



Build a duck nest box

Wood ducks, Barrow's goldeneyes, common goldeneyes, hooded mergansers, common mergansers and buffleheads are all cavity nesting ducks. They build nests in abandoned woodpecker holes or natural tree cavities caused by disease, fire or lightning. These ducks will also use a constructed nesting box. Here are plans for a nest box that you can build, install and maintain. The design, which is used by the Ducks Unlimited Greenwing program, may even attract other cavity nesting birds such as kestrels, tree swallows, great crested flycatchers or screech owls.

Cedar is ideal*

Cedar lumber is recommended because it is naturally resistant to weather and insects. You can also use any materials you have available such as pine or plywood. The box pictured uses 10.5 linear feet of 1" X 10" (3/4" thick by 9 1/4" wide) lumber that is rough on one side (for the inside of the box). *Ducks Unlimited staff in the interior of British Columbia indicate that plywood boxes better withstand the region's temperature extremes.

Finishing touches

Ducks Unlimited does not recommend applying a finish to cedar boxes. A finish might help to extend the life of a plywood box.

If you decide to apply a finish to your nest box, use a nontoxic wood preserver or a light shade of an earth tone paint. The ducks will find your box by seeing the contrast in color caused by the entry hole. Do not apply finish inside the box.

Cavity nesting ducks do not carry nesting materials. It's important to help them out by placing four to six inches of wood shavings in the bottom of the box. You can find wood shavings at your local pet or farm supply store. **Do not use sawdust.** It can suffocate ducklings.

Every year, in the fall after the nesting season has completed or in the winter, clean out old nesting material from the box and replace it with a fresh layer of wood shavings. **This annual cleaning needs to be a part of your long-term maintenance commitment once you place your nest box.**



Constructing and placing a nest box is a fun project that brings years of enjoyment. Above: this pole mounted nest box features a conical metal predator guard. Below: wood duck drake.

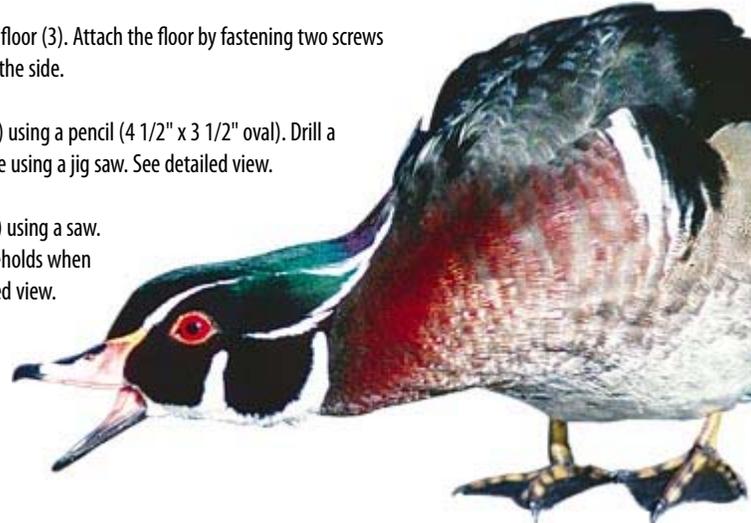
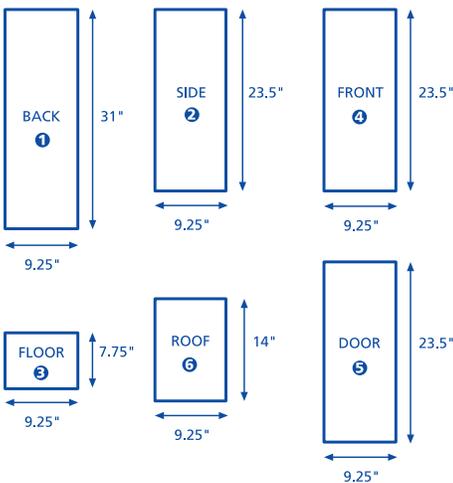
PROCEDURE

Tools needed: handsaw or table saw, drill and 1/2" bit, jigsaw, screwdriver, sandpaper, pencil, measuring tape, straight-edge

- 1) Measure and cut your wood to produce the six pieces. Number the pieces as shown. See material measurements.
- 2) Attach the back (1) to the side (2) using four screws fastened from the back of the box. See exploded view (*next page*).
- 3) Drill five 1/2" drainage holes in the floor (3). Attach the floor by fastening two screws through the back and two through the side.
- 4) Draw the entry hole on the front (4) using a pencil (4 1/2" x 3 1/2" oval). Drill a pilot hole and cut out the entry hole using a jig saw. See detailed view.
- 5) Score the inside face of the front (4) using a saw. The horizontal slots will provide toeholds when the ducklings climb out. See detailed view.

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MATERIAL MEASUREMENTS - not to scale



Finding the right place

Now that you've completed construction of your nest box, you need to consider where to install it. Be sure to place the box in a location that will be convenient for monitoring and annual maintenance.

Where to find tenants

To increase the chances of your nest box being used by waterfowl, it should be located in an area attractive to cavity nesting ducks. You'll see these birds using wooded wetlands that contain water year round or, at least, throughout the summer. You'll also see them using trees along riverbanks and lake shorelines.

Positioning your nest box

Nest boxes can be mounted on tree trunks or on steel poles beside the water or above the water.

Good placement a dead tree at the water's edge

Better placement a solid dead tree in the water

Best placement boxes on poles near standing, flooded, dead trees

Live trees can be used for mounting boxes, but keep a close eye on your box. Growing trees may loosen mounts and make boxes less attractive to the birds.

Tree Trunks

Live and dead trees are suitable. If beavers are about, don't place nest boxes on poplar or white birch trees. Beavers eat these trees.

Steel Poles

Make sure the poles are fixed solidly in the soil, or marsh bottom, to ensure that the nest boxes are stable. Drill two holes in this pole to accommodate a predator guard (see below).

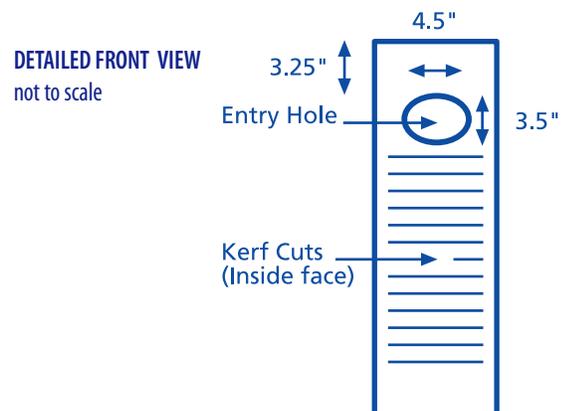
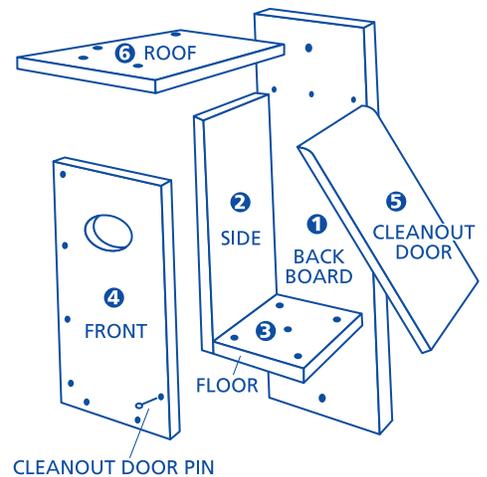
- Boxes should be placed above typical high water levels and at a height that will allow you to access the box for monitoring and maintenance (about 4 to 6 feet above land or water). In terms of distance inland, try to keep your box close to the water.
- Clear an unobstructed flight path to your nest box by removing branches that might be in the way.
- The entrance hole to the box should face the water.
- You can tip the box forward a little bit to help the ducklings reach the entrance.



PROCEDURE (continued)

- 6) Attach the front (4) using six screws.
- 7) Round the top, outside edge of the door (5). See exploded view. Fasten the door at the top with one screw from the front and one from the back. The two screws form the hinge and allow the door to open. Pin the door shut with a nail from the front.
- 8) Attach the roof (6) using four screws from the top and three screws from the back (be careful not to screw into the door). The box is now ready to install. Don't forget to put a 4-6 inch layer of wood shavings in the box for nesting material.

EXPLODED VIEW - not to scale



Predator Guards

A predator guard will help to improve the chance of a successful hatch by preventing egg-eating raccoons from entering your nest box.

1) Steel Sheet Sandwich

36" X 49" sheet of 28 gauge steel

- Fold the sheet in half along the 49" length, creating a front and a back, each 24" wide
- Along one 36" side, make a 1" fold towards the inside centre
- Drill two holes, 34" apart (see diagram)
- Place your guard so it surrounds the pole or tree trunk. Slip the unfolded side under the 1" fold. Using vice-grips, bend the corners in to lock these pieces and prevent the guard from opening.
 - *Pole mount:* bolt the guard into place about 2" below the nest box.
 - *Tree mount:* nail the guard in place – if the tree is alive, check the guard often to ensure tree growth hasn't popped the guard off.

2) Plastic Pipe Guard

Metal or plastic pipe (stove pipe, sewer pipe) drilled at the top and bottom and bolted to the tree or pole makes an effective predator guard. To prevent small rodents from crawling through, place a crumpled piece of chicken wire between the pole and the guard.

3) Plastic "Crazy Carpet" Guard

A new use for children's inexpensive plastic snow riders located in any toy store. Wrap the carpet around the tree and tack it in place. Be sure to provide room to grow if you place this guard on a living tree.

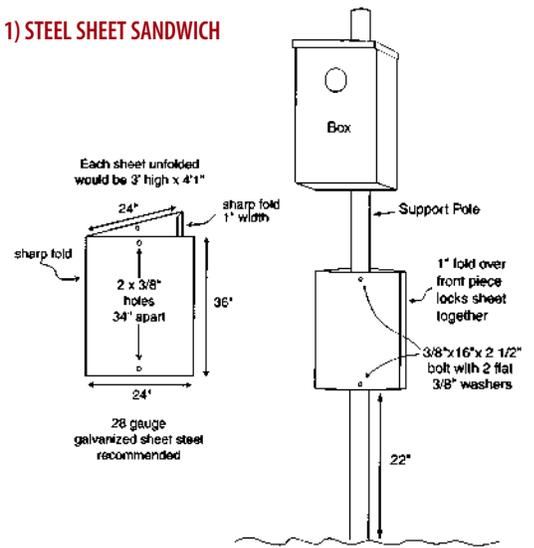
Nest box maintenance — a long-term commitment

Once a cavity nesting bird starts using your box, you'll likely see many broods raised over the years. Nesting sites for these birds are limited in number. When they find a good nesting site, there is a very good chance they'll return in following years. When you put up a nest box you are committing yourself to maintaining that box. Fall and winter are the best times to remove old nesting material, tighten any loose screws and mounts, and add new wood shavings.

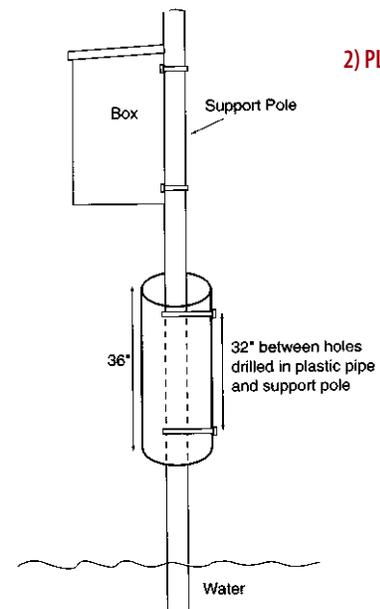
If you don't have any ducks using your box over the summer, don't worry. Waterfowl biologists have seen waterfowl migrating in the fall scope out potential nesting sites for next spring. This too is a good reason to keep your boxes in top condition. You never know when somebody might be popping in!

This information has been compiled from the *Nest Box Guide for Waterfowl* by Ducks Unlimited and the Canadian Wildlife Service, Environment Canada; and a *Conservator* article (Vol. 19, No. 3) by Mearl Rooney.

1) STEEL SHEET SANDWICH



2) PLASTIC PIPE GUARD



3) CRAZY CARPET GUARD

