

The Southwest

Prior to European settlement, the Southwest was home to the Mexican gray wolf, a subspecies that ranged from southern Arizona, New Mexico and southwestern Texas to the mountains of southcentral Mexico. The species was decimated by a concerted campaign to exterminate wolves throughout the West. A U.S. Fish and Wildlife Service (FWS) trapper captured the last four males and a female in Mexico between 1977 and 1980. Three of these wolves were unrelated and joined four other unrelated Mexican gray wolves already in captivity. These seven wolves became the "founders" of the captive-breeding and reintroduction program FWS laid out for Mexican gray wolves in a recovery plan adopted in 1982.

As a first step, the recovery plan called for reestablishing a selfsustaining population of at least 100 wild Mexican gray wolves. FWS spent years considering possible release sites in Arizona, New Mexico and Texas, but took no action. In 1990, a coalition of conservation groups, including Defenders of Wildlife, filed a lawsuit to force the agency to proceed with the reintroduction. In 1991, the International Union for the Conservation of Nature declared the Mexican gray wolf the most endangered wolf subspecies in the world and its recovery the highest priority for wolf conservation worldwide.

In 1998, FWS finally released captive-bred Mexican gray wolves into the Blue Range Wolf Recovery Area west of the Arizona-New Mexico border. These wolves immediately demonstrated their ability to adapt and survive. They formed packs, killed elk, established territories and reproduced. In 2011, Mexican gray wolves were released in Mexico, in the state of Sonora about 30 miles from the U.S. border. Researchers have identified several other sites in Mexico for potential reintroductions (Araiza et al. 2012).

The Potential

According to scientific studies, the Grand Canyon ecoregion is one of the best places for wolves in the lower 48 states (Sneed 2001; Carroll et al. 2003; Carroll et al. 2006). Wolves dispersing from the Blue Range Wolf Recovery Area could reach the canyon region, but relocations of wolves would greatly accelerate expansion into the area.



This wild Mexican gray wolf is an alpha female belonging to Arizona's Francisco pack.

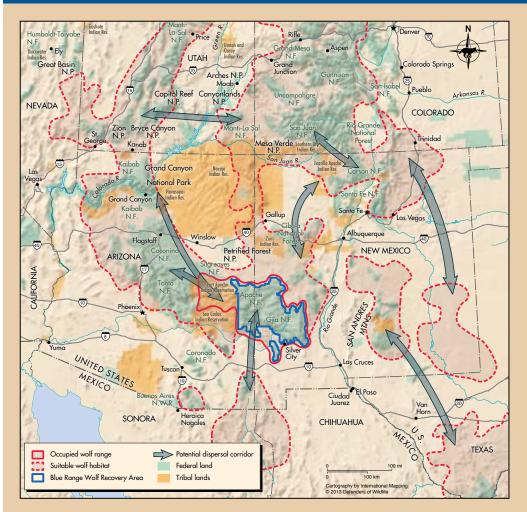
Other promising recovery sites include northern New Mexico and southern Colorado and Utah. Additional areas, in west Texas and in the Sky Islands region of northern Mexico and southern Arizona and New Mexico could host small numbers of wolves and serve as important links between core populations in the United States and Mexico

The Challenges

Although public polling has demonstrated strong support for Mexican wolves in both Arizona and New Mexico (Tulchin Research 2013), strong, vocal, localized opposition has resulted in restrictions that have kept wolf numbers low and hindered the progress of the Southwest reintroduction program. Wolves are not allowed to set up territories outside set boundaries. If they do, they are captured and taken back to the Blue Range Wolf Recovery Area (see map on back). And for several years before a legal settlement with Defenders ended the practice, FWS allowed the states to call the shots on wolf management. During this time too many wolves were removed, and population growth stagnated.

Over-management undermines the ability of Mexican gray wolves to disperse, form stable packs, expand their range and make progress toward recovery. Keeping wolf numbers low has also exacerbated the genetic issues arising from the fact that all of the Mexican gray wolves in the wild today are descended from the seven founders of the captive-breeding program and lack the genetic diversity essential for a population to adapt and survive changing environmental conditions. In addition, the reintroduction program has operated for many years without science-based goals—the recovery plan that guides it has not been updated since 1982.

For Mexican gray wolves to recover, many more wolves from the captive population must be released so the wild population can overcome its limited genetic heritage and expand into other appropriate and suitable habitats in the Southwest, the Southern Rockies and Mexico (see map). The ability of people and governments in these areas to step up as stewards and welcome the Mexican gray wolf is crucial to the survival of this rarest of the world's wolves.



Suitable Wolf Habitat and Potential Dispersal Corridors in the Southwest

Defenders advocates the restoration of Mexican Gray wolf populations in appropriate suitable habitat throughout their historical range in the Southwest at densities sufficient to ensure the long-term survival of wolves and maintenance of the critical role they play in the ecosystem.

In addition to the area where Mexican gray wolves are now present (solid red lines on map), suitable habitat (dashed red lines) exists for Mexican gray wolves in the Grand Canyon region of Arizona, the Sky Islands areas of southern Arizona, New Mexico and northern Mexico and in southern Colorado and Utah and western Texas. (Gray arrows indicte potential dispersal corridors)

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.

References

- Araiza, M., Carrillo, L., List, R., González, C. A., Meyer, E. M., Martínez-Gutiérrez, P. G., Moctezuma, O., Sánchez-Morales, N. E., and J. Servín. 2012. Consensus on Criteria for Potential Areas for Wolf Reintroduction in Mexico. Conservation Biology 26(4): 630–637.
- Carroll, C., Philips, M. K., Schumaker, N. H., and D. W. Smith. 2003. Impacts of landscape change on wolf restoration success: Planning a reintroduction program using static and dynamic spatial models. *Conservation Biology* 17(2): 536-548.
- Carroll, C., Phillips, M. K., Lopez-Gonzalez, C. A., and N. H. Schumaker. 2006. Defining recovery goals and strategies for endangered species: the wolf as a case study. *Bioscience* 56(1): 25-37.
- Tulchin Research. 2013. Mexican Gray Wolf Survey, August 14-18. http://www. defenders.org/publications/defenders-of-wildlife-mexican-gray-wolves-publicmemo-new_poll_finds_strong-support-for-wolf-protection-in-southwesternborder-states.pdf
- Sneed, P. G. 2001. The Feasibility of Gray Wolf Reintroduction to the Grand Canyon Ecoregion. *Endangered Species Update* 18(4): 153-158.

