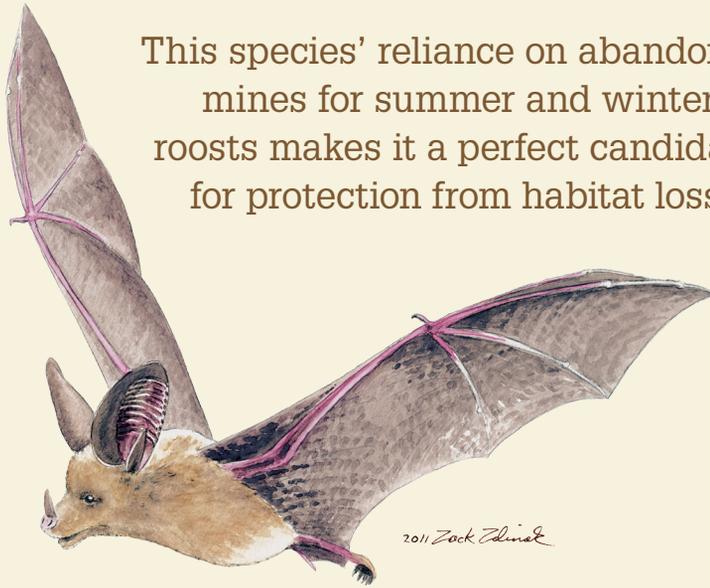


California Leaf-nosed Bat

This species' reliance on abandoned mines for summer and winter roosts makes it a perfect candidate for protection from habitat loss.



HERITAGE SPOTLIGHT

ILLUSTRATION BY ZACKERY ZEDNIK

DESCRIPTION: The California leaf-nosed bat can be distinguished from all other Western bat species because it is the only bat with very large ears (greater than 25 millimeters), gray fur, and a distinct leaf-like projection at the tip of the nose. This bat is one of four leaf-nosed bat species that occur in the United States. Its eyes are large and forward-pointing, evidence that it relies on eyesight as well as echolocation to capture insect prey. It weighs about 20 grams (the equivalent of 20 paperclips) and has a 13.5-inch wingspan. It is very agile in flight, capable of hovering to take insects from vegetation rather than catching them on the wing. It primarily eats large flying insects including moths, grasshoppers and cicadas, and flightless insect larvae such as caterpillars, which it gleans from bushes or the ground.

DISTRIBUTION: This species ranges through southern California, southern Nevada and the southwestern half of Arizona south to the southern tip of Baja California, northern Sinaloa and southwestern Chihuahua, Mexico.

HABITAT: The California leaf-nosed bat is mostly found below 2,500 feet elevation in Sonoran and Mohave desertscrub south of the Mogollon Rim. It lives year-round in the same area, but may use different roost sites for summer and winter homes. This bat typically is found in mines or caves offering large areas for flight, where it hangs from the ceiling in groups of a dozen up to several hundred. Unlike other species, this bat doesn't roost close and tight, but prefers a little space between individuals.

BIOLOGY: This species remains active year-round, and is not capable of hibernating. Instead, in the winter it depends on mines where underground temperatures are well above those in the external environment to help it regulate body temperature and protect it from the cold. This bat appears to be better at concentrating urine and conserving water than other species, and can reportedly go up to six weeks without drinking. Females have one young per year, during May or June. The young are capable of flying and foraging after one

month. The life expectancy for this species is 15 or more years.

STATUS: This bat is relatively restricted in habitat and by its tolerance of temperatures, and is considered sensitive to environmental changes. Habitat destruction and modification are threats to this species, when mines are closed for hazard abatement, or access or airflow to the mine is altered. Protection of winter sites and maternity sites are considered high priorities to conserve this species.

HERITAGE FUND SPOTLIGHT: This species' reliance on abandoned mines for summer and winter roosts makes it a perfect candidate for protection from habitat loss. Abandoned mines provide important habitat for bats, but pose safety risks to humans, so protective closures are constructed using vertical steel bars that allow bats to come and go. These "bat gates" provide good protection for certain bat species. This one adapts to gates due to its broad-winged maneuverability and ability to fly through gate bars.

Because roost sites with warm winter temperatures are considered high priorities for conservation, money from the Heritage Fund was used to build a cupola-style bat gate in Peoria, Ariz., to protect an important winter site that served as a home for up to 450 bats. Heritage Fund dollars also were used to construct a gate for a mine in the Tucson Mountains to protect a winter roost of up to 800 leaf-nosed bats. Now neighbors have an opportunity to enjoy the nightly emergence of bats from these abandoned mines.

MANAGEMENT NEEDS: Studies to better understand home range and distance between roost sites and foraging areas are needed. 🦇

■ Angela McIntire coordinates the Bat Project for the Arizona Game and Fish Department.