

## Bats in Alaska

by Jack Whitman

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

The five species known to occur in the State belong to the order *Chiroptera* ("hand wing") and the family *Vespertilionidae*—the "evening bats." They are nocturnal, usually feeding on flying insects. 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 myotis (*Myotis lucifugus*). Two other myotis species occur in Alaska (the long-legged myotis, *M. olans*, and Keen myotis, *M. keeni*). All three species seem to prefer to roost in small colonies in abandoned buildings or old mine tunnels, but are sometimes found roosting alone in trees or rock crevices. Distinguishing the three myotis species from each other is extremely difficult, and for positive identification, specimens should be sent to a qualified expert. They are all small, dark brown, and display extremely erratic flight patterns. They weigh only about  $\frac{1}{3}$  of an ounce (9 gms).

It is suspected that the long-legged and little brown myotis probably migrate south at the approach of winter when the insect activity decreases. The Keen myotis, however, may spend the winter in Alaska in hibernation. Winter records are needed to confirm this assumption.

The other two bat species occurring within the state are the silver-haired (*Lasionycteris noctivagans*) and big brown bats (*Eptesicus fuscus*). They are both restricted to areas of southeastern 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 of  $\frac{1}{2}$  an ounce (14 gm), 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.

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, too, is larger than any of the myotis species occurring in Alaska. The silver-haired bat roosts alone in trees and is thought to migrate south in the winter. The big brown bat is suspected to be a hibernator in Alaska, selecting hollow trees, abandoned buildings or caves to roost in.

Most bats in Alaska produce one or two young each year. The little brown bat breeds in late fall or winter, but the female has a unique method by which the sperm is stored, and embryo development is delayed until February. The two young are born in June or July, naked and blind. The newborn bats then either hang with other young at the roost sites, 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.

Bats have long been persecuted largely through ignorance. The well-publicized tropical species have developed a reputation for sucking blood and have even given rise to the myth of human vampires! The fact that bats are carriers of the rabies virus has also been over-exaggerated. In Alaska, because of their relative scarcity, bats are not often persecuted, although they should be handled with extreme caution. Their diminutive size is more than made up for by their mean disposition when handled. The most common problem with bats encountered in Alaska is simply their propensity to roost in chimneys or attics, causing the distressed owner to become alarmed when they fly about uttering confused squeals. The best way to counteract their intrusion is simply to board up the cracks and crevices through which they 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. In some areas, their roosting caves are sources for nitrogen-rich guano which is marketed as commercial garden and lawn fertilizer. The unique ecological niche which they 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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"Bats have few enemies. Bad weather is one of them. When not hibernating, they seem unable to endure long fasts; protracted cold, windy, rainy weather that keeps insects from flying, causes considerable mortality...."<sup>1</sup>

For the rest of us plodding, terrestrial creatures snow came soon, and the year plunged deeper into frost.

The following year in late September I hiked down into Banner Creek from Campbell's Hill on my way home from hunting. Halfway down the open hillside I stopped briefly to look inside a dilapidated frame shack left behind by miners a few years before. It was nearly dusk, and the light inside the shack was poor. But as my eyes became accustomed to the gloom, I found that I was not alone in the shack. My attention was caught by a dark, rounded shape on the wall near a window, halfway up from the floor. I stepped quietly over to it and found a small brown bat clinging to a crack in one of the boards. I had no light with me, and I was unable to see clearly any details of the creature, but it seemed to me that it was awake and that a pair of bright, steady eyes was watching me. I had a momentary impulse to pick the bat up and carry it outside where I could have a better look at it. I decided not to disturb it. I might have learned more, but I felt that it would not be worth the risk of scaring or injuring the bat.

After a brief search of the bare room, and finding no other bats, I left the shack and quietly shut the door. The door had been closed when I came, and the bat had apparently entered through a hole in the eaves or by a broken windowpane.

A week and some days later, a pair of bats again came to the homestead yard on a mild evening and flew about as they had the year before until long after dark. And once more, when the period of warm evenings ended, they disappeared.

They visited the homestead in this way for about four years. They came once or twice in late summer, but more often in the fall when a south wind had blown the last leaves from the birches, and the woods were silent and waiting. That rare, mild evening would come, a few insects—moths and gnats—emerged, and the dusk took on its brief summer life again.

Then, as mysteriously as they had first appeared, the bats deserted the homestead. I do not remember having seen them before that time, and not often since. During that same period, there were scattered reports of bats seen near Fairbanks in the evenings by people who did not know they existed so far north. It is likely that in milder years since that time these small bats have come and gone in other neighborhoods, and mostly unnoticed by people in lighted houses.

It may have been that from time to time a change in the climate of the Interior, so slight that it was otherwise unremarked, extended their range northward; or that a subtle shift in the pattern of their local migration brought them to the river, to the yard and the open field above it. And then, like so many other events in our lives, perhaps no explanation is needed. A wind from a great, hidden tree blew in our direction one evening and, like leaves loosened from a shaken bough, they came and they vanished.

Despite the shadowy undertones of folk literature and old wives' tales—the imagery of fear and transformation, of witch

craft and brooms, my own recollection of the terror shown by my mother and grandmother at the very thought of having a bat in the house—I have never felt uneasiness in their presence. I remember an incident years ago when I was a student in Washington. I came home late one night to the roominghouse where I lived; as I climbed to the landing on the second floor, I saw a large bat flying up and down the corridor. It flew swiftly, avoiding me each time it passed. The mid-fall evening was warm, and the bat may have been attracted by the moths that were fluttering at the landing light. I was concerned that the bat would be trapped and injured, and before going upstairs to my room, I opened a window at one end of the corridor.

"They are not witches....They will not try to get into your hair. Like most animals and some people, what they want is to be left alone."<sup>2</sup>

Though surely indifferent to our presence, as all wild things tend to be, they seemed in that far place, at the uttermost limit of their range, remote from attics and belfries, from all folklore and superstition—remote from every human infringement that has so often determined the existence of their kind—to be warm, curious and friendly creatures whose lives momentarily touched our own.

Another and distant fall shed its leaves in the wind; no bats came, and something of that rare kinship was missing in the October evening.

<sup>1</sup> Henry Hill Collins, Jr., *Complete Field Guide to North American Wildlife*. Harper & Bros., New York, 1958, p. 267.

<sup>2</sup> Collins, *Ibid.*

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v. 18(4), July-Aug 1986

# Alaska Fish & Game

July-August 1986

\$2.00



*Mark Newman*

*How can one accurately describe how it feels to be amongst several dozen brown bears at once? Humbling. Awesome. Spectacular. Wild. Wracking.*