

# Kit Fox

**SCIENTIFIC NAME:** Two species of arid-land foxes, the kit fox (*Vulpes macrotis*) and the swift fox (*Vulpes velox*), were initially considered to be similar but separate. Recently the two have been grouped as a single species (*Vulpes velox*) with two subspecies, *V. v. macrotis* (kit fox) and *V. v. velox* (swift fox). Swift foxes are not found in Arizona, but inhabit the central prairies as far west as Colorado and New Mexico.

Kit foxes are the smallest wild canines in North America. *Vulpes* is Latin for “fox,” *velox* is Latin for “swift,” and *macrotis* is a Latin word derived from Greek words meaning “long ears.”

**DESCRIPTION:** Adult kit foxes usually weigh 3–5 pounds. Males average 4 pounds, slightly heavier than females (3.7 pounds). Overall coat color is pale, ranging from buff to gray with seasonal variations. Fur on shoulders and front legs is distinctly reddish, the bushy tail is gray-black and darkest on the tip, and underparts are white. Adults have abundant white-tipped guard hairs that give them a “grizzled” appearance. Overall length from nose to tail tip is 1.9–2.8 feet. Ears appear large relative to the body and head, and are larger than those of other small North American canids.

**DISTRIBUTION:** Kit foxes inhabit arid regions and are most common in low-elevation, desert-like habitats in the western United States. In Arizona, they are distributed widely across the southern, western and northeastern portions of the state.

**HABITAT:** Throughout their range, kit foxes are primarily associated with desert shrub or shrub-grass habitats. They appear not to need free-standing water, meeting their water requirement through metabolic processes instead. Dens are vitally important to kit foxes, providing more moderate habitat temperatures in both summer and winter, a factor that greatly reduces the animal’s water needs.

Kit foxes are almost entirely nocturnal. They produce a series of alarm, fear or distress sounds, including barking, to alert other kit foxes of danger.

**BIOLOGY:** Kit foxes primarily eat small mammals (particularly rodents such as kangaroo mice, pocket mice and wood rats), but these opportunistic predators may prey on numerous species of mammals, birds, reptiles and insects. The number of kit foxes and the density of kit fox and prey populations fluctuate as a result of unreliable desert precipitation.

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The breeding season occurs during December and January, with three to six pups born during February and March. Pups are independent of their parents at 4–5 months of age. Pair formation begins during

October and November, with pairs remaining together at least until young are weaned. Males seem to provide most of the food for females and litters during pup rearing. Females are very attentive to young pups.

Kit foxes may live to be 8 or 9 years old, but generally, 90 percent to 95 percent of a population is less than 5 years old. Their primary sources of mortality include vehicles, great horned owls, bobcats and coyotes. Juveniles typically have a lower survival rate than adults.

**STATUS:** Though kit fox populations have declined in recent years due to drought and local habitat disturbance, they are still common throughout their range in Arizona.

**MANAGEMENT NEEDS:** Kit foxes fill a unique niche in Arizona, inhabiting arid regions with sparse vegetation. These habitats have undergone extensive modification over the past century, and the abundance of kit foxes has declined substantially in many areas. As with other species that rely on fragile desert environments, the kit fox’s greatest management need is for humans to identify and preserve these habitats. 🦊

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ILLUSTRATION BY ZACKERY ZDINAK