

## **Title: Problems with the U.S. Fish and Wildlife Service's Proposal to Remove Federal Protections for Gray Wolves**

In June of 2013, the U.S. Fish and Wildlife Service (FWS) proposed to remove federal Endangered Species Act protection for the gray wolf (*Canis lupus*, *Linnaeus*) throughout the conterminous U.S., with the exception of the Mexican wolf subspecies (*C.l. baileyi*) (78 Fed. Reg. 35,664). In an article accepted for publication in the journal *Conservation Letters*, my coauthors and I detail flaws in the rationale provided by the FWS, and explain that this proposal could have far-reaching, deleterious consequences for the listing and recovery of threatened and endangered species.

### **The Proposed Rule**

The FWS asserts that their obligation to conserve gray wolves has been met because (a) the population of gray wolves residing in the northern Rocky Mountains (NRM) is no longer threatened or endangered, (b) the population of gray wolves residing in the western Great Lakes (WGL) is no longer threatened or endangered, and (c) the remaining portions of gray wolves' historic range are not significant portions of their range. They defend this last point by asserting that the term 'range' refers only to "the range in which a species currently exists" (78 Fed. Reg. 35,673), and anyway, these unoccupied portions of wolves' historic range are "unsuitable" habitat because of human intolerance for wolves. The FWS also asserts that wolves in the northeastern U.S. belong to a different species (*Canis lycaon*); thus, gray wolves (*Canis lupus*) should not be listed in this region.

We found four flaws with the FWS's Proposed Rule, which are briefly discussed, below.

#### **1. What constitutes a "significant portion" of wolves' range?**

The ESA defines an "endangered species" is one that is "in danger of extinction throughout all or a significant portion of its range" (SPR-phrase). The proposed rule depends upon an extremely narrow interpretation of this SPR-phrase, asserting that unoccupied portions of wolves' historic range are not significant portions because the term "range" refers to "the range in which a species currently exists" (78 Fed. Reg. 35,673). The article points out that this interpretation of the term "range" is inconsistent with the FWS's implementation of the ESA, inconsistent with prevailing precedent, and has been roundly criticized in the scholarly literature. Indeed, interpreting "range" to mean "current range" is functionally equivalent to striking the SPR-phrase from the ESA entirely and narrowing the definition of endangerment to "in danger of extinction" (see *Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1141 (9th Cir. 2001)). The FWS's interpretation of the SPR-phrase would also create an incentive for people who dislike a species being considered for listing to kill or otherwise remove those animals from portions of their current range where they are unwanted. If the species cannot be found in an area, then that area is not part of the species' *current range*, and therefore the species cannot be endangered in this area.

#### **2. Human Tolerance for Wolves**

The FWS argues that "the primary determinant of the long-term conservation of gray wolves will likely be human attitudes toward this predator." The Service goes on to analyze human

intolerance as a potential threat to wolf populations. Throughout their analysis, the FWS conflates human *intolerance* for wolves with *attitudes toward wolves*. The problem with this position is that wolves don't need people to *like* them in order to survive--dislike of wolves does not constitute a threat to wolf populations; rather, wolf populations are potentially threatened by high rates of human-caused mortality perpetrated by people who both dislike wolves and have the skill and ability to find and dispatch them. In the past, the threat of human *intolerance* for wolves (in the form of unsustainable human-caused mortality) was largely mitigated by protecting wolves under the ESA, which prohibits "take" (i.e., killing) of wolves under most circumstances. The primary result of removing wolves from ESA protections will be the cessation of these mitigation measures--allowing for legal harvest of wolves in addition to illegal harvest.

The FWS not only recognizes this, they argue that such legal harvest is critical for recovery because "keep[ing wolf] populations within the limits of human tolerance" requires that humans be allowed to hunt and trap wolves (78 Fed. Reg. 35,685). But recall that we're not talking about areas like the NRMs or WGLs where wolf populations are robust; rather, we're talking about places like Utah, Colorado, Oregon and Washington--where wolf populations are either non-existent, or a handful of wolves exist in pockets.

Perhaps more importantly, the FWS cites not a single scientific study--including studies they commissioned--in its assessment of the threat posed by intolerance for wolves. A brief literature review by the authors found exactly 100 peer-reviewed articles on this topic, including studies that found no support for the claim that rates of poaching changed with higher quotas of legal harvest (Andren et al. 2006; Treves 2009), and a recent longitudinal analysis that found attitudes towards wolves were more negative during a period of legal lethal control than when wolves were listed under the ESA (Treves et al. 2013). In fact, preliminary results from a study commissioned by FWS to address this very question failed to support the idea that lethal control or public wolf hunting and trapping would raise tolerance for wolves (<http://faculty.nelson.wisc.edu/treves/wolves/wolfhuman.php>).

### **3. Intolerance and Habitat Suitability**

Prior studies of habitat suitability have noted that suitable habitat for wolves exists in several western states (e.g., Colorado, Utah, California) that do not currently have wolf populations (Carroll et al. 2006; Switalski et al. 2002). Interestingly, the FWS dismisses habitat in these states as "unsuitable" based upon the level of human tolerance:

The areas that wolves currently occupy correspond to 'suitable' wolf habitat...wolves persist where ungulate populations are adequate to support them and conflict with humans and their livestock is low...[t]he areas considered 'unsuitable'... are not occupied by wolves due to human and livestock presence and the associated lack of tolerance of wolves... (78 Fed. Reg. 35,680).

They further conclude that those parts of wolves' historic range that are currently unoccupied by wolves "have not repopulated due to continued lack of human tolerance to their presence" (78 Fed. Reg. 35,685). Interestingly, rather than view this as a threat to wolf recovery, the FWS summarily dismisses these areas as "unsuitable"--meaning that these areas are made irrevocably unsuitable by lack of human tolerance). Again, they cite no empirical evidence for such a claim,

and again, the empirical evidence that does exist simply does not support their assertion. Existing research indicates that (a) people who live in wolf-occupied regions tend to have more negative attitudes than those who don't (Karlsson and Sjöström 2007; Treves and Martin 2011; Williams et al. 2002), and (b) several western states that currently do not have wolf populations have human populations that are generally supportive of wolf recovery (see, for examples: Bright and Manfredo 1996; Bruskotter et al. 2007; Meadow et al. 2005). Thus, we conclude that a review of the best available science contradicts the conclusion that the areas where wolves do not currently exist are unsuitable because of human intolerance.

#### **4. The Taxonomic Status of Wolves in the Northeast**

The FWS's proposal to delist wolves also claims that the wolves that historically existed in the northeastern part of the US are a separate taxonomic entity--*Canis lycaon* (as opposed to *Canis lupus*). We avoid making any judgment on the taxonomic status of wolves; rather, we note that the taxonomic status of wolves in this area is controversial among scientists. Of course, uncertainty is not a reason to avoid action. However, such uncertainty does call for an application of the precautionary principle. In the case of listing status determinations, application of the precautionary principle would demand that when an activity potentially threatens the health or viability of a species or population, precautionary measures should be taken to reduce or avoid the potential threat--even when there is uncertainty about the extent of the threat (see: Kriebel et al. 2001). In this case, a modest application calls for developing criteria for recovery that are robust to the uncertainty--that is, criteria that are sensible whether or not *C. lycaon* is taxonomically distinct from *C. lupus*.

#### **Conclusion**

We conclude that the rationale provided by the FWS for removing federal protections for wolves undermines the purpose of the ESA--which is to mitigate threats to endangered species. The rationale are flawed because (a) they rely upon an interpretation of the SPR-phrase that is inconsistent with the plain reading of the law, congressional intent, prior federal court decisions, and a variety of relevant scholarship (see Carroll et al. 2010; Bruskotter and Enzler 2009; Enzler and Bruskotter 2009; Vucetich et al. 2006); (b) the rule implies that delisting is acceptable even if a species meets the definition of threatened or endangered, so long as the FWS concludes that the threats to a species are not able to be mitigated; and (c) the FWS's analysis of the threat posed by *intolerance* for wolves directly contradicts existing empirical evidence.

"Concluding that wolves cannot be recovered because some people dislikewolves is unsupported by evidence; and concluding that wolves cannot be recovered because of human-caused mortality is to merely describe the potential threat to wolves. Congress enacted the ESA not to describe such threats, but to mitigate them. While human intolerance (in the form of legal and illegal killing) 315 continues to threaten wolves in some geographic areas, the greater threat to wolf recovery is the lack of will on the part of the federal government to stay the course and endure political pressure from state governments and special interest groups who want wolf populations minimized or eliminated."

Bruskotter, J., Vucetich, J.,ENZler, S. Treves, A. and M. Nelson. (*forthcoming*). Removing protections for wolves and the future of the U.S. Endangered Species Act (1973). *Conservation Letters*.