

The Canadian Field-Naturalist

Book Reviews

Book Review Editor's Note: *The Canadian Field-Naturalist* is a peer-reviewed scientific journal publishing papers on ecology, behaviour, taxonomy, conservation, and other topics relevant to Canadian natural history. In line with this mandate, we review books with a Canadian connection, including those on any species (native or non-native) that inhabits Canada, as well as books covering topics of global relevance, including climate change, biodiversity, species extinction, habitat loss, evolution, and field research experiences.

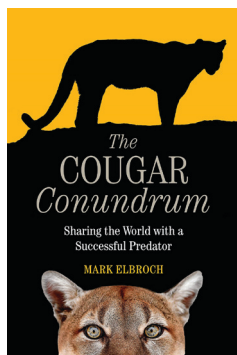
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BIOLOGY

The Cougar Conundrum: Sharing the World with a Successful Predator

By Mark Elbroch. 2020. Island Press. 272 pages, 30.00 USD, Paper.

In *Cougar Conundrum*, author and Cougar (*Puma concolor*) biologist Mark Elbroch describes how to live successfully with a predator that has restored itself to much of the west and is slowly moving east as it recolonizes parts of the Great Plains. Having studied Cougars in many areas—most recently finishing up a long-term study in Wyoming—the author is certainly the perfect person to weave in biology, politics, and commonsense when describing how to coexist with an animal who “lives among us like ghosts” (p. 217). The book was an easy read (I finished it in 1.5 weeks while working full time) and is perfect for wildlife biologists, the general public, and nature enthusiasts, especially those who want to learn how to live successfully with a large carnivore that has been given an unduly bad rap for being dangerous around people (Chapter 1). Elbroch overwhelmingly hopes we choose a peaceful coexistence (p. xxiv) with an ecologically important animal (pp. 156–161) that is relatively common where it currently lives. Despite more Cougars and people on the landscape, there are less than a handful of attacks per year (p. 32) which is much fewer than the number of cows and dogs that injure humans (p. 31). And this is ultimately the conundrum that Elbroch discusses throughout the book; i.e., should Cougars be protected, especially in a human-dominated world,



as their population and range expand as they recover from persecution that mostly ended in the 1960s?

There are nine chapters after a 13-page Preface that sets the stage for the rest of the book. Elbroch makes it clear that facts are needed to help lions (p. xvi), as they are often called, in addition to Puma, Cougar, Mountain Lion, panther, mountain screamer, painter, and red tiger, just some of the more than 80 names for this animal that has the largest range of any terrestrial mammal in the Western Hemisphere (p. xiii). This book is important in the age of social media when extreme voices are often heard. I especially like how Elbroch weaved in personal accounts of individual researchers and Cougars to illustrate actual Cougar behaviour. We are taken from urban regions around Los Angeles, the outskirts of Jackson Hole and Grand Teton National Park, Wyoming, and to the swamplands of Florida where the only population of “panthers”, as they are called in that region despite there being no records of a black Cougar ever having been recorded anywhere (p. 10; FYI: a black panther is either a black Leopard [*Panthera pardus*] or Jaguar [*Panthera onca*]). While all of these anecdotes were most interesting, I had heard of many of them from other sources (e.g., p. 22, the Hollywood Lion). What especially fascinated me, however, was reading Elbroch's accounts of wild Pumas in southern Chile being used as a tourism magnet (pp. 19, 201), an important economic asset in Patagonia where they are viewed like Bison or bears in Yellowstone National Park; that is, locally common and very visible (p. 21). Elbroch provides photographic proof of wild Pumas in those regions who behave much differently than an

average Cougar in North America which many people will never observe even if they live in lion country. However, Elbroch does recount an event from 1999 on the National Elk Refuge, Wyoming, where a Cougar family (mother and three kittens) was watched by some 15 000 people over 42 days, demonstrating the importance of direct experience to speak to the hearts and minds of people and the potential for wildlife tourism in more places in this country (pp. 145–146).

In the first half of the book, Elbroch documents how Cougars are not dangerous animals but rather are ecologically important. He provides husbandry strategies, like corralling livestock in high risk areas, to avoid negative interactions with these cats. We learn that a miniscule 0.01% of cattle in the U.S. are killed by Cougars (p. 62) and even that is often an exaggerated and inflated value in a corrupt system that often determines kills made by “crediting” Cougars for killing cattle where the cats don’t even live (p. 62). While misinformation fuels fear (p. 63), we also learn that hunting Cougars does not help livestock and that reimbursement programs are more effective than killing the cats (p. 70). This might sound counter-intuitive, but it is due to Cougar behaviour. As adolescents move into the territories of larger males that are killed by hunters, they often cause more problems and are more apt to kill livestock (pp. 70–72) and possibly even attack more people because they are less experienced (p. 150). These facts highlight the importance of biologists providing accurate information on a species even when wildlife agencies try to cover up the effects of hunters, which Elbroch documents in numerous sections of the book (e.g., pp. 42–46, 150).

In the second half of *The Cougar Conundrum*, we delve into more specific chapters that fascinated me. In Chapter 5, The Great Hunting Debate, we learn how wildlife agencies try to silence those against Cougar hunting, mainly because they have different worldviews (p. 100). And therein lies another conundrum: Elbroch makes clear that hunting Cougars is not a threat to their long-term survival (pp. 118, 204), but we should limit it to ensure ecological and social integrity (pp. 111, 119) as human hunting clearly has the greatest impact on Cougar survival (p. 102). There is evidence of overhunting that should guide managers to lower quota numbers even if not dire to their long-term existence (pp. 108–110). For instance, he describes places like Washington State that has low quotas in small management areas so as to not over-kill adult resident Cougars (see Beausoleil *et al.* 2013). A direct result of Elbroch’s research has been the suggestion that delaying Cougar hunting until 1 December, when most females have mobile kittens, should reduce cub orphaning (p. 206). The discussion on hunting was relevant to my research with Coyotes

(*Canis latrans*) as he described the resilience of both species (p. 104) and how a carnivore’s ecological importance and social bonds are rarely, if ever, considered in their management. The importance of individuality in Cougars (p. 116) was also noted and how they feel pain, exhibit fear and affection, and have close bonds with each other (p. 117), which are not even acknowledged by wildlife managers. The author went into great depth about the bias of wildlife agencies and how they are non-inclusive. A key component to the conundrum is to increase inclusivity in decision-making (p. 167) by involving non-hunters and other demographic groups as there is an obvious bias toward conservative white males (p. 155). I also learned in the second half of the book that not all hunters are the same and that wildlife advocates should work with, rather than against, certain hunting groups, most notably houndsmen who often want to lower quotas and battle against Elk (*Cervus canadensis*) and other ‘big game’ hunters who want more Cougars killed. In fact, there isn’t another hunter-led advocate group for any other carnivore species besides houndsmen (p. 153), in part because they can chase and “catch” (i.e., tree) Cougars then walk away without killing them (p. 155).

The most anticipated chapter for me was Lions on the Eastern Seaboard (Chapter 6). In this section, we find that Cougars are most definitely moving east, with the nearest populations in South Dakota and Nebraska, but at the rate they are colonizing new areas it would take them about 300 years to reach the eastern United States (p. 130). Elbroch discounts those who believe there are resident Cougar populations in the East outside of the couple hundred “panthers” living in south Florida (p. 134). Importantly, Elbroch describes how there never was an “eastern cougar” as all lions in North America belong to the same subspecies (p. 131). This is actually a good thing as it could pave the way to reintroducing them (p. 132) from other source populations (e.g., Florida, South Dakota, Nebraska) and accept migrating Cougars as native to the region (e.g., Way 2017).

The overarching theme of the book is improving tolerance for large carnivores (p. 140). Elbroch highlights the contributions that carnivores make (p. 139), such as the potential to save millions of dollars and hundreds of human lives if Cougars returned to the East and even somewhat reduced White-tailed Deer (*Odocoileus virginianus*) numbers (pp. 142–143). He also suggests that more research describing their ecological benefits needs to get out to the general public to improve peoples’ acceptance of living with Cougars (pp. 157, 160; but see p. 184).

Elbroch concludes the book by modelling how wildlife management can be revised to be more in-

clusive and a better representative of democracy in managing public trust resources. He establishes quite clearly that hunters are prioritized over all other stakeholders (p. 170) and agencies even brazenly exclude the non-consumptive public from decision-making despite being the vast majority of Americans today (p. 176). Part of this issue is the fact that hunters fund a large percentage of the budget of state wildlife agencies even though they do not fund conservation more broadly (p. 177). This funding scheme is purposeful for hunting groups fear losing power (p. 178); e.g., the National Rifle Association has stymied any attempts of inclusiveness (p. 183). All of this affects the Cougar conundrum with more lions dying at the hands of entrenched stakeholders who want fewer predators on the landscape. This bias is so prevalent, in fact, that it even affects research where studies that emphasize conservation or ecological importance are denied or forced to be revised (p. 184). I find this astounding, but sadly true, in 2020 when science is supposed to be a core tenet in wildlife management. Elbroch also critiques the North American Model of Wildlife Management (NAM) for doubling down on hunting and maintaining the status quo (pp. 185–186). The author exposes Cougar hunting (and carnivore hunting in general) as violating most of the core tenets of NAM and concludes that to embrace NAM is to go backwards from being inclusive (p. 194). Rather, wildlife commissions need representation from non-consumptive users (p. 210), and proposals such as the Teaming with Wildlife legislation should be reintroduced to Congress (p. 211).

In *Cougar Conundrum*, non-hunters don't get off scot free either. As a biologist, Elbroch is sort of in between hunters and state wildlife agencies on one side and non-hunters and wildlife advocates on the other. He blames non-hunters for not participating in wildlife issues and being spectators, such as adding frown emojis to social media posts (p. 212), rather than truly participating in wildlife management. Ultimately, he concludes that all these stakeholders need to work together, for Cougars enhance our lives and are evidence of true wilderness (p. 218). We aren't as different from each other as we think:

Not all mountain lion lovers are anti-hunting, anti-guns, liberal, vegetarian city slickers who drive Priuses, and not all hunters are conservative ranchers who kill African lions in canned hunts, drive big trucks, drink cheap beer, and shoot anything that moves. (p. 211)

We have an amazing opportunity to witness the restoration of a native carnivore to its former range which will improve our continent's ecological resilience and build bridges among people of different backgrounds (p. 217).

Overall, this is an important book that is well written, has few errors, and contains some great black and white pictures and graphs to illustrate Cougars and their ecology and behaviour. Many books written by biologists lack discussion about the ethics of killing sentient large carnivores which are ecologically important, and are social, sentient, family-oriented animals which regulate their own numbers by defending territories (Vucetich and Nelson 2014). I was pleased to read this balanced book that put the onus on state wildlife departments to be more inclusive and recognize the importance of predators like Cougars. I can't read enough about Cougars and dream of the day when they are restored to the Northeast United States where I reside! This book will hopefully take us one step closer to that goal if enough citizens and wildlife managers get their hands on it and act on its premises.

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JONATHAN (JON) WAY

Eastern Coyote/Coywolf Research,
Osterville, MA, USA