly different readerships. A compilation of the scientific papers presented at the Caesar Kleberg Wildlife Research Institute's 25th Anniversary Conference of April 2006, *Wildlife Science: Linking Ecological Theory and Management Applications* brings together these two often separate approaches to elucidate the theoretical underpinnings of wildlife management and to apply evolving ecological concepts to changes and adaptations in management practices. Gathering many of the best and greatest minds in wildlife science, this volume addresses the critically important theme of linking ecological theory and management applications. Divided into five parts, the first two parts deal with the landscape ecology of birds and mammals respectively, demonstrating the need for applied theory in gamebird management and the preservation of the cougar. Part three highlights the role of climate when applying ecological theory to habitat management and discusses the emergence of ecosystem management in managing wildlife at the ecosystem scale. Part four considers the management of wildlife disease and reveals the increasing importance of genetics in conservation and ecology. Finally, the economic and social issues affecting wildlife science round out the coverage in part five. *Applying emerging ecological theory for the advancement of wildlife management, Wildlife Science: Linking Ecological Theory and Management Applications* provides a long awaited cooperative look at the future of ecosystem management.

Foodborne illnesses caused by zoonotic pathogens associated with wildlife hosts are an emerging microbial food safety concern. Transmission of foodborne pathogens can occur through ingestion, or improper handling, of contaminated game meat. Wild and feral animals have also been investigated as potential sources of *Campylobacter*, *Escherichia coli* O157:H7 and other enteric pathogens following foodborne disease outbreaks linked to fresh fruits and vegetables (e.g., baby spinach in California, shelled-peas in Alaska, strawberries in Oregon). This book explores the range of bacterial, parasitic, and viral pathogens that have been described in wildlife populations in the United States, Europe and other parts of the world. It also addresses important challenges and solutions to balance agriculture, conservation, and public health goals. The book provides unique information on approaches in risk communication, co-management, and One Health in a wildlife-food safety context. The first five chapters review research on the detection, epidemiology and ecology of foodborne pathogens in wildlife populations including the influence of wildlife-livestock-human interactions. The second half of the book addresses current guidelines to mitigate microbial food safety risks from wildlife hosts and new regulations proposed by the U.S. Food and Drug Administration in the Food Safety Modernization Act Produce Safety Rule. Chapters are written by an array of internationally recognized authors, and will be of interest to agriculture safety experts, ecologists, environmental health specialists, food safety professionals, microbiologists, public health practitioners, veterinarians, wildlife biologists, and others in academia, government, industry, and students in these disciplines.

This book provides insight into the instances in which wildlife species can create problems. Some species trigger problems for human activities, but many others need humans to save them and to continue to exist. The text addresses issues faced by economists and politicians dealing with laws involving actions undertaken to resolve the problems of the interaction between humans and wildlife. Here, the words 'problematic species' are used in their broadest sense, as may be appreciated in the short introductions to the various sections. At times, the authors discuss special cases while always extending the discussion into a more general and broad vision. At others, they present real cutting-edge analysis of ecological topics and issues. The book will be of interest to biologists, ecologists and wildlife managers involved in research on wildlife, parks, and environmental management, as well as to government departments and agencies, NGOs and conservation wildlife organizations. Even those in contact with nature, such as hunters, herders, and farmers, will be able to find a great deal of important information. Specific case studies are selected from among the most significant and prevalent cases throughout the world. A total of 26 papers have been selected for this book, written by zoologists, biologists and ecologists. Many have an interdisciplinary approach, with contributions by economists, criminologists, technical specialists, and engineers.

This novel book provides the reader with the fundamentals of data collection, model construction, analyses, and interpretation across a wide repertoire of demographic techniques and protocols, clearly guided throughout with fully

reproducible R scripts.

[Copyright: f562ea2bb836abebe5f2301cd6295645](https://doi.org/10.1111/1365-3113.12301)