

BAT HOUSE “HOW-TO”

Bats are one of the most beneficial animals to people because they are insectivores, feeding on night-flying insects like mosquitoes, moths, and beetles. A single bat can eat 3,000 or more mosquito-sized insects per night (more than half its body weight!), saving people billions of dollars annually on pest controls including toxic pesticides. Bats are an extremely important part of our environment.



Big brown bat. © Phil Wooldridge

More than half of America’s bat species are in severe decline because of factors including habitat loss, disturbance to hibernating colonies and summer roosts, persecution by man, and diseases such as the recent White-nose Syndrome. We can’t control all the threats, but building and installing bat houses is a simple way to give our local bats a boost, providing them with secure places to rest and raise their young.

Bat houses add to our bats’ summer roosting options, which naturally include loose tree bark, cavities in dead trees, or cracks in rocks, but also commonly include attics, barns, churches, and other artificial (man-made) structures. In summer, male bats tend to be solitary or live in small groups known as bachelor colonies. Female bats, though, form large maternity colonies where they give birth and raise their young. Maternity roosts must be large enough to hold many bats and must meet certain criteria to be used for rearing young.

Building a Better Bat House

Not all bat houses are created equal.

- Bat houses should be at least **2 feet tall** and thick enough to accommodate two or more roosting compartments, separated by thin vertical slats called “baffles.” Larger bat houses provide better insulation from the elements, so they tend to be more successful than shorter, thinner designs.
- The roosting compartments between baffles should be $\frac{3}{4}$ ” to 1” thick (bats like to nuzzle in tight spaces). All baffles should be roughened & scratched, creating coarse surfaces for the bats to grip. Since bats have only one little claw per wrist to cling with when they land, provide a strip of plastic mesh or roughened wood at the bottom of your bat house.
- A $\frac{1}{2}$ ”+ vent gap should be placed between front boards about 6” from the bottom of the bat house to prevent it from overheating on hot summer days. Bat houses can be made out of exterior plywood, cedar or pine. Do not use pressure-treated wood. All exterior surfaces should be coated with an exterior-grade water-based paint. In New Jersey, use black or dark brown paint to help retain heat - an important requirement for mother bats and their vulnerable young pups.



A better bat house. © Ben Wurst

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Installing a Better Bat House

Proper site selection is the key to success when installing your bat house.

The bat house should be placed at least 12 feet off the ground in an open spot, ideally facing south-southwest to maximize sun exposure (7+ hours of direct sun each day is best). It should be within ¼ mile of a reliable drinking source like a stream or pond; insects are also plentiful around water. Bat houses should be placed within 100 feet of a tree line to provide cover from aerial predators. Bat houses should not be lit by bright lights, so installing near a porch or street lamp is generally a bad idea. Placing a bat



A successful bat house (looking up inside from beneath). © Melissa Craddock

house above walkways or patios may result in a messy pile of bat droppings, called guano, produced by the tenant bats. Guano makes great fertilizer, though, so put it to use in your garden! Bat houses can be installed at any time of the year but are more likely to be used during their first summer if installed before May. When using bat houses in conjunction with excluding bats from a building, install bat houses at least a couple of weeks before the actual eviction. The best places to mount bat houses are on poles or buildings. Tree mounts are not recommended, since trees often create too much shade and are more accessible to predators like raccoons, snakes, cats, etc. If a tree is your only option, secure a metal predator guard around the tree below your bat house.

A well built bat house needs minimal maintenance. Check your bat house once a year to make sure there are no gaps or cracks caused by deteriorating caulk or warped wood. Caulk or repaint bat houses during the off-season when bats are not present. Occasionally, insects such as wasps or hornets will make their nests in a bat house. Carefully remove these nests in the spring prior to the insects' or bats' return.

CWF keeps track of NJ bat roosts and population trends through our Summer Bat Count project. If your bat house is occupied, please share your information with us by contacting Stephanie.Feigin@ConserveWildlifeNJ.org

THANKS for being a friend to bats...and GOOD LUCK!!!

The Conserve Wildlife Foundation of New Jersey is a non-profit organization dedicated to protecting New Jersey's endangered and threatened wildlife and the habitats they depend on for survival. We accomplish this through research and conservation projects and education and outreach programs that advance the protection of New Jersey's rarest wildlife residents.

**For more information, please visit our website at
www.ConserveWildlifeNJ.org or contact Stephanie Feigin at
Stephanie.Feigin@ConserveWildlifeNJ.org or
call (609)-984-0621**

Information for this fact sheet was adapted from the following sources:
Bat Conservation International (www.batcon.org) and Bat Conservation and Management
(www.batmanagement.com)



Bat houses mounted on a building.
© Ben Wurst



A bat house mounted on a pole.
© MacKenzie Hall



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