

# Bats of the Southern Appalachians



**Big brown bat**, *Eptesicus fuscus* (Frequent bat house user)

ID: Large bat (0.8 oz; 4.3-5.1 inches total length) with glossy yellow-brown fur and medium length ears with rounded tips. The tail tip extends beyond membrane.

Habitat: Wide range of habitats from urban to rural. Typical summer roosts are man-made structures, trees, or snags.



**Little brown bat**, *Myotis lucifugus* (Frequent bat house user)

ID: Smaller than Big brown bat. Fur is glossy yellow-brown and belly is buff yellow with darker roots. Long toe hairs on the feet.

Habitat: Associated with humans, often forming colonies in buildings, attics and other man-made structures, but also roosts in tree cavities and crevices.



**Indiana bat**, *Myotis sodalis* (Endangered; occasional bat house user)

ID: Medium-sized bat (0.3 oz; 3.2 inches total length) with charcoal fur on back and a buff belly. The skin around the eyes is pinkish. Small feet with short toe hairs.

Habitat: During summer, roosts under loose bark of dead trees. During winter, hibernates in caves and mines.



**Northern bat**, *Myotis septentrionalis* (Occasional bat house user)

ID: Medium-sized bat. Dark brown, yellow-brown or blond fur on back. Fur is dark at the root. Pinkish skin around ears and eyes. Long ears.

Habitat: During summer, roosts under exfoliating bark and in tree cavities. During winter, hibernates in caves and mines.



**Eastern small-footed bat**, *Myotis leibii* (Not a frequent bat house user)

ID: Very small body size (0.1 oz; 3.3 inches total length). Pale yellow to golden-brown fur on back. Cream colored belly. Black mask on face and black ears.

Habitat: During summer, roosts between rocks and crevices and occasionally in buildings, trees, and bridges. During winter, hibernates in caves and mines.



**Tri-colored bat** (Eastern pipistrelle), *Perimyotis subflavus* (Occasional bat house user)

ID: Small body size (slightly larger than *M. leibii*). Brown/reddish fur on back (tri-colored). Facial skin is pinkish brown. Forearms are pinkish.

Habitat: During summer, roosts in foliage and occasionally in buildings and bridges. During winter, hibernates in caves and mines.



**Eastern red bat**, *Lasiurus borealis* (Not a frequent bat house user)

ID: Medium-sized. Males are a bright reddish orange, while females are a duller orange with frosting on the tips of the fur. The tail membrane is furred on the upper surface.

Habitat: During the summer, roosts in dense foliage in trees. Migrate to warmer regions during the winter where they roost among leaves on the ground.

**Other bats found in this region** include the hoary bat, Seminole bat, silver-haired bat, evening bat, gray bat, Mexican free-tailed bat, and Rafinesque's big-eared bat.

## Why are bats so important?

**They eat insects that are pests to crops and trees. They save us millions of dollars in pesticide use!**



# BAT HOUSES



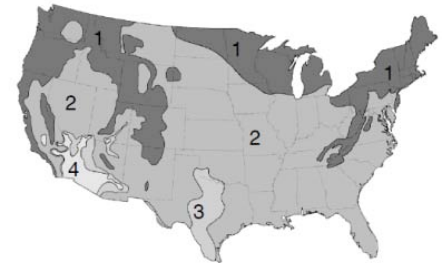
## Why put up a bat house?

1. Bats eat thousands of insects each night.
2. Provide bats alternative to living in human dwellings.
3. Provide a secure roost for species declining due to habitat loss and white-nose syndrome (go to [whitenoisesyndrome.org](http://whitenoisesyndrome.org) for more info).

## How to select the correct bat house

1. Design
  - At least **2' tall, 13" wide, and 3" deep**
  - Roost chambers at least 20" tall, 14" wide, and 3/4" apart
  - Landing area extending 3-6" below the entrance
  - Opening at least 3/4 - 1 inch wide
2. Construction
  - **Cedar or Exterior Plywood**
  - Caulk all seams and use galvanized screws instead of nails
3. Wood Treatment
  - Exterior- 3 coats of exterior grade, water-based paint or stain
  - Consult map at right for paint color
  - Interior- 2 coats dark, exterior grade, water-based stain
4. Sun Exposure
  - At least **six hours of direct daily sun** recommended for all bat houses where July's daily highs average < 100° F
5. Habitat
  - **Diverse habitat** (mixed agriculture and natural habitats)
  - ≤ 1/4 mile from a source of water
  - Where bats have already attempted to live in buildings
6. Mounting
  - Mount on a building or pole; **bat houses mounted on trees are not as successful**
  - At least 12 feet above the ground
7. Protection from Predators
  - **Houses mounted on buildings or on metal poles** provide the best protection from predators
  - Metal predator guards may be helpful
8. Avoiding Uninvited Guests
  - Use 3/4" roosting spaces and open-bottom design to reduce the risk of wasps, birds, squirrels, and other pests
9. Timing + Experimentation
  - Install at any time of year, but more likely to be used if installed before the bats return to the area in spring
  - Test for use before putting up > 3-6 houses

Bat house color recommendations and average daily high temperatures in July

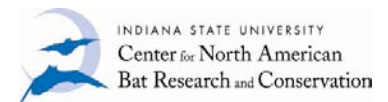


Areas	Wooden Houses	Plastic/Stucco Houses
1) Dark areas:	black	dark color
2) Medium:	dark or medium color	medium color
3) Light:	medium color	light color
4) Lightest:	white or light color	light color



**Visit these websites for plans on how to build your own bat house or buy a ready-made house!**

[http://batconservation.org/drupal/bat\\_house](http://batconservation.org/drupal/bat_house)  
<http://batcon.org/index.php/get-involved/install-a-bat-house.html>



Visit [www.isubatcenter.org](http://www.isubatcenter.org)  
for more information