

WARBLERS

Prothonotary Warbler

Protonotaria citrea

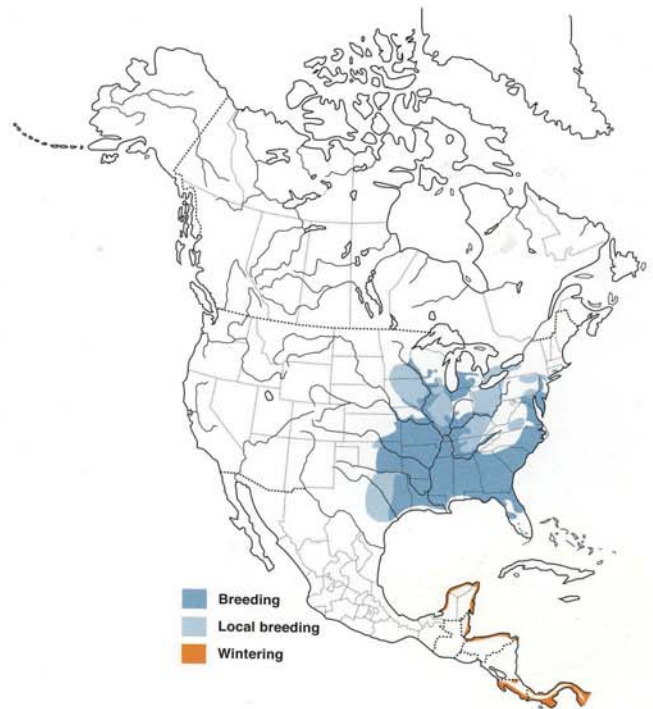


A male Prothonotary Warbler, with a mouthful of insects, pauses en route to the expectant chicks back at its nest box along the lower James River in Virginia. The metal band on its right leg helps researchers understand more about the bird's life history. Within its bill are a crane fly, assassin bug, caterpillar, mayfly, and two beetles. *James R. Reilly*



Female Prothonotary Warblers are slightly less colorful than males. Both have relatively long bills. *Mark Musselman*

The only eastern warblers to nest in tree cavities, these stunningly bright yellow birds—once called Golden Swamp Warblers—have declined considerably throughout their range over the past four decades. Reasons include rapidly disappearing mangrove swamp habitat in the Caribbean and in Central and South America where the birds overwinter, along with degradation and fragmentation of their breeding grounds. Prothonotary nests can also be parasitized by cowbirds.



RANGE: Abundant in woodland swamps in the southeastern United States, along the East Coast from Canada to Florida, and west into Texas, Oklahoma, and Kansas. Scattered populations exist elsewhere.

FIELD MARKS: Males are a brilliant yellow-orange on the head and breast, with blue-gray wings and a greenish back. Females are duller. Both sexes show white on the belly and under the tail. During breeding season, Prothonotaries' long, pointed bills are black; these turn paler come fall.

VOICE: The loud notes of Prothonotaries—a classic *tweet, tweet, tweet*—are sung at the same pitch.

FEEDING: Prothonotaries hop on the ground or on tree bark while foraging for insects like beetles, spiders, and caterpillars. They also visit feeders.

THE NEST SITE

Prothonotaries return from wintering areas in early spring. Though mostly insectivorous, these warblers sometimes eat feeder treats like grape jelly, suet, and hummingbird nectar. They also use birdbaths and nest

boxes. The health of Prothonotary populations depends largely on the preservation of their breeding and wintering grounds.

NESTING: Prothonotaries prefer nesting in woodpecker holes near wooded swamps, but they also set up house in nest boxes, as well as odd places like sneakers, tin cans, and jacket pockets. Males build “dummy” moss nests in several different sites. The female selects one nest and finishes it with more moss, plant down, grasses, leaves, and rootlets.

- **EGGS:** Range from three to seven white to pinkish eggs with rusty-brown to lavender spots. Up to three broods per season.
- **EGG-LAYING:** One egg per day.
- **INCUBATION:** About two weeks.
- **DAYS TO FLEDGE:** About eleven days. Both parents care for young up to thirty-five days after first flight.

PLACING THE NEST BOX: Place nest boxes in shaded areas near lakes, swamps, slow-moving rivers, and thick deciduous understory. Nest boxes placed over water and kept free of brush and branches may help deter predators. If over water, face entry hole toward land. If on land, face toward water.

- **MOUNTING:** Place nest box on top of three-quarter-inch diameter metal conduit pole with a one-quarter-inch hole drilled near one end to accept single bolt through box and pole. Use of single bolt allows box angle to be adjusted if pole leans off vertical a bit. If in water, sink pole at least two feet into lake bottom for stability. Place ten to twenty feet away from the bank to deter predators. Include predator guards, both on land or in water.
- **HEIGHT:** Make sure height is convenient for nest checking, especially if checking by boat. If over water, the bottom of the nest box should be at least two feet above the highest potential water level. Allow for tidal swings.

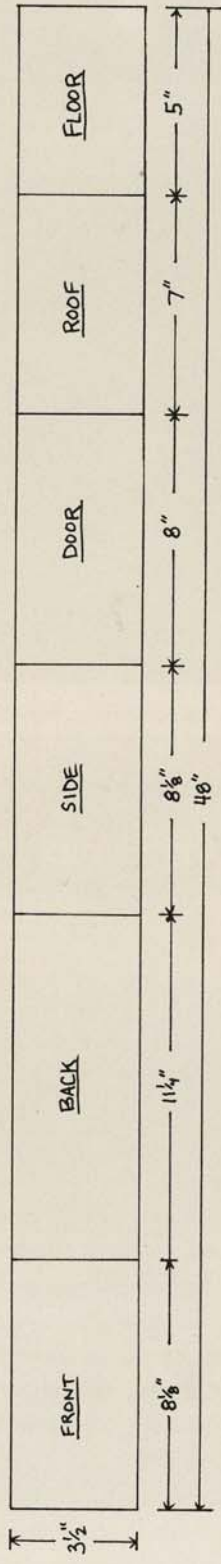


Spring's return stirs this male Prothonotary Warbler to sing. *Mark Musselman*

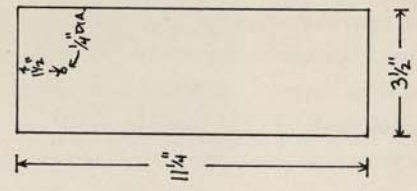
BEHIND THE DESIGN

Virginia Commonwealth University (VCU) professor Bob Reilly claims that come spring, “Prothonotaries are just everywhere” along the lower James River near Richmond, Virginia. Reilly supervises banding efforts for VCU’s long-term study of Prothonotary Warbler breeding biology. Since the study’s start in the mid-1980s, researchers have banded more than 35,000 warblers. With help from Richmond Audubon Society volunteers, more than 650 pine nest boxes are readied each year for the Prothonotaries’ return. One of Reilly’s key design modifications was to reduce the entry hole to one and a quarter inches, “which makes it a tight fit for cowbirds and competitive Tree Swallows.” He notes that the James River birds seem wary of brand new nest boxes, preferring homes that are “plain and weathered.” Even though the pine wood homes only last about five years, he adds, “We want our nest boxes to please the birds, not ourselves.”

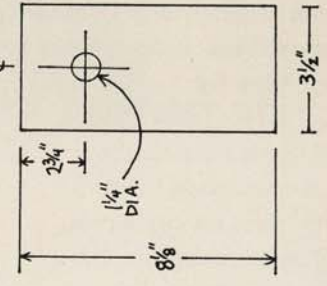
(1" x 4" x 48")



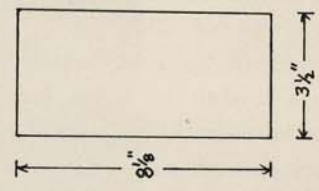
BACK



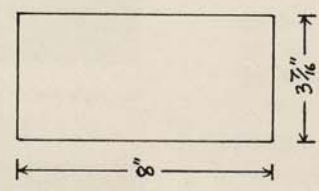
FRONT



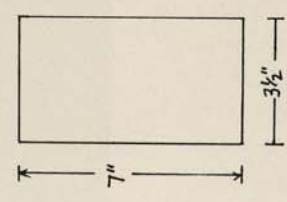
SIDE



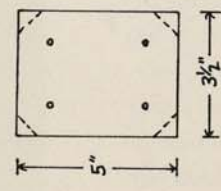
DOOR



ROOF



FLOOR

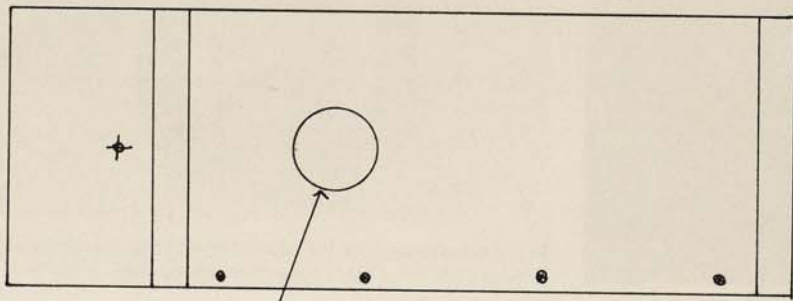


TRIM CORNERS
OFF
1/4" DIA. DRAIN
HOLES (4)

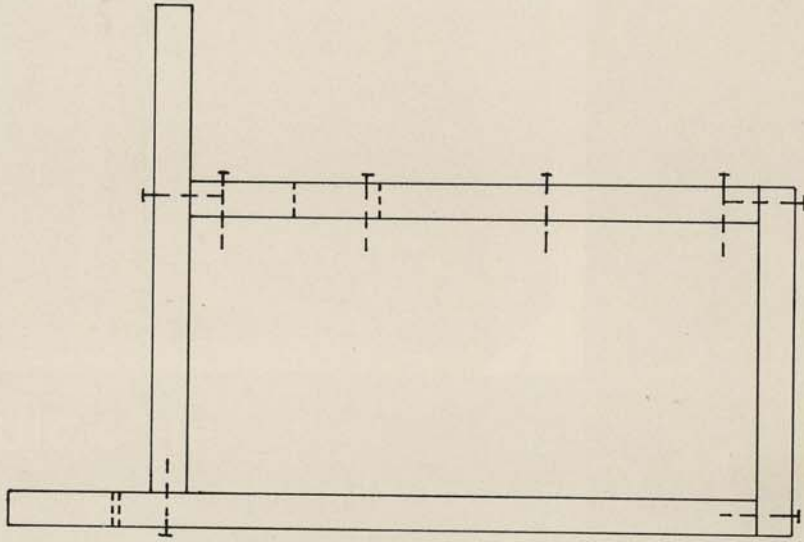
PROTHONOTARY WARBLER BOX

DESIGN BY: BOB REILLY
DRAWN BY: CHRIS WILLETT
(NOT TO SCALE)

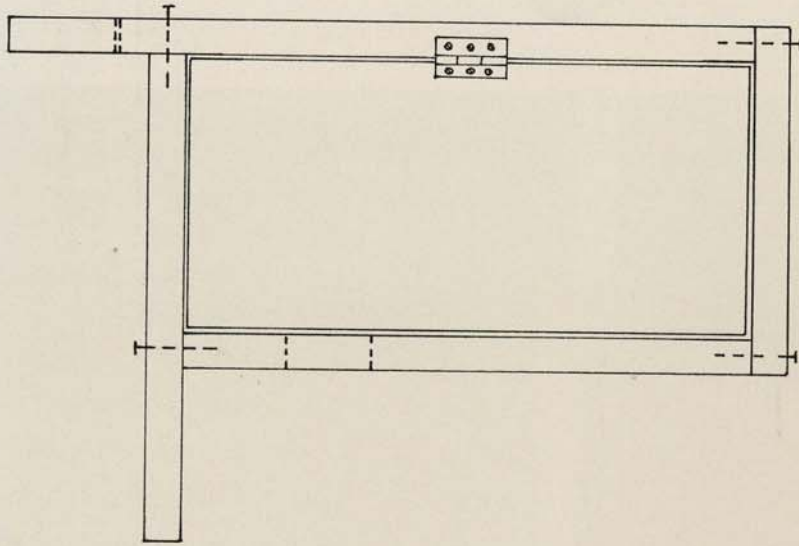
FRONT VIEW



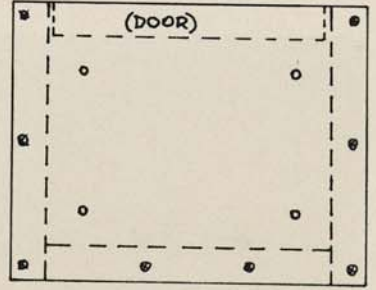
SIDE VIEW



DOOR-SIDE VIEW



BOTTOM VIEW



PROTHONOTARY WARBLER BOX

DESIGN BY: BOB REILLY
DRAWN BY: CHRIS WILLETT
(NOT TO SCALE)

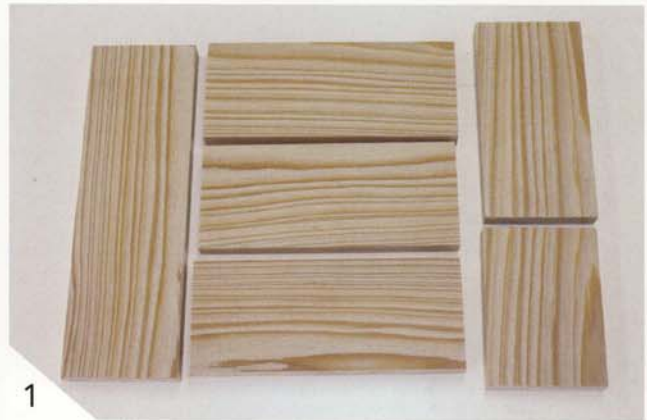
PROTHONOTARY WARBLER NEST BOX

DESIGNED BY BOB REILLY



MATERIALS

- One 1"x4"x8' cypress (used here), untreated pine, or cedar board (makes two nest boxes)
- One 1½"x1½" exterior hinge, and the ¾" screws that come with the hinges
- Eighteen 1½" exterior-grade deck screws
- One ¼"x2½" bolt, nut, and washer
- One 1¼" exterior screw (door handle)
- One 2½" galvanized nail (bent for latch nail)



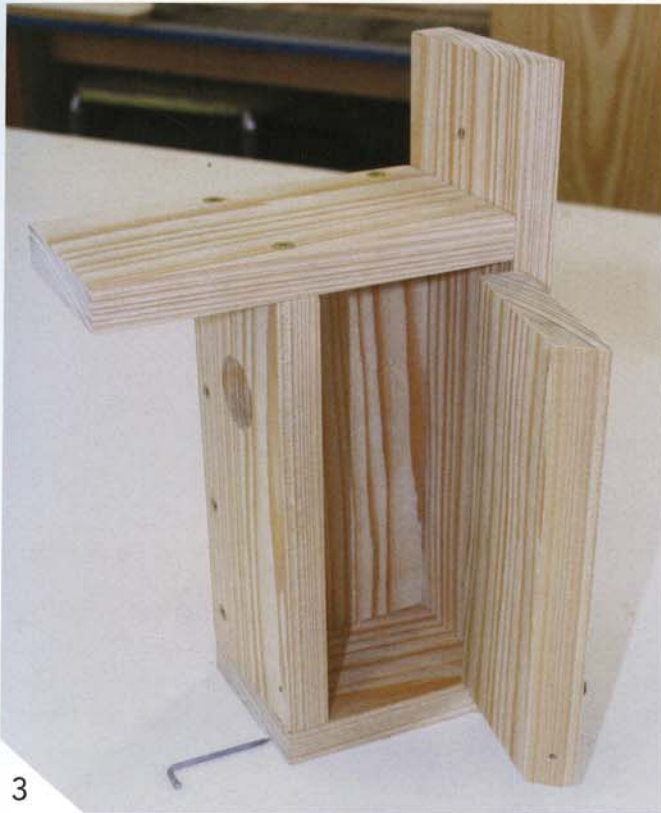
1

Cut all pieces according to the drawing.



2

Drill the entrance hole 1¼" diameter with the top of the hole 1½" down on the front piece, centered side-to-side on the front piece.



3

Pre-drill all exterior screw holes with a $\frac{1}{8}$ " drill bit. Pre-drill hinge screw sites with a $\frac{1}{16}$ " drill bit. Drill hole for front piece latch nail. Attach latch nail to front piece. Drill four holes ($\frac{1}{4}$ " in floor for drainage. Assemble and attach all pieces except the side door.

QUICK TIP

Properly sized drill bits and hole saws can make precision cuts for entry holes. One way to prevent splitting when making the entry hole is to drill only halfway through the front piece. Then, flip the front over and finish the job from the other side. Always sand entry hole edges smooth.



4

Finally, drill the $\frac{1}{4}$ " screw into the side door to use as a door handle. Test-fit the door. Attach it to the back piece with the hinge. The side door should open freely. The finished Prothonotary Warbler nest box was bolted through the back onto a u-channel signpost (opposite page). A stovepipe baffle provides protection from predators.



Audubon®

BIRDHOUSE BOOK

Building, Placing, and
Maintaining Great
Homes for Great Birds



By Margaret A. Barker
and Elissa Wolfson

Foreword by Stephen W. Kress
vice president for bird conservation
for the National Audubon Society