

Beyond politics – the science behind gray wolves

By BROOKE KANSIER



Image: National Wildlife Federation

LANSING — Over a hundred years ago, gray wolves roamed North America from Maine to California. With numbers likely in the hundreds of thousands, the top

predator had a large impact on its surroundings, from controlling deer population to altering the behavior of other species such as coyotes.

But during the 1800s and 1900s, this keystone species began to clash with another predator — the humans who increasingly inhabited the land. People significantly reduced wolf populations as they competed for food and threatened livestock, according to Leah Knapp, an ecologist and professor at Olivet College.

It's a clash that particularly resonates today, as politicians, activists and hunters fuel heated debates on the current state of the species' endangered status.

By the early 1970s, the wolf population was so depleted that the federal government had to step in to protect remaining wolves under the Endangered Species Act. The law, enacted in 1973, helped wolves recover from numbers as low as six residing solely in Michigan's Upper Peninsula in the 1960s, to current numbers in the state approaching 700.

These numbers have been enough to prompt some lawmakers and state and federal agencies to call for removing the gray wolf from protection. The public debate has been largely political, but many biologists say that science has to be the deciding factor.

“If we’re just talking wolves, I believe the wolves in the Great Lakes states are a viable population,” said Brian Roell, a biologist at Michigan’s Department of Natural Resources (DNR). “I think a fragile status for them is a twist of the truth.”

Others, however, cite the Endangered Species Act’s requirement that a species recover not only in numbers, but that it be returned to a significant swath of its historic range — the area the wolves inhabited before clashes with humans.

“Scientifically, wolves have not recovered because they have not returned to a significant portion of their historic range,”

said Adrian Treves, an associate professor of environmental studies at the University of Wisconsin-Madison.

Treves and Knapp are among 50 wildlife biologists and scientists who signed a recent open letter urging Congress not to alter the Endangered Species Act or protection of the gray wolf.

According to Treves, the species has only returned to about 20 percent of its historic range, which originally included somewhere between 29 and 39 states. The estimated range is so large due to disagreement on whether some areas were populated by the gray wolf or its cousin, the eastern wolf.

“We would like to see more wolves in more places fulfilling their ecological role as top predator,” said Jeremy Bruskotter, associate professor of terrestrial wildlife ecology at Ohio State University and another signatory of the letter to Congress. “We want recovery to mean something more than population viability.”

While the U.S. Fish and Wildlife Service’s original decision to delist the species in 2012 was — among other factors — based on the species’ return to historic range, the agency focused solely on the Great Lakes wolves, designating them as a distinct population.

“It really comes down to the technical

word and meaning of the word ‘endangered,’” Roell said. “So could you have wolves secure in one area, and endangered in another area?”

A federal judge ruled in December, however, that segmenting the wolf populations was “arbitrary and capricious” and violated the Endangered Species Act, resulting in a renewal of its endangered protection.

“The judge ruled that the Fish and Wildlife service incorrectly designated the distinct population, and incorrectly jumped to the conclusion that the wolf had recovered a significant portion of their range,” Treves said.

He also agreed that the population needs to be judged as a whole, and not in individual sections.

“How do wolves recover across a significant portion of their historic range if the source populations like Michigan, Wisconsin, Idaho, Minnesota, Montana are isolated and reduced by state policies that prevent wolfpacks from sending out dispersers, and new wolfpacks forming in new areas?” Treves said. “If they lose federal protection, we’ve seen what happens.”

The letter to Congress argues that “wolves are absent from most of the United States, with potentially secure populations in only

a handful of states,” including Michigan. The letter also says that in those same states, the loss of federal protections resulted in state-sanctioned seasons on wolves at levels designed to reduce their populations to arbitrary goals, which were based on politics but not the best available science.”

The signatories advocated that rather than endangered, the wolves be listed as “threatened,” which would allow the species to continue its recovery. A threatened status would give more freedom to the state in terms of dealing with problem wolves, but would not allow recreational hunting.

“Those programs tend to prevent recolonization by the wolves, simply because so many wolves are being killed,” Treves said.

While Roell says not all management of the species is necessarily bad, overhunting and methods such as population caps and high kill quotas make it less likely for the wolves to expand their range.

“It depends on the level of harvest, and what the goal of the harvest season is to do,” Roell said. “Certainly, it could hamper the wolves moving out from a secure population to other areas because you are lowering the population.”

One reason wolves need to be protected is the impact they have on their environment, said Knapp, the Olivet ecologist. The species prevents grazing animals such as deer from overpopulating, which in turn helps plants flourish that would otherwise be overgrazed.

“The idea is, deer eat things up, they eat all kinds of plants, where we’re seeing terrible destruction of forests, particularly because there are too many deer,” Knapp said.

“They eat plants, they eat native wildflowers, they eat baby trees. So they’re altering the landscape. The idea with wolves is that they preferentially eat things like deer and moose, and keeps their numbers in check, which allows plants to

flourish more.”

But it is not the wolves’ appetite for deer — rather, their depredation of livestock and the occasional pet — that have led some to call for removing protection and allowing controlled and even recreational hunts.

State lawmakers such as Sen. Tom Casperson, a Republican representing a large part of the Upper Peninsula, have pushed to allow state regulation of gray wolves. There is also a move in Congress to shift the gray wolf from federal management to that of state governments, although the bill is still in draft stages.

There is also disagreement on whether it is

possible for gray wolves to ever return to their full historic range. Highly populated areas may never be able to fully recover the species, including a large portion of Michigan's lower peninsula, said Knapp. While an endangered or threatened listing for the species could still help it recover some of these lands, Roell argues that human development has taken away a large amount of habitat.

“Obviously, wolves are not restored to their historic range; they only occupy a small portion of their range,” Roell said. “But the question you have to ask yourself is, could they ever be restored to their historic range? Given the habitat loss, human encroachment, the habitat just isn't

there. They wouldn't be compatible with humans.”

Other scientists agree with this, and it is hard to know what a full recovery for the species would look like. Knapp says, however, that there are still areas for the species to expand, and the wolves are a long way from recovery.

“Wolves can't live everywhere, they wouldn't like it down here with us,” Knapp said. “But the point is, there are places wild enough for wolves.”