



Urban Wildlife Management

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Adam's (1994) book *Urban Wildlife Habitats: A Landscape Perspective* was an excellent source of information on urban wildlife and their habitats, but did not cover the breadth of issues needed in a textbook on the subject. With the publication of *Urban Wildlife Management*, such a book now is available.

Urban Wildlife Management was written for students in the wildlife sciences, wildlife management professionals, urban planners, and members of the general public with an advanced interest in the topic. The book contains 12 chapters organized under five sections: urban landscapes, urban ecosystems, urban habitats and hazards, sociopolitical issues, and special management considerations. More than 115 illustrations, tables, and figures complement the text. A chapter describing the need for a more direct focus on urban wildlife management and another summarizing the history of the wildlife management profession open the book. Subsequent chapters describe basic principles of urban ecosystems, wildlife use of urban green spaces, and relationships between wildlife and man-made structures (e.g., buildings, roads, towers, and bridges). Readers of *The Condor* will find these chapters of special interest for the general discussion of the ecology of birds and other wildlife in a variety of urban settings.

Managing urban wildlife is at least as much about managing people as it is about managing animal populations. Appropriately, the authors provide a thorough review of human attitudes toward wildlife. A major strength of the book is the discussion of human dimensions and the role it plays in resolving human-wildlife conflicts in urban areas. Individual chapters offer approaches to working with stakeholders in urban environments and examine the legal aspects of urban wildlife management. The ecology and management of select species, including predators, endangered species, roosting species, and feral species are presented in another chapter. These accounts were chosen well to represent taxonomic, regional, and situational variety.

One or two brief case studies are included at the end of each chapter, ranging from perspective essays by wildlife professionals to media excerpts. Although the case studies generally present an overly simplistic view, they provide an interesting connection between the themes of each chapter and the real world. Students should find these case studies especially relevant to their daily lives.

A list of references follows each chapter and, as a whole, these citations provide the most comprehensive review of the scientific literature available on the subject of urban wildlife management. Many of the literature sources relate to the relatively new ideas specific to urban wildlife management: wildlife use of cemeteries and golf courses, an assessment of the hazards that towers pose to birds and bats, techniques to mitigate the influence of roads on wildlife movements, and a description of ecosystem services generated by fish populations.

The book deliberately does not cover wildlife-human conflicts in great detail. Many other sources (e.g., Conover 2002) have reviewed these issues thoroughly. Instead, the authors discuss general

Urban Wildlife Management.—Clark E. Adams, Kieran J. Lindsey, and Sara J. Ash. 2006. CRC Press, Boca Raton, FL. 311 pp. ISBN 084939645X. \$79.95 (hardcover).

Green lawns, four-lane highways, strip malls, corporate office complexes, polluted streams, and sprawling suburban neighborhoods are just a few images that come to mind when thinking about the influence of urbanization on birds and other wildlife. Urban development is one of the leading threats to the conservation of biodiversity around the globe. In the United States, tens of thousands of acres of wildland are converted annually to urban land uses, and nearly 80% of all Americans live in urban areas. In the coming decades, wildlife management in urban landscapes likely will be the dominant focus of wildlife professionals. In response to these predictable changes in the wildlife profession, I began teaching urban wildlife management as an undergraduate elective in 2001. At the time, there was no comprehensive book that covered all of the issues related to managing wildlife in urban settings. Lowell

philosophies, including stakeholder consultation and integrated pest management, which can help minimize the chance for future conflicts. Additionally, the final chapter of the book presents detailed syntheses of the management considerations for two common offenders in urban environments: white-tailed deer (*Odocoileus virginianus*) and Canada Geese (*Branta canadensis*). These are presented as expanded case studies to provide readers with sample approaches to human-wildlife conflict resolution that can be widely applied.

By design, *Urban Wildlife Management* does not describe in detail the specific techniques (e.g., meadow restoration, rotational mowing, prescribed fire, native plant landscaping, invasive plant removals, and pond construction) that can be used to conserve wildlife in parks and other urban settings. There is limited discussion of backyard habitat improvement practices such as snag and downed wood retention, water gardens, nest boxes, or native plant landscaping. Also, there is a notable absence of specific information on the roles that neighborhood design and land use planning play in urban wildlife conservation. Progressive approaches to neighborhood design (e.g., cluster developments, greenway retention) and urban zoning (e.g., high density development) can provide significant benefits to species relatively sensitive to urban development by promoting retention of green spaces and limiting urban sprawl.

Rather than provide a detailed review of the effects of urban development on specific taxonomic groups, the authors present the basic ecological principles of urban wildlife management using a broad approach. For example, the book describes the effects of supplemental feeding on population dynamics, but

it provides only brief references to the complex effects of bird feeders on urban bird populations. There are no sections or chapters that focus on birds, bats, or salamanders. Instead, specific references to species or taxonomic groups are presented as anecdotes to support general principles. Readers should use the references cited at the end of each chapter and their own literature review to develop a more comprehensive understanding of particular habitat management practices or effects on individual taxonomic groups.

Few state or federal wildlife agencies employ biologists trained to manage urban wildlife, and few land-grant universities offer an undergraduate course in urban wildlife management. In the near future, land-grant universities will be forced to incorporate urban wildlife management into their curricula, and agencies will seek these trained professionals to direct wildlife management programs in and around urbanizing regions. This book is a "must-have" reference for these professionals and others interested in urban wildlife management.—CHRIS MOORMAN, Department of Forestry and Environmental Resources, North Carolina State University, Raleigh, NC 27695. E-mail: chris_moorman@ncsu.edu

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