

A Blueprint for Continued Wolf Restoration And Recovery in the Lower 48 States



LAMAR VALLEY, YELLOWSTONE NATIONAL PARK ©MIKE CAVAROC/FREE ROAMING PHOTOGRAPHY

Wolf conservation is at a crossroads. The U.S. Fish and Wildlife Service (FWS), states and others are making decisions critical to existing populations of our nation's native wolf species and to efforts to restore them in additional areas.

By the time the Endangered Species Act (ESA) banned the killing of wolves in 1973, they were nearing extinction in the lower 48 states. Today, thanks to reintroduction programs, gray wolves are back in the Northern Rockies, a small population of Mexican gray wolves is established in the Southwest, and red wolves are slowly making progress in the Southeast. Federal protections have allowed wolves to naturally expand from Minnesota to Wisconsin and Michigan in the Great Lakes region.

Defenders of Wildlife has been a leader in the restoration and innovative conservation efforts that have put wolves back on the

landscape. Working side by side with ranchers and local officials, our field staff has implemented non-lethal management practices that allow wolves and livestock to coexist side by side. Our scientists and policy experts have promoted management strategies and policies that enable wolves to thrive in their natural habitat. Through our legal, advocacy and outreach capabilities, we have been instrumental in setting wolves on the path to restoration and recovery, allowing them to reclaim their vital role in maintaining the health of the landscape.

While we celebrate the progress made to date, serious threats to wolves remain. We must be even more vigilant and keep up our fight against unscientific management practices and policies that set back the restoration of the species and threaten Defenders' vision for wolf conservation in the lower 48 states.

Our Wolf Action Plan

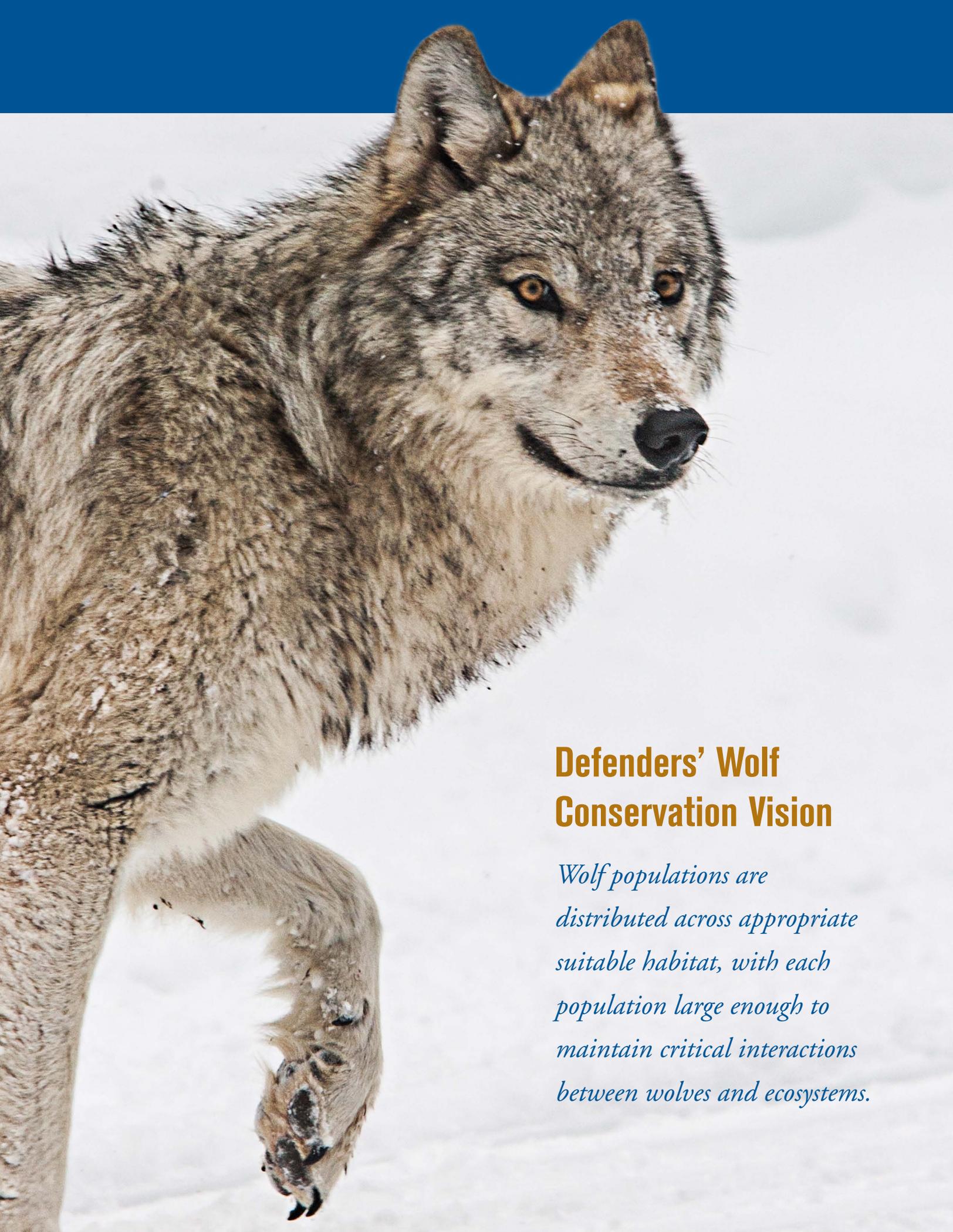
To realize our vision for wolves, we must 1) protect existing populations at healthy, sustainable levels; 2) restore wolves to their ecological roles across unoccupied and appropriate suitable habitat—places with an adequate prey base, cover and room for dispersal and establishment of new territories and packs; and 3) recover endangered populations of red wolves and Mexican gray wolves. Defenders engages in a wide range of specific actions designed to meet these objectives:

- Maintain or restore federal protection in the lower 48 states where wolves are not fully recovered, implement actions to recover them and hold FWS accountable for monitoring recovered populations to ensure numbers remain sustainable.
- Secure the recovery of critically low populations of Mexican gray wolves and red wolves and ensure that FWS is implementing up-to-date recovery plans based on sound science and releasing additional wolves in the wild at current and new reintroduction sites when necessary.
- Ensure states are implementing strong, conservation-based wolf management programs that, at a minimum, maintain wolf populations at levels sufficient for long-term sustainability and are well above levels that would warrant delisting under the ESA.
- Pave the way for wolves to naturally disperse to suitable habitat in Colorado, California and elsewhere by building public support and promoting coexistence methods.
- Where appropriate suitable habitat for wolves exists, advocate for and partner with state wildlife agencies to restore wolves at population levels large enough to maintain critical interactions between wolves and ecosystems, including through reintroductions or natural dispersal to adjacent unoccupied habitat.
- Work with tribal and federal government agencies, such as the U.S. Forest Service and National Park Service, to manage for wolf recovery on their lands.
- Defeat legislation and management decisions that block or compromise the restoration of wolf populations, and support decisions that promote wolf conservation.
- Advance nonlethal means of preventing conflicts with livestock as standard management practices throughout wolf habitat and promote their adoption in policy and practice by agencies responsible for managing livestock and wolves.
- Increase human tolerance and public support for wolves through outreach and education that accurately address the impacts of wolves on livestock and game animals and through partnerships and incentive programs that help ranchers, landowners and tribes coexist with wolves.
- Reduce social conflicts about wolves in targeted communities by sponsoring roundtables, workshops and stakeholder mediation efforts that feature successful coexistence projects and partnerships.
- Change the policies and practices of the U.S. Department of Agriculture's Wildlife Services, the federal agency charged with predator control, from reliance on lethal methods to reliance on nonlethal methods and eliminate their participation in killing wolves to artificially boost game populations.
- Improve the political climate for wolves at state, regional and federal levels by cultivating grassroots activists and legislators to champion wolves.

“With wolf conservation at a crossroads, thoughtful, informed debates and management are necessary. This has always been challenging when it comes to wolves. Setting biases and myths aside is very difficult for humans, but at stake is not just wolves but wild lands and nature.” —Doug Smith, National Park Service biologist and Yellowstone Wolf Project leader

PUPS ALONG THE YELLOWSTONE RIVER ©MARK MILLER





Defenders' Wolf Conservation Vision

Wolf populations are distributed across appropriate suitable habitat, with each population large enough to maintain critical interactions between wolves and ecosystems.

The Science Behind Our Vision

To guarantee the long-term survival of wolves, not only must we restore these predators in multiple suitable areas, but we must do it in numbers large enough to protect wolf populations from natural and human-caused disasters and with enough connectivity to other wolf populations to provide for essential dispersal and gene flow. These basic requirements for wolf restoration are rooted in five biological concepts that guide successful wolf recovery and Defenders' vision and plan of action for achieving it.

1. Representation

Natural selection shapes the genetic makeup of species in close association with the environments they inhabit. Successful long-term conservation means saving species in the fullest possible representation of suitable and appropriate environments in which they historically occurred.

The gray wolf's pre-Columbian distribution in North America extended throughout the continent, from the low Arctic of Canada and Alaska in the north to the high plateau of central Mexico in the south. Within this range, wolves occupied various habitats and preyed on a variety of species: caribou and moose in the Arctic; moose and deer in the Great Lakes; elk and deer in the Rocky Mountains; bison on the prairie.

Restoration requires healthy wolf populations in our remaining wild ecosystems where wolves are a key missing component.

2. Resiliency

To be sustainable over the long term, wolf populations must be sufficiently resilient to the range of threats they routinely face throughout their range.

Certain behaviors and life history traits historically enabled wolves to survive and adapt despite fluctuations in prey, disease, competition among packs and with other large carnivores and intense pressure from human development.

Traits that enhance resiliency include prey and habitat flexibility, high rates of producing pups and the capacity to disperse widely—sometimes hundreds of miles—in search of prey and unoccupied territory.

The pace and scope of the use of deadly poisons, traps, aerial gunning and other lethal measures unleashed on wolves by modern man undermined their resiliency. Consequently, wolves were eradicated from almost all of their range in the continental United States.

Restoring wolf populations at high enough densities in appropriate suitable habitat throughout their historical range bolsters their resiliency to the many threats they face.

3. Redundancy

Imperiled species conservation requires redundancy—recovered populations in multiple areas—as a hedge against the catastrophic loss of any single population. Disease, severe weather events, fire or drought can wipe out entire populations. Redundancy ensures that these losses do not jeopardize the species or subspecies as a whole.

For wolf recovery and the protection of individual populations, we must build redundancy into restoration efforts.

4. Ecologically functional populations

In the early 20th century, Aldo Leopold, one of the first American scientists to recognize the value of “land health,” warned of the consequences of removing wolves and other keystone predators.

Recent research has shown the wolf to be a “strongly interactive species,” meaning its interactions with other animals contribute substantially to the maintenance of habitat and biodiversity. The disappearance of such a species leads to profound changes in ecosystem composition, structure and diversity (Beschta and Ripple 2012; Ripple and Beschta 2004, 2011; Estes et al. 2011; Soulé et al. 2003; Terborgh et al. 1999; Schmitz et al. 2000).

Maintaining ecologically functional wolf populations—populations of sufficient density and distribution—is fundamental to the health of our native ecosystems.

5. Connected populations

Advances in population ecology and genetics make clear the importance of connectivity among wildlife populations. Isolated animals can develop genetic abnormalities that weaken the species.

Michigan's Isle Royale in Lake Superior provides a noteworthy example. Scientists conducting long-term studies of the wolf population there found that due to extreme inbreeding, 58 percent of the island's wolves have spinal malformations (Räikkönen et al. 2009), which can reduce their chances of survival.

Dispersal corridors allow for the exchange of genes among populations and are critical to long-term viability.

Wolf Range In North America: Past, Present and Potential



Defenders advocates for the restoration of wolf populations in appropriate suitable habitat (slanted red lines) that still exists for gray wolves in parts of Arizona, New Mexico, western Texas, Mexico, northern California, Oregon, Washington, Colorado, Utah, Maine and New York, and for red wolves in parts of the Southeast. No matter how ideal the habitat, however it is ultimately up to people to determine if wolves will be allowed to survive in any given area.

Note: The suitable habitat for wolves designated on the map is an approximation based on peer-reviewed studies, expert opinion of our staff and habitat modeling, a complex science that involves superimposing multiple factors such as wolf range and dispersal routes, road density and usage, vegetation types, prey density, presence of livestock, development, slope and elevation.

Wolves in Their Places

Defenders' overarching goal is to have multiple, resilient wolf populations thriving throughout their former habitat. We will keep pressing for restoration and recovery in unoccupied areas suitable for wolves and for continued progress and facilitation of natural dispersal in areas where recovery is underway.

We know from extensive experience that providing science-based tools, techniques and information is the key to resolving conflicts among stakeholders over wolf management and to fostering a transition from hostility toward wolves to a broader mindset of active stewardship of the land for all wildlife, including predators.

With this transformative approach and our ambitious plan of action, Defenders will continue to be an advocate for wolves on the ground, in the courts and in the halls of Congress. We will be ready to navigate the twists and turns and roadblocks ahead on the road to full recovery of our native wolf species in the lower 48 states.



HAYDEN VALLEY, YELLOWSTONE © JIM CLARK

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