

ENHANCING NATURAL HABITAT

Bats need more than just a nice place to roost during the day. They must feed and drink every night. Having a variety of good habitat types in close proximity will make your property more attractive to bats. Promote good habitat by:

Providing clean, open water in ponds or lakes.

Maintaining hedge rows and wind breaks.

Preserving areas along forest edges as well as old trees.

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Common Insect-Eating Bats



808-2318

red bat
Lasiurus borealis



828-1503

little brown myotis
Myotis lucifugus



803-3401

Mexican free-tailed bat
Tadarida brasiliensis



802-3408

pallid bat
Antrozous pallidus



000-1517

big brown bat
Eptesicus fuscus



807-4202

silver-haired bat
Lasiurus cinereus

© All Species photos by Merlin D. Tuttle, BCI

LIVING SAFELY WITH BATS

Like most other mammals, bats can contract rabies. However, the risk of exposure from bats is extremely remote for anyone who simply keeps them outside and leaves them alone. To protect your family, vaccinate dogs and cats and caution children never to handle any unfamiliar animal.

CONTACT INFORMATION



Natural Resources Conservation Service

USDA Natural Resources
Conservation Service (NRCS)

Contact your local NRCS Field Office
(A directory of all states and their offices can be
found at www.nrcs.usda.gov)



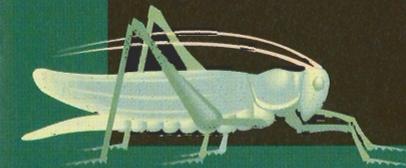
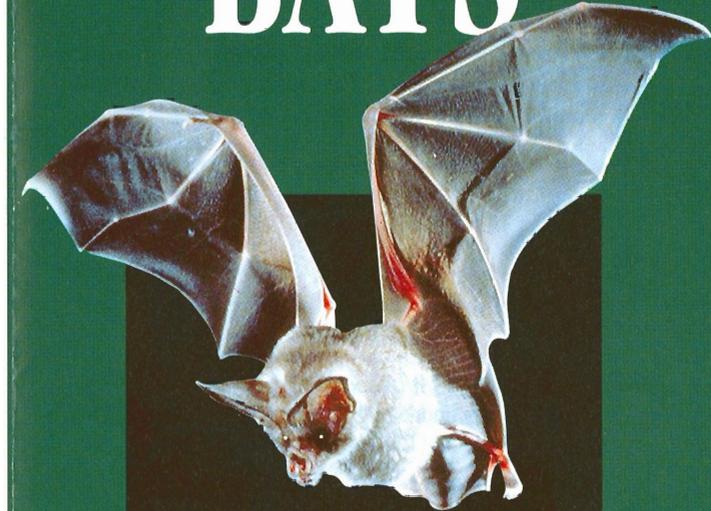
Wildlife Habitat Management Institute
100 Webster Circle, Suite 3
Madison, MS 39110
(607) 607-3131
www.ms.nrcs.usda.gov/whmi/

For more information about attracting and living safely with
bats, or to obtain resource publications, contact:



Bat Conservation International
P.O. Box 162603 • Austin, Texas 78716
(512) 327-9721
www.batcon.org

BATS



AND
INTEGRATED
PEST MANAGEMENT

AMAZING BAT FACTS

-  Nearly 1,000 kinds of bats account for almost a quarter of all mammal species, and most are highly beneficial.
-  Bats are the only mammals capable of self-propelled flight, and they live on every continent except Antarctica.
-  Contrary to popular misconceptions, bats are not blind, do not become entangled in human hair and seldom transmit disease to other animals or humans.
-  Not only do bats see as well as other mammals, they also use echolocation to detect objects as fine as a human hair in total darkness.
-  Though bats are long-lived (some living up to 34 years), they reproduce slowly. Most species bear and nurse just one pup per year.
-  The pallid bat (*Antrozous pallidus*) of western North America is immune to the stings of scorpions and even the seven-inch (125-cm.) centipedes upon which it feeds.
-  Townsend's big-eared bats (*Corynorhinus townsendii*) can maneuver like helicopters to pluck insects from foliage or to drink from tiny pools. In contrast, Mexican free-tailed bats (*Tadarida brasiliensis*) are built like jets, require large open spaces to maneuver and fly up to 10,000 feet (3,000 m.) high.
-  Like most animals, bats suffer from habitat loss and environmental pollution, but the primary cause of their decline is wanton destruction by humans.
-  Loss of bats can increase the demand for chemical pesticides, jeopardize whole ecosystems, and harm human economies.



Seventy percent of all bats eat insects, including many crop and forest pests.

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AGRICULTURAL ALLIES

-  Bats are primary predators of beetles, moths, leafhoppers and other insects that cost farmers and foresters billions of dollars every year. They also devour mosquitos in our backyards.
-  Without predators, insects would soon overwhelm the earth. Like birds, bats consume enormous quantities. Mexican free-tailed bats (*Tadarida brasiliensis*) from just three caves near San Antonio, Texas, eat approximately a million pounds nightly, including many costly pests.
-  Illustrative of the impact that even small colonies of bats can have, just 150 big brown bats (*Eptesicus fuscus*) can eat sufficient cucumber beetles each summer to protect farmers from 33 million of these beetles' root worm larvae, pests that cost American farmers an estimated billion dollars annually.
-  One Georgia pecan grower was losing 30% of his pecan crop to hickory shuckworms and other major southeastern pests. For the past two years, after installing bat houses, he has seen no further crop damage. One bat house now hosts a colony of more than 2,000 bats.
-  One little brown myotis (*Myotis lucifugus*) can catch 1,200 mosquito-sized insects in just one hour, sometimes catching two in single second. A nursing mother eats more than her own body weight nightly, meaning that colonies can consume vast numbers nightly.
-  Many garden pests can hear bats from over 100 feet (30 m.) away and will avoid areas where bats are present. Researchers have shown that, by playing even fake bat sounds over test plots of corn, they can scare corn earworm moths away, reducing damage from their larva by 50%.
-  A red bat (*Lasiurus borealis*) that eats even 100 moths may prevent egg-laying that could otherwise produce 25,000 new caterpillars that could attack farmer's crops.
-  Silver-haired bats (*Lasiorycteris noctivagans*), western long-eared myotis (*Myotis evotis*) and many other bat species help keep countless forest insects in check.
-  Pallid bats (*Antrozous pallidus*) benefit ranchers by consuming large quantities of grasshoppers and crickets.
-  The hoary bat (*Lasiurus cinereus*), the only land mammal native to Hawaii, often feeds on sugarcane leafhoppers, a serious pest to Hawaii's premier agricultural crop, and on the island's highly destructive wood termite.

INCORPORATING BATS INTO INTEGRATED PEST MANAGEMENT

The most important threat to bats is loss of natural roosts. You can help, and reduce insect pests, by providing alternative homes for bats that feed on your property by:



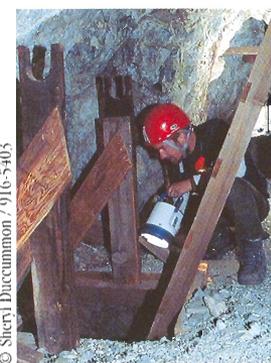
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building a bat house, and placing it at least 10-12 feet (3-4 m.) off of the ground on a pole or the side of a building,



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working with highway departments to create roosts in nearby bridges,



© Sheryl Durcummon, / 916-5405

and decreasing disturbance to nearby bat roosts in caves and mines by educating the local community about the importance of bats, providing signs at the entrances of caves or mines where bats live or erecting bat friendly gates at entrances to minimize human disturbance.

The Bat House Builder's Handbook and the *Building Homes for Bats* video provide easy to follow instructions for attracting bats.

The *Bats and Mines* resource publication provides detailed plans for protecting bats in caves and mines.

The *Bats in American Bridges* handbook provides instructions on how to benefit from attracting thousands of bats to bridges.

All are available from Bat Conservation International.