

Bats of Montana



Pallid Bat
(*Antrozous pallidus*)



Townsend's Big-eared Bat
(*Corynorhinus townsendii*)



Big Brown Bat
(*Eptesicus fuscus*)



Spotted Bat
(*Euderma maculatum*)



Silver-haired Bat
(*Lasionycteris noctivagans*)



Eastern Red Bat
(*Lasiurus borealis*)



Hoary Bat
(*Lasiurus cinereus*)



California Myotis
(*Myotis californicus*)



Western Small-footed Myotis
(*Myotis ciliolabrum*)



Long-eared Myotis
(*Myotis evotis*)



Little Brown Myotis
(*Myotis lucifugus*)



Northern Myotis
(*Myotis septentrionalis*)



Fringed Myotis
(*Myotis thysanodes*)



Long-legged Myotis
(*Myotis volans*)



Yuma Myotis
(*Myotis yumanensis*)

Discover Montana's Wildlife
— discover, preserve, protect —



For more information on all of Montana's native species visit the Montana Field Guide
<https://fieldguide.mt.gov>



Michael Durham/Minden Pictures/Bat Conservation International

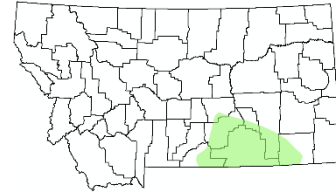


Montana Fish, Wildlife & Parks

Thanks to the contributing photographers, editors, and sponsors that made this poster possible!

You can help conserve and protect bats by installing a bat house to create roosting habitat. Bat house designs can be found at: <http://www.batcon.org>

Pallid Bat (*Antrozous pallidus*)



Status: Species of Concern

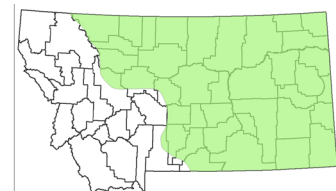
Distribution: South-central British Columbia to central Mexico.

Roosts: Summer day roosts include rock crevices, old buildings, caves, mines, and tree cavities. Hibernacula include rock crevices, caves, and mines.

Diet: Scorpions, crickets, beetles, grasshoppers, cicadas, moths, and even small lizards and rodents.

Ecology and Behavior: Found at low elevations in arid regions with rocky outcrops, particularly near water. Emerge late in the evening and can fly more than 2 miles to feed. Glean prey from the ground or foliage; walk on ground, can hover or glide momentarily. Produce a musky skunk-like odor. Usually roost in small colonies. Females have one or two young in June or July. Considered migratory with no winter records for Montana.

Eastern Red Bat (*Lasiurus borealis*)



Status: Species of Concern

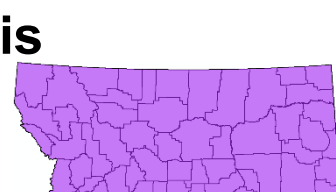
Distribution: Southeastern Canada and the eastern United States to northern Mexico. Montana is on the western margin of the range.

Roosts: Solitary-roosting. Summer day roosts include deciduous tree foliage. Hibernacula include hollow trees and leaf litter.

Diet: Moths, crickets, flies, mosquitoes, true bugs, cicadas, beetles and other insects.

Ecology and Behavior: Primarily found in riparian habitats, woody draws, shelter belts, urban woodlands. Medium sized. Body completely furred, except ears and parts of wings. Migratory; mating occurs during migration in August and September. Females give birth to one to four pups (typically three) in late spring or early summer; females with young not documented in Montana.

Little Brown Myotis (*Myotis lucifugus*)



Status: Species of Concern

Distribution: Throughout much of North America, from central Alaska and Canada to central Mexico.

Roosts: Summer day roosts include attics, barns, bridges, snags, loose bark, and bat houses. Hibernacula include caves, mines, and potentially rock crevices.

Diet: Mostly insects, including gnats, mosquitoes, crane flies, beetles, wasps, and moths.

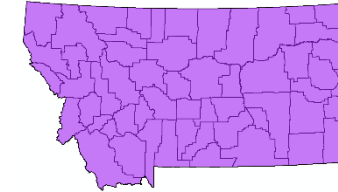
Ecology and Behavior: Found in a variety of habitats across a large elevation gradient. Commonly forages over water. Prey often caught with tip of wing then transferred immediately to mouth. Males and females mostly segregated during summer, females often in maternity colonies of up to a thousand individuals or more. Females have one young per year, usually born late June and July. Can live more than 30 years.

Conservation Issues

Bat populations are declining worldwide due to a variety of conservation issues, including loss of natural and human constructed roosting sites, pesticide contamination, loss of prey species, and collision or drowning hazards at sites where they forage or drink. In recent years, concerns have focused on mass mortalities associated with White-Nose Syndrome (WNS) and wind turbine development. WNS resulting from the cold adapted fungus *Pseudogymnoascus destructans* killed an estimated 5.7 to 6.7 million bats in eastern North America between 2006 and 2011, putting some species at risk of extinction. As of early 2017, *P. destructans* has not been detected in Montana, but it has been detected in Washington state and most states east of Texas and Minnesota. Two-thirds of Montana's bat species may be vulnerable to population impacts from WNS. For the latest information on WNS visit <http://whitenosesyndrome.org> Of North America's 45 known bat species, mortalities from wind turbines have been documented in 11 and 7 of these occur in Montana for at least a portion of the year. Three species are known to have suffered mortalities at wind turbine facilities in Montana. Of the species impacted across North America, ≥ 75% of the mortalities have been Silver-haired Bat, Eastern Red Bat, and Hoary Bat which are all migratory tree-roosting species. Research has shown that most mortalities are resulting from direct collisions with turbine blades. These and other recent sources of mortality, may have significant impacts on bat populations because most bats are long-lived (up to 40 years) and some only produce 1 or 2 young per year.

Year-round Summer
Range

Big Brown Bat (*Eptesicus fuscus*)



Status: Common

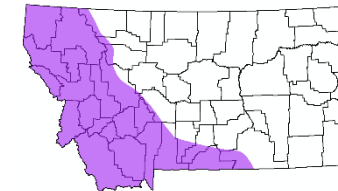
Distribution: Central Canada to northwestern South America and many Caribbean islands in many habitats.

Roosts: Summer day roosts: attics, barns, bridges, rock outcrops, bat houses. Hibernacula: caves, mines, crevices.

Diet: Beetles make up the majority of the diet; the remainder includes ants, flies, mosquitoes, mayflies, stoneflies, moths, aphids, and true bugs.

Ecology and Behavior: They emerge at dusk to forage, flying at 20-33 feet above ground, and travel in fairly direct paths to foraging areas. Large size and steady flight make this species relatively recognizable. After feeding, they fly to favored night roosts to rest and digest meals. Mating can occur anytime between September and March. In Montana, females have one young, usually born in late June. Young become capable of independent flight in 3-4 weeks.

California Myotis (*Myotis californicus*)



Status: Common

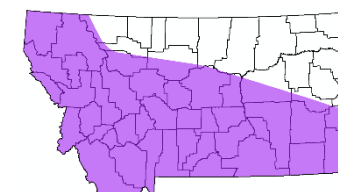
Distribution: Southern Alaska through western North America to southern Mexico.

Roosts: Summer day roosts include rock crevices, hollow trees and snags, under loose bark, and buildings. Hibernacula include caves, mines, and rock crevices.

Diet: Small flying insects; mostly flies, midges, mosquitoes, moths, and beetles.

Ecology and Behavior: Smaller bat. Primarily occurs in forested habitats at lower elevations. Sexes roost separately during summer but together during hibernation. Emerges shortly after sunset to forage, flying at irregular intervals until dawn. Flight is slow and erratic as it hunts along edges of tree canopies and over water. Mating occurs during autumn. Females give birth to a single pup in late June or July. Potential reproductive lifespan is 15 years.

Fringed Myotis (*Myotis thysanodes*)



Status: Species of Concern

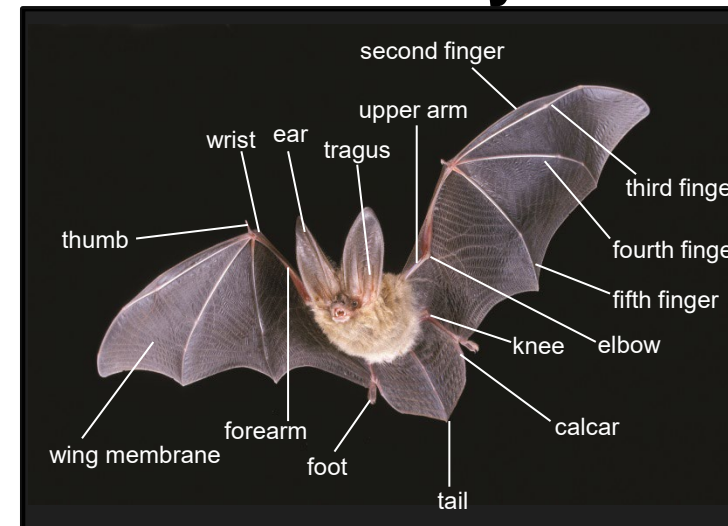
Distribution: South-central British Columbia, western US, and most of Mexico.

Roosts: Summer day roosts include snags, hollow trees, caves, rock crevices, bridges, and buildings. Hibernacula include mines and caves and potentially rock crevices.

Diet: Mostly moths and beetles.

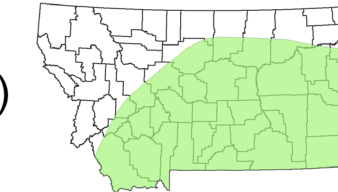
Ecology and Behavior: Usually found in dry woodlands; ponderosa pine, and riparian cottonwood forests in Montana. Often hunt close to the canopy; flight slow and highly maneuverable. Single pups are born in late June or early July, and weaned by 20 days of age. Colony can range from 10 to 2,000 bats, large colonies rare. Roost sites within maternity roosts often change in response to changes of temperature. Recent winter records from caves indicate year round presence. Mate in autumn, but fertilization and implantation occur in spring.

Anatomy



Please report observations of bats and bat roost sites at: <https://mtnhp.org/observations.asp>

Spotted Bat (*Euderma maculatum*)



Status: Species of Concern

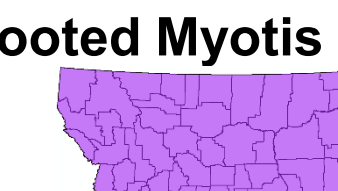
Distribution: South-central British Columbia to southern Mexico.

Roosts: Summer day roosts include cliffs, rock crevices, and buildings. Hibernacula include deep rock cracks and crevices and, more rarely, caves.

Diet: Mostly moths.

Ecology and Behavior: Medium-sized, long-eared; distinctive three-spot pelage. Occupy arid terrain with high cliffs, open pine and juniper woodlands, desert scrub. Emerge about an hour after dark and fly high, at or above tree tops. Forage to 10 or more miles from day roost. Low-frequency vocalizations are audible to humans. Little known about maternity colonies; largely solitary. Females have one young in late June or July. Considered migratory with no winter records for Montana.

Western Small-footed Myotis (*Myotis ciliolabrum*)



Status: Common

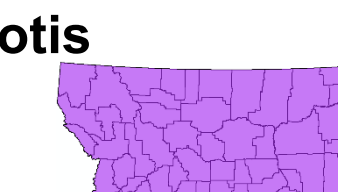
Distribution: Western North America, from southwestern Canada to western Mexico.

Roosts: Summer day roosts include rock outcrops, clay banks, loose bark, buildings, bridges, caves, and mines. Hibernacula include caves, mines, and rock crevices.

Diet: Small insects, including flies, mosquitoes, caddisflies, beetles, and moths.

Ecology and Behavior: One of our smallest bats. Found in mesic and arid conifer forest, associated with rock outcrops, talus, clay banks; also riparian woodland. Flight slow, erratic, and low over ground. Sexes mostly segregated; males roost singly, females may occur singly or in small maternity colonies. Females have one young in late June or July. Often hibernate singly.

Long-legged Myotis (*Myotis volans*)



Status: Species of Concern

Distribution: Southern Alaska and western Canada to northern Mexico.

Roosts: Summer day roosts include trees, rock crevices, fissures in stream banks, abandoned buildings. Hibernacula include caves, mines, and rock crevices.

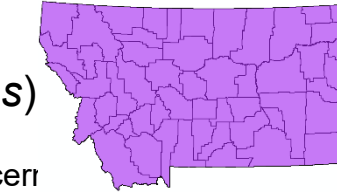
Diet: Primarily moths, but a variety of soft-bodied insects including flies, mosquitoes, mayflies, aphids, true bugs, and small beetles.

Ecology and Behavior: Occurs mostly in forested mountain regions and river bottoms, also at high elevations. Emerge early, during twilight, and active all night foraging around tree canopy and over water. Flight is direct with prey pursued over long distances. Sexes segregated in summer. Females have one young, usually born in late June or July. May live 21 years.

Bat Facts

Bats, members of the Order Chiroptera (meaning “hand wing” - see diagram to the left), make up approximately 20 percent of the world's mammal species; around 1,300 have been described. As the only mammals capable of sustained flight, bats are physiological marvels. During the active season their heart rates can reach 1,200 beats per minute while in flight and then almost instantaneously slowed to around 450 beats per minute while at rest; during hibernation their heart rates can be slowed to only 10-20 beats per minute. The unique ability of true flight has allowed bats to occupy a wide variety of ecological niches across all continents except Antarctica since they first evolved from a shrew-like ancestor approximately 50 million years ago. Species range in size from flying foxes which can weigh 3 pounds and have up to a 6 foot wingspan to a bumblebee bat that weighs less than 2 grams (less than a penny) with a wingspan of only 6.5 inches. Their broad distribution and diversity of ecological roles make bats important to humans and the preservation of biological communities. They consume enormous numbers of pest insects such as mosquitos, pollinate many flowers, disperse a variety of plant seeds to regenerate forests, and studies of their physiology and echolocation have inspired new medical and physical therapy treatments. One recent study found the economic importance of bats to North American agriculture likely ranges into the tens of billions of dollars annually.

Silver-haired Bat (*Lasionycteris noctivagans*)



Status: Potential Species of Concern

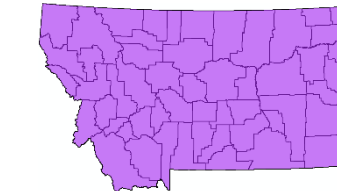
Distribution: Southern Alaska and Canada to northeastern Mexico.

Roosts: Summer day roosts include tree cavities, under loose bark, also bird nests, sheds, barns. Hibernacula include tree cavities, rock crevices, mines, and tunnels.

Diet: Insects, including moths, flies, mosquitoes, true bugs, caddisflies, termites, and beetles.

Ecology and Behavior: Medium-sized. Occupy mature conifer and deciduous forests, riparian woodlands and aspen. Emerge early; slow flying. Sexes segregated; frequently change roosts. Maternity colonies are relatively small and found at lower elevations. Females typically give birth to twins, usually in late June and July. Strong recent acoustic evidence for year-round presence, but there are no winter captures to-date.

Long-eared Myotis (*Myotis evotis*)



Status: Species of Concern

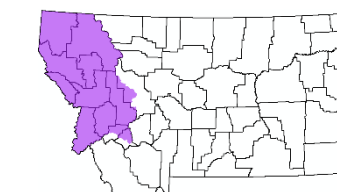
Distribution: Western North America, from southwestern Canada to Baja California, Mexico.

Roosts: Summer day roosts include abandoned buildings, bridges, hollow trees, stumps, under loose bark, and rock fissures. Hibernacula: caves, mines, and rock crevices.

Diet: Especially moths and beetles, also flies, lacewings, true bugs and spiders.

Ecology and Behavior: Occupy a wide range of rocky and forested habitats over a broad elevation gradient. Typically emerge 10-40 minutes after dark. Highly maneuverable; glean prey from leaves and bark or off ground. Sexes segregated in summer, females in small maternity colonies. Females have one young per year, usually born in late June or July, and return to previously used maternity roosts. Possibly migratory; few winter records for Montana.

Yuma Myotis (*Myotis yumanensis*)



Status: Species of Concern

Distribution: Southwestern British Columbia and western United States to central Mexico. Recent genetic and acoustic records indicate year-round presence west of the Continental Divide.

Roosts: Summer day roosts include buildings, bridges, mines, and bat houses, sometimes caves and trees. Recent acoustic evidence indicates rock crevices as hibernacula.

Diet: Often beetles as well as a variety of soft-bodied insects including flies, mosquitoes, mayflies, moths, and termites.

Ecology and Behavior: Similar appearance to, and difficult to distinguish from, Little Brown Myotis. Found near water in dry coniferous forests and arid shrublands. Emerge when it is nearly dark, often foraging low over water. Sexes segregated; males roost singly or in small groups. Maternity colonies can include several hundred individuals. Females have one young, usually born in late June or July.