



## Bats

Unique and remarkable in their ability to fly, these winged mammals are uncommon residents of Alaska. Although six different species of bats are listed as occurring in the state, they are not found in abundance here. Their distribution is generally limited to Southeast Alaska, a few scattered locales in Southcentral Alaska, and as far north as the Yukon River in the Interior.

**General description:** The six species known to occur in the state belong to the order Chiroptera (hand wing) and the family Vespertilionidae—the "evening bats." As their name suggests, they are nocturnal. Bats rely on a well-developed sonar system, emitting squeaks that are most often too high-pitched to be heard by humans. The sound waves bounce off solid objects, and in this way bats can quickly and accurately detect the location of flying insects or obstacles in their flight path.

The most common and wide ranging bat in the state is the little brown bat (*Myotis lucifugus*). Three other myotis species occur in Alaska: the long-legged bat (*M. volans*), Keen's bat (*M. keenii*) and California bat (*M. californicus*). All four species seem to prefer to roost in small colonies in abandoned buildings or old mine tunnels and caves. Sometimes they are found roosting alone in trees or rock crevices. Distinguishing the four myotis species from each other is extremely difficult. They are all small, dark brown, and display extremely erratic flight patterns. They weigh only about one-third of an ounce (9 gms). For positive identification, specimens should be sent to a qualified expert.

Little is known about the migratory patterns of bats in Alaska. The little brown bat and California bat are known to hibernate in Southeast Alaska. It is suspected that both the long-legged bat and the Keen's bat also hibernate in that region. No aggregations of hibernating bats have been found in the interior of Alaska, although little brown bats have been found on Kodiak Island in February. More winter records are needed to determine migratory patterns of bats in Alaska.

The other two bat species occurring within the state are the silver-haired (*Lasiorycteris noctivagans*) and big brown bats (*Eptesicus fuscus*). Silver-haired bats are restricted to areas of Southeast Alaska. Like the myotis group, they are nocturnal and insectivorous. Unlike the others, however, these two species are usually more solitary in their foraging and roosting habits.

The big brown bat weighs an average one-half of an ounce (14 gms), making it the largest bat in the state. It is easily discernible from the other bat species by its greater size and slower, more direct flight. Only one big brown bat has ever been confirmed in Alaska.

The silver-haired bat, as its name implies, has on its back white-tipped hairs over a black background. With a specimen in hand, this coloration is striking and easily distinguishes this bat from others. It is larger than any of the myotis species occurring in Alaska. The silver-haired bat roosts alone in trees and has only been found in Alaska in the winter.

**Life history:** Most bats in Alaska produce one young each year. The little brown bat breeds in late fall or winter. The female has a unique method by which the sperm is stored, and embryo development is delayed until May. The young are born in June or July, naked and blind. The newborn bats then either hang with other young at the roost site, or are carried clinging to the mother's stomach while she forages for insects. Usually, the young are on their own within a month after being born. Some banded bats have been known to live in the wild for over 20 years.

**Myth and fact:** Bats have long been persecuted largely through ignorance. The well-publicized tropical species have developed a reputation for sucking blood and have given rise to the myth of human vampires! The fact that bats are carriers of the rabies virus has also been exaggerated. In Alaska, because of their relative scarcity, bats are not often persecuted, although they should be handled with extreme caution. The most common problem with bats encountered in Alaska is simply their propensity to roost in chimneys or attics. When bats fly about uttering confused squeals, distressed owners can become alarmed. The best way to counteract their intrusion is simply to board up the cracks and crevices through which bats enter the buildings.

On the brighter side, bats do consume large quantities of flying insects including mosquitos. A colony of 500 little brown bats can easily consume 500,000 insects in a single night. Outside Alaska where bat populations are much larger, their roosting caves are sources for nitrogen-rich guano which is marketed as commercial garden and lawn fertilizer. The unique ecological niche that bats occupy also adds an enjoyable and sometimes eerie dimension to late evening outings in some of the forested areas of Alaska.

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