The Secret World of Red Wolves: The Fight to Save North America's Other Wolf

By T. DeLene Beeland. 2013. University of North Carolina Press, Chapel Hill, NC, USA, 27514-3808. 272 pages, 28.00 USD, Cloth.

As I sit on the shoreline of Washburn's Island just off the southern coast of Cape Cod, Massachusetts, during a weeklong camping trip in the late summer heat, I take a pause from reading The Secret World of Red Wolves. I daydream of wolves that may have formerly roamed this small island and the tracks and howls of the coyote-wolf hybrids that currently call this place home. These animals are typically called eastern coyotes but I prefer the term coywolf to better describe the hybrids that live throughout the northeastern United States. Personally, I am amazed by how much the red wolf looks like the coywolves that I have studied in Massachusetts for the past 15 years, which shouldn't be too surprising since they have similar DNA. The coywolf arose as part of a hybridization episode that took place about 100 years ago between the medium-sized eastern wolf, which may be the same species as the red wolf but lives about 1000 miles away, and western coyotes just south of Algonquin Provincial Park, Ontario. I am amazed at how adaptable and flexible the genus Canis is as this hybrid canid has successfully colonized the entire northeast U.S., including here on Cape Cod, whereas neither of their parent species has been able to get a toehold in the same area.

The Secret World of Red Wolves is a very important addition to any wolf aficionado's library and is easily the definitive and most complete book written on the subject. It does an admiral job of summarizing the red wolf from its origins to current research, explores efforts to re-establish this carnivore, and even considers future threats to the species. The book is divided into three major sections and at the end of each chapter, Beeland provides great transitions which make for an engaging, turn-paging read! This book will appeal to wildlife professionals, field biologists, conservation students, animal lovers, and anyone interested in North America's fauna, including layman readers, as it is very easy to read.

The first section, The Red Wolf Today, nicely describes the efforts to re-establish a population of wild wolves in northeastern North Carolina. Written in first-person narrative, it brings a boots-to-the-ground style to the book as the reader learns first-hand of current restoration efforts in the Red Wolf Recovery Area (RWRA) where a wild population of about 100 red wolves currently lives. We meet the red wolf biologists and some of the red wolves themselves, and learn how hybridization with coyotes and human-caused mortality severely threaten this endangered species. We find out about the amazingly intensive hands-on management where each wolf is certified as a wolf or potential coyote × red wolf cross, and how biologist manage to minimize the influence of coyotes which have colonized the region and readily hybridize with the closely-related red wolf. Descriptions of sterilizing and releasing coyotes, and tracking them and their red wolf "friends", make for engaging reading and remind me of some of my experiences radio-tracking coywolves in Massachusetts. Field biologists will readily relate to the scenes where Beeland describes the day-to-day work of tracking, radio-collaring, and monitoring wild canids, while layman readers will gain greater insight into wildlife research and red wolf behaviour. Finally, a black and white photo gallery nicely separates sections one and two (and also parts 2 and 3) and shows the reader what red wolves look like.

The second section, The Red Wolf Yesterday, succinctly explores the background of the red wolf and how it was saved from extinction. We learn about some of the early biologists and trappers that literally captured each known remaining red wolf from the wild, and brought them into captivity to be bred. While many canids were captured, only 14 pure red wolves with no known coyote ancestry eventually contributed to the breeding program. The offspring of these wolves eventually formed the seed to re-establish the wolves eloquently described in part 1. In part 2, we also learn of the scientific debate among biologists of just what the red wolf is. Beeland outlines the two top competing models of red wolf origins, the first being that they arose as hybrids between coyotes and gray wolves, and the second being that they represent an offshoot from a shared lineage with coyotes. Like Beeland, I subscribe to the shared-ancestry theory where red wolves and eastern wolves (currently living in southeastern Ontario, Canada) are the same or very closely related species, and in which both are very closely related to coyotes. It makes the most sense as they are the only wolves that mate with coyotes; even small gray wolves do not. In fact, red and eastern wolves could be thought of as coyote-like wolves that evolved in eastern North America, while coyotes developed in the central part of the continent, and gray wolves crossed the Bering Land Bridge to populate most of North America outside of the East. The relatively recent degradation of habitat and decimation of wolves has allowed coyotes to colonize the East and interact (i.e., hybridize) with their closely related brethren.

The last section, The Red Wolf Tomorrow, describes current threats to the long-term survival of red wolves which includes pressing issues surrounding hybridization and human-caused mortality, and sea-level rise due to climate change. It is depressing to me how most state wildlife departments treat coyotes (and predators in general) so poorly, and the state of North Carolina pathetically allows these animals to be slaughtered year-round and now even at night. A lawsuit temporarily prevented this from happening within the RWRA,

but there is ongoing litigation to prevent an open daylight and night season on coyotes within the RWRA. While there are ethical and biological problems with allowing this to occur on a common yet ecologically important species, especially without addressing any specific management outcome, Beeland also exposes the problems of how the visual similarity between some red wolves and coyotes results in the open season on coyotes leading to red wolves also being shot. She documents the actions of people who reportedly said "I thought I killed a coyote" when it was actually a red wolf they shot, and how they only get a slap on the wrist and are not prosecuted for violating the law. This is criminal in my opinion, yet also occurs in the northeast U.S. when eastern wolves are killed by "coyote" (really coywolf) hunters in New England and New York. Part 3 concludes with a chapter on climate change, which reveals a sobering reality of the pervasive effects that humans have had on the world. While the far eastern coastal location of the RWRA was partly selected for in 1987 because no coyotes lived there at the time, it is now battling ever rising seas. This was the grimmest and most sobering chapter in the book, in my opinion, as the question is not will red wolves lose habitat due to rising sea levels in the future, but how much will they lose?

I believe that the success of the recovery program will centre on fully protecting both red wolves and coyotes within the RWRA in order to reduce red wolf deaths and hybridization episodes, which has been found to be closely linked to human-caused red wolf mortality. Similarly, there has been tremendous success of establishing a buffer (i.e., no hunting) protection zone of all canids around Algonquin Park which has reduced eastern wolf mortality and hybridization with coyotes in and around the park. If there is one thing I believe the book missed, it would be a stronger call to suggest this protection requirement and to urge the state of North Carolina to not willingly neglect its responsibilities for protecting this unique canid. I believe that federal law should force the state to protect all Canis in the recovery area and beyond through a similarity of appearance clause which quite simply means that because coyotes look so similar to red wolves both need to be protected to prevent red wolves from getting killed. We owe them at least that much.

Hopefully with a reduction of human-caused mortality in their recovery area, red wolves can hold on as a species in northeastern North Carolina similar to eastern wolves in Algonquin Park. And outside of that zone red wolves and coyotes would be left to their own devices to sort out what kind of canid is best able to thrive in a human-dominated landscape similar to how the coywolf that I study in Massachusetts formed in southern Ontario about a century ago. How hard is it for us humans to step back and watch this evolutionary process unfold without unneeded management, or killing, of these awesome and important animals?

Overall, readers will find this treatise to be an easy-to-read page turner that is a timely and a welcomed book on 'North America's other wolf'. The story of the red wolf was waiting to be told, as Beeland accurately puts it on page 229, and it is a fine story at that. Readers will have a much better appreciation for the red wolf and hopefully new conservationists will champion the recovery of this species; they certainly need it.

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