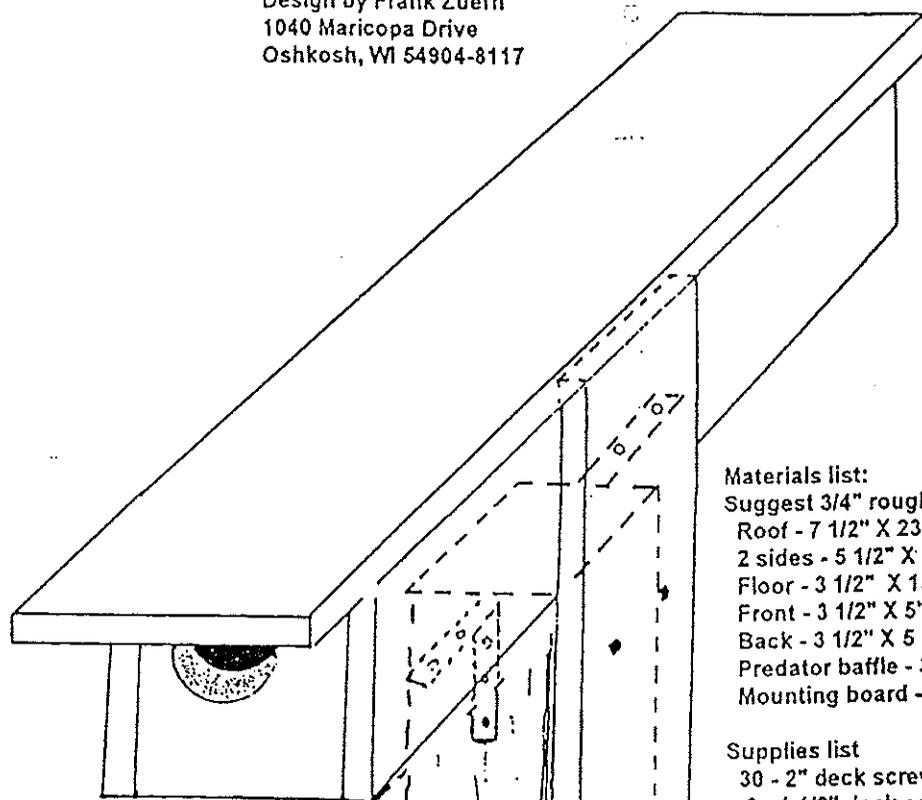




## Tree Branch Bluebird Nest Box

Design by Frank Zuern  
1040 Maricopa Drive  
Oshkosh, WI 54904-8117



**Materials list:**  
Suggest 3/4" rough sawed cedar, smooth on one side.)  
Roof - 7 1/2" X 23"  
2 sides - 5 1/2" X 18"  
Floor - 3 1/2" X 15 3/4"  
Front - 3 1/2" X 5" X 1 1/2" thick  
Back - 3 1/2" X 5 1/4"  
Predator baffle - 3 3/8" wide by 2 1/2" high  
Mounting board - 3 1/2" X 18"

**Supplies list**  
30 - 2" deck screws or 1 box 6d galv. nails  
6 - 1 1/2" deck screws  
1 - 2" T-hinge with screws  
1 - 3" T-hinge with screws  
5 - 2 1/2" deck screws to fasten mounting board to post  
2 - 4" L braces (optional)

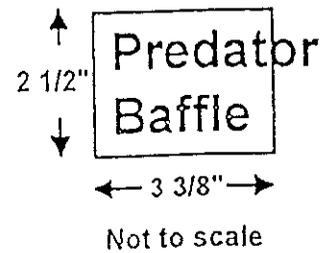
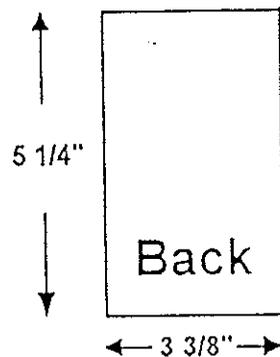
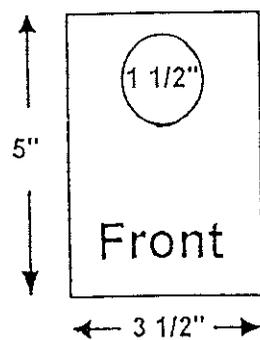
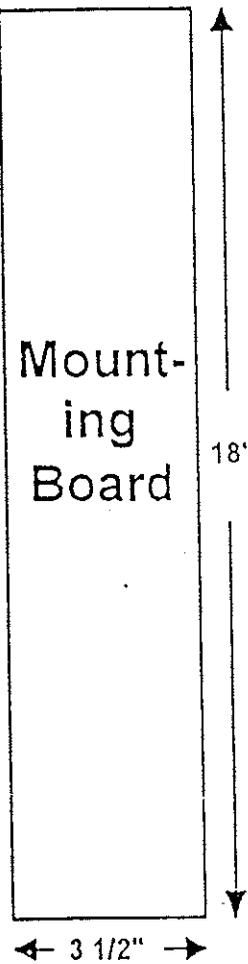
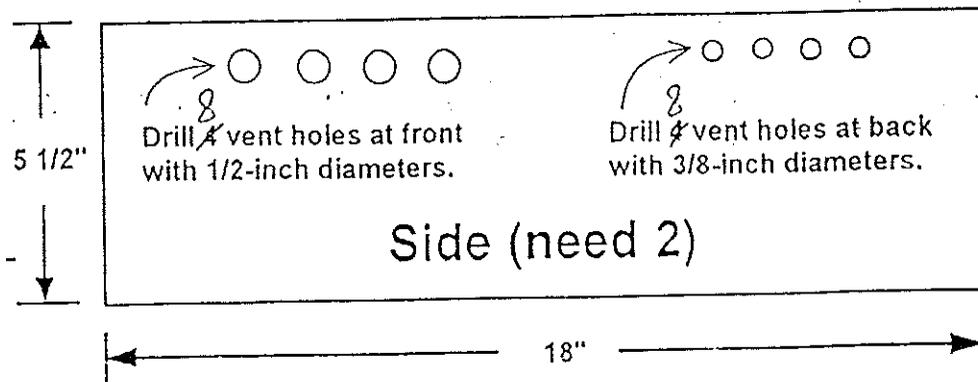
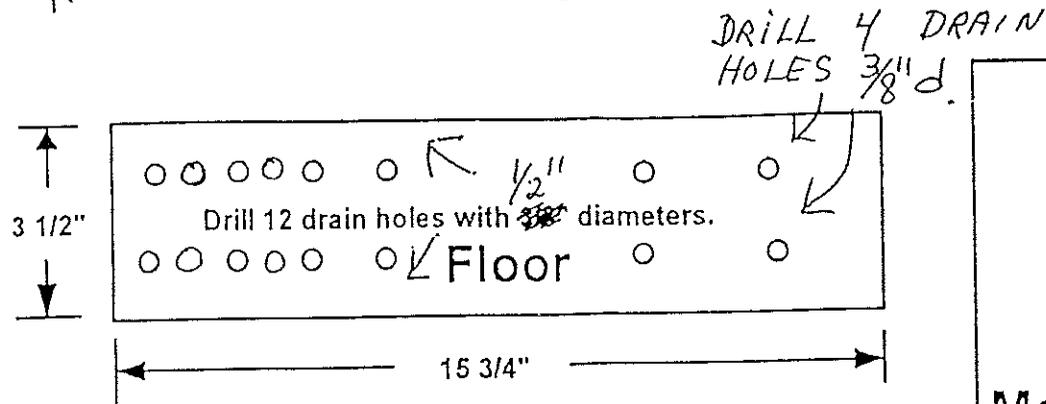
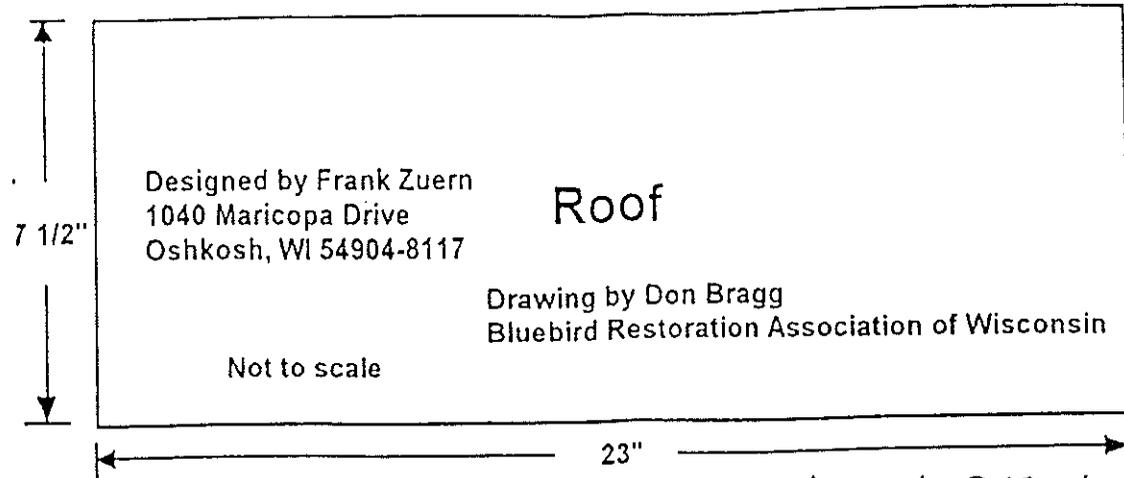
~~the mounting board.~~  
the mounting board.  
is 3 1/2 inches by 18 inches.  
The house floor rests on the  
post. Pre-drill for nails or  
wood screws. Metal "L" braces  
may be added.

Mount the box horizontally.

Do not use wooden braces.

The entrance hole should be  
an exact 1 1/2 inches in  
diameter so as to exclude  
European starlings.

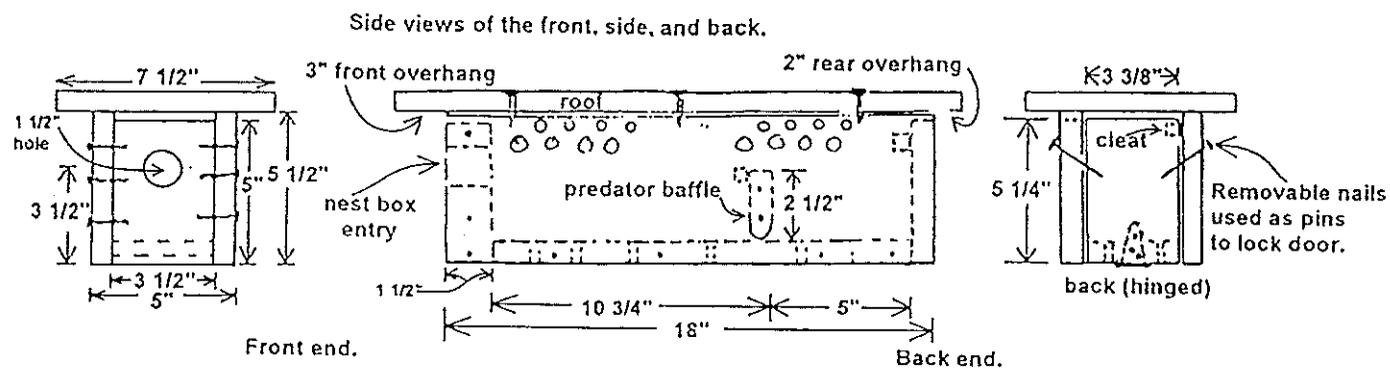
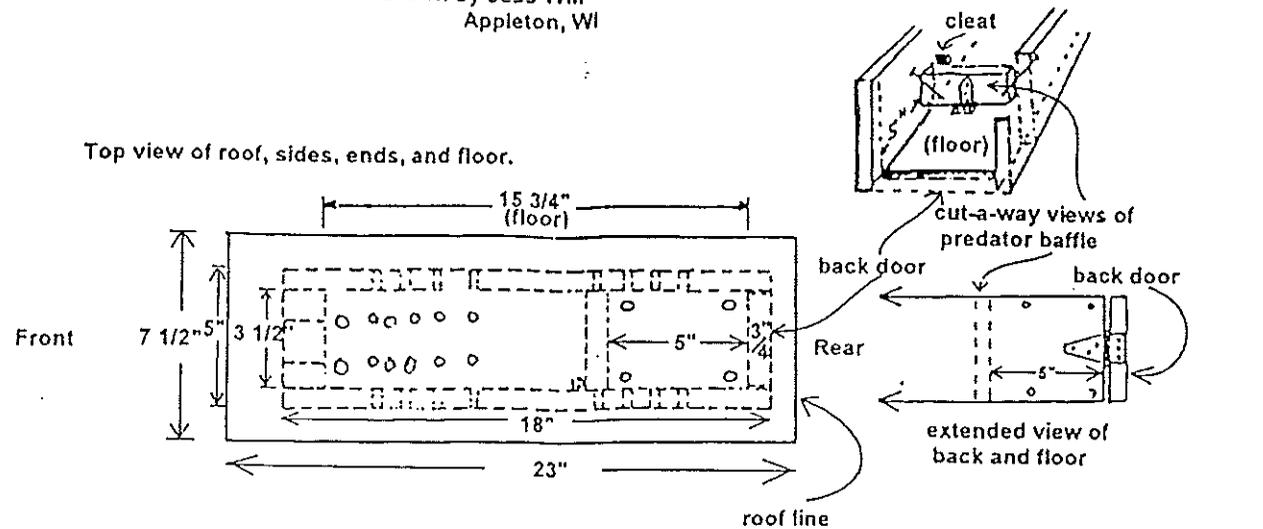
# Tree Branch Bluebird Nest Box



# Tree Branch Bluebird Nest Box

Designed by Frank Zuern  
Oshkosh, WI

Drawn by Jess Will  
Appleton, WI



## Ten advantages of the Tree Branch bluebird nest box

1. Reach to nest over 11 inches.
2. No raccoon, possum, or cat predation in 5-year field test.
3. Bluebirds instinctively nest at far end of box.
4. Unique predator baffle absolutely stops nest snagging.
5. Front roof over-hang combines with the 2X4 front wall to form an extra predator guard.
6. Bluebird can maneuver to escape a sparrow.
7. Front drain holes usually do not get clogged and they add to air flow.
8. Small front offers no foothold for predator.
9. Quiet access, easy control of blowfly larva/pupae.
10. This design copies what nature provided bluebirds for centuries—a broken-off hollow tree branch.

## Suggestions for assembling the Tree Branch nest box

by Frank Zuern, Oshkosh

☐ Wear eye protection. Pre-drill all holes. Counter-sink screws as needed. Put rough side of lumber out.

☐ Cut all pieces to size. Drill an exact 1½-inch round entrance hole so as to exclude starlings. Drill this hole before you cut the two by four lumber to length. Smooth rough edges of hole with sandpaper.

☐ Drill eight 5/8-inch drain holes in the bottom (per plan) and mark the floor as to front and back.

☐ Drill four 3/8-inch vent holes along the back top edge of each of the two sides. Mark these pieces as to front and back. Drill four 1/2-inch vent holes at the front top edge of both sides.

☐ Install the mounting board at mid-point of the outer surface of one of the sides. Watch the position for up and down. Make sure the mounting board is flush with the top of the side it is attached to. Use five 1½-inch screws. Do this step prior to any other assembly.

☐ Test fit the sides to the bottom board. Next, fasten in the front piece into which you earlier had carefully pre-drilled an exact 1½-inch round hole. Please check that you have provided the ½-inch horizontal space between the top of the front piece and the roof for ventilation.

☐ Round the bottom edges of the predator baffle if you are going to pivot it with nails. If you use the 2-inch hinge, have the baffle tip towards the back of the nest box. With the hinge, the baffle may have a flat bottom. Install the predator baffle at a right angle to the floor and five inches forward of the back door. Place and fasten a cleat (use water-proof glue) towards the front side of the baffle if it is pivoted with nails. Drill oversize holes for nail baffle fasteners. This will permit hand-pull removal of slanted nails to drop the baffle when you have to clean out entire box from rear door access.

☐ Install the back door. Place the small butt of the 3-inch T-hinge on the bottom of the door. Check for in and out. Check bend of hinge for proper fit. The long part of hinge attaches to the outside bottom of the floor. Try to keep air space at the top of the back door to about 1/4-inch; this is to minimize any predator from attacking the nest area. Place a screw near the top of the back door for a handle.

☐ Install the cleat, and drill oversize holes for the slanted nail fasteners. Screws may be substituted for the slanted fasteners.

☐ Install the roof securely. Do not support the box with wooden angle braces. The angle braces would help predators position their bodies to attack your birds.

☐ When buying lumber, allow for knots or other unusable flaws. The roof overhangs three inches in the front, two inches in back, and one inch around the sides.

## All back issues are available

Back issues of *Wisconsin Bluebird* newsletter and a 16-page, six-year index are available through BRAW Editor Don Bragg at Rhinelander.

The 1986-1991 newsletter index locates all stories, photos, letters, features and services by title, author, and subject. The cost of the index is \$3. The Winter 1992 issue contains the 1-year 1992 newsletter index.

Back issues of *Wisconsin Bluebird* newsletter can be obtained by writing to Editor, *Wisconsin Bluebird*, P.O. Box 818, Rhinelander, WI 54501. Newsletters may be obtained for the following donation rate:

1 issue.....\$1.50  
2-5 issues.....\$1.25 each;  
6 or more issues.....\$1 each; or,  
Entire 29-issue set with 6-year index.....\$27.

Shipping/handling is included in the price quotes. Make your check or money order payable to BRAW, Inc. No cash, please.

For individual back issues, specify the month (or season) and year, or Volume and Number of selected issues needed. There were only three newsletters published in 1986 but there have been four newsletters in each of the six following years. Issue 1 is the "Spring" issue, Issue 2 is the "Summer" issue, Issue 3 is the "Fall" issue, and Issue 4 is the "Winter" issue for any given year.

front and sides.

☐ Alternate mounting for wood pole, metal pipe, or steel post: Place the top of these supports under the house.

Congratulations. You have just built one of the safest nest boxes to help bluebirds survive. Please place two nest boxes 10 yards or less apart for best results. Please follow BRAW's guidelines for monitoring. Good luck and many happy springtimes!

(Remember, after the first house is made you can build the next one in less than an hour. Also, a special thanks to Jess Will, retired Appleton industrial arts teacher, who turned my rough sketches into a workable design.)

Don Kopff, Beaver Dam Senior Center bluebird house builder and myself will have the Tree Branch nest box on display at the BRAW September 18, 1993 Annual Meeting.

employee had bluebirds elevate their nest level to the entry hole in a standard vertical nest box.

The North American Bluebird Society (NABS) has a new video on bluebirds that vividly shows how easy it is for cats, raccoons, and opossums to reach into a nest box. The video shows a standard nest box with the female bringing food to her young. In the video, when she is

inside the box with the young, the tip of the female bluebird's tail is seen sticking out of the box. Bluebirds are 6½ to 7½ inches long. The relationship to the distance of the entrance hole to the nestlings, as measured by the parent bird's body, and the reach of the cat, raccoon, and opossum is obvious.

### 1993 Tree Branch Bluebird House (TBBH) Occupancy Test

Location	Number of Boxes	Tree Swallow	Bluebird	House Sparrow	Empty
Mosquito Hill, New London	2	0	2	0	0
Bulbolz Preserve, Appleton	2	1	0	0	1
Sullivan's Woods, Oshkosh	3	1	***0	**2	0
Waukau Nature Site, Waukau	1	0	1	0	0
Berlin Rural Trail	4	2	0	0	2
Pine River Rural Trail	3	1	1	0	1
Pembine Rural Trail	5	3	1	0	1
Totals	*20	8	5	2	5

\* Eighteen of the 20 nest boxes were placed at new locations on or after April 20, 1993. Two nest boxes in the Pembine area were in place the previous year.

\*\* Both house sparrow nests were constructed in front of the baffle. All bluebird and tree swallow nests were constructed behind the baffle.

\*\*\* In one nest box at Sullivan's Woods, bluebirds started a nest but were evicted by house sparrows. All evidence indicated that the bluebird(s) escaped alive.

Tree swallows are attracted to this box so strongly that on two occasions the bluebirds were driven out. Anyone trying the Tree Branch Bluebird nest box as a field test must put up two TBBH within 10 yards or less (pairing) to reduce competition between these species. Pairing of nest boxes works!

#### Conclusions

☐ The Tree Branch Bluebird House, by copying the broken off, hollow tree branch, provides a safe distance from the front entrance hole to the front edge (baffle) of the nest pocket to protect bluebirds and tree swallows from grasping predators. The lack of a rear foot hold (do not add angle bracing to the design!) plus the 11-inch distance from the entrance to the baffle provides the "reach-in" limitation.

☐ The TBBH gives bluebirds that may be evicted by house sparrows maneuvering room to leave the box without being killed by the attacking house sparrow. The sparrow cannot jump on the bluebird's back and mantle it to begin its scalping action.

☐ The TBBH can be pointed in any direction that may be most favorable for the bluebirds at each location because sun, weather, and driving rains do not affect the secluded nest pocket.

☐ By going horizontally, the bluebird does not perch on the top of the nest within easy reach of predators.

The five year testing of five prototype horizontal nest boxes shows the design to be compatible with tree swallow and bluebird nesting instinct to build their nests in the far end of the boxes.

☐ In five experimental boxes tested since 1988, every box was occupied by bluebirds or tree swallows every year with no un-hatched eggs, no dead nestlings, and no dead adult birds of either species, except that "clean thievery evidence" indicated that one nest was lost to a snake.