By Lynda Lambert

Field Notes:

Limited studies exist on Mexican wolves and much of the life history that is known came from early-century hunters through their observations of wolves in the wild. Since the first release in 1998 of Mexican wolves in Arizona, biologists have continued to learn more about the lesser-known Mexican wolf.

Scientific Name: *Canis lupus baileyi.* From the Latin *canis*, meaning dog; *lupus*, meaning wolf; and *baileyi*, referring to Vernon Bailey, a U.S. Bureau of Biological Survey biologist, who collected a series of specimens of this subspecies or race.

Description: Smaller than a northern gray wolf but larger than a coyote. Adults are 70–80 pounds and 30 inches at the shoulder. Adults are 5–5.5 feet long, including a 14- to 17-inch tail. Males are larger than females. Head and feet are large in proportion to body. Small, erect ears with wide tufts of hair that grow out and down are one of the Mexican wolf's most distinctive features. Body color is often mottled or patchy, varying from gray and black to brown and buff.

Distribution: Historical distribution was from central Mexico and Michoacan north through Durango, Chihuahua and Sonora, into Arizona and New Mexico. There was broad overlap historically with other gray wolf subspecies exterminated by the early 1900s. Mexican wolves were extirpated from the United States by the mid-1900s, and most of Mexico soon thereafter. Current distribution is limited to the Blue Range Wolf Recovery Area, as specified in the nonessential experimental population special rule of the Endangered Species Act. There have also been Mexican wolf reintroductions in Mexico, the fate of which are uncertain.

Habitat: Mid- to high-elevation woodlands, including oak, pinyon pine, juniper, ponderosa pine and mixed conifer forests. Almost all historical records of Mexican wolves in Arizona occurred above 4,500 feet in elevation. Habitat must contain large ungulate prey animals for wolves to thrive.

Home Range: In Arizona, biologists estimate most packs use 150 to 250 square miles of territory that they defend from other canines such as other wolves, coyotes and domestic dogs.

Pack Size: Pack size tends to be smaller than other wolf subspecies and averages between three to five wolves per pack. Typical packs consist of the adult pair, young-of-the-year, and sometimes yearlings.

Density: Mexican wolf density is unevenly distributed across its home range. Some areas near prime elk calving grounds appear to receive heavier use than other areas, and established foot and livestock trails are commonly used as runways or travel routes.

Mortality and Lifespan: Causes of death include disease, malnutrition, debilitating injuries and inter-pack strife. Human-caused mortality, such as unlawful killing and vehicle collisions, also are major causes of mortality. In areas with little human exploitation, the primary causes of mortality are disease and malnutrition in pups or yearlings. Adult deaths are often attributed to territorial fights with other wolves. Mortality rates for yearlings average nearly 50 percent. Wild wolves rarely live to be 10 years old.

Prey: Elk presently makes up 80 percent to 90 percent of the Mexican wolf's diet, although the subspecies originally evolved to prey on deer. On average, one wolf consumes the equivalent of about 16 adult elk annually.

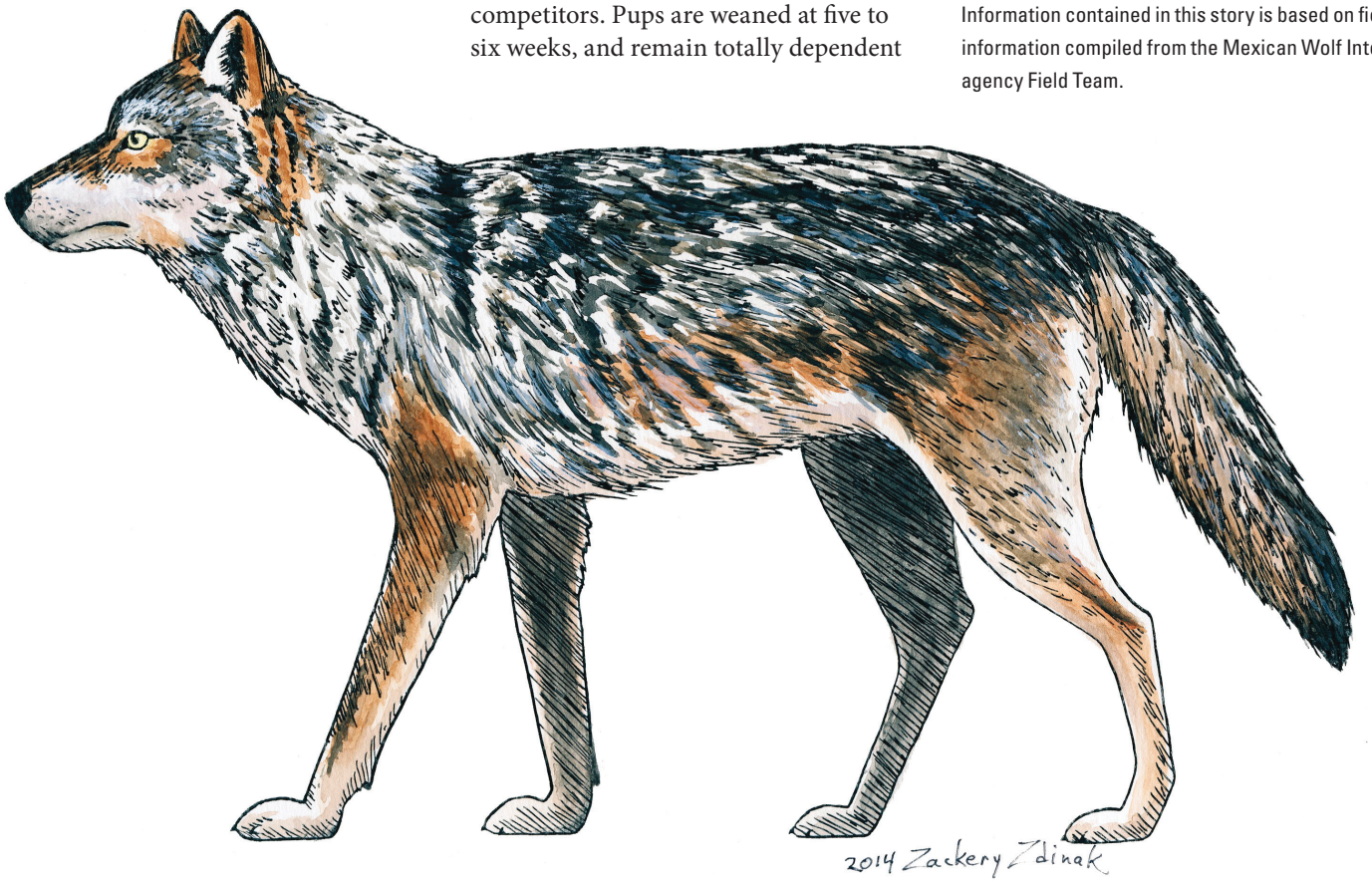
All about wolves

Wolf Movements: Three key types of movements occur in reintroduced Mexican wolves: homing (the movement of displaced wolves toward their place of birth or release); pack territory shifts (a shift in territory by newly colonizing wolf pack in response to winter weather, food availability, human disturbance, etc.); and, dispersal from packs (when young wolves disassociate from their natal pack and either move into a breeding vacancy in another pack or become lone wolves). Dispersal is a key process in wolf reestablishment. It leads to new pack formation, more breeding pairs and wider areas of wolf occurrence. However, mortality rates during dispersal are high compared to when wolves are together in packs.

Reproduction: Wolves are primarily monogamous, even though a pack can include more than one sexually mature female. Behavioral and physiological adaptations usually prevent more than one female per pack from breeding, which normally occurs from December to March. If a breeding wolf, or alpha wolf, dies or is removed from the pack, another wolf from within or outside the pack can fill this breeder position prior to the next breeding season. However, removal of an alpha animal can disrupt the pack to the point where it essentially dissolves and pack members begin moving independently.

Gestation lasts 63 days. Four to seven pups are usually born in April. Annual pup mortality is normally about 50 percent, but can vary widely depending on prey density, weather, disease and other competitors. Pups are weaned at five to six weeks, and remain totally dependent on adults until they are at least nine to 10 months old. Mexican wolf dens are located under various objects, including rock ledges or logs, or dug into soft soil. Dens can be reused, but it appears that most reintroduced Mexican wolves move their dens annually, even if just a short distance. After about six weeks, the adults move the pups away from the den site to another area near water called a rendezvous site. Pups and other pack members use rendezvous sites as their center of activity during the summer months. Pups begin traveling with the adults by October, sometimes sooner on shorter forays.

■ Lynda Lambert is a public information officer for the department. She is primarily responsible for education and outreach for endangered and nongame species, research and habitat issues. Information contained in this story is based on field information compiled from the Mexican Wolf Interagency Field Team.



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