

May 13, 2021

The Honorable Deb Haaland
Secretary of the Interior
1849 C Street NW
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Martha Williams
Principal Deputy Director
U.S. Fish and Wildlife Service
1849 C Street NW
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Re: Scientists in Support of Reinstating Federal Protection of the Gray Wolf

We, the undersigned scientists – with collective expertise in ecology, population dynamics, genetics, human dimensions of wildlife management, and other areas relevant to wildlife conservation – write in support of reinstating federal protections for gray wolves across the contiguous United States.

The U.S. Fish and Wildlife Service delisted wolves across the contiguous United States on January 4, 2021. That decision comports neither with the best-available science nor with other requirements of the Endangered Species Act (ESA). When the Service promulgated the rule to delist, gray wolves were not fully recovered. They have recently experienced setbacks in progress toward recovery because of high rates of human-caused mortality that have been sanctioned by state governments, as a result of premature delisting.

Aware of these concerns, the Biden Administration indicated on January 20, 2021 that the gray wolf delisting decision was under official review in accordance with the Executive Order, “Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.” We applaud that decision to review and request that you rescind the delisting decision and reinstate federal protections for the gray wolf. Important reasons for doing so are outlined below.

1. WOLVES ARE NOT RECOVERED

As a foundation for judging the scientific basis for delisting, the Service appears to have wisely set for itself principles, known as the 3Rs: *representation*, *resiliency*, and *redundancy*.¹ Unfortunately, the Service’s delisting decision does not meet those principles.

In particular, gray wolves do not currently meet the principle of *representation*, which requires a species to be well distributed across its former range. Wolves do not securely inhabit the West Coast, Southern Rockies, the Great Plains, or the Northeast – vast regions of the country where they once flourished. These regions still have much excellent wolf habitat. Because those regions are ecologically distinct from one another and from places where wolves currently inhabit, they are an essential kind of *representation*.

Representation and *resiliency* refer, in part, to a species' ability to fulfill its ecological functions.² Wolves fulfill their ecological functions, in large part, by limiting the adverse consequences of overabundant prey, including disease transmission and the ecological and economic damage to rangeland, forests, and agricultural lands. The best-available science indicates that wolves' ability to fulfill these ecological functions is impaired or prevented when premature delisting enables state governments to sanction high rates of human-caused mortality.³

The Service's delisting decision also falls short of adequate *representation* and *resiliency* with respect to genetic and taxonomic diversity, which according to the best-available science is meaningful to the species.^{4,5} Conserving this needed diversity requires wolves to inhabit portions of their former range that are currently suitable but remain uninhabited.

Delisting does not require that wolves occupy all of their former range. However, wolves securely occupy far too small a portion of their former range where habitat remains suitable to satisfy the scientific principles of *representation*, *resiliency*, and *redundancy*.⁶

Furthermore, the Service has never developed a nationwide recovery plan for the gray wolf. A nationwide plan is essential for understanding what would even constitute recovery, because wolves were once widely distributed across the contiguous United States. Instead of a nationwide plan, the Service arrived at its decision to delist in piecemeal fashion by relying on the improved status of gray wolves only in one region of the United States (the Great Lakes Region). The delisting decision is also rooted in a recovery plan for that region that is scientifically outdated, as it was drafted in 1992, nearly 30 years ago. An essential value of developing a scientifically updated and nationwide recovery plan would be recognition of best-available science, including knowledge that wolves readily inhabit more kinds of habitat than was acknowledged in the early 1990s. Indeed, wolves can inhabit the places they would need to inhabit to achieve full recovery. Finally, an adequate recovery plan would also explicitly attend to the notion that state management – with its failures to abide by best-available science – may also be a threat to full recovery that requires amelioration.

When a nationwide recovery plan is developed, it will almost certainly conclude the gray wolf does not meet, according to the best-available science, requirements for delisting.

2. WOLVES CAN BE READILY RECOVERED

An essential value of developing a nationwide recovery plan, based on today's best science, would be recognition of vast areas of suitable habitat that wolves do not currently inhabit.⁷ Furthermore, substantive progress toward recovery would readily occur if wolves were either reintroduced or allowed to disperse from core range at normal rates with sufficient regulatory protections when they arrive in new areas.

Recovery is also facilitated by having some flexibility in managing instances where wolves depredate livestock. As such, relisting wolves as threatened appears to be the only way to achieve these conditions, and it would result in enabling wolf dispersal and flexible management of depredation. Without relisting and development of adequate recovery criteria for the

contiguous United States, it seems certain that states will continue to manage wolves in a manner that precludes such recovery.⁸

With abundant suitable habitat and wolves' ability to disperse, there is great potential to achieve full recovery.

3. THE AMERICAN PUBLIC EXPECTS WOLF RECOVERY

The American public expects the Service to abide by the true intent and purpose of the ESA – as that purpose is explained in Section 2 of the ESA. That expectation is borne out by the Best-available science that indicates:

- Americans' attitudes towards wolves are largely positive and have become more so in recent decades.⁹
- Americans – regardless of political affiliation – expect recovered species to be widely distributed across their former range, in accordance with the ESA.¹⁰
- Regions mentioned earlier in this letter as being vital for recovery (in particular, the Southern Rockies and the Northeast) have socio-cultural conditions *more* favorable toward wolf recovery than places already inhabited by wolves.¹¹

Some argue against reinstating federal protection on the grounds that doing so would unleash broad backlash in the form of eroding support for the ESA among American citizens. However, scientific evidence indicates that Americans' support for the ESA is strong, has remained strong over time, and is not reduced when the ESA is implemented.¹² Overall, the best-available science indicates that the American public expects the Service to lead us toward wolf recovery.

In conclusion, the Service must abide by the ESA's best-available science mandate with all due care for two reasons. First, wolves are a precedent-setting species. The Services' treatment of wolves under the ESA will set a strong precedent for many other species. Second, state governments have clearly indicated that they will manage wolves to the lowest allowable standards.¹³ Those standards will end up being only marginally different from recovery criteria developed by the Service. As such, the Service must develop recovery criteria for the contiguous United States that properly satisfy the conservation principles of *representative*, *resiliency*, and *redundancy*. Until those criteria have been satisfied, delisting the gray wolf is unjustified.

For the reasons outlined here, we – as experts in areas related to wolf conservation – ask that you reinstate federal protections for the gray wolf and develop a recovery plan for gray wolves in the contiguous United States. With your leadership, the Service can reverse recent and broad trends that have disregarded the best-available science with respect to the ESA.

Thank you for your consideration.

Sincerely,

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END NOTES

¹ First proposed by Schaffer & Stein in *Precious Heritage: The Status of Biodiversity in the United States* (Oxford, 2000) and elaborated upon by Wolf, Hartl, Carroll, Neel, & Greenwald. 2015. Beyond PVA: Why recovery under the Endangered Species Act is more than population viability. *BioScience* 65, 200-207.

² Soulé, Estes, Berger, & Del Rio. 2003. Ecological effectiveness: conservation goals for interactive species. *Conservation Biology* 17, 1238-1250. See Wolf et al. 2015 for additional references in support of this point. Wolf et al. 2015 also indicate for example that a delisting criterion for the northern sea otter includes “otter abundance to reach population levels that bring about a shift of more than half of otter habitat to a kelp-dominated state.”

³ High rates of human-caused mortality tend to occur when state management is driven by anti-wolf politics, rather than best available science. The tendency for state management of wolves to be led by anti-wolf politics is exhibited by several states.

⁴ Chambers, Fain, Fazio, Amaral. 2012. An account of the taxonomy of North American wolves from morphological and genetic analyses. *North American Fauna* 77, 1-67.

⁵ Schweizer, Vonholdt, Harrigan, Knowles *et al.* 2016. Genetic subdivision and candidate genes under selection in North American grey wolves. *Molecular Ecology* 25(1), 380-402.

⁶ Gray wolves of the contiguous United States inhabit only about 15% of their former range. The scientific connection between representation and geographic range is detailed in Wolf et al. 2015 and Vucetich, Nelson, & Phillips. 2006. The normative dimension and legal meaning of endangered and recovery in the US Endangered Species Act. *Conservation Biology* 20, 1383-1390.

⁷ Best available science during the early 1990s suggested that wolves required relatively large “wilderness” areas or federal land to persist. Today’s best science indicates that wolves are able to inhabit regions where their prey (food) is sufficiently abundant and human-caused mortality is sufficiently low. This new knowledge is extremely important for correcting a tendency to think that wolves currently occupy all the places that they can reasonably inhabit. For details see López-Bao, J. V., Bruskotter, J., & Chapron, G. (2017). Finding space for large carnivores. *Nature Ecology & Evolution* 1(5), 1-2.

⁸ That is, in a manner that reduces wolves’ ability to re-inhabit portions of former range necessary for genuine recovery.

⁹ A toe-hold on the best available science as it pertains to this topic is George, Slagle, Wilson, Moeller & Bruskotter. 2016. Changes in attitudes toward animals in the United States from 1978 to 2014. *Biological Conservation* 201, 237-242.

¹⁰ Offer-Westort, Feltz, Bruskotter & Vucetich. 2020. What is an endangered species?: judgments about acceptable risk. *Environmental Research Letters*

¹¹ Manfredo, Berl, Teel & Bruskotter. 2021. Bringing social values to wildlife conservation decisions. *Frontiers in Ecology and the Environment* (in press).

¹² Bruskotter, Vucetich, Slagle, Berardo, Singh, Wilson. 2018. Support for the US Endangered Species Act over time and space: Controversial species do not weaken public support for protective legislation. *Conservation Letters* 11(6), e12595; Bruskotter, Vucetich, Berardo. 2018. Support for the Endangered Species Act remains high as Trump administration and Congress try to gut it. *The Conversation*.

¹³ Recovery requires that state governments, who serve as the trustees of wildlife in the US, develop and exercise science-based management plans. This condition is not being met to the point that recovery is being obstructed in some cases and at considerable risk of being obstructed in other cases.