Facts on the Fly!

BAT CONSERVATION INTERNATIONAL
www.batcon.org

Answers to Questions About Bat Houses

Will attracting bats to bat houses in my yard increase the likelihood that they will move into my attic or wall spaces?
No. If bats liked your attic or wall spaces, they probably would already be living there.

How many bats can potentially occupy my bat house?
A single-chamber house can shelter 50 bats, while a larger multi-chamber design can attract colonies of 200 or more bats.

How can I determine the likelihood of attracting bats?
Throughout most of the United States and much of Canada there are occupied bat houses being used by one of North America's many crevice-dwelling bat species. Wherever bats live, they must find enough insects to eat, largely explaining their preference for roosting near aquatic habitats. The closer you live to cave or mine hibernating sites the better, and the existence of bat colonies in nearby buildings and bridges also increases your chances.

Why might bats not be attracted to my bat house?
The most frequent cause of failure is inappropriate exposure to solar heating. Alternatively, bats may not be able to live in your area due to heavy pesticide use, inadequate food supply or lack of available caves and mines within 50 to 100 miles (80 to 160 km). So far, we are unaware of large areas of North America (except for hot desert lowlands) that cannot attract bats.

If I have bats living in my attic, but would prefer that they occupy a bat house, what should I do?
Attics and other parts of buildings often provide ideal bat roosting sites. In most cases, bats will not voluntarily move from an attic. In such cases, alternative roosts ideally should be provided several months or one season before the desired move. The bats should be evicted from the attic at a time in the early spring or fall when flightless young are not present. Eviction is often easily accomplished. Watch to see where the bats emerge at dusk. Using ¼" (4 mm) or smaller plastic mesh, bird netting or clear, heavy plastic, hang a large enough piece over the emergence point, extending a foot (30 cm) below and to each side of the exit. Secure the net in place so that it hangs free an inch (25 mm) or so away from the building. It will act as a one-way valve, permitting exit, but closing when bats land on it to return. For more information about bat eviction, please refer to the Bats in Buildings section of BCI's website (*www.batcon.org*).

How effective are bats in controlling insects?
As primary predators of night-flying insects, bats play a key role in the balance of nature, consuming vast quantities of insects, many of which are costly agricultural and yard pests. Furthermore, many insects avoid areas where they hear bats.

Will having bat houses in my yard interfere with attracting birds?
No. They rarely compete for food or space.

Will bat droppings pose a threat to my family?
No more so than bird or cat droppings would. You should avoid inhalation of dust associated with animal feces of any kind.

What are the chances that a sick bat will endanger my family with rabies?
Only 14 people in more than 50 years have contracted rabies from North American bat species that commonly live in bat houses. Like all mammals, bats can contract rabies, although very few do. Unlike many other animals, even rabid bats rarely become aggressive. They quickly die from the disease, and outbreaks in their colonies are extremely rare. The odds of being harmed by a rabid bat are remote if you simply do not attempt to handle bats. Any bat that can be easily caught should be assumed to be sick and left alone. We do not recommend attracting bats to places where curious children are likely to attempt handling them. With or without bats in your yard, the most important action you can take to protect your family from rabies is to vaccinate your family dogs and cats.

Criteria for Successful Bat Houses

1. Design. All bat houses should be at least 2 feet tall (61 cm), have chambers at least 14 inches (36 cm) wide, and have a landing area extending below the entrance at least 3 to 6 inches (8 to 15 cm) (some houses feature recessed partitions that offer landing space inside). Taller and wider houses are even better. Rocket boxes should be at least 3 feet (91 cm) tall and have at least 12 inches (30 cm) of linear roost space. Most bat houses have one to four roosting chambers—the more the better. Roost partitions should be carefully spaced ¾ to 1 inch (19 to 25 mm) apart. All partitions and landing areas should be roughened. Wood surfaces can be scratched or grooved horizontally, at roughly ¼- to ½-inch (6 to 13 mm) intervals, or covered with durable square, plastic mesh [⅛- or ¼-inch (3 to 6 mm) mesh. Include vents approximately 6 inches (15 cm) from the bottom of all houses 24 to 32 inches (61 to 81 cm) tall where average July high temperatures are 85°F (30°C) or above. Front vents are as long as a house is wide; side vents 6 inches (15 cm) tall by ½ inch (13 mm) wide. Houses 36 inches (91 cm) or taller should have vents approximately 10 to 12 inches (25 to 30 cm) from the bottom.

2. Construction. For wooden houses, a combination of exterior plywood (ACX, BCX or T1-11 grade) and cedar is best. Plywood for exteriors should be ½-inch (13 mm) thick or greater and have at least four plies. Do not use pressure-treated wood. Any screws, hardware or staples used must be exterior grade (galvanized, coated, stainless etc.). To increase longevity, use screws rather than nails. Caulk all seams, especially around the roof. Alternative materials, such as plastic or fiber-cement board, may last longer and require less maintenance.

3. Wood Treatment. For the exterior, apply three coats of exterior grade, water-based paint or stain. Available observations suggest that color should be black where average high temperatures in July are less than 85°F (30°C), dark colors (such as dark brown or dark gray) where they are 85° to 95°F (30° to 35°C), medium colors where they are 95° to 100°F (35° to 38°C) and white or light colors where they exceed 100°F (38°C). Much depends upon amount of sun exposure; adjust to darker colors for less sun. For the interior, use two coats dark, exterior grade, water-based stain. Apply stain after creating scratches or grooves, or prior to stapling plastic mesh. Paint fills grooves, making them unusable.

4. Sun Exposure. Houses where high temperatures in July average 80°F (27°C) or less should receive at least 10 hours of sun. At least six hours of direct daily sun are recommended for all bat houses where daily high temperatures in July average less than 100°F (38°C). Full sun is often successful in all but the hottest climates. For maternity colonies in summer, internal bat house temperatures should stay between 80° and 100°F (27° and 38°C) as long as possible.

5. Habitat. Most nursery colonies choose roosts within ¼ mile (400 m) of water, preferably a river or lake. Greatest bat house success has been achieved in areas of diverse habitat, especially where there is a mixture of varied agricultural use and natural vegetation. Bat houses are most likely to succeed in regions where bats are already attempting to live in buildings.

6. Mounting. Bat houses should be mounted on buildings or poles. Houses mounted on trees or metal siding are seldom used. Wooden, brick or stone buildings with proper solar exposure are excellent choices, and locations under the eaves often are successful. Single-chamber houses work best when mounted on buildings. Mounting two bat houses back to back on poles is ideal (face one house north, the other south). Place houses ¾ inch (19 mm) apart and cover both with a galvanized metal roof to protect the center roosting space from rain. All bat houses should be mounted at least 12 feet (4 m) above ground; 15 to 20 feet (5 to 6 m) is better. Bat houses should not be lit by bright lights.

7. Protection from Predators. Houses mounted on sides of buildings or on metal poles provide the best protection from predators. Metal predator guards may be helpful, especially on wooden poles. Bat houses may be found more quickly if located along forest or water edges where bats tend to fly, but they should be placed at least 20 feet (6 m) from the nearest tree branches, wires or other perches for aerial predators.

8. Avoiding Uninvited Guests. Wasps can be a problem before bats fully occupy a house. Use of ¾-inch (19 mm) chambers reduces wasp problems. Wasp nests should be removed in late winter or early spring before either wasps or bats return. Open-bottom houses greatly reduce problems with birds, rodents or parasites, and guano does not build up inside.

9. Timing. Bat houses can be installed at any time of the year, but they are more likely to be used during their first summer if installed before the bats return in spring. When using bat houses in conjunction with excluding a colony from a building, install the bat houses at least two to six weeks before the actual eviction, if possible.

To order The Bat House Builder's Handbook, Building Homes for Bats video or ready-made bat houses, visit Bat Conservation International's online catalog at: www.batcatalog.org.

Join Bat Conservation International – Our members and donors make our conservation successes possible.

Bat Conservation International is a nonprofit organization dedicated to conservation, education and research initiatives involving bats and the ecosystems they serve. For more information visit: www.batcon.org