

NABS Factsheet

Getting Started with Bluebirds in New Jersey



THE BLUEBIRD AND “BLUEBIRDING”

While all three species of bluebirds - Eastern, Mountain and Western - are found only in North America, here in New Jersey, Eastern Bluebirds are our native species. They evolved to nest in natural cavities (e.g., old woodpecker holes). But since European colonialization, large sections of forest and other natural rural landscapes have been cleared for housing and commercial developments, highways, and row crop agriculture. Wooden rail fences that provided nesting cavities have been replaced with metal posts. These changes greatly reduced the supply of natural cavities for bluebirds and other native cavity nesting species.

Then, starting in the mid-1860s the impact of the natural cavity losses was compounded by the introduction of two European cavity nesting species into North America — the European Starling and the House Sparrow (not to be confused with

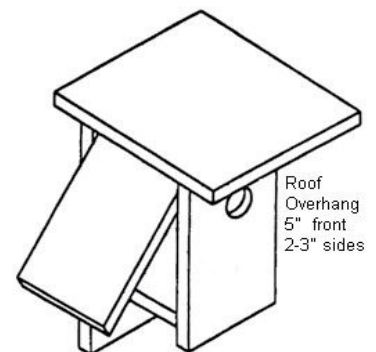
native North American birds, such as the Song Sparrow, Tree Sparrow, etc.). Both European Starlings and House Sparrows are extremely aggressive competitors for nesting cavities. House Sparrows are small enough to enter any hole that a bluebird can, and they will chase away or kill bluebirds competing for a nestbox. Starlings can be excluded from nestboxes by using the correct size entrance hole, but they will out-compete bluebirds for woodpecker holes and most other natural nesting cavities. In addition, massive flocks of European Starlings strip the landscapes of wild berries, the primary winter food of bluebirds.

As a result of these developments, bluebirds were extirpated across much of the continent, but since the 1960s their populations have been successfully restored by human intervention - and their future is still promising. The most important thing that humans can do to maintain bluebird populations is to provide secure nesting sites by setting out well designed nestboxes and then monitoring those boxes through the nesting season. A “bluebird trail” is a series of bluebird boxes placed along a prescribed route. In areas where nestboxes have been put up in suitable habitat, bluebird populations are increasing.

We call these efforts “bluebirding”, and it is a great hands-on environmental activity that people of all ages can enjoy. By following the instructions in this factsheet, chances are good that you will be able to attract and enjoy bluebirds.

THE BLUEBIRD NESTBOX

- A good bluebird nestbox should be well-ventilated, watertight as possible, have drainage holes on the floor (to prevent prolonged dampness), and be easy to open for monitoring and cleaning. The floor area should be 16 to 25 in².
- Solid, untreated wood (e.g., Red Cedar) is ideal and exterior-grade plywood (not chemically treated) works well also. The outsides of nestboxes can be stained or painted using exterior-grade latex paint. Using white or a light “earth tone” colors can help keep the box cooler. The nestbox should not have a perch under the entrance hole as that can attract House Sparrows and House Wrens.
- Nestboxes for Eastern Bluebirds should have a round entrance hole measuring 1-½" or 1-9/16" in diameter, or a 1-¾" x 2-¼" vertical oval hole, or a 1-⅞" to 1-3/16" horizontal slot entrance.
- Bluebird nestboxes are available from many commercial sources and from some bluebird organizations. Be aware that some commercial nestboxes are poorly designed or improperly constructed. Before purchasing a nestbox, refer to the NABS factsheet, *Nestbox Specifications* (www.nabluebirdsociety.org/fact-sheets-plans/) as it provides detailed information on features to look for, or to avoid, on a good bluebird nestbox. Plans for building a number of different nestboxes styles are also available there.



MOUNTING THE BLUEBIRD NESTBOX

- Smooth round pipe is probably the best mounting system and ½" or 1" electrical conduit is ideal and durable. A post driver purchased from a hardware store is an excellent tool for inserting metal posts into the ground.
- Periodically polishing (steel wool) or coating the pole with wax or grease will help to keep climbing predators out of the box.
- Hardware cloth, or a wobbling stovepipe (Kingston) or a PVC baffle placed on the pole directly underneath the box helps prevent access by climbing predators, including snakes and raccoons (see examples at right). Refer to the NABS Fact Sheet entitled Predator Control for more details and plans at www.nabluebirdsociety.org/fact-sheets-plans/.
- Mounting bluebird boxes on a fence lines, tree trunks, or buildings renders them vulnerable to climbing predators and **should not be used** if snakes and raccoons are present.

SETTING UP A BLUEBIRD TRAIL

- Habitat is the key factor to consider when setting up a bluebird trail. Open country with scattered trees and low grass or other sparse ground cover is ideal especially if it includes fences, utility lines or trees where bluebirds can perch to look for prey. Examples of good habitat for a bluebird trail are pasturelands, open park areas, mowed areas such as cemeteries, golf courses, utility rights-of-way, and vineyards. Try to avoid areas subject to heavy pesticide usage.
- Mount nestboxes at least 50–200 feet away from brushy and heavily wooded areas—this is House Wren habitat. The wrens are a protected native species, but they may destroy bluebird eggs and compete with bluebirds for nestboxes.
- Avoid areas where the House Sparrow is abundant, such as barns and feedlots, or yards where cheap birdseed containing millet and cracked corn are put out (read more about these birds on page 3).
- For monitoring convenience, mount nestboxes so the entrance hole is approximately five feet (eye level) above the ground, but not lower.
- Face the nestbox away from prevailing winds, and if possible, face it toward a tree or shrub that is within 100 feet of the box to provide a landing spot for the young bluebirds when they first leave the box. This will keep them off the ground, away from predators.



Tree Swallow

Nesting density of bluebirds is dependent on many factors. These factors include population density, habitat suitability, food supply, individual tolerance levels, visibility between boxes, the number of cavities available, and the level of competition from other species, especially Tree Swallows. It is therefore difficult to predetermine the optimal spacing for any given area. The distances below are given as general guidelines only; contact your local bluebird affiliate organization (<https://www.njbluebirdsociety.org/>) to find out what they recommend, and experiment by adjusting the distances between your own boxes.

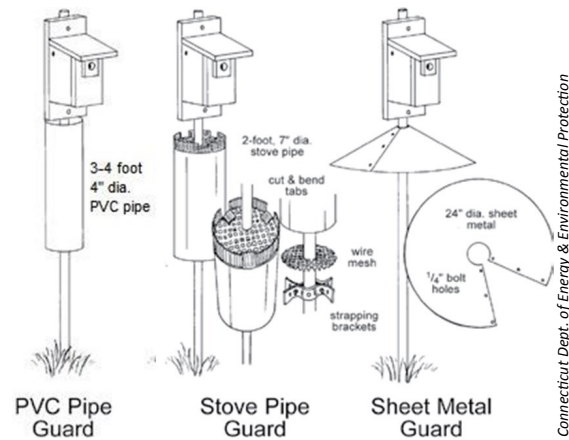
In many cases, bluebirds have been observed nesting closer than the distances typically recommended. However, it is better to start a bluebird trail with boxes placed too far apart than too close together. Eastern Bluebird boxes should be placed at 100 yards minimum (125 to 150 yards apart may be better).

Nestboxes can be mounted in pairs in areas where Tree Swallows are abundant. When paired, boxes should be mounted 5 to 15 feet apart. This provides nesting sites for both species and helps to prevent competition between them. Different species of native birds usually do not mind nesting close to each other. Although bluebirds generally prefer rural areas, they will nest in any area with the appropriate habitat.

MONITORING A BLUEBIRD TRAIL

Please do not put up a bluebird nestbox if you do not plan to monitor it! Monitoring involves checking your nestboxes at least once a week during the nesting season. For more detailed information on this topic, refer to the NABS fact-sheet Monitoring Bluebird Nestboxes available online at www.nabluebirdsociety.org/fact-sheets-plans/.

After the nestlings are 12–13 days old, NABS recommends opening the nestbox only with caution (if at all). At this stage of development nestlings could leave the box before they are able to fly, thus greatly reducing their chance of survival.



Connecticut Dept. of Energy & Environmental Protection





As previously noted, **never allow House Sparrows to use your nestboxes.** House Sparrows will kill adult and nestling bluebirds and/or destroy their eggs. Like European Starlings, they are not protected by federal law and maybe be disposed of as required. **Act against House Sparrows the first moment that they appear to avoid finding destroyed nests and dead bluebirds.** For more information on this subject, see the NABS factsheet *House Sparrow Control* (www.nabluebirdsociety.org/fact-sheets-plans/).

Be aware that any **native** bird species that uses your nestbox (e.g., chickadees, titmice, nuthatches, Tree Swallows) should be welcomed - these small cavity nesters need help, too. Furthermore, it is **illegal** to disturb an active nest of any native bird without a permit.

Bluebirds usually begin to nest in late March or early April, depending on weather conditions. Have your nestboxes in place by early spring when the bluebirds are looking for nesting sites. Boxes may also be put up later in the nesting season. In those northern areas where bluebirds are present year-round, bluebirds may benefit from nestboxes left up all year as they can use them for roosting on cold nights. Shelter in a roost box may mean the difference as to whether wintering bluebirds survive or perish.

Bluebirds usually have two broods per season, but three or even four broods are possible, especially in warmer climates. Remove bluebird nests and those of other birds after the young have fledged. Brushing out the box and scraping off the guano is all that is necessary.

Learn to recognize a bluebird nest. It is a cup-shaped nest that is usually made entirely of woven grass or pine needles. Bluebirds usually lay 4 or 5 light blue eggs but may lay as many as 6 or 7. About 4–5% of bluebirds lay white eggs. The typical incubation period for bluebird eggs is 12–14 days. A handy “rule of thumb” is that bluebird eggs will hatch approximately 17–18 days after the first egg is laid. All the eggs typically, but not always, hatch on the same day. After hatching the nestlings remain in the nestbox 17–21 days before they fledge.

It is a great idea to keep records of the activity on your bluebird trail. Please report your trail information to organizations like the NestWatch program at the Cornell Laboratory of Ornithology (<https://nestwatch.org/>). Your data helps NestWatch compile estimates on the status of bluebird populations and distributions across North America. Most NABS Affiliate organizations (e.g., State or Province level organizations) also keep records of bluebird trail activity.



Don't be discouraged if your nestboxes are not used right away. If bluebirds are not common in your area, it may take them a few seasons to find your new box or nestbox trail. Male bluebirds scout broad areas in search of nesting possibilities each spring. If your boxes are in place before then, the bluebirds might find them. Bluebirds often return to the same area each year. Therefore, once you have bluebirds using your nestboxes, there is an excellent chance that you'll have them in the following years also. Scientific studies have proven that bluebirders and bluebird trails have been an extremely effective method of re-establishing the bluebird populations across North America.

Remember, always monitor your nestboxes at least weekly to keep ahead of problems before or as they might develop. Decades of experience has shown that bluebirds thrive on active management. Well-designed nestboxes and proper management will almost certainly be the key to having bluebirds around for future generations to enjoy.

The North American Bluebird Society, Inc. is a non-profit education, conservation, and research organization that promotes the recovery of bluebirds and other native cavity-nesting bird species in North America.

www.nabluebirdsociety.org <https://www.facebook.com/NorthAmericanBluebirdSociety/>



You Say You Don't Have Predators? Maybe Not Today, But What About Tomorrow?

In this day of an educated public, I find it amazing how many people still mount their bluebird boxes on wooden posts, telephone poles or trees, setting the stage for encounters with ground predators. If I had a nickel for every time I heard "We don't have predators here"... Predator issues are usually infrequent but certainly not uncommon. A swift response is needed to prevent continued predation, but an ounce of prevention can virtually eliminate predator issues.



Photo by Pete Bozak

Rat snakes and raccoons are two prevalent ground predators in NJ. Both are active at night and are very efficient hunters. Landlords have a responsibility to prevent unnecessary bluebird loss. The accompanying two incidents is followed by a suggestion how to make an effective predator guard.

Snake Incident - I wanted to share these pictures with the readers, hoping it will encourage everyone to make sure predator guards are on every box. The two dramatic pictures show a large rat snake that found easy access to a bluebird box mounted on a wooden post. The box was actually being used to trap house sparrows but a pair of bluebirds commandeered the box. There are 4 other bluebird boxes on the property with predator guards that are the primary bluebird producers. I do not want to deal with a snake of this size. What would you do? Don't be caught having to deal with a snake the size of the one pictured. Snakes can have attitudes. They bite, poop on you, (the smell is worse than horrible), and may likely cause nightmares.

Raccoon Predation Incident - Raccoons also create problems for bluebirds. In early July, I conducted a site visit that had 4 boxes. The landlord stated he had lost all 25 bluebird eggs in 2020, not a single bluebird hatched. All 4 boxes were mounted on wooden posts and had some sticky "Tanglefoot" on the post to ward off predators (not effective). Each post and box had claw marks from raccoons. Claw marks are easy to spot if one simply looks for them. I erected 2 boxes with predator guards and asked the landlord to remove his boxes. He has good habitat that I expect will host 2 pair of bluebirds next season - successfully of course. *Update: A pair of bluebirds nested in the new box within the month. Three eggs were laid.*



Photo by Karen Legg



Photos: Allen Jackson



My Predator Guard Preference - It should go without saying that each and every bluebird setup should have a predator guard. Installing predator guards is not hard. I have reverted to using the best protection I can muster. While there are a number of types of guards, the one pictured has been extremely successful for me.

The materials include: a 6' heavy duty T-post, a 48" long piece of 4" PVC sewer pipe, a 4" end cap drilled with a 7/8" hole, a 1/2" x 8" galvanized threaded pipe held on the T-post by 2 hose clamps (size 3/4" to 1 3/4"). I screw a 1/2" threaded galvanized flange to the bottom of the bluebird box and simply screw the box onto the mounting pole after the post and guard are ready. This requires little maintenance other than occasional steel wooling of the PVC pipe, followed by some Turtle wax to keep it smooth. The 48" length and the fact that it wobbles on the post make it hard for predators to climb. Personal experience and recommendations from the Purple Martin Conservation Association indicate that a 4' rat snake can extend out 3' to get by cone guards, so consider not using cone guards if you have rat snakes. However, a rat snake can't go up 3' if there is nothing for it to cling to (like screws that hold metal guards together).

Most metal guards are only 2' long which snakes have gotten by too many times on purple martin setups I have monitored. My setup is somewhat costly (~\$35) but well worth the effort to make the box safe. Bluebirds have many factors to overcome for a successful nesting. Protecting them from predators is a simple step to keep your bluebirds around and productive. Common sense tells you it is better to be proactive and prevent the problem than to suffer the consequences. ~ by Allen Jackson, President Emeritus of NJBBS