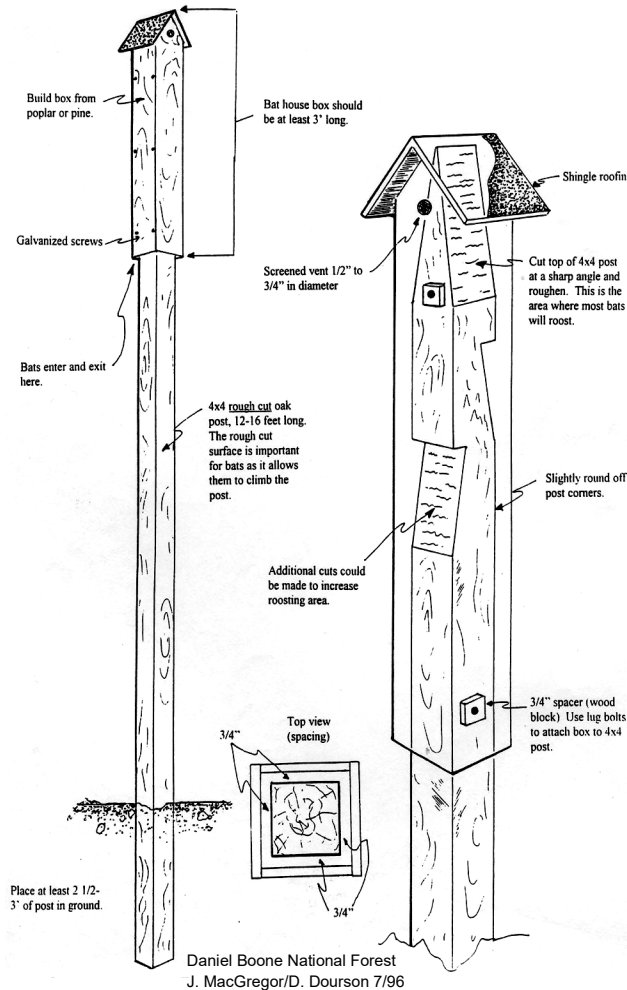


Construction & Placement Tips

Post Bat House

- The best wood to use for the 4x4 post is oak, red cedar, or black locust. You may consider joining two 8-foot posts together. This would allow you to place treated timber in the ground and use the other recommended types for the upper part.
- The box itself can be made of a variety of wood since it is not in contact with the ground. If you use something other than cedar, we recommend you use an exterior primer and finish coat of paint (tan or brown color) to extend its life.
- Do not use treated lumber for any parts bats may have contact with.
- Use only galvanized screws to put the bat box together.
- Spacing between the bat box and the 4x4 post is critical. Any more than $\frac{3}{4}$ inch will make it more attractive to mud daubers and paper wasps.
- Place boxes in small openings especially along the edge habitats near ponds and along the edge of forest roads, utility rights-of-way, small forest gaps, or other similar open habitats.
- Locating boxes in clusters of three to five seems to provide a variety of options for a colony of bats. They can move from box to box reducing parasitism and predation, as well as find the optimum temperature based on weather conditions.
- The design shown can house up to 200 bats.

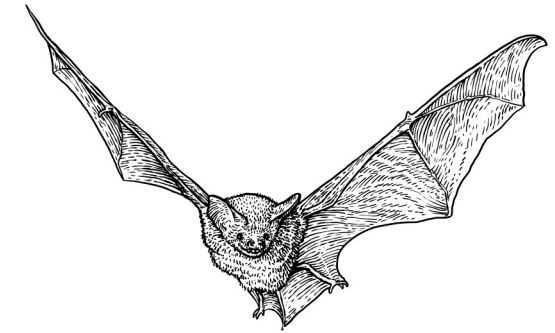
Post Bat House Design



Bat Conservation Fact Sheet

LAND BETWEEN THE LAKES National Recreation Area

KENTUCKY | TENNESSEE



Bat populations in the United States are in a steep decline due to habitat loss and an invasive fungus called white-nose syndrome, which disrupts hibernation.

Installing a bat house in your yard can help reverse this trend. As urban areas expand, the role humans have in providing shelter for bats may become even more critical.

Additionally, bat houses provide a peaceful and effective solution for removing bats from attics and other spaces where they are unwelcome.

Learn more about these incredible creatures and discover how you can build your own bat house.



USDA Forest Service

Land Between the Lakes National Recreation Area

General Information:

1.800.525.7077 or 270.924.2000

Website:

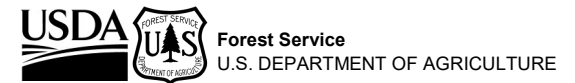
www.landbetweenthe lakes.us

EMERGENCY or reporting:

911 or 1.877.861.2457

Check out our Facebook page:

facebook.com/LBLNatlRecArea



USDA is an equal opportunity employer, lender, and provider.

Bat Conservation

LAND BETWEEN THE LAKES National Recreation Area



Bat Facts

- There are over 1,400 different bat species in the world
- Bats are the only flying mammal
- Bats can reach speeds over 100 miles per hour
- Bats use a navigational method called echolocation, a series of high-frequency sounds that bounce back to their ears, to locate obstacles and flying insects
- Bats are not blind
- They pollinate over 500 plant species, providing us dietary staples like bananas, mangoes, and avocados
- All eastern U.S. bat species eat insects
- Less than one-half of 1% of bats contract rabies
- Bats will not compete with birds for food or space
- Bats are the most significant predators of night-flying insects and are much more effective than electric bug zappers at reducing insect pests
- Like cats, bats bathe themselves to keep their fur clean and free of parasites
- Baby bats are called pups
- Like nearly all mammals, bats have belly buttons

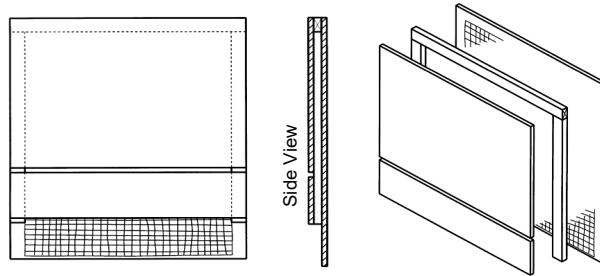
What if they're living in my attic?

No need to fear! Bats will not damage the structure and can peacefully co-exist with humans. Bats sleep most of the day and leave the roost at dusk.

However, if you prefer that bats live someplace else, the best removal method to use is **exclusion**.

Identify entry/exit spaces and seal them. The best time for this is late fall or winter when bats have left for the season. In the summer, hang screening over the holes to allow bats to leave, but not re-enter. Be sure there are no bats (especially young) left inside before you seal the spaces.

The design and construction information is reprinted with permission from Bat Conservation International (BCI). For more information about bats, BATS magazine, or membership in BCI, visit the BCI website at www.batcon.org, or call 512.327.9721.



Construction and Placement Tips

Economy Bat House

- Use exterior grade (untreated) plywood or cedar. Keep any interior wood rough and cut 1/8" horizontal grooves to give them something to grip.
- Make sure all seams are sealed with exterior grade silicone caulk. This will help keep moisture out, as well as maintain internal temperature. Paint or stain exterior with good exterior decking/siding finish.
- In northern regions, paint exterior of box dark brown. Place box so it will receive at least four hours of sun each day. This will help keep the box warm.
- In extreme southern regions, painting box exterior a light color will help reduce intense heat. Place box where it gets less than four hours of sun each day.
- Place box as high as possible using 16-foot treated 4x4 post set 2½ - 3 feet in the ground .
- Placing two boxes back-to-back facing east/west has increased success rates.
- Placing boxes in small clearings or forest edges near a pond or stream is recommended.
- Attaching boxes to trees has been proven unsuccessful in most cases. Poles or buildings are much more productive locations.
- The design shown can house up to 50 bats.

Economy Bat House Design

Materials Needed (makes 1)

- ¼ sheet (2' x 4') 1½" cdx (outdoor grade) plywood
- 1 piece 1" x 2" (0.75" x 1.75" finished) x 8' pine (furring strip)
- 20-30 1¼" multipurpose (drywall) screws
- 1 pint latex acrylic paint
- 1 tube paintable acrylic caulk
- 5/16" staples

Recommended Tools

- Table saw or handsaw
- Variable speed reversing drill
- Phillips bit for drill
- Tape measure or yardstick
- Caulking gun
- Scissors
- Stapler
- Paintbrush

Construction Procedure

1. Measure and cut plywood into three pieces:
26.5" x 24" 16.5" x 24" 5" x 24"
2. Measure and cut furring into one 24" and two 20¼" pieces.
3. Screw back to furring, caulking first. Start with 24" piece at top.
4. Staple the netting into inside surface of back, starting at the bottom. Be sure netting lies flat (curve down) and does not pucker.
5. Screw front to furring, top piece first (don't forget to caulk). Leave ½" vent space between top and bottom front pieces.
6. Caulk around outside joints if needed to seal roosting chamber.
7. Attach a 3" x 28" board to the top as a roof, if desired.
8. Paint exterior at least twice.

Optional Modifications

1. Wider bat houses can be built for larger colonies. Be sure to adjust dimensions for back and front pieces, ceiling furring strip, and netting. A ¾" support spacer may be required in the center of the roosting chamber for bat houses over 24" wide.
2. Two bat houses can be placed back-to-back mounted on poles. Before assembly, a horizontal ¾" slot should be cut in the back of each house about 10" from the bottom edge of the back piece to improve ventilation and permit movement of bats between houses. Two pieces of wood, 4" x 4¼" x ¾", screwed horizontally to each side will join the two boxes. One 3" x 22" vertical piece, attached to each side over the horizontal pieces, blocks light but allows bats and air to enter. Leave a ¼" space between the two houses, and roughen the wood surfaces or cover the back of each with plastic netting. Do not cover the vents. A tin roof covering both houses protects them and helps prevent overheating. Eaves should be about 3" in southern areas and about 1½" in the north.
3. Ventilation may not be necessary in colder climates. In this case, the front should be a single piece 23" long. Smaller bat houses should not be used in northern areas.