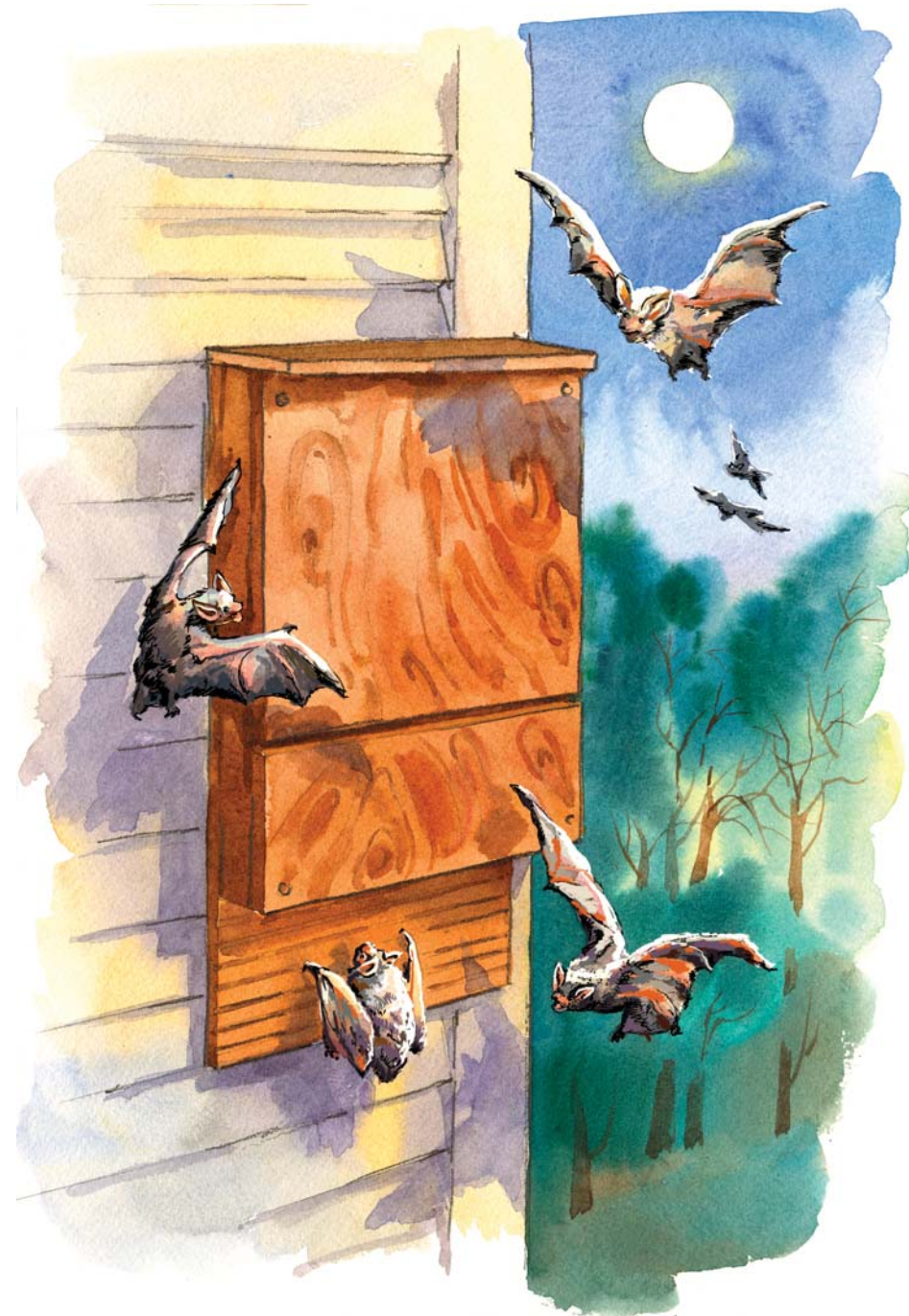


HOW TO: BUILD A BAT BOX

SIMPLE PROJECTS FOR CONSERVATION

Of the 1,100-plus bat species in the world, 47 live in the United States. More than half of them are either declining in population or already listed as endangered, mostly because of habitat loss. The disappearance of bats would devastate ecosystems. Not only do they help control insect populations (a single bat can eat up to 2,000 mosquitoes in one night), but they also pollinate plants and disperse seeds.

Bats don't just live in caves. Some roost in trees, bridges, attics—all sorts of nooks and crannies. To help compensate for habitat loss, you can build a "bat box." These artificial roosts are affordable, easy, and effective. The following instructions, provided by Bat Conservation International, www.batcon.org, are for a single-chamber bat box that can house 50 or so bats.



ILLUSTRATIONS BY MARIA RABINKY

Materials:

- 1/4 sheet (2' x 4') 1/2" AC, BC, or T1-11 (outdoor grade) plywood. Do not use pressure treated wood.
- One piece 1" x 2" (3/4" x 1 1/2" finished) x 8' pine
- 20-30 1 1/4" coated deck or exterior-grade Phillips screws
- One pint dark, water-based stain, exterior-grade
- One pint water-based primer, exterior-grade
- One quart flat water-based paint or stain, exterior-grade
- One tube paintable latex caulk
- 1" x 4" x 28" board for roof
- Black asphalt shingles or galvanized metal
- 6-10 7/8" roofing nails

Recommended tools:

- Table saw or handsaw
- Caulking gun
- Paintbrushes
- Variable-speed reversing drill
- Screwdriver bit for drill
- Hammer
- Tape measure or yardstick
- Tin snips



1. Preparing the wood

Measure and cut the plywood into three pieces: 26 1/2" x 24"; 16 1/2" x 24"; and 5" x 24". Roughen the inside of the backboard and landing area by cutting horizontal grooves with a sharp object or saw. Space the grooves 1/4" to 1/2" apart, cutting 1/32" to 1/16" deep. These grooves give the bats footing. Then, cut the furring strip into one 24" piece and two 20 1/2" pieces.



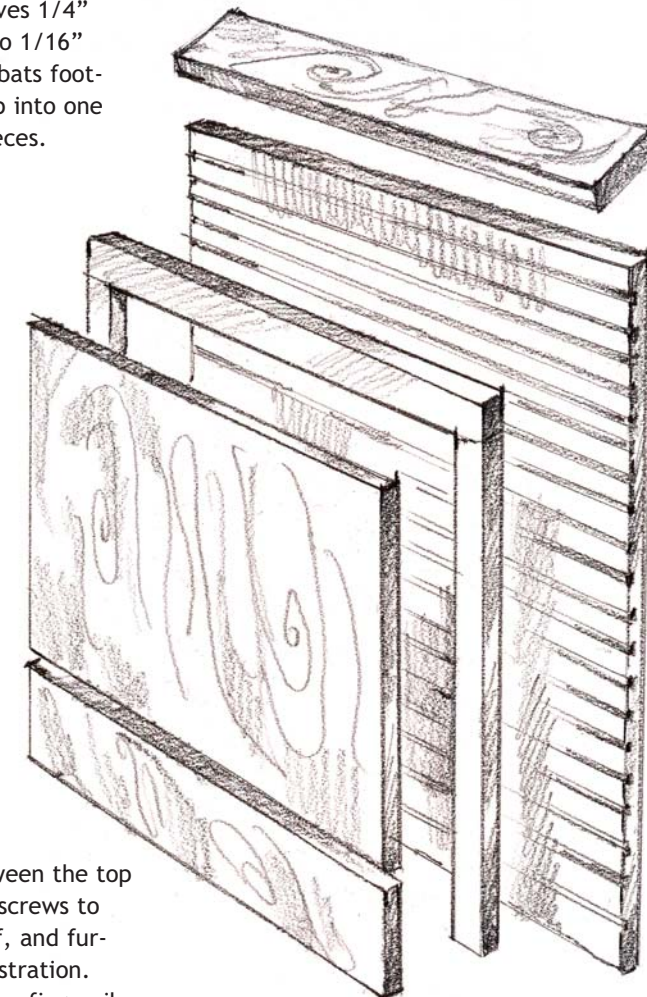
2. Staining the inside

Apply two coats of dark, water-based stain to the interior surfaces. Don't use paint as it would fill the grooves.



3. Caulking the joints

Attach the furring strips to the rear, caulking first. Start with the 24" piece at the top. Then attach the front of the bat box to the furring strips, again using caulk to create a seal.



4. Final assembly

Leave 1/2" vent space between the top and bottom front pieces. Use screws to assemble the front, back, roof, and furring strips as shown in the illustration. Caulk the outside joints. Use roofing nails to attach shingles or galvanized metal to the roof. Apply three coats of paint or stain to the exterior (use primer for the first coat).

5. Location

Mount the bat box on a building where it can get enough day-time sun to keep the bats warm. The south or east sides usually work best. The box should be at least 15 feet off the ground to keep predators out, and preferably close to a water supply for drinking. It might take a couple of years for the bats to start roosting, but be patient. About 60 percent of all bat houses eventually attract bats. If yours doesn't, try moving it to a new location.