Book Reviews: A Democratic Approach to Large Carnivore Conservation

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A democratic approach to large carnivore conservation


Key words: carnivores; collaborative decision making; conservation; human-wildlife conflict.

This edited volume advocates a promising approach to resolving conflicts in ecological conservation that are by no means unique to large, terrestrial carnivores in the North American West. However, these animals are a divisive and increasingly worldwide issue because they are recolonizing landscapes—via reintroduction and natural dispersal—dominated by humans. As a result, large carnivore conservation in the North American West provides an important test bed for new thinking and new methods for handling stubborn environmental conflicts. The thesis of this book is that conflicts about large carnivores ultimately stem from dysfunctional decision-making processes (governance) that are defective because they are anti-democratic, i.e., they serve special interests, not common interests. Using a series of conceptual overviews and detailed on-the-ground case studies, this book argues persuasively that coexistence between humans and large carnivores requires improved governance that is designed to mitigate rather than exacerbate conflict between people with opposing views about large carnivores.

Chapter 1 introduces the argument that better governance is vital to the survival of large carnivores. This is likely an unfamiliar perspective for many ecologists who typically think of species persistence as a fundamentally biological problem. But because conservation decisions related to threatened, endangered, and sensitive species often constrain human activities, readers are urged to recognize that the problem of species survival is as much (or more) a matter of political struggle as it is of technical fact. Stakeholders in large carnivore conservation ignore this reality at their peril because “[t]he recipe for conflict, even hatred, is potent.” To avoid this outcome, Chapter 1 argues that stakeholders must adopt a governance system that identifies and maintains common ground among the competing perspectives and demands. An interdisciplinary problem-solving framework, referred to as the “integrative approach,” is introduced as an effective way to design and operate such a system. The integrative approach is a multi-faceted construct of the policy sciences with enough jargon to distract non-experts. The upshot is that the authors of the subsequent case studies (Chapters 2–7) use the integrative approach and its terminology in a consistent fashion, which allows uninformed readers ample chance to master the new lexicon.

Chapters 2–7 are the core of this book. They describe, sometimes in unflattering detail, the gritty reality of how real people in real landscapes struggle to promote coexistence with large carnivores that kill livestock, kill big game, and ultimately challenge contemporary demands to control nature. Chapter 2 examines how management agency deference to the special interests of mountain lion hunters in Arizona alienates non-hunting stakeholders, some of whom respond with inflammatory calls to ban mountain lion hunting despite growing numbers of mountain lions and human-lion conflicts. A deeply rooted source of defective governance in this case, and many others, is that state wildlife management agencies are financially dependent on hunters, who comprise a decreasingly small proportion of the American public. This problem is explored in greater detail in Chapter 9 as part of a broader critique of the North American Model of Wildlife Conservation.

Chapter 3 describes wolf recovery in northwestern Wyoming as a social failure despite its biological success due to the absence of a decision-making process that fosters common ground among stakeholders. Although such a process may strike some readers as a pipe dream, one broadly damaging result of the status quo is the unprecedented Congressional action in 2011 that removed wolves from the endangered species list in five states: Montana, Idaho, and parts of Washington, Oregon, and Utah. Wyoming wolves were de-listed a year later in a separate process but were re-listed in 2014 in response to a lawsuit from conservation groups. Not surprisingly, Wyoming lawmakers have said they will use Congressional action to de-list the state’s wolves once and for all. Chapter 3’s analysis suggests that wolf conservation in Wyoming will remain gridlocked until stakeholders adopt a decision process that focuses less on who is right or wrong and more on melding different perspectives and developing a shared view of goals, problems, and solutions related to wolf management.

Attempts to break the cycle of conflict that characterizes wolf conservation in southwestern Alberta are evaluated in Chapter 5. Here, local collaborations of ranchers, scientists, wildlife managers, and conservation groups worked to reduce wolf predation on livestock. Although these efforts were short-lived for various reasons, they were successful in demonstrating how common ground can be nurtured among diverse stakeholders by focusing on practical problems that are of limited scope and scale. Focused problem solving is a key aspect of the integrative approach to governance because it opens the door for stakeholders to interact more civilly and constructively.

The remaining case studies examine community-based initiatives to minimize conflicts between humans and grizzly bears in Yukon (Chapter 4), Montana (Chapter 6), and Alberta (Chapter 7). Together, these chapters provide a unique and critical guide to collaborative grizzly bear management that speaks to the future of grizzly bears in North America. A central lesson is that collaborative decision making is an exhausting process with a high chance of failure because (a) its lifeblood is trust and respect, which are “exhaustible and slow to replenish,” and (b) it is easily subverted by self-interest and higher-level administrative and political powers. Indeed, the success and failure of collaborative groups in Montana and Alberta, respectively, was tied to whether or not management agencies ceded some decision-making power to the groups. The success of the Montana group is noteworthy (e.g., 93% reduction in human-grizzly conflicts) but it remains to be seen whether it can extend its record to conflicts involving wolves since some participants left the collaboration over the issue.

The next three chapters synthesize lessons from the case studies and review large carnivore conservation from a broader
Gotham unbound: four centuries of environmental change in America’s largest city


Key words: environmental history; urban ecology; urban planning; wetlands.

In Gotham unbound: the ecological history of greater New York, history and law professor Ted Steinberg intends to give a fresh perspective on the growth of New York City. As he states in the introduction, he aims to “examine how the landscape changed, who was responsible for those changes, and what environmental and social impacts grew out of them.” The book is largely a success in this regard—the broad changes in the lands and waters around New York City are well documented, key historical figures in this transformation are introduced, and some of the consequences of this development are explored.

The book is divided into four parts. The first, “Under water,” is focused on the period from 1609 to 1789, from the arrival of Henry Hudson through the Dutch and English colonial periods. The primary emphasis here is on the market in underwater land, and how the earliest European settlers built out the coastline to facilitate commerce. It is somewhat disappointing that the book barely mentions the chapter of ecological history influenced by the native Lenape peoples, but all history books must begin at some point. The arrival of Henry Hudson and the early Dutch settlers has the advantage of being a specific period with monumental importance for the ensuing transformation of the landscape.

The second part, “The great transformation,” covering 1790 to 1920, has a primary emphasis on the expansion of the city—especially the creation and consequences of the 1811 grid plan that established the street system and the establishment of water supplies from increasingly distant sources. This is the longest and, in several ways, the strongest of the sections of the book. The development of the city from a small settlement in lower Manhattan to an expansive metropolis is well documented, with both grand story arcs (e.g., the unrelenting drive to develop, the flattening of the landscape, the pursuit of an adequate water supply, the challenges of managing wastes) and numerous colorful details that flesh out those stories (e.g., the struggles of Benjamin Muillefer to blast away rocks in the East River and of James Reuel Smith to document the springs of Manhattan island before they were all buried under the sprawling city). While the main themes in this section will likely be familiar to readers, the wealth of detail provided here attests to the extensive research done by the author.

The third part, “Night comes to the marshes,” covering the period from 1900 to 1980 is primarily about the filling and ditching of marshes throughout greater New York Harbor. These marshes were filled with garbage and other waste, often in support of the development of roads and other infrastructure. Marshes were also extensively dissected with ditches as a way of reducing the nuisance and health risk of mosquitoes. This section covers the impact of Robert Moses, a towering figure in the development of the New York City landscape in the 20th century. It illustrates the plight of the marshes throughout the region, with whole chapters focusing on the Flushing Meadows in Queens, the Great Kills and Fresh Kills marshes of Staten Island, and the Hackensack Meadows in New Jersey.

The fourth part, “The green colossus,” covers the period from 1960 to 2012, with emphasis on how the environmental movement and increasing realization of limits to growth have shaped recent development. The first chapter of this section nicely contrasts a major land-making project, the creation of Battery Park City through the 1960s and early 1970s, with an even larger project, the proposed Westway, that was never built, in large part due to changing environmental laws and public attitudes in the late 1970s and early 1980s. The second chapter focuses on the balance between perceptions of New York as a modern “green city,” with the significant landscape degradation over the preceding 400 years. The final chapter focuses on natural hazards and on how these will affect the future of the city.
One striking aspect of this book is the strong bias towards marine and wetland systems—the vast majority of the pages in this book focus on the harbor and surrounding marshes. While these systems have certainly undergone dramatic change, the flattening of hills and clearing of the upland forests receive comparatively little attention. The author identifies his harbor-focused perspective right in the introduction, but this does omit a significant amount of landscape change from the narrative.

The subtitle of this book identifies it as an ecological history, but the emphasis here is very much on the whole system rather than the component parts. This book is more a story of the ecology of the city rather than ecology in the city. While certain key biotic processes are described (e.g., eutrophication, nutrient and water fluxes) and key taxa are introduced (e.g., eastern oysters, Phragmites, herring gulls), most of the biology in this book consists of short lists of species that have disappeared from one system or another to serve the broader narrative of landscape change. This is a fine emphasis for the main purpose of the book, but it also may leave readers who are interested in the history of New York City and the perils that this destruction entails for humankind. While he has a point, it would be a stronger point if the history stopped around 1970. In the years since 1970, there has been significant improvement in many aspects of the environment, such as cleaner air and water, better protection of wetlands and stewardship of parklands, extensive habitat restoration, the recovery of urban wildlife, and the mobilization of environment-oriented community groups. While the author does recognize these trends in his final chapters, he ends the book with the gloomy picture of 40 years of decline rather than 40+ years of improvements. His somewhat dystopic vision of a “Big Apple biome” in the penultimate chapter overstates the ecological case. The New York metropolitan area is highly modified from the pre-European conditions, but the majority of species and ecosystems are still present to some extent and, in some cases, are recovering. His claim that the “Big Apple Biome is, ecologically speaking, a world apart from life pre-Hudson, and there could be no turning back the clock” is unduly bleak.

In terms of production values, the book is attractively designed and easy to read. There are many useful maps created for the book, though there easily could have been twice as many, especially for readers not familiar with New York geography. Several historical maps are reproduced and, while beautiful, they are so small they are often quite hard to read. There are several appendices to illustrate some of the data, a very useful summary of sources, and extensive footnotes for those readers interested in reading further.

On the whole, this book tells the story of the development of New York City from a fresh and interesting perspective. It is based on such an impressive body of research that almost all readers will come away with new knowledge and a heightened appreciation for the magnitude of changes to land and sea that accompany the building of a modern city. Perhaps an understanding of this history will engender better management of these changes going forward into our urban future.

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**Spotlight**

**RECENT PUBLICATIONS OF INTEREST**

Bouchard, Patrice, editor. 2014. The book of beetles: a life-size guide to six hundred of nature’s gems. The University of Chicago Press, Chicago, Illinois. 656 p. $55.00 (cloth), ISBN: 978-0-226-08275-2 (alk. paper); $33.00 (ebook), ISBN: 978-0-226-08289-9. After 30 pages of introductory text and figures, over 600 species of beetles are described with photos, range maps, and a paragraph about their biologies. Species were selected on the basis of the following criteria: scientific significance, odd natural history, cultural significance, economic importance, conservation status, and unusual morphological adaptations.