



Below:

Little brown bat
(wildlifecontrolinfo.com)



Below:

Close-up view of big brown bat
(University of Lawrence Bat Pages)



Are Bats on Your Radar?

Bats are a valuable component of our environment. In Colorado and throughout North America they are the main predators of night-flying insects, consuming thousands of insect pests of crops and forests. In other parts of the world, bats also serve as important pollinators and seed dispersers. All 18 species of bats in the state are classified by the Division of Wildlife as nongame mammals and are thus protected by law. Exclusion is the soundest long-term solution.

What is the concern?

While bats are not considered a major reservoir of rabies (less than 0.5% of bats are infected with rabies), they may still pose a health threat to humans, and should be approached with caution. Physical contact with bats and exposure to bat droppings should be avoided. School sites which regularly encounter bats on the premises should have an on-going student/staff/faculty education program to reduce potential for contact. Contact the local health department if a person or pet has had direct contact with a bat.

The little brown bat

The little brown bat (*Myotis lucifugus*) accounts for 65% of reported captures along the Front Range foothills (Colorado Springs to Ft. Collins). This bat is found in urban areas, woodlots, shelterbelts, and riparian woodlands. The little brown bat isn't picky when it comes to selecting a roost and may share roosts with other species of bats. In the daytime, large numbers of bats may roost in attics or mines. They come out at dusk and feed over water (on caddis flies, midges, moths and mosquitoes) or among trees. At night, roosts include tree hollows, in or under buildings, bridges, crevices in rocks, behind shutters or beneath eaves. Some little brown bats hibernate in Colorado, but winter habits are poorly known here and elsewhere in the West.

The big brown bat

The big brown bat (*Eptesicus fuscus*) can be found just about everywhere in Colorado, especially in towns and cities. Large groups of big brown bats may take up temporary residence in an attic in the summer. While this may be an annoyance, it is also an effective control of flying insects; big brown bats have a preference for beetles and other large, flying insects. Big brown bats are year-round residents, hibernating in mines, caves, and a variety of other places.

Thanks to Rick Adams, Professor of Biology, University of Northern Colorado for providing this information.

Did You Know?

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- Bats rarely bite humans.
 - Bats communicate and navigate by using echolocation, or high frequency sounds.
 - Bats usually live to be approximately 20 years old.
 - Insect-eating bats can eat over 100 insects an hour.
 - Bats have been around for 50 million years!



Left:
Droppings and staining near bat entrances indicate a roost (batmanagement.com).



Right:
Mesh bird netting secured at top but not bottom to allow bats to exit but not reenter (IFAS extension).



Managing Bats with Integrated Pest Management

- Monitor and inspect areas where bats can enter buildings. Watching bats leave the roost at dusk can help locate entry sites. These include gaps under and over attic doors, gaps around pipes passing into the ceiling, pocket doors which slide into the walls, loose fitting baseboards, and broken plaster.
 - An opening ¼-inch by 1½-inch is big enough for a small bat to squeeze through.
 - Buildings with well-established roosts will probably have larger openings.
 - Bats normally enter near the top of structures.
 - Unlike rodents, which chew openings, bats use existing holes.
- Exclusion is the soundest long-term solution. Exclusions should never be done during the summer breeding season as mothers cannot get back to feed their infants in the roost and they will die.
- **Proper exclusion techniques should be used only between the months of October through March when bats are hibernating elsewhere.** Seal openings with sealant, hardware cloth, or wood after all bats have exited.
- Combine exclusion with the use of bat houses as an alternative roosting site. Unless you provide alternative roost, the bats will move to the nearest neighboring residence and become a problem there.

Why use IPM to Manage Bats?

- IPM approaches are more effective, and safer for both humans and bats.
- Although widely marketed to the public, ultrasonic devices have not been shown to be effective in repelling bats in independent testing.
- A few products containing naphthalene (same ingredient as moth balls) are labeled for repelling bats. Naphthalene-containing products are not recommended due to human health hazard.



For more info, check out:

Colorado School IPM:
<http://coloradoipmcenter.agsci.colostate.edu/>

EPA IPM in Schools:
www.epa.gov/pesticides/ipm

Colorado Division of Wildlife:
<http://wildlife.state.co.us/>

Centers for Disease Control and Prevention:
www.cdc.gov

Colorado State University

Extension