

The Ecology Of Bird Communities Vol 1 Foundations And Patterns

The twenty-seven contributions authored by leaders in the fields of avian and urban ecology present a unique summary of current research on birds in settled environments ranging from wildlands to exurban, rural to urban.

Ecology and Conservation of Forest Birds is a unique review of current understanding of the relationships between forest birds and their changing environments. Large ecological changes are being driven by forest management, climate change, introduced pests and pathogens, abiotic disturbances, and overbrowsing. Many forest bird species have suffered population declines, with the situation being particularly severe for birds dependent on attributes such as dead wood, old trees and structurally complex forests. With a focus on the non-tropical parts of the Northern Hemisphere, the text addresses the fundamental evolutionary and ecological aspects of forest birds using original data analyses and synthesising reviews. The characteristics of bird assemblages and their habitats in

different European forest types are explored, together with the macroecological patterns of bird diversity and conservation issues. The book provides a valuable reference for ecologists, ornithologists, conservation professionals, forest industry employees, and those interested in birds and nature. The average person can name more bird species than they think, but do we really know what a bird "species" is? This open access book takes up several fascinating aspects of bird life to elucidate this basic concept in biology. From genetic and physiological basics to the phenomena of bird song and bird migration, it analyzes various interactions of birds - with their environment and other birds. Lastly, it shows imminent threats to birds in the Anthropocene, the era of global human impact. Although it seemed to be easy to define bird species, the advent of modern methods has challenged species definition and led to a multidisciplinary approach to classifying birds. One outstanding new toolbox comes with the more and more reasonably priced acquisition of whole-genome sequences that allow causative analyses of how bird species diversify. Speciation has reached a final stage when daughter species are reproductively

isolated, but this stage is not easily detectable from the phenotype we observe. Culturally transmitted traits such as bird song seem to speed up speciation processes, while another behavioral trait, migration, helps birds to find food resources, and also coincides with higher chances of reaching new, inhabitable areas. In general, distribution is a major key to understanding speciation in birds. Examples of ecological speciation can be found in birds, and the constant interaction of birds with their biotic environment also contributes to evolutionary changes. In the Anthropocene, birds are confronted with rapid changes that are highly threatening for some species. Climate change forces birds to move their ranges, but may also disrupt well-established interactions between climate, vegetation, and food sources. This book brings together various disciplines involved in observing bird species come into existence, modify, and vanish. It is a rich resource for bird enthusiasts who want to understand various processes at the cutting edge of current research in more detail. At the same time it offers students the opportunity to see primarily unconnected, but booming big-data approaches such as genomics and

biogeography meet in a topic of broad interest. Lastly, the book enables conservationists to better understand the uncertainties surrounding “species” as entities of protection.

Area Dependent Changes in the Bird Communities and Vegetation of Southern Wisconsin Forests

Habitat Selection in Birds

Competition and the Structure of Bird Communities. (MPB-7), Volume 7

Forest Bird Communities of the Hawaiian Islands

Long-Term Studies of Vertebrate Communities

The two volumes of John Wiens' Ecology of Bird Communities have applications and importance to the whole field of ecology. The books contain a detailed synthesis of our current understanding of the patterns of organisation of bird communities and of the factors that may determine them, drawing from studies from all over the world. By emphasizing how proper logic and methods have or have not been followed and how different viewpoints have developed historically and have led to controversy, the scope of these books are extended far beyond the study of birds. Processes and Variations discusses the way in which bird community patterns have been interpreted. This second volume examines how the complexity and variability of natural environments may influence efforts to discern and understand the nature of

these communities. Graduate students and professionals in avian biology and ecology will find these volumes a valuable stimulus and guide to future field studies and theory development.

For over one hundred years, ornithologists and amateur birders have jointly campaigned for the conservation of bird species, documenting not only birds' beauty and extraordinary diversity, but also their importance to ecosystems worldwide. But while these avian enthusiasts have noted that birds eat fruit, carrion, and pests; spread seed and fertilizer; and pollinate plants, among other services, they have rarely asked what birds are worth in economic terms. In *Why Birds Matter*, an international collection of ornithologists, botanists, ecologists, conservation biologists, and environmental economists seeks to quantify avian ecosystem services—the myriad benefits that birds provide to humans. The first book to approach ecosystem services from an ornithological perspective, *Why Birds Matter* asks what economic value we can ascribe to those services, if any, and how this value should inform conservation. Chapters explore the role of birds in such important ecological dynamics as scavenging, nutrient cycling, food chains, and plant-animal interactions—all seen through the lens of human well-being—to show that quantifying avian ecosystem services is crucial when formulating contemporary conservation strategies. Both elucidating challenges and providing examples of specific ecosystem valuations and guidance for calculation, the contributors propose that in order to

advance avian conservation, we need to appeal not only to hearts and minds, but also to wallets.

The two volumes of John Wiens' *Ecology of Bird Communities*, first published in 1992, are recognised as having applications and importance beyond the study of birds to the wider study of ecology in general. The books contain a detailed synthesis of our understanding of the patterns of organisation of bird communities and of the factors that may determine them, drawing from studies from all over the world. The author, however, does more than simply review findings in bird community ecology. By emphasizing how proper logic and methods have or have not been followed and how different viewpoints have developed historically and have led to controversy, he extends the scope of these books far beyond the study of birds. Volume 1 *Foundations and Patterns* explores why avian community ecologists ask the questions they do and what philosophical and methodological approaches they have used to answer such questions. Most of the book is devoted to a critical evaluation of what is known about the nature and organisation of bird communities.

Ecology and Conservation of Birds in Urban Environments
Relationships in Changing Landscapes

Ecology and Conservation of Forest Birds

Ecology of Bird Communities in Eutrophicated Lakes in Northern Zealand, Denmark, with Special Emphasis on Fish-Eating Birds

Ill., Graph. Darst., Kt

This unparalleled wealth of finely detailed ecological

information on Neotropical bird communities will prove invaluable to all Neotropical wildlife managers, conservation biologists, and serious birders.

Professor Cody's monograph emphasizes the role of competition at levels above single species populations, and describes how competition, by way of the niche concept, determines the structure of communities. Communities may be understood in terms of resource gradients, or niche dimensions, along which species become segregated through competitive interactions. Most communities appear to exist in three or four such dimensions. The first three chapters describe the resource gradients (habitat types, foraging sites, food types), show what factors restrict species to certain parts of the resource gradients and so determine niche breadths, and illustrate the important role of resource predictability in niche overlap between species for resources they share. Most examples are drawn from eleven North and South American bird communities, although the concepts and methodology are far more general. Next, the optimality of community structure is tested through parallel and convergent evolution on different continents with similar climates and habitats, and the direct influence of competitors on resource use is investigated by comparisons of species--poor island communities to species-rich mainland ones. Finally, the author discusses those sorts of environments in which the evolution of one species--one resource set is not achieved, and where alternative schemes of resource allocation, often involving several species that act ecologically as one, must be followed.

One of the most striking and persistent ways humans dominate Earth is by changing land-cover as we settle a region. Much of our ecological understanding about this process comes from

studies of birds, yet the existing literature is scattered, mostly decades old, and rarely synthesized or standardized. The twenty-seven contributions authored by leaders in the fields of avian and urban ecology present a unique summary of current research on birds in settled environments ranging from wildlands to exurban, rural to urban. Ecologists, land managers, wildlife managers, evolutionary ecologists, urban planners, landscape architects, and conservation biologists will find our information useful because we address the conservation and evolutionary implications of urban life from an ecological and planning perspective. Graduate students in these fields also will find the volume to be a useful summary and synthesis of current research, extant literature, and prescriptions for future work. All interested in human-driven land-cover changes will benefit from a perusal of this book because we present high altitude photographs of each study area.

Breeding Bird Communities in a Naturally Fragmented Forest Ecosystem in Grand Teton National Park, Wyoming
Avian Ecological Function and Ecosystem Services
Birds and Habitat

The Effects of Urbanization on the Ecology of Bird Communities in Los Angeles

Community Ecology of Subalpine Birds of the White Mountains

This unique book synthesizes the ongoing long-term community ecology studies of fish, amphibians, reptiles, birds, and mammals. The studies have been conducted from deserts to rainforests as well as in terrestrial, freshwater, and marine habitats and provide

valuable insight that can be obtained only through persistent, diligent, and year-after-year investigation. Long-Term Studies of Vertebrate Communities is ideal for faculty, researchers, graduate students, and undergraduates in vertebrate biology, ecology, and evolutionary biology, including ecology, natural history, and systematics. Provides unique perspectives of community stability and variation Details the influence of natural and other perturbations on community structure Includes synopses by well-known authors Presents results from a broad range of vertebrate taxa Studies were conducted at different latitudes and in different habitats

This book provides syntheses of ecological theories and overarching patterns of urban bird ecology that have only recently become available. The numerous habitats represented in this book ranges from rows of trees in wooded alleys, to wastelands and remnants of natural habitats encapsulated in the urban matrix. Authored by leading scientists in this emergent field, the chapters explore how the characteristics of the habitat in urban environments influence bird communities and populations at multiple levels of ecological organization and at different spatial and temporal scales, and how this information should be incorporated in urban planning to achieve an effective conservation of bird fauna in urban environments. Birds are among the most conspicuous and fascinating

residents of urban neighborhoods and provide urban citizens with everyday wildlife contact all over the world. However, present urbanization trends are rapidly depleting their habitats, and thus knowledge of urban bird ecology is urgently needed if birds are to thrive in cities. The book is unique in its inclusion of examples from all continents (except Antarctica) in an effort to arrive at a more holistic perspective. Among other issues, the individual chapters address the censusing of birds in urban green spaces; the relationship between bird communities and the structure of urban green spaces; the role of exotic plant species as food sources for urban bird fauna; the influence of artificial light and pollutants on bird fauna; trends in long-term urban bird research, and transdisciplinary studies on bird sounds and their effects on humans. Several chapters investigate how our current knowledge of the ecology of urban bird fauna should be applied in order to achieve better management of urban habitats so as to achieve conservation of species or even increase species diversity. The book also provides a forward-looking summary on potential research directions. As such, it provides a valuable resource for urban ecologists, urban ecology students, landscape architects, city planners, decision makers and anyone with an interest in urban ornithology and bird conservation. Moreover, it provides a comprehensive overview for researchers in the

fields of ecology and conservation of urban bird fauna.

Montane birds are sensitive to a wide variety of human activities, among which climate change is of special concern. Among the most diverse and specialized montane bird communities is that of *Polylepis* forests in the High Andes (> 3,500 m). Unfortunately, the ecology of birds associated with *Polylepis* forest, especially endemic and threatened species, remains poorly known. This gap in knowledge is worrisome given that climate models project that future conditions will be warmer and drier, which could negatively impact many of the species in this ecosystem. This research investigated patterns of species richness and bird-habitat relationships across along an elevational gradient (~3,300 - 4,700 m) and across wet-dry seasons in five valleys of Huascarán National Park within the Cordillera Blanca range of Peru. In 2014–2015, birds and habitat characteristics were surveyed at 130 point count locations and systematically observed between points during wet and dry seasons. I calculated observed and expected (Abundance–Coverage Estimator) species richness for valleys, seasons, and within 100-m elevational bands. Estimates of species richness exceed those of previous studies in *Polylepis* forest along the Andes. There was a consistent pattern of greater species richness in wet compared to dry seasons, though the pattern declined in strength with

elevation. Species richness peaked at mid-elevations (~4,000 m) for the overall bird community, while the greatest number of endemics and threatened birds were found at ~4,300 m. Polylepis forest was a particularly important habitat that seemed to promote diversity and might provide an important refuge for species in the face of climate change. ii Species-habitat associations of 50 species of birds, including 13 of conservation priority, showed that birds were associated with four habitat types. Four species of conservation priority (*Oreomanes fraseri*, *Poospiza alticola*, *Atlapetes rufigenis*, and *Cranioleuca baroni*) were strongly associated with structural characteristics of large forest patches (~10 ha) dominated by *P. sericea* (3,800 m), whereas another four (*Anairetes alpinus*, *Leptasthenura yanacensis*, *Zaratornis stresemanii*, and *Scytalopus affinis*) were associated with less disturbed forests of *P. weberbaueri* (4,200 m). Open Puna and shrubland habitats also maintained a high number of most common species. These results suggest that, although declines in species richness during dry seasons may negatively affect certain species under the projected warmer and drier conditions for this region, Polylepis forest fragments might provide important refuge or buffering against future changes in climate. Moreover, in addition to conserving and using large (>10 ha) *P. sericea* forests at lower elevations as the

cornerstone for maintaining bird diversity, any high elevation (> 4,200 m) relicts of *P. weberbaueri*, irrespective of size, should be prioritized for conservation in order to protect key habitat of threatened avian species in Cordillera Blanca. Population studies of priority bird species, combined with coordinated monitoring, will provide important insights into the response of bird populations to human activities and climatic changes and help to inform conservation of High Andean biological diversity. iii.

Biogeography and Ecology of Forest Bird Communities

Graph. Darst

How They Arise, Modify and Vanish

Restoring North America's Birds

Bird Species

Bird communities are sensitive indicators of habitat type and condition. Therefore careful ornithological surveys can provide quick, practical assessments of the ecological characteristics and conservation status of many terrestrial communities in the tropical Americas. This volume provides the data essential to the success of such surveys. It compiles, for the first time, information on the ecological and geographical distributions of all 4,037 bird species of the.

Millions of people worldwide engage in the practice of feeding birds. Although there are many purported impacts associated with bird feeding - including improved winter survival, increased reproductive success, increased

aggression, and disease outbreaks - there has been little consideration of both the human and ecological consequences of the practice from the scientific community. The majority of bird feeding takes place in urban areas, yet in situ experimental studies of the effects are extremely rare. The practice of feeding is particularly poorly studied in New Zealand. In this thesis I investigate bird feeding and its impacts in New Zealand, to determine what risks bird feeding poses to urban bird communities in this context. The study consisted of two main components. First, a mail survey of feeding practices in six cities nationwide was carried out, to quantify the current feeding practices and motivations for feeding in New Zealand and identify potential risks from typical feeding practices. Results confirmed that bird feeding is a common activity, with 46.6% of households feeding birds. Bread was most commonly provided, with an estimated 5.1 million loaves/annum fed to birds across the six surveyed cities. Two key risks identified were: 1) that introduced birds are likely to be the main consumers of supplementary food sources in New Zealand; and 2) that poor hygiene practices may contribute to transmission of disease at feeders. Second, a 2-year in situ experiment was conducted to examine the impacts of typical feeding practices on local bird community structure and disease transmission; volunteer households in urban Auckland provided food

for 18 months. The grain-based feeding regime caused a significant shift toward communities dominated by a few introduced bird species at feeding compared to non-feeding properties. House sparrow (*Passer domesticus*) and spotted dove (*Streptopelia chinensis*) particularly benefitted. There was a detrimental effect on one native insectivorous species, the grey warbler (*Gerygone igata*), which did not utilise the feeders. Disease risks were identified in feeder-visiting bird species, with all pathogens and parasite groups detected in at least one of the three focal species screened (house sparrow, silvereye *Zosterops lateralis*, and Eurasian blackbird *Turdus merula*). Feeding stations tested positive for *Salmonella enterica* Typhimurium on ~7% of occasions, confirming that structures used in feeding are a potential transmission pathway. Feeding had varying effects on disease dynamics, including no change on infectious pathogen parameters, and both positive and negative effects on parasitic infection parameters. The overall findings of this research confirm that bird feeding is a popular activity in New Zealand, one that generates positive feelings for those participating. Moreover, this research confirms that the practice of bird feeding has discernible consequences for urban bird communities. Further investigation into the effects of feeding is certainly warranted, and all conservation practitioners should take into account bird feeding as an

important driver of avian ecology in urban ecosystems.

The decline of bird species in a wide range of North American habitats—forests, prairies, shrublands, mountain regions, marshes, and deserts—has inspired two decades of intense scientific study of bird ecology and conservation. But for professional scientists and amateur birders alike, interpreting the results of these diverse studies is often complex and bewildering. This accessible book pulls together recent research on bird species and habitats to show how basic ecological principles apply in seemingly different situations. Robert A. Askins provides an engaging introduction to bird ecology and concepts of landscape ecology, focusing on such intriguing species as Bachman's Warbler, Red Crossbill, Mountain Plover, and Marbled Murrelet. Understanding the ancient landscapes of North America and how humans have changed them, Askins says, is essential for devising plans to protect and restore bird populations. In addition to such obvious changes to the landscape as the clearing of forests and plowing of prairies, more subtle changes also dramatically affect birds. Species may disappear when we interrupt natural disturbances by suppressing wildfires or trapping out beaver, or when we disrupt habitat with roads and housing developments. Askins challenges some of the assumptions that underlie current conservation efforts and offers concrete

recommendations, based on sound ecological principles, for protecting the rich natural diversity of North America's birds./div Ecology and Conservation

Ecology of Urban Bird Communities in the Chicago Area

Neotropical Birds

A Review of the Ecology and Management of Forest Bird Communities in Relation to Silvicultural Practices in the British Uplands

The Ecology of Bird Communities: Volume 1, Foundations and Patterns

This book gathers a representative sample of the relevant knowledge related to the ecology, behavior, and conservation of birds in urban Latin America. Latin America is one of the most biodiverse regions of the world, yet it is still understudied. Although it concentrates most of its population in rapidly growing cities under considerable economic, social, and environmental disparity, the study of the effects that urbanization has on biodiversity in Latin America is still insufficient. Among the best-studied wildlife groups, birds have been widely used as bioindicators in urban areas. Going from general to specific information regarding avian communities, populations, behavior, threats, and conservation issues, this book describes the state-of-the-art of avian urban ecology in the region. Such knowledge will hopefully promote the regional consolidation of the field and encourage future mechanistic studies that untangle the recorded patterns in order to have the required information to bridge the

gap between evidence-based knowledge and practice in urban systems. Thus, the information included in this document will allow scientists, students, and even decision takers to relate with the current knowledge and gaps related to the topic, providing perspective for future studies and actions.

The present book is divided into several parts. An introductory chapter serves to make the reader aware of the diversity of the subject of habitat selection in birds. Many of the various aspects of habitat selection introduced in the first chapter are developed in subsequent chapters, and thus it serves to some extent as an overview of the subject and as a "lead-in" to subsequent work.

Gambel oak (*Quercus gambelii* Nutt.) covers 3.75 million hectares (9.3 million acres) of the western United States. This report synthesizes current knowledge on the composition, structure, and habitat relationships of gambel oak avian communities. It lists life history attributes of 183 bird species documented from gambel oak habitats of the western United States. Structural habitat attributes important to bird-habitat relationships are identified, based on 12 independent studies. This report also highlights species of special concern, provides recommendations for monitoring, and gives suggestions for management and future research.

Avian Ecology and Conservation in an Urbanizing World
The Ecology of Bird Communities in Windbreaks and
Other Avian Habitats on Farms
Handbook of Bird Biology
A Descriptive Analysis

Bird Communities of Gambel Oak

Selected by Forbes.com as one of the 12 best books about birds and birding in 2016 This much-anticipated third edition of the Handbook of Bird Biology is an essential and comprehensive resource for everyone interested in learning more about birds, from casual bird watchers to formal students of ornithology. Wherever you study birds your enjoyment will be enhanced by a better understanding of the incredible diversity of avian lifestyles. Arising from the renowned Cornell Lab of Ornithology and authored by a team of experts from around the world, the Handbook covers all aspects of avian diversity, behaviour, ecology, evolution, physiology, and conservation. Using examples drawn from birds found in every corner of the globe, it explores and distills the many scientific discoveries that have made birds one of our best known - and best loved - parts of the natural world. This edition has been completely revised and is presented with more than 800 full color images. It provides readers with a tool for life-long learning about birds and is suitable for bird watchers and ornithology students, as well as for ecologists, conservationists, and resource managers who work with birds. The Handbook of Bird Biology is the companion volume to the Cornell Lab's renowned distance learning course, Ornithology: Comprehensive Bird Biology.

Urbanization, characterized by the rapid growth of human development and resource consumption, not

only replaces preexisting habitats but can also convert entire landscapes and their associated ecological services. As a result, these areas provide researchers with opportunities to study how wildlife species respond to novel habitat scenarios. In Chapter 1, we directly compared the House Sparrow's (*Passer domesticus*) success among different habitat typologies in its native and non-native distributions. We related their numbers to environmental variables describing vegetation structure, urban infrastructure, and human activity. Our results are not only consistent with previous reports but also reveal some useful insights for the development of population management tools. In Chapter 2, we assessed the feasibility of using Google Street View as an ecological tool for gathering environmental data in different urban areas and typologies. Our results provide an optimistic look for GSV's utilization as a powerful tool in the field of ecology.

Community Ecology of Tropical Birds, the tropical ecosystems is one of the most biological diverse habitats on the earth. Seventy six per cent of all centers of avian endemism occur in tropical regions and the same is true for many plant and animal communities. Birds are important component of biological diversity and their ecological, cultural, recreational and economic benefits are recognized universally. They act as vital links in many food webs and often serve as highly visible biological indicators of ecosystem health. Many bird

populations are declining all over the world due to habitat loss and fragmentation, predation, pesticide use, invasive exotic species and other factors. This book is about the ecology of tropical bird community, all together 12 chapters are described and divided into two parts. The first part of this book looks at the forest bird community including status and distribution, species-abundance relationship, seasonal changes, vertical distribution and habitat utilisation. The second part provides detailed ecology of wetland bird community. This book will be an invaluable resource for field scientist, researchers, students, and naturalists in the field of Ornithology.

Ecological Impacts of Supplementary Feeding on

Urban Bird Communities in New Zealand

Urban Bird Ecology and Conservation

The Ecology of Bird Communities

The Structure of Bird Communities in North

American Deserts

The Ecology of Bird Communities: Volume 2,

Processes and Variations

The successful conservation of bird species relies upon our understanding of their habitat use and requirements. In the coming decades the importance of such knowledge will only grow as climate change, the development of new energy sources and the needs of a growing human population intensify the, already significant, pressure on the habitats that birds depend on. Drawing on valuable recent advances in our understanding of bird-habitat relationships, this book provides the first major review of avian habitat selection in over twenty years. It offers a synthesis of concepts,

patterns and issues that will interest students, researchers and conservation practitioners. Spatial scales ranging from landscape to habitat patch are covered, and examples of responses to habitat change are examined. European landscapes are the main focus, but the book has far wider significance to similar habitats worldwide, with examples and relevant material also drawn from North America and Australia.

The two volumes of John Wiens' Ecology of Bird Communities are already recognised as having applications and importance beyond the study of birds to the wider study of ecology in general. The books contain a detailed synthesis of our current understanding of the patterns of organisation of bird communities and of the factors that may determine them, drawing from studies from all over the world. The author, however, does more than simply review recent findings in bird community ecology. By emphasizing how proper logic and methods have or have not been followed and how different viewpoints have developed historically and have led to controversy, he extends the scope of these books far beyond the study of birds. Volume 1 Foundations and Patterns explores why avian community ecologists ask the questions they do and what philosophical and methodological approaches they have used to answer such questions. Most of the book is devoted to a critical evaluation of what is known about the nature and organisation of bird communities. Volume 2 Processes and Variations discusses the way in which bird community patterns have been interpreted. This volume examines how the complexity and variability of natural environments may influence efforts to discern and understand the nature of these communities. Graduate students and professionals in avian biology and ecology will find these volumes a valuable stimulus and guide to future

field studies and theory development.
A major study of avian community ecology.
Lessons from Landscape Ecology
Why Birds Matter
Forest Bird Communities
Their Dynamics, Ecology, and Conservation
Avian Ecology in Latin American Cityscapes

Now that more than half of the world's population lives in cities, the study of birds in urban ecosystems has emerged at the forefront of ornithological research. An international team of leading researchers in urban bird ecology and conservation from across Europe and North America presents the state of this diverse field, addressing classic questions while proposing new directions for further study. Areas of particular focus include the processes underlying patterns of species shifts along urban-rural gradients, the demography of urban birds and the role of citizen science, and human-avian interaction in urban areas. This important reference fills a crucial need for scientists, planners, and managers of urban spaces and all those interested in the study and conservation of birds in the world's expanding metropolises.

Community Ecology of Tropical Birds
The Ecology of Bird Communities: Processes and variations
Diversity, Ecology, And Conservation Of Bird Communities
Of Polylepis Woodlands In The Northern Andes Of Peru