

# Publications

**Cougar: Ecology and Conservation** edited by Maurice Hornocker and Sharon Negri (2009), 304 pp., The University of Chicago Press, Chicago, USA. ISBN 9780226353449 (pbk), USD 49.00.

Carnivores in general, and large felids in particular, are amongst the most threatened mammals (Ceballos et al., 2005, *Science*, 309, 603–607). Because felids are in direct conflict with humans for space and food, rising human populations and their increasing mastery over nature now threaten all large cats. The plight of the cougar, the new world counterpart of the adaptable leopard of Asia and Africa, is no exception. Despite possessing a wider geographical range, which is far less densely populated by humans than that of the leopard, the cougar is still in trouble, partly because it has to contest human cultures that are much less tolerant of predators while being technologically more capable. This impressive volume on ecology and conservation of the cougar—the most well studied of all big cats—therefore holds valuable lessons for all those who are struggling to conserve other large carnivore species.

The authors of the various chapters, led by pioneer Maurice Hornocker, have impeccable credentials to deal with their assignments. As a result the goal of providing researchers and conservationists with the essence of studies on cougars, which are scattered in scientific journals, has been ably met. Even the technical text is lucid and readable, as is the foreword written by Alan Rabinowitz, the ultimate brand ambassador for felids.

The book is divided into four Parts, each beginning with short evocative essays, one each by Hornocker, Kerry Murphy, Linda Sweanor and Harley Shaw. Part I summarizes the history of modern wildlife research on cougars. The first chapter is a wonderful personal narrative of how Hornocker, together with a tough bunch of hunters and woodsmen, initiated chemical capture of cougars in the 1960s, marked them with tags—and incredibly by today's standards—how all subsequent data of cougar locations came by harrying the tagged cat into a tree, with hunting dogs, so that the tag could be read! Then came radiotelemetry: Hornocker's disciple John Seidensticker was the first biologist to track cougars non-invasively using this method. Part I also contains an excellent summary by Bruce Gill on the evolving American

conservation ethos, starting with rapacious exploitation of nature, to Aldo Leopold's land ethic and eventually to preservation centered societal values by the late 1960s. But by then the cougar had been wiped out from most of the eastern USA! A chronicle of how cougar research developed (Harley Shaw), an essay on taxonomy and evolution (Melanie Culver) and an excellent account of management of wild cougar populations in North America by Charles Anderson, Fredrick Lindzey, Mark Boyce, Kyle Knopff and Martin Jalkotzy complete this Part.

Part II focuses on cougar population ecology and predatory behaviours. These chapters present core findings of modern ecological research. Subjects covered include population dynamics (Howard Quigley and Hornocker), followed by chapters on cougar ecology in tropical forests (John Laundre and Lucina Hernandez) and temperate habitats (Susan Walker and Andre Navarro) in Latin America. Part III focuses on ecological relationships among cougars, their principal prey and other competing predators. Kenneth Logan and Linda Sweanor cover social organization, followed by Kerry Murphy and Toni Ruth, who have written three back-to-back chapters covering diet/prey selection, predator: prey relationships, and interactions between cougars and other predators. Both Parts I and II are substantial, with as much meat as any predatory reader could desire.

Part IV brings back the human element: cougar coexistence with humans and conservation issues. Paul Bier has written an excellent chapter on the conservation value of cougars, Linda Sweanor and Kenneth Logan write about cougar-human interactions, David Mattson and Sue Clark deal with the politics of cougar conservation, and Sharon Negri and Howard Quigley provide an account of civil society groups furthering cougar conservation. Hornocker wraps up the book with an ardent plea for rational action to recover the ground for cougars. The book is data-rich, with five useful appendices covering genetic techniques, cougar hunting records, lists of conservation advocacy groups, and summaries of litigation and political initiatives affecting cougar conservation.

Although to some extent deficient on coverage of cougar ecology in the tropical Americas (no doubt because of paucity of comparable research) and on application of modern population analyses to cougar population or spatial data (e.g. Williams

et al., 2002, *Analysis and Management of Animal Populations*, Academic Press), I believe this volume is an outstandingly useful compilation. It fully meets Mao Zedong's cardinal principle, approvingly quoted by the editors in the preface: 'All genuine knowledge originates in direct experience'. Theory and practice of cougar science and conservation are well-blended in this volume, which is essential reading for anyone seriously interested in large carnivore conservation.

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**Ecological Restoration: A Global Challenge** edited by Francisco A. Comin (2010), xxv + 291 pp., Cambridge University Press, Cambridge, UK. ISBN 9780521877114 (hbk), GBP 45.00/USD 78.00.

The issue of scale is fundamental to ecology and conservation biology and scaling up is particularly important to the latter. As scientists continue to identify and refine tools and techniques for addressing the biodiversity crisis, they look to deepen their impact by working at increasingly broader scales. Studying and implementing ecological restoration techniques at local scales alone is a difficult task, given the challenges of bounding ecological systems, identifying appropriate targets, effectively measuring results, and generalizing from one system to another. Scaling up from local to regional or global levels adds even more complexity. The global arena for restoration ecology is the focus of this volume, edited by Francisco Comin and with chapters authored by a who's who in the field of restoration.

The book is divided into two major parts: the first outlining global perspectives and research and the second focused on practical applications at the global scale. Comin sets the stage in the first chapter by emphasizing why action needs to take place on the global and not just local or regional scale. While he provides more of a general overview of restoration ecology than specifics on global-scale restoration, he clearly articulates the underlying socio-ecological concerns. Chapter 2 addresses the global carbon cycle, laying out our current