Barn Owl Nestbox Plans

PLANS FOR A BARN OWL NEST BOX
SUITED FOR SOUTHERN ONTARIO

17
20
BACK
20
16

LEFT SIDE

15

FLOOR

16

RIGHT SIDE

3¼ HINGES & LATCH SHOULD BE USED FOR THE SIDE DOOR

3

THREE HOLES DRILLED TO ATTACH TO TREE OR BARN

6

FRONT

14 1/16

UPRIGHT SUPPORT

20

TOP

20

TOP PERCH

2

17

1½ PINE USED FOR THIS PIECE OF THE BOX

19

TOP OF THE BOX SHOULD BE PAINTED FOR WEATHER PROTECTION
BOX SHOULD BE MADE OF 1/2" PLYWOOD
SHOULD BE PUT TOGETHER WITH 1 1/2" WEATHERPROOF SCREWS
ALL MEASUREMENTS IN INCHES
WOOD GLUE SHOULD BE USED TO SEAL SCREWED AREAS
SCALE: 1" = 1' - 0"

* FOR 3/8" PLYWOOD
USE 16 5/4

DRAWN BY: SCOTT SOSTAR
Instructions for Building a Barn Owl Nest Box

Materials List:

1 sheet of 4 x 8 x ½ inch plywood
1 piece 1 x 6 x 28 inch pine (mounting board)
1 piece 1 x 2 x 10" pine (perch)
2 - 3 inch hinges
1 - 3 inch latch
1 container of white wood glue
1 box of 6 x 1 inch weatherproof screws
18 - 6 ½ inch weatherproof screws
Brown paint

Tools:

Table or circular saw
jig saw
drill and bits
hammer
screw drivers
paintbrush
tape measure

Instructions

- Cut out all pieces of plywood and pine using table saw or circular saw

- Take the front panel and trace the 6 x 6 inch opening on it. Drill a 1/4 inch pilot hole in one corner and then cut all the way around the square with a jig saw

- Take the right panel and trace the 6 x 9 door on it and follow same cutting instructions as above.

- NOTE - When starting to assemble the box ensure that the screws are set far enough back at the corners so that they do not run into each other. Pre-drill all screw holes with a 3/32" bit.

- Take the floor panel and run a bead of glue along two opposite sides

- Take the left panel and line the bottom panel flush with the floor panel on the glued side. Now take 4 - 1" screws and screw them in evenly along the left side into the floor panel.

- Repeat the same process for the right side.
- Run a bead of glue along the back edge of the floor panel and the back of the right and left side panels. Take the panel and place it flush with the floor and two side panels.

- Screw the back panel in place with 4-1" screws on each of the 1 bottom and 2 side seams.

- Install the front panel in the same manner as the back panel.

- Install the front perch using 3-1" screws and a bead of glue. Place it just below the front opening, centered side to side on the front panel.

- Take the mounting board and mark its centre and screw it into the back panel, making sure that it is centered from side to side and top to bottom. This should give you an even amount of wood protruding beyond the back panel, top and bottom, for mounting.

- Install the two hinges on the bottom of the right side door and the catch section or the latch on the top. Mount the door onto the side panel so that it opens downward as illustrated. Install the bolt section of the latch on the side panel directly above the latch catch. Use the 6 x ½ inch screws for section.

- Install the top panel with the back touching the mounting board and an even amount of overhang on both sides. Use 4-1" screws on each seam.

- Paint the top panel (flat surface and particularly the edges) with brown paint for weatherproofing.

- Drill 5-1/4 inch holes evenly spaced in the bottom panel for drainage.

Recommended Site Characteristics for Barn Owl Nest Box Placement:

At least 12 ha of contiguous, good quality hunting habitat (pastures, hay fields, fields that have been fallow for at least 3 years, grassy marshlands) available within 1 km radius of the nest box site (about 5% of the land area within this radius). Within a 10 km radius an additional 100 ha of good hunting habitat for dispersing birds is preferable. Several natural nesting and roosting opportunities (e.g. hollow trees, old barns, old bridges) within 3 km radius. Dense forest should not exceed 50% of the habitat in a 3 km radius, to decrease risk of Great Horned Owl predation. Within 30 km of the Lake Erie shoreline, to benefit from moderating lake effect. A low density of well-traveled paved roads (e.g. provincial highways, busy regional roads) within 1 km radius. Rodenticides are not used in and around buildings and nearby orchards and fields.
A reasonable expectation that the amount of foraging habitat will not decline over the next 5 years.
Presence of corn crib or hay lofts on the farm, which may sustain rodent populations and provide foraging opportunities during heavy snowfall or prolonged periods of significant snow cover on ground.

Notes on Barn Owl Nest Box Placement:

Boxes should be located in or on farm structures (i.e. large wooden barn, unused concrete silo, abandoned tobacco kilns) so that birds have unrestricted, year-round access. Avoid erecting nesting boxes on trees or telephone posts due to high predation risks (unless providing a predator baffle).
Preferably there should be little human disturbance around the nest box, although barn owls will nest in barns being used for regular and routine farm activities.
Boxes should be fastened on the outside or inside of farm structures at least 6 metres (18 feet) off the ground, preferably with the entrance facing directly to the outside and towards hunting habitat.
If affixed to the inside of a barn, a 6” by 6” hole should be cut in the side of the barn and the nest box attached so that birds fly directly into the box from outside.
If a box is placed on the exterior face of an existing wooden barn, it should be fastened about 1 metre (3 feet) below the eave. This will give some protection from the weather but not interfere with the birds coming and going. Place the box so that the nest exit faces towards hunting habitat.

The Ontario Barn Owl Recovery Project would appreciate a record of where boxes are placed, details on the site, and any information on what nests in the box(es). Sign-up forms and record-keeping forms are available from:

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