

Getting to Know the Mexican Wolf



WHAT IS A MEXICAN WOLF?

The Mexican wolf is a southwestern U.S. and Mexican subspecies of the widespread gray wolf species. The gray wolf evolved in Eurasia and entered North America through Alaska during the peak of the last ice age and began to occupy areas south of the ice sheets. The Mexican wolf probably represents the earliest of several Eurasian invasions because it occupied the southernmost area in the mountains of central Mexico and is the most genetically distinct gray wolf subspecies. Historically, the Mexican wolf occurred in the Sierra Madres of Mexico and the sky islands of the southwestern U.S., including Arizona, New Mexico, and possibly western Texas. Like other gray wolves, Mexican wolves live in mountainous forests and woodlands with abundant prey.

Historically, they existed mostly in one single large population with about 90% occurring in Mexico and partially isolated from other northern wolf subspecies by large expanses of less-suitable wolf habitat to the west, east, and north. This limited genetic interchange with larger northern wolves is what preserved their physical, genetic, and ecological differences. It is these unique characteristics that led them to be listed separately from other gray wolves on the Endangered Species List.

BIOLOGY OF THE BEAST

Mexican wolves are smaller than other gray wolves, with adult females weighing 55 to 75 pounds and males about 68 to 90 pounds. They stand about 30 inches at shoulder height. In addition to their smaller body size, another unique characteristic is the lack of white or

black wolves seen in other subspecies; Mexican wolves have only the typical gray/black/tan coat coloration. Wolves spend most of their lives living in packs that consist of an adult breeding pair, pups of the year, and offspring from previous years. Pack size in the wild ranges between two to 12 (the average is 4.1). Wolves reach breeding maturity by 2 years of age and breed only once per year to produce a litter of one to eight pups (the average is 4.7). In the wild, breeding generally occurs from late January through early March. After a gestation period of 62 to 63 days, Mexican wolf pups are born between late-March and early May, with most born in April.

Wolf dens are typically burrows dug into the ground, sometimes by enlarging burrows from other mammals. Mexican wolf dens are located under various objects, including rock ledges or logs, or dug into soft soil. Dens are typically located toward the center of pack territories, where pups are less susceptible to being killed by adjacent packs. Dens can be reused, but it appears that most Mexican wolves move their dens annually, even if just a short distance. Mexican wolves typically live for four to five years in the wild, although we have documented wolves living to 13 years.

WHAT A WOLF NEEDS

Like other wolves worldwide, Mexican wolves rely on abundant prey to eat, large areas to roam, and the ability to survive threats on the landscape. Historically they ate a wider variety of smaller items compared to their northern cousins.



Typical high-quality Mexican wolf habitat in Chihuahua, Mexico.

The diet of Mexican wolves consisted of Coues' white-tailed deer, collared peccaries, Gould's wild turkeys, jackrabbits, cottontails, rodents, fruits, bean pods, and even insects. In the current recovery area in Arizona and New Mexico, which is at the northern edge of their historical range, diets of Mexican wolves are mostly elk (77% to 90%), a species that was absent in the core of their historical range. If elk are available, they are targeted because they occur in groups, are vocal, are consistently in forest openings in mornings and evenings, and provide several meals for the pack with each kill. Prey is so important to wolves that the amount of prey determines the density of wolves that can potentially live in any area.

Beside abundant prey, wolves need room to roam with a lower density of roads, fewer towns, and plenty of forest. Home range size of Mexican wolf packs with a den averaged 197 mi², while those without a den average much larger (343 mi²). Large areas with low-density human infrastructure are an advantage, but wolves have proven they can live in a human-dominated landscape as long as conflicts with human interests are minimized and managed appropriately. In Arizona and New Mexico, wolf survival rate of pups is about 50% from birth to the end of the year, with yearling survival a little better (67%), and adults estimated at 81% once they reach 2 years old.

Throughout much of the wolf range in

North America, human-caused mortality is one of the leading causes of mortality, but in the U.S. Mexican wolf population, only about half of the annual mortalities are human-caused. Natural sources of mortality include accidents, diseases, injuries from predation attempts, violent encounters with other wolves, and starvation. In a summary of 25 studies and 41 datasets of mortality rates, researchers determined that wolf populations could experience human-caused mortality up to 29% of the population annually, before wolf populations consistently declined. This leaves room for managing the most serious wolf conflicts while allowing the wolf population to continue to grow.

STATUS AND RECOVERY

In 1976, the U.S. Fish and Wildlife Service listed the Mexican wolf as an endangered species for the first time. Later, the Mexican wolf was listed separately in recognition of its unique differences from other types of gray wolf, which is why it is important we conserve and protect those differences to honor the law in recovering Mexican wolves to their historical range.

The Arizona Game and Fish Department has been actively involved in Mexican wolf recovery since the first release of 11 wolves in 1998. With the birth of the first wild-born litter from a wild-born parent in 2002, the Mexican wolf reintroduction project entered into a new phase,



whereby natural reproduction began to replace the need to release naive captive-reared wolves. Mexican wolves had once disappeared completely from Arizona and New Mexico, but by the end of 2022, biologists counted at least 242 Mexican wolves in the wild in Arizona and New Mexico. We have hard work ahead of us, but we are well on our way to the successful recovery of this important component of the Southwestern U.S. and Mexico.

Learn more: www.azgfd.gov/wolf



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