

Manage and protect wildlife and their habitats while promoting hunting and trapping for current and future generations.



# Bluebird Boxes

The Game Commission maintains six region offices.

## Northwest Region

Butler, Clarion, Crawford, Erie, Forest, Jefferson, Lawrence, Mercer, Venango and Warren counties

814-432-3187

## Southwest Region

Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland counties

724-238-9523

## Northcentral Region

Cameron, Centre, Clearfield, Clinton, Elk, Lycoming, McKean, Potter, Tioga and Union counties

570-398-4744

## Southcentral Region

Adams, Bedford, Blair, Cumberland, Franklin, Fulton, Huntingdon, Juniata, Mifflin, Perry, Snyder and York counties

814-643-1831

## Northeast Region

Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Northumberland, Pike, Sullivan, Susquehanna, Wayne and Wyoming counties

570-675-1143

## Southeast Region

Berks, Bucks, Chester, Dauphin, Delaware, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia and Schuylkill counties

610-926-3136



bluebird by R. Ross

## Eastern Bluebird

Eastern bluebirds are one of the most popular songbirds in Pennsylvania. Their brilliant blue colors, delightful calls, clean habits and family devotion have long provided happiness and inspiration to people.

## A typical bluebird nesting cycle:

1. Mid-March to mid-April the male locates a nesting site, female arrives, accepts male and builds nest. Nests are neat cup-shaped structures made of fine grass.
2. Late April: female lays one pale blue to bluish-white egg per day until there are three to six (typically five) eggs in the nest.
3. The female incubates the eggs for about two weeks, the first young hatch during the second week of May.
4. By the end of May, the young bluebirds leave the nest. The male and female feed and protect the young for about another week or two. During this time, the female may start to build a new (second) nest.
5. By the second week in June, the nesting sequence is ready to repeat.

## Box Placement

Farmlands and other large herbaceous openings are good bluebird habitat. Place boxes in meadows, old fields, pastures, lawns, along fence lines between fields, cemeteries, golf courses, reclaimed strip mines or along wide rights-of-way. It is best if grass and weeds are short or sparse, mowed or grazed areas provide good habitat. There should be structure to provide feeding perches in the vicinity of the grassy area, these can include power lines, fence posts or scattered trees.

Boxes should be placed 4 to 6 feet above the ground and spaced about 100 yards apart. The entrance hole should face north, northeast or east, to prevent sunlight from shining into the hole and overheating the box interior.

Boxes placed too close to buildings, streams and non-forested wetlands, or brushy areas often incur persistent competition and predation. If this happens, moving the affected box may be the best solution.

## Competition

There are other strategies one can employ to alleviate nesting competition. Some people feel that sparrow use of bluebird houses can be discouraged by cutting a 3-inch diameter hole in the roof and covering the hole with  $\frac{1}{4}$ - or  $\frac{1}{2}$ -inch hardware cloth. Bluebirds don't seem to mind the "sunroof", but sparrows appear to be discouraged by it.

If competition with tree swallows is a problem, try placing boxes in pairs. The territorial swallows will keep other swallows away from the second box. But they won't mind bluebirds (a different species).

To prevent blowfly parasites on young bluebirds (and other species) bend a piece of  $\frac{3}{8}$ - or  $\frac{1}{4}$ -inch mesh, hardware cloth (in the shape of a shallow 'u'), so that it sits 1 inch off the floor of the box and covers the entire floor. The blowfly larvae will fall through the wire and be unable to get back up to the nest.

Boxes should be ready for occupancy by mid-March and should be checked at least once every two weeks from late March until mid-August. In September, remove old nests and cover nest box and post with a plastic leaf bag. Gather and tape the bottom of the bag to prevent mice from entering during the winter. Be sure to remove the bag and get the box ready for bluebirds in early March.



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## Public Enemy #1: House Sparrows



house sparrows by J. Dingel

Adult male (left) and female (right) house sparrow.

House sparrows are invasive species with short stocky bodies, a large head, and blunt bill. They were introduced to the U.S. in the 1800s and compete with bluebirds for nesting locations. House sparrows may attack adult bluebirds and destroy eggs and nestlings. House sparrow nests are often "messy" containing loosely packed grass, twigs, feathers and other litter. Nests are large, nearly filling the box. Bluebird nests are neat, cup-shaped nests, woven of fine grasses or pine needles. Other materials may be incorporated in the nest, but it will not look "messy."



House sparrow nest (left) and bluebird nest (right).

House sparrow and bluebird eggs are similar in size. House sparrow eggs can be cream, white, blue or greenish colored, with irregular brown or gray speckles. Bluebird eggs are blue or white, but lack brown speckling.

Remove all house sparrow nesting material immediately and increase monitoring of that particular nest box



House sparrow eggs (left) are covered in speckles while Eastern bluebird eggs (right) lack speckles.

## Other Birds That Use Bluebird Boxes



tree swallow by J. Dingel

### Tree Swallow

With iridescent blue upperparts and a contrasting white belly, the tree swallow is a jewel of a bird common throughout most of the state. Tree swallows are fast, agile fliers commonly seen swooping after insects over meadows and fields and are especially common where there's also a lake or pond nearby.

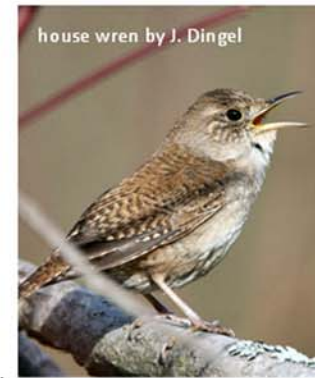
Tree swallows are one of the most common birds that compete for bluebird nest boxes placed in open habitats. Nest boxes should be mounted on fence posts or poles, about 4 to 6 feet above the ground. To reduce competition and provide nest sites for both bluebirds and swallows, landowners can either space nest boxes 100 to 150 feet apart or use a paired design by placing two nest boxes within 10 feet of each other with additional nest box pairs at 300-foot intervals.

### House Wren

The house wren is one of Pennsylvania's most common and enjoyable backyard birds. Its beautiful bubbling calls are a joy to hear during the spring and summer.

House wren boxes are likely to be used if they are 5 to 10 feet above the ground and located under the eaves of a building or in a tree. This and gourds for purple martins are the only types of bird boxes that can be free-hanging. All other bird boxes need to be firmly anchored. House wren holes are too small for house sparrows and European starlings to use. Don't put a perch on the nest box, which invites sparrow problems. If you have a perch on a wren house, take it off.

As soon as one family of wrens leaves a house, clean it out so another brood of young can be raised.

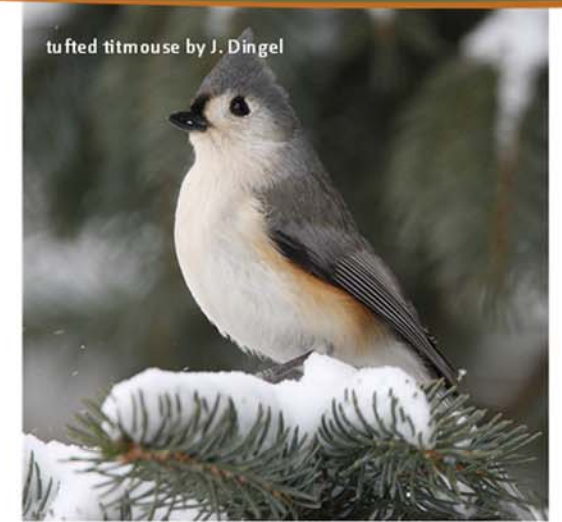


house wren by J. Dingel

### Tufted Titmouse

The titmouse prefers boxes in wooded locations. Wood shavings in the bird house will simulate conditions in a natural cavity.

Titmice seem to prefer boxes located 6 to 10 feet above the ground. Attach the box to a tree trunk where it will be shaded and orient it to face small clearings. Like the chickadee and nuthatch, the titmice overwinter in Pennsylvania. By day they grace our winter feeders. At night they may seek shelter in the same boxes they nested in earlier in the year. For that reason, the entrance holes should face towards the east and south, away from prevailing winds.



tufted titmouse by J. Dingel

### White-breasted Nuthatch

The white-breasted nuthatch is well known at winter bird feeders as it hangs upside down to eat suet and probe for insect larvae under the bark of trees. It nests in mature hardwood forests in habitats similar to those used by chickadees.

As soon as each brood of young leaves the nest box, clean it out so more birds can use it. Boxes should be 12 to 20 feet above the ground.



white-breasted nuthatch by J. Dingel

Hassinger, J. (2008) *Woodcrafting for Wildlife: Homes for Birds and Mammals* (rev., 4th Ed.) Collingdale, PA: Diane Publishing.