## Paradise Found: Nature in America at the Time of Discovery

Steve Nicholls. 2009. University of Chicago Press, New York and London. Pp. 536. ISBN10: 0226583406 ISBN13: 978-0226583402.

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Paradise Found is in the tradition of popular works in environmental history. Similarly themed titles are Farley Mowat's Sea of Slaughter (1984) about the North Atlantic, Jon Coleman's Vicious: Wolves and Men in America (2004), and Andrew Isenberg's The Destruction of the Bison: An Environmental History, 1750-1920 (2000). Each of these books presents a significant discussion of social and economic factors and how these impact the interaction between European invaders of North America and the abundant fish, wildlife, and botanical resources that were present in America at "first contact."

A somewhat similar genre of books about environmental history fall into a category that could be described as "What was the role of Indigenous North Americans and were they really conservationists?" These include J. Donald Hughes North American Indian Ecology (1996) for the defense; for the prosecution, Shepherd Krech's The Ecological Indian (1999); its academic spawn, Charles Kay and Randy Simmons' Wilderness and Political Ecology: Aboriginal Influences and the Original State of Nature (2002); and Michael Harkin and David Lewis' Native Americans and the Environment: Perspectives on the Ecological Indian (2007).

What is both impressive, and at times overwhelming, is that in *Paradise Found*, Steve Nicholls attempts to cover all of the ground covered by all of these books along with a number of other topics. His goal is apparently to provide a complete overview of the impact of Europeans upon fish, wildlife, waterfowl, forests, grasslands and virtually any other aspect of conservation and resource management in North America, while at the same time discussing the impacts of Indigenous hunters and gatherers on these same resources.

Given this ambitious goal, it is amazing that Nicholls succeeds for the most part, providing a comprehensive discussion of European folly, while also trying to address the role of Native Americans as resource managers. In my view, he is much more successful in the former than the latter, largely because he relies heavily on the approaches taken by most of the authors in Kay and Simmons (2002) and Harkin and Lewis (2007), who contend that Native peoples were largely ignorant of conservation practices and may have done considerable damage to plant and animal populations.

One major point that Nicholls emphasizes repeatedly is that upon arrival in the Americas, Europeans and their descendants viewed the fish, wildlife, and forests of North America as too abundant and diverse to even fathom. To many readers this might seem contradictory to the idea that Native peoples had caused damage to these resources, however, the "realist" crowd has an explanation already prepared, i.e. that Indigenous populations had been so devastated by introduced diseases that all of the fish and wildlife had recovered from the presumably, much lower numbers in which they had existed prior to the arrival of Europeans.

Ironically, to the Indigenous reader, this model of large Indigenous populations that had major impacts, is actually preferable to the alternative, i.e. that there were so few indigenes and they lived so lightly on the land that they had no discernable impact, which creates a romantic notion of these people as "natural conservationists" (e.g., Hughes 1996). There is, however, a third alternative, i.e., that Indigenous peoples did in fact have major impacts, shaping landscapes through the use of fire, and taking substantial numbers of fish, birds, and mammals to support their ways of life, without causing serious damage to either populations or ecological communities.

Where I depart from Nicholls is that he falls into what I consider the "Krech trap," i.e., he questions if populations of Indigenous people were large enough to have a significant impact. Many contemporary scholars have now accepted that Indigenous numbers were much larger than the roughly two million, that has long been anthropological dogma (Mann 2005). This in turn leads to the conclusion that these peoples must have had major impacts, and thus, were not good ecologists (Krech 1999), conservationists (most papers in Harkin and Lewis 2007), or resource managers (several papers in Kay and Simmons 2002). This pattern of thought seems to emerge from an assumption that all human beings operate from the same set of concepts, and because most of these investigators are of Western European ancestry, they assume that those concepts emerge from Western civilization.

Nicholls presents a relatively comprehensive response to this conundrum. He argues that, "The bottom line is that people, like all animals, are concerned first with their ultimate survival and then with garnering as many resources as they can to make their future as secure as possible" (p. 450). He goes on to admit that, "...the 'discovery' of America was in reality a clash of two very different cultures" (p 450). This would be fine if he did not then proceed to argue that, "many of the most extraordinary spectacles witnessed by explorers and settlers could have been the result of the demise of Indian populations. Released from hunting, animals as varied as fur seals, passenger pigeons, and bison bounced back to enormous populations" (p. 451, emphasis added). Please note that "could have been" in the first sentence metamorphoses into a definite causal relationship by the second. There is virtually no evidence that tribes heavily exploited Passenger Pigeons. Fur seals are slow breeding creatures, producing only a single offspring at a time and they also show delayed maturity. In consequence, fur seals are not capable of rapid recoveries, even under a well-designed management plan developed through international cooperation between Canada, Japan, Russia and the United States. As far as Passenger Pigeons are concerned, no avian population ecologist has ever attributed their extraordinary numbers to a rebound from Indigenous exploitation. The inclusion of bison seems to be reworked from Isenberg (2000), which is a good and thorough evaluation of the issue. Isenberg argues that bison populations appeared to be most dense in boundary areas between tribes where hunters only ventured when availability of bison was low.

Nicholls' descent into the Krech trap is unfortunate, because *Paradise Found* is probably the best book ever written on the history of nature in North America after the European invasion. Nicholls is a trained

entomologist, with a PhD from a good British university, and understands that a large part of the problem arises because democracies operate on short time frames and that free markets may be great at setting prices but they are terrible at recognizing and assessing costs. In contrast, ecology and evolution operate over long time scales and costs are constantly assessed. What Nicholls fails to understand at a deep level is that tribes did not function as democracies and that they specifically planned for long timescales, which is the basis of the idea of assessing the impact of your actions on seven generations (Pierotti Indigenous peoples knew they lived in environments that were constantly changing and that animal populations could go into precipitous declines. These declines could be exacerbated by selfish behavior on the part of hunters, therefore rituals and ceremonies were developed to minimize the chances of showing disrespect to prey and prey populations (Pierotti 2010, 2011).

Another factor, which for political reasons often goes unmentioned, is that Indigenous Americans were very aware of the possibility of extinction, especially at the local level. Regardless of their role in the decline of the Pleistocene megafauna, it is virtually certain that the ancestors of today's tribes witnessed the disappearance of these species. What is remarkable, is that over the last several thousand years; no further species went extinct until Europeans arrived, including primary targets of Indigenous hunters, such as caribou, bison, moose, white tailed deer, pronghorn, etc. (Pierotti 2011). This suggests that Indigenous people developed very effective means of regulating important resources and that as a rule, not only did they try to avoid "garnering as many resources as possible," as stated by Nicholls (p. 450), but also that they had specific behavioral traditions built into their cultures to minimize the chances of damaging resources and the Tragedy of the Commons.

As mentioned above, *Paradise Found* is a remarkably comprehensive book. It starts off discussing the northwestern Atlantic and the destruction of whale populations and major fisheries, including cod and Atlantic salmon. This discussion is distinguished largely because it does not attribute the large populations of marine organisms to the absence of Indigenous peoples. This section, which makes up the second through the fifth chapters, is very reminiscent of Mowat's *Sea of Slaughter*, which is to say that is depressing and hard to read, even though almost all of what it describes is clearly true.

Subsequent chapters deal with mass slaughter of waterfowl and other birds, including the extinctions of the Passenger Pigeon and Carolina Parakeet. After this we are treated to extensive documentation of the destruction of furbearer populations, freshwater organisms, and many other species. This can all be depressing, but it is a good source of material. Finally Nicholls finishes with chapters on the destruction of the bison populations of the plains and on the European War against the Grey Wolf. The final chapter titled *A New World* presents a relatively hopeful outlook and a decent summation of current issues and possible solutions.

I would like this book much better if Nicholls had avoided taking such a Eurocentric approach and showing a schizophrenic attitude towards Indigenous peoples and their activities. For example, we are told on page 117 that, "A wilderness like this is no place for civilized people' (emphasis added). On page 114 Nicholls speculates that bison were only able to colonize the eastern forests after the Indigenous populations "demise'. On page 118 we learn that Squanto supposedly learned about fertilization of crops from Europeans, rather than the other way around. Like Krech. Nicholls vacillates constantly concerning the size of Indian populations and their impacts, and this weakens the book.

This book does have many strong points, including its emphasis on the ecological roles of many of the forms of wildlife. Nicholls understands science and knows how to describe phenomena effectively. This might explain why he is less effective at understanding the beliefs and traditions of the tribes. For example he discusses the "keepers of the game" concept (p. 175), but follows the line that these were spirits, rather than accounts of actual extraordinary individual animals (see Pierotti 2010). Europeans always struggle with the link between spiritual practices and scientific knowledge, largely because their own religious traditions separate humans from nature (Pierotti 2011).

To me one of the strongest and most insightful aspects of *Paradise Found* is a discussion of how limited and limiting the views of conservationists can be (p. 240-241). Nicholls also has an insightful piece on the Jesuit priest, Juan de Acosta, who accompanied Cristobal Colon, and wondered why there were "no records of jaguars, raccoons, and guanacos among the inhabitants of the ark" (p. 253).

It is obvious that I have mixed feelings about *Paradise Found*. At one level it is truly comprehensive text that discusses a wide range of topics considering

the relationship between Europeans and nature on the North American continent. Unlike some other authors on this topic, Nicholls addresses and engages with how these impacts are related to the impacts made by Indigenous peoples. It is probably unfair to hope that Nicholls would be more than simply another European scholar and had carefully thought about the relationship between Indigenous people. It is good that he avoids describing Indigenous peoples in the romantic clichés employed by some authors, but as a British ecologist he assumes that Europeans and Indigenous people are much more similar than they are and that both fall into the same economic roles.

Overall, I recommend this book to anyone who is interested in the history of European attitudes towards American nature, but it must be kept in mind that it only tells part of the story well. Other voices that are not heard in Paradise Found are those of the animals themselves. One thing I always point out to my classes is that with a few exceptions, such as Passenger Pigeons and Steller Sea Cows, the vast majority of species that were here when Europeans arrived in the Americas are still here, and they are capable of recovering their numbers and living alongside humans, if humans are willing to have them as neighbors. They learned these lessons from thousands of years of coexisting with Indigenous population and if we are willing, all of these survivors may vet be seen in substantial numbers.

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