

Researchers: Include data about societal values in endangered species decisions

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The U.S. Fish and Wildlife Service is excluding significant research findings about human threats to protected species, researchers argue, even when the law governing the agency's actions requires the use of all relevant data in determining whether species need protection from extinction.

A group of scientists, led by Jeremy Bruskotter of Ohio State University, argue in the December issue of the journal *BioScience* that research about societal values should be considered along with biological and ecological data in listing decisions.

The [Endangered Species Act](#) requires the secretary of the interior to make decisions about listing species "solely on the basis of the best scientific and commercial data available."

The researchers use the Fish and Wildlife Service's 2009 decision to remove gray wolves from [endangered species](#) protections to demonstrate how social science data can be used to inform species listing decisions.

In the case of the [gray wolf](#) in the northern Rocky Mountains, public opinion about wolves varies considerably among livestock owners, hunters and wildlife conservationists. But social science research about those opinions was essentially disregarded when the Fish and Wildlife Service removed wolves in the northern Rockies from Endangered Species Act protections in 2009, the scientists assert.

"The Fish and Wildlife Service didn't use the data as required by law and they need to start doing this, especially when a species is so clearly subject to human-caused threats," said Bruskotter, an assistant professor in Ohio State's School of Environment and Natural Resources. "There is a lot of theory and data in the social science literature that could assist the Fish and Wildlife Service in evaluating human threats. What is holding them back is the agency's myopic focus on biological data."

That delisting decision was recently reversed by a federal court for reasons unrelated to the data used in the agency's ruling.

Under the Endangered Species Act, federal officials must decide whether a species is threatened with or in danger of extinction as a result of any of five "listing factors" that relate to changes to the habitat, disease and predation, or overuse of the species for commercial, recreation, scientific or educational purposes. Those include "other natural or manmade factors affecting its continued existence."

When the northern Rocky Mountain gray wolf population was delisted in April 2009, the Fish and Wildlife Service acknowledged in its ruling that "human-caused mortality" nearly destroyed the species in the 1930s. However, the agency argued that "attitudes toward wolves have improved greatly over the past 30 years."

In an extensive review of the research associated with the gray wolf delisting, which contained more than 200 citations, the Fish and Wildlife Service included a single 2002 study that examined public attitudes toward wolves.

"This is not for a lack of literature on the topic," Bruskotter said, noting that studies on attitudes about wolves date as far back as the 1970s.

Bruskotter and colleagues summarized four key arguments made by the

Fish and Wildlife Service in its decision that the northern Rocky Mountain gray wolf is no longer threatened or endangered as follows:

- Human attitudes are a potential threat to wolves because humans killing wolves initially decimated the species;
- The threat posed by humans has lessened substantially because public attitudes have improved in recent decades;
- State management of wolves will foster local support of wolves and wolf recovery; and
- Existing state regulatory mechanisms will "balance negative attitudes" and ensure recovery.

He and colleagues then analyzed social science research related to each of the agency's arguments to determine whether the Fish and Wildlife Service gave adequate consideration to available social science data in its assessment.

In the few studies that have evaluated attitudes about wolves over time, Bruskotter and colleagues noted that findings are mixed on the subject. And the only study cited by the Fish and Wildlife Service in its ruling concluded that attitudes about wolves had been "stable over the last 30 years," which contradicts the agency's own contention that attitudes had improved over this time period.

A news media content analysis that Bruskotter co-authored, published in September, suggests that public discourse about wolves in the United States and Canada became increasingly negative from 1999 to 2008, and, according to Bruskotter, subsequent analyses suggested coverage in the northern Rockies was more negative than in any other region.

Under the Endangered Species Act, federal agencies monitor species for at least five years after they are delisted, but state wildlife agencies take over management. While the Fish and Wildlife Service suggested that returning wolves to state management would foster support for the wolves, an Idaho survey cited by Bruskotter suggests powerful stakeholders in the state -- big game hunters and livestock producers -- "are motivated to kill as many wolves as possible without returning wolves to federal protections," according to the researchers.

Finally, the researchers question state managers' ability to "balance negative attitudes" about wolves when state legislatures that exert authority over wildlife management have "evidenced clear hostility toward wolves," Bruskotter said. They cited several recent legislative actions by states in the northern Rockies that call for the removal of wolves.

The researchers conclude that the Fish and Wildlife Service's analysis about threats to wolves was guided by three faulty assumptions: that attitudes toward wolves are improving; that management of wolves by state agencies will foster support for wolves; and that the existing state regulations used as justification for withdrawing federal protection will persist under mounting pressure from powerful interest groups to reduce wolf populations.

Beyond wolves, however, there are other human factors at play.

"Risks that relate to humans range from direct killing of animals to a municipality encouraging development in areas where species are sensitive," Bruskotter said. "The Fish and Wildlife Service will look at direct impacts, or the proximate cause of species decline. They don't often step back and consider what lies behind those causes. And that's one of the things we're saying they need to do."

The researchers noted that they are not suggesting that the Fish and Wildlife Service should cede control of decisions to "public whims," but instead say they advocate for the use of information about values and attitudes of affected human populations to inform policy decisions.

That said, however, they assert that human attitudes may be as critical to some species' sustained recovery as biological factors such as species population size, birth rates and reproductive success.

Bruskotter also noted that he sympathizes with the Fish and Wildlife Service because it is "hammered from every angle. This is not a condemnation of their action. It's meant to be forward thinking -- to provide a roadmap for how to incorporate social science information into future endangered [species](#) decisions."

The researchers conclude, "It is time for the Fish and Wildlife Service to expand its view of what constitutes 'science' and fully incorporate the social sciences into listing decisions."

Provided by The Ohio State University

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