The Definitive Barred Owl Box Plan, v5.1.1.1...

Step 1—the most important one: Read the instructions. Don't just look at the picture and build something that looks like what you see. There are important details in the instructions!

Steps 2-whatever:

Get a 4x8' sheet of 3/4" <u>exterior-grade, treated plywood</u>. Don't scrimp here and use non-treated plywood, unless you want to build another box in 4 or 5 years. Have the lumber shop cut it in half lengthwise. Cut one of the now 2'x8' halves every 19". (After watching on our nest-box video 3 baby owls fooling around in a 24x24" box and using all the space, I don't see any advantage of making it smaller than 19"x19", despite many plans that suggest even smaller boxes.) You'll have 5 pieces 24x19". These will be the 4 sides of the box plus the top. You'll need to cut the bottom out of the other half of your original piece of plywood. You'll wind up with quite a bit left over. If you can get your lumber yard to sell you a 2x8' sheet, you can buy a 2x2' piece to use for the top of the box. The top can be 1/2" thick. Stain all the pieces with a deck preservative before assembly. When the stain has dried, assemble the 4 sides following the floor plan below. Use 2 or 2.5" deck screws to assemble the box. Don't spare the screws! Put on every 6" or so. (Make sure no screws protrude into the box, where they might injure the birds.) Once you've got the 4 sides together, measure what you need for the bottom and cut this from the remaining plywood and fasten it to the 4 sides.





Important observations.

Drill some 1/2" drainage holes in the bottom of the box and 4 or 5 holes near the top of the side of the box that you will attach to the tree. The box will be heavy, so it will have to be pulled up into the tree with a pulley attached to a branch above where it will be fastened. This is a dangerous procedure, and we recommend getting a tree surgeon (or us) to mount the box.

The box should be about 15-20' off the ground. There is NO need to go higher and this just makes it hard to access for banding or cleaning. Squirrels will occasionally fill a box with sticks, making it impossible for owls to use it. If the box is ladder accessible (i.e. no more than 20' up) the sticks can be removed. It is very important to put a couple of inches of wood chips or pine straw in bottom of the box before installing it. Owls don't carry sticks and build a nest, so they need something to keep the eggs from rolling around in the bottom of the box.

Use at least four 3-4" long 3/8" lag screws (with washers) to fasten the box to the tree. You will have to get them started with a hammer (especially if you're putting the box on an oak!) or bring a cordless drill into the tree and pre-drill the holes. We just started doing this and it is a big improvement. Once you get one screw set into the tree, get the box more or less level and screw in 3 or 4 more of the lag screws. Don't screw the lag screws in too tight against the inside of the box. As the tree grows it could push the box right off the lag screws.

Do not cut corners on construction! One year a box built (not by us!) with too few, too short screws fell off the tree it was fastened to, and the two young that had been in the box died of exposure during the night. Use 3/4" plywood, at least for the four sides and bottom. Use 2-2.5" screws about every 4-6" all the way around. Screws are cheap and it's a bummer to find your box on the ground with dead babies in it.

You could get away with 1/2" plywood if you use 2"x2" strips on the inside joints and screw the sides of the board into the 2x2s. The big issue is that a screw going lengthwise into 1/2" plywood does not have much of a purchase. As the plywood ages and begins to delaminate a bit, screws will pull out easily. 3/4" plywood is much better for this reason.

Pay attention to the floor plan below. It is important that the front and back of the box overlap the ends of the piece you're going to lag screw into the tree. This piece will never come off the tree, but the rest of the box can easily pull off the side if not properly attached (like the illustration on the right). For added security, L-braces can reinforce this all-important junction. It's a good idea to reinforce the connection of the bottom of the box to the sides with L-braces as well (see "Assembled Box" illustration above). They would be screwed into the sides and wrap around under the bottom.

Once the box is up, it's a good idea to nail some 2' high metal flashing around the tree, about chest height. This will keep raccoons from climbing up to the box. Raccoons will eat eggs or kill babies if they find an occupied box. And if they find the box before owls have started using it, they may take it over as a day-time roost. Barred Owls can't displace a raccoon that is using a box.



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