

Bluebird Box Construction

for Eastern Bluebird

- Use redwood, cedar, white pine, and yellow pine
- No pressure treated wood!
- Hole must be 1½ inches
- Galvanized nails or screws
- Door pivot nail & lock pin
- Air vents on sides
- Must open from front or side
- Construction plans at: tampaadubon.org





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North American Bluebird Society

www.nabluebirdsociety.org

NABS 2020 Bluebird Nestbox saf 1/24/2020

Materials List

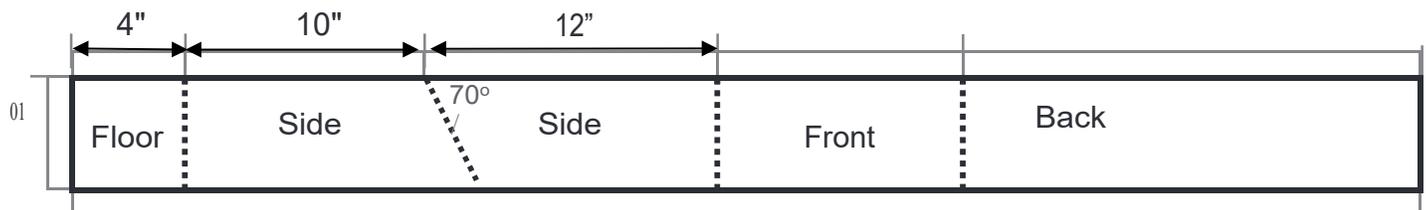
- Standard board 1" x 6" x 4' long, (or 1"x 6" x 6', see below)
- Standard board 1" x 10" x 12" long for roof. Using a water proof siding material, like Hardie board siding, can also work in place of or on top of the roof. Two 12" boards can be combined with Titebond III for roof.
- 1-3/4" galvanized nails or even better use 1 5/8" deck screws – approximately 20 will do.
- 1-3/4" galvanized screw or nail for pivot point – 2 needed
- A double-headed or duplex 6 d or 8 d, nail 1 1/2 to 2 1/2" long for holding door closed – 1 (if you cannot obtain a duplex nail an ordinary sinker nail will work fine, or even a clenched 8 d nail.)

Note 1" lumber is typically about 3/4" thick. Woods like Western Red Cedar or Redwood are best for exterior use but exterior grade plywood (do not use "pressure treated" plywood) will also work well. If plywood or pine are to be used it is important to coat with a wood sealer like Thompson's Water Seal or paint it with a light colored (white is ideal), exterior grade latex paint. Do not paint the outside of the front of your box (panel with the entrance hole).

Board Side view



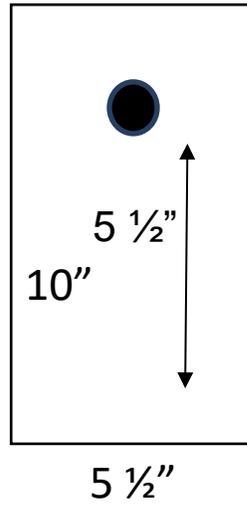
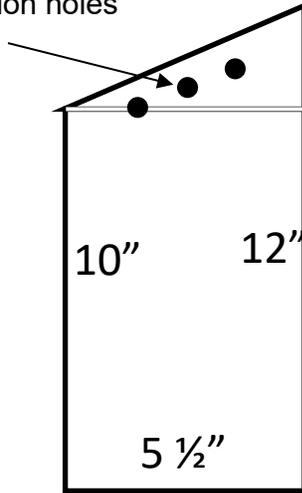
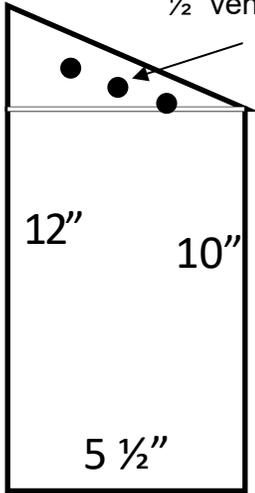
Board Top view



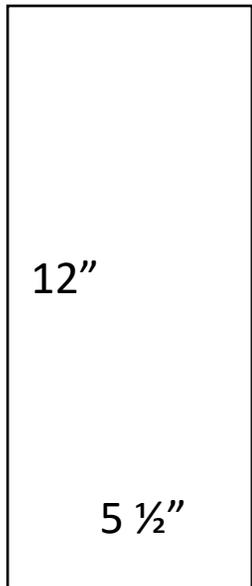
- Start cutting at the floor piece section and work right towards the back piece section since the back length is the least critical.
- With a 10" wide roof (i.e., with ~2" of overhang) one can safely drill three 1/2" holes in each side just below where it meets the roof for ventilation and still not have issues with rain entering the nestbox.
- On the inside of the front, below the hole, it is recommended that saw cuts (or kerfs) be cut to make a "ladder" so it is easier for fledglings to depart the box.
- If the box is to be used for Western or Mountain Bluebirds the hole should be 1 9/16" in diameter and that size hole is fine for Eastern Bluebirds as well.
- Smooth the entrance hole by sanding.
- It helps to drill an 3/16" hole for all outside screw holes. When assembling, it helps to drill a 1/8" hole into the inside board to prevent the screw from splitting the wood.
- Drill ventilation holes in an upward angle. In colder areas, the ventilation could be reduced or may not be needed.

Boards ready for Assembly

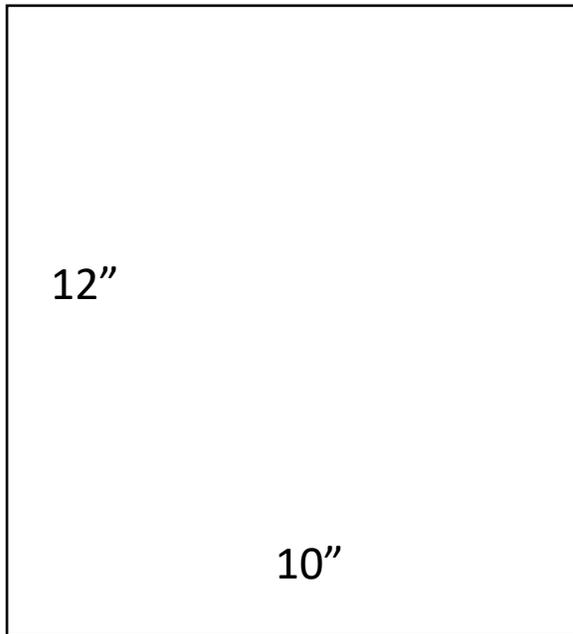
(Drill ventilation and entrance holes
Before assembling the nest box)
1/2" ventilation holes



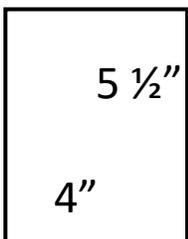
Front



Back



Top

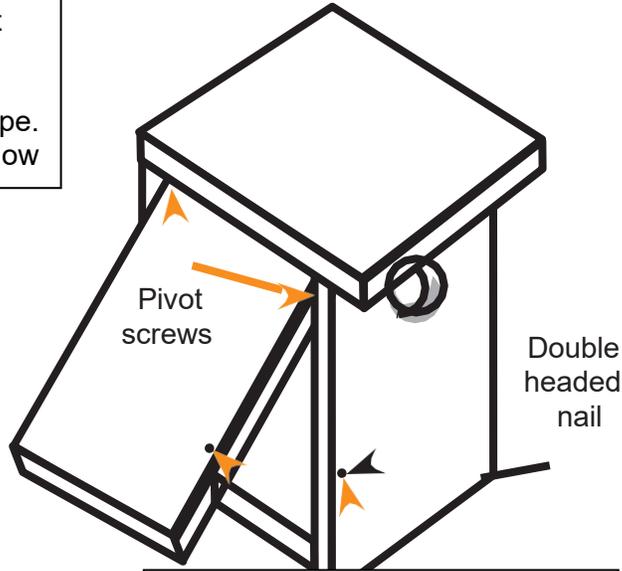


Floor

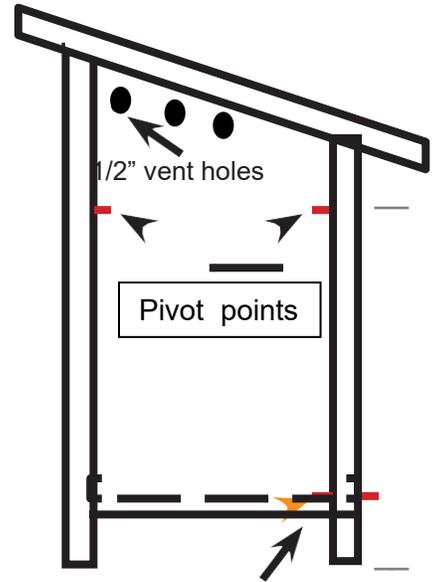
Note: before you make a bluebird box, make sure that it will be installed and monitored regularly to prevent House Sparrows from successfully nesting and raising young. For info on locating, installing and monitoring bluebird boxes, see the NABS website above. Look for the Fact Sheet "Getting Started with Bluebirds"

Construction Plan

The roof will overhang the front ~6" – 6 1/2" and both sides ~2" when completed. The roof will have a 20 deg back to front slope. See photo of the actual box below



Drill hole through the front board and the side of the door to latch door closed.



It is best to recess the bottom 3/4"



Please Note:

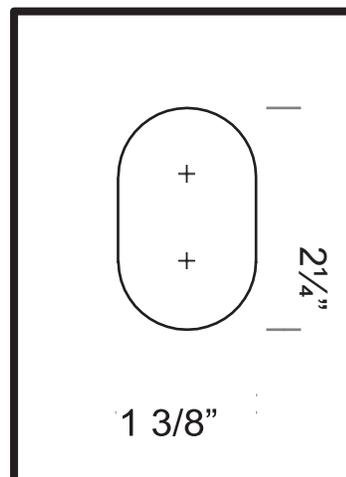
Do not use the Optional Oval Hole.

Please Note:

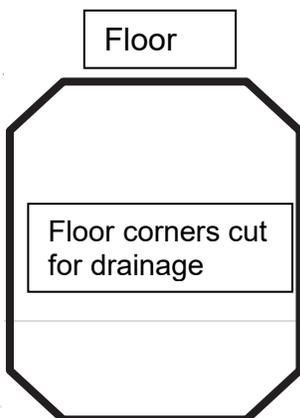
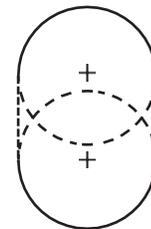
Floor drainage is no longer recommended by NABS (2021)

Optional Oval Hole

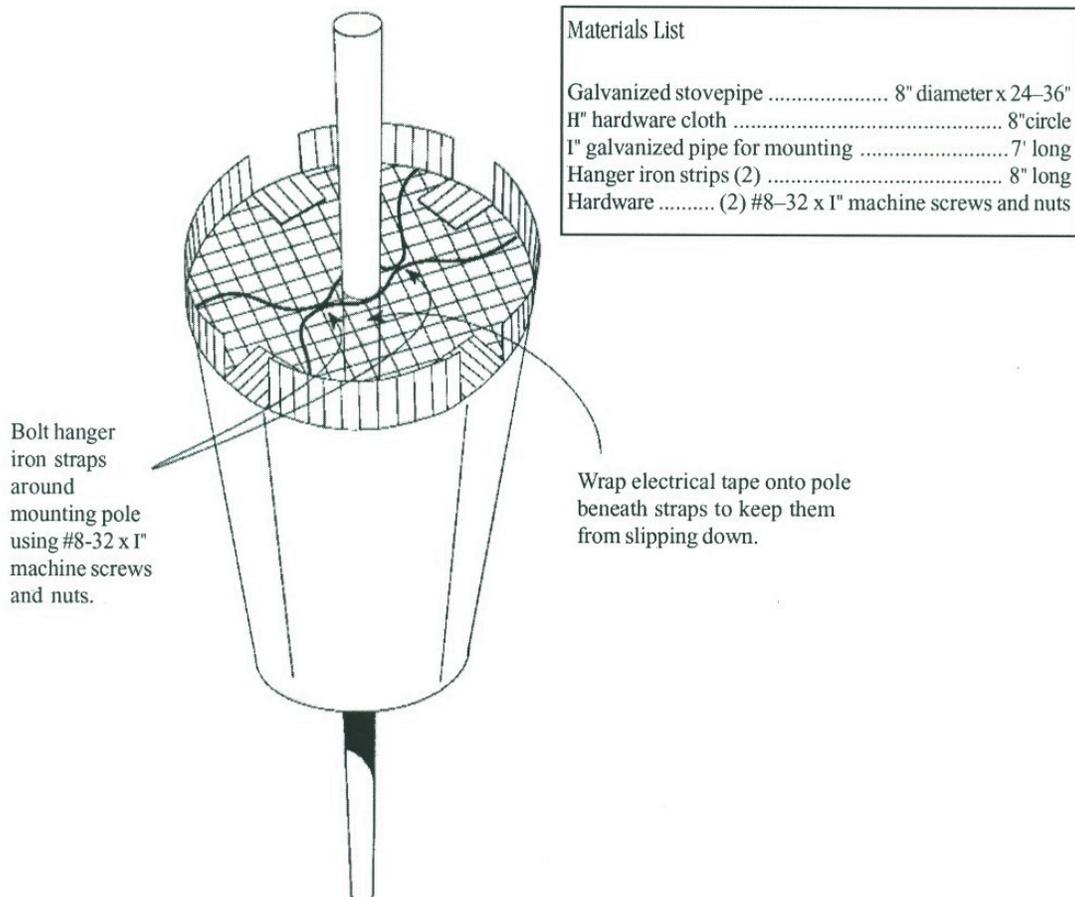
5 1/2"



Drill two 1 3/8" hole & chisel sides flat to oval



A Plan for a Stovepipe Predator Baffle



Using tin snips, shape hardware cloth into a circle. Make a small cut in the center so it will slip over the mounting pole. Bend the edges of the hardware cloth down and slide it snugly into the stovepipe. Cut four tabs on the top end of the stovepipe. Bend them inward, over the hardware cloth.

Bolt the hanger iron straps together in the center, around the mounting pole. Bend the free ends outward to support the hardware cloth. A few wraps of electrical tape below the strap attachment will keep it from slipping down the pole. Slide the stovepipe assembly over the top of the mounting pole, resting it on the hanger straps. Attach the nest box onto the pole, with the bottom of the box about six inches above the top of the baffle. Smear a heavy-duty wax (for example, carnauba wax) on the pole beneath the baffle to repel ants.

Printed with permission from *Bluebirds Forever* (Toops 1994)

Plan design by Ron Kingston, *Sialia* 13(2):56-57

Art reference from "Enjoying Bluebirds More" in *Bird Watcher's Digest* (1-800-879-2473)

Image courtesy of: The Birdhouse Network <http://birds.cornell.edu/birdhouse>

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Please Note: Electrical tape will not hold the guard to the post. Instead screw the hanger strips to the post.

(Hanger iron strips are also called Plumbers Tape)

Stovetop baffles can be purchased at hardware stores such as Lowe's.

Installation of Bluebird Boxes

All bluebird boxes should be on their own post, with a predator guard. They should be placed in wide open spaces, preferably with trees and shrubs nearby for perching, and for their chicks to safely fly to when they fledge.

However, the boxes should be at least **8 feet away** from any tree, limb, power pole, fence, etc., or anything that another animal, like a squirrel, or snake, etc., could leap or climb onto the box.

Bluebirds are very territorial and will not let another bluebird nest within 100 yards of their box. **So boxes should be at least 100 yards apart.**

The pole should be a couple of feet in the ground, with the box being about 5-6 feet off the ground, pretty much at eye level. This allows for easy monitoring and is the height the birds prefer.

The entry hole for the bluebird should be facing either north or east, away from the hot afternoon sun.

Pairing Boxes for Smaller Birds

Smaller native birds, such as Carolina chickadees and brown-headed nuthatches, like to nest in the bluebird boxes and we encourage that. However, if a bluebird wants the box that they are nesting in, it will run off the small bird and evict their chicks and eggs.

Bluebirds will allow a smaller bird to nest nearby if you place another bluebird box, (***with an exclusion device over the opening***), within 33 feet of the nesting bluebird. The reasoning is that the bluebird will try out both boxes and realize it can't enter the one box because the opening is too small, so he will allow the smaller bird to use it. **This is called pairing the boxes.**

How Can Smaller Birds Nest in Bluebird Boxes?

- Bluebirds will not allow another bluebird to nest within 100 yards
- Bluebirds will allow a smaller bird species, such as Carolina chickadees, to nest nearby if two boxes are within 33 feet of each other.
- An exclusion device must be used for the smaller bird



Exclusion Devices

Must be Installed for the Smaller Bird



Pairing Boxes

Helping small bird species survive when nesting next to bluebirds

One box has the normal 1½ in. opening for the bluebird.



The other box has an exclusion device (1 1/8 inches for Carolina chickadee).



Monitoring Your Bluebird Box

Nesting begins in early March and ends in August and you should monitor once a week.

Do not monitor in cold, wet, windy conditions

Observe box for mother to leave before opening. Talk as you approach the box and/or gently tap the side of the box, and slowly open. If mother does not leave the nest, close the door and check again next week.

Minimize the amount of time the box is open (should be less than 1 minute)

Two Weekly Bluebird Spreadsheets, have been prepared for your use:

The first one is for people who are familiar with spreadsheets and are able to insert extra lines when a second or third nesting occurs in that box.

The second one is complete with lines for 3 nestings in each box.

To download the spreadsheets, go to <https://tinyurl.com/bluebirdmonitoring> and record the following data:

1. Date
2. Status of nest box
3. Number of eggs/chicks
4. Species
5. Any other noteworthy observations

Recording the Data on your Spreadsheet

(There is a legend at the bottom of the spreadsheet that explains the symbols.)

Date of monitoring

In the nest column, indicate whether the box is empty (**leave blank**) or has a partial **P**, complete **C**, or occupied **O** (contains eggs or chicks) nest.

(Nest building takes 4 days to two weeks)

Record the number of eggs and/or chicks. Indicate the species with an X under the appropriate one. Once the chicks have fledged, change the X to the actual number of chicks that fledged in that box.

(Bluebirds lay one egg a day until they have 3 – 5 and then begin incubating).

Once the first egg is laid, sprinkle fire ant bait, such as Spectracide, at base of wooden or metal post and repeat weekly until chicks fledge (this protects the chicks from fire ants). *(Chicks hatch in 12 – 14 days)*

Observe chicks for vigor, parasite, injuries

(Make notation in comment section)

Do not inspect box if chicks are more than 12 days old (they will try to jump out of the box when you open the door and you will never catch them)

(Chicks fledge after 17 – 21 days)

Note: Your spreadsheet will automatically record the number of fledglings and species.

Clean out empty nests and any infertile eggs after birds fledge. Discard **away from nest box** to keep predators away.

(Bluebirds build a new nest for each brood and may have 3 broods per season).

Note: If the bird is nesting a second or third time, insert a new line to record those numbers on the first spreadsheet. The second spreadsheet already has extra lines for the second and third nesting.

When chicks fledge, they can't fly well at first and are very vulnerable to predators, like snakes, predatory birds like hawks, and cats.

(Keep cats indoors)

At the end of the season, consider relocating unused boxes:

- At least 100 yards from other bluebird boxes
- In a more open area, away from, but facing trees and shrubs