

Natural History of Bobcats



Bobcats in Arizona

Broadly distributed, bobcats are considered one of the most common native carnivores in Arizona. Although the Arizona Game and Fish Department (AZGFD) does not currently have a statewide population estimate for bobcats,ⁱ they are particularly abundant in rugged and brushy habitats associated with Sonoran desert scrub and chaparral.ⁱⁱ

Physical characteristics

Biologists call bobcats a “meso-carnivore,” that is a “medium-sized” carnivore. Native to North America, bobcats are about twice the size of a domestic cat and males tend to be larger than females.ⁱⁱⁱ Although their body size varies widely, adult females average 16 pounds and males average 22 pounds. They measure between 20 to 50 inches in length.^{iv} Bobcats typically live to be 13-15 years old in the wild.^v

The bobcat and lynx are very similar in appearance and easily confused. Bobcats can best be identified by their distinctly short bob-tail which is 2 to 8 inches long.^{vi} The tail has black fur on the top and is white on the underside. Bobcats are also smaller than lynx.

The bobcat has a wide, flat face with longer fur on the cheek area. Bobcats’ pelage, or coat, is spotted and widely variable in color from gray, brown to yellowish brown—and Tucson’s bobcats are “quite red.”^{vii} Their spots

act as camouflage, allowing them to melt into their surroundings. Bobcats’ bellies are white with black spots. While rare, instances of bobcats with melanism and albinism have been documented.^{viii}

Habitat & range

Bobcats have a wide habitat tolerance and can live in almost any habitat as long as there is cover, which they require in order to hunt. The species can survive in all forest types, brushland, scrub, prairies, semi-desert, desert, marshland, swamp, coastal habitat and mountainous terrain. To a lesser extent, bobcats can also survive in areas with human activity, including farmland, agricultural land and semi-urban landscapes.^{ix} Bobcats avoid deep snow.^x

The bobcat’s ability to adapt to many different habitats and ranges is a significant trait for the species’ survival. For example, in the Sonoran Desert, bobcats have adapted to survive on marginal habitats, which has few prey or inadequate shelter.^{xi}

Home range: A bobcat’s home range is a fixed area that includes necessary resources for life, such as hunting opportunities, water resources and denning sites where mothers can rear their kittens.^{xii}

Both male and female bobcats establish home ranges with considerable overlap. Male bobcats generally occupy larger home ranges than females – typically two to three

times the size.^{xiii} The average range size for a female bobcat is from 1 km² to 86 km² while the average range for a male bobcat is from 2 km² to 325 km². Bobcats’ range size will contract during prey peak periods, especially when hares and rabbits are abundant.^{xiv}

Figure 1: Current bobcat range



Density estimates for bobcats can vary widely, including 4-6 bobcats per 100km² (e.g. Idaho, Minnesota, Utah), 20-28/100km² (e.g. Arizona and Nevada), and more than 100 per 100km² in areas with high prey density and protection from human persecution (e.g. coastal California).^{xv}

Geographic range: Bobcats are widely distributed in North America, including in southern Canada, the contiguous U.S. and throughout Mexico to the southern state of Oaxaca.^{xvi}

Prey types & hunting methods

Bobcats are opportunistic hunters and will consume a wide variety of prey types. Bobcats are an “obligate” carnivore—meaning that they require an all-meat diet.^{xvii}

Bobcats compete for food resources with coyotes and, to a lesser extent, with mountain lions.^{xviii} Their main foods of choice include lagomorphs (e.g. snowshoe hares, cottontail rabbits and jackrabbits) and rodents (mice, squirrels and beavers). Bobcats also eat birds, reptiles (e.g. lizards and snakes) and other small mammals.^{xix}

Bobcats will prey on the fawns of white-tailed deer, mule deer, pronghorn and bighorn sheep, and on occasion, large males will prey on the adults of these species.^{xx} Bobcats also scavenge carrion.^{xxi} Road-, hunter- and winter-killed deer are important food sources for this “petite predator”.^{xxii}

Bobcats are opportunistic hunters, and while they may kill livestock, such as sheep, goats, piglets and poultry and even pets, those attacks are rare.^{xxiii}

Bobcats are silent hunters, obtaining most of their food by stalking their prey^{xxiv} and will often ambush their

prey by waiting motionless and then pouncing on it.^{xxv}

When bobcats walk, their claws are retracted, but during prey pursuits, they extend their claws for traction. Like other wild felids, bobcats use their claws and jaws to grapple prey.^{xxvi} Cats’ claws also permit them to scale trees and cliffs.

Hunting typically occurs at night. Bobcats usually hunt on the ground but will also pursue prey, such as squirrels, in trees as well as fish, amphibians and water fowl in shallow water.^{xxvii} They will occasionally cache carcasses with a covering of dirt or snow to consume over time.

Rearing of young

Female bobcats are able to reproduce at nine to twelve months of age but usually first give birth after they are two years old.^{xxviii} Bobcats can reproduce year-round but typically breed during winter and spring, with most young born during the spring and summer months.^{xxix} Females usually choose a secluded den, such as in a hollow tree, log, cave, or rocky crevice, to raise their litter of two to four kittens, and will often move their kittens around between multiple den sites to prevent detection from other predators.^{xxx} In more urban habitats, they have been known to den in backyards, using storage sheds, barns, and the spaces under buildings.^{xxxi}

Bobcat kittens depend on their mothers for survival for eight to ten

months,^{xxxii} but can remain with their mothers until up to two years of age before dispersal.^{xxxiii} They are weaned at approximately two to three months of age, after which they follow their mothers on daily hunts to master the craft of survival. By wintertime, kittens make their own kills.^{xxxiv}

When kittens are self-sufficient, typically between nine and twenty four months of age, biologists call them “transients” and they disperse from their natal areas (the area where they were born) in an attempt to find their own home range and mates. Dispersal distances vary widely among young bobcats. The longest documented dispersals were recorded in Idaho when two young males traveled 158km and 182km.^{xxxv}

Threats to survival

Bobcats face a variety of threats to survival but are mostly killed by people. Trophy hunting, trapping, poaching, accidental killing, and killing for livestock depredation are all significant threats to bobcat survival. Around 50,000 bobcats are legally killed in the U.S. and Canada each year.

Additionally, winter starvation, predation (e.g. from mountain lions, coyotes and domestic dogs), poisoning, and disease are also threats to bobcat survival.^{xxxvi} Rabies has only been documented in bobcats a few times, including once in Arizona in 2017.

ⁱ Roberts, N. M. and S. M. Crimmins. 2010. Bobcat Population Status and Management in North America: Evidence of Large-Scale Population Increase. *Journal of Fish and Wildlife Management*, 1(2):169-174

ⁱⁱ Hoffmeister, D. F. 1986. *Mammals of Arizona*. The University of Arizona Press, Arizona, USA.

ⁱⁱⁱ Hunter, L. 2015. *Wild Cats of the World*. Bobcat. Bloomsbury USA, pp.140-145.

^{iv} Arizona-Sonora Desert Museum. 2017.

^v Ibid.

^{vi} Ibid.

^{vii} Hansen, *Bobcat: Master of Survival*.

^{viii} Ibid.

^{ix} Hunter, L., and P. Barrett. 2011.

^x Hunter, L. 2015.

^{xi} Arizona-Sonora Desert Museum. 2017.

^{xii} Hansen, K. 1992. *Cougar: The American Lion*. Northland Publishing, Flagstaff, AZ

^{xiii} Hunter, L. 2015.

^{xiv} Hunter, L., and P. Barrett. 2011.

^{xv} Ibid.

^{xvi} Ibid.

^{xvii} A. M. Kitchen, E. M. Gese, and E. R. Schauster, "Resource Partitioning between Coyotes and Swift Foxes: Space, Time, and Diet," *Canadian Journal of Zoology-Revue Canadienne De Zoologie* 77, no. 10 (1999).

^{xviii} J. S. Lewis et al., "Contact Networks Reveal Potential for Interspecific Interactions of Sympatric Wild Felids Driven by Space Use," *Ecosphere* 8, no. 3 (2017); J. Witczuk et al., "Niche Overlap between Sympatric Coyotes and Bobcats in Highland Zones of Olympic Mountains, Washington," *Journal of Zoology* 297, no. 3 (2015); Hias Melville et al., "Prey Selection by

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- ^{xxi} Hunter, L., and P. Barrett. 2011. *Carnivores of the World*. Bobcat *Lynx rufus*. Princeton University Press, p. 34.
- ^{xxii} Hansen, *Bobcat: Master of Survival*. Hansen's term: "The Petite Predator" is the title of his second chapter, pg 27.
- ^{xxiii} Hunter, L., and P. Barrett. 2011. *Carnivores of the World*. Bobcat *Lynx rufus*. Princeton University Press, p. 34.
- ^{xxiv} Young, S. P. 1958. The Bobcat of North America. The Telegraph Press, Harrisburg, Pennsylvania, USA.
- ^{xxv} Arizona-Sonora Desert Museum. 2017.
- ^{xxvi} Van Valkenburgh and Ruff, "Canine Tooth Strength and Killing Behavior in Large Carnivores."; Husseman et al., "Assessing Differential Prey Selection Patterns between Two Sympatric Large Carnivores."; Hansen, *Bobcat: Master of Survival*.
- ^{xxvii} Hunter, L. 2015.
- ^{xxviii} Ibid.
- ^{xxix} Crowe, D. M. 1975. Aspects of Ageing, Growth, and Reproduction of Bobcats from Wyoming. *Journal of Mammalogy*, Vol. 56, No. 1, pp. 177-198; Fritts, S. H. and J. A. Sealander. 1978. Reproductive Biology and Population Characteristics of Bobcats (*Lynx rufus*) in Arkansas. *Journal of Mammalogy*, Vol. 59, No. 2, pp. 347-353; Lawhead, D. N. 1984. Bobcat *Lynx rufus* Home Range, Density and Habitat Preference in South-Central Arizona. *The Southwestern Naturalist*, Vol. 29, No. 1, pp. 105-113.
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- ^{xxxii} Hansen, *Bobcat: Master of Survival*.
- ^{xxxiii} Ibid.
- ^{xxxiv} Ibid.
- ^{xxxv} Hunter, L. 2015.
- ^{xxxvi} Hunter, L., and P. Barrett. 2011.