

Bats serves as Nebraska's natural pest control agents

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You don't notice them flying in the night sky as you drive home, or in the trees above you as you walk your dog or under the bark of the dead tree at your fishing hole, but bats are everywhere in Nebraska.

In fact, there are 13 species of bats inhabiting our state. They exhibit a wide variety of shapes, sizes and colors. Some migrate to unknown locations each winter. Others stay in Nebraska and hibernate in caves, mines and occasionally homes. You probably won't notice them unless you happen to catch a glimpse of one eating insects under a streetlight or they make an unwelcome appearance in your home.

This time of year, bats that stay in Nebraska are waiting out winter by hibernating somewhere with a cool, steady temperature. This allows them to reduce their energy use and survive on fat reserves until insects become available again in the spring. Occasionally, bats will hibernate in our attics, roof tiles or shingles.

Despite urban legends, these flying mammals will not drink your blood (there are three species in Central America and South America that do), will not fly into

your hair (they may come close), and they probably don't have any diseases transmittable to humans (only 0.5 percent have rabies). If you happen to find them inside your house and they haven't come in contact with a human, they can be herded out an open window or scooped into a box without touching them and released outside.

Once the warm days of summer return, bats will eat up to their body weight in insects every night.

A colony of 50 bats can eat 150,000 mosquitoes every night. Because they feed so voraciously on insects, it is estimated that their feeding contributes billions of dollars to agricultural pest control across the United States, and at least \$1 billion to the corn industry, increasing yields by 1.4 percent and reducing pest damage by 20 percent.

Unfortunately, we may be hearing more mosquitoes buzzing and noticing more pest damage to our corn crops in coming years. Bat populations across the United States are rapidly declining, and because bats reproduce slowly they are unable to recover rapidly from population declines. A devastating disease called white-nose syndrome responsible for the deaths of millions of bats across the United States

was discovered in Nebraska last winter. It is caused by a fungus not native to North America that wakes bats up from hibernation and ultimately causes them to starve to death.

Since the fungus was discovered in the winter of 2006, researchers have been working tirelessly to control the spread of the fungus or even treat infected bats. Despite this effort, experts fear that some bats will become extinct in some regions.

Wind energy development is also affecting bats. Across the United States and Canada, an estimated 1 million bats were killed by turbines between 1999 and 2011.

Biologists in Nebraska are working hard to understand what is happening to these important, frequently overlooked animals. Graduate students at the University of Nebraska-Lincoln are working on projects to identify how bats migrate across the landscape and to quantify bat population trends and habitat use.

You can also help bat populations by building bat boxes, planting bat-friendly gardens or donating to the Nebraska Wildlife Conservation Fund when you do your taxes this year. More information on bats can be found at savebats.org or batcon.org.