

Bluebird Program of Minnesota



Trail Guide

Our Eastern Bluebird is experiencing a changing world. We, the people, are partly responsible for this regrettable situation. The habitat this small secondary cavity nester once knew has changed with the development of open rural lands, removal of snags (dead trees), fence lines and wooden fence posts. Not only has the habitat changed, but the introduction of two aggressive cavity nesters, the House Sparrow and the European Starling, has also added to the bluebird population decline. Sadly 40-70% of these small songbirds perish each year during migration both north and south. The normal life span for this beautiful bluebird is typically just 2 to 3 years. Fortunate is the bird that makes it to 5 years. As gloomy as all this is, the Bluebird is slowly making a comeback. The efforts of all who are providing quality nesting boxes in good habitat locations and monitoring the nest sites is helping to increase the number of bluebirds. If we are to have bluebirds for future generations, they will need our help.

Starting a Bluebird trail is an exciting adventure requiring commitment of one's time and energy. A trail may be one or a series of nestboxes. People of all ages can experience and learn so many things about nature when out on a bluebird trail. Sighting that first flash of brilliant blue in the spring is an awesome inspiring feeling with relief that they have made it back for another season. Finding that first egg, the first hatchling, watching them grow and if you are lucky, watching them fledge can be such a rewarding feeling. It may make you a Bluebirder for life. With the joy of seeing the birds out on a trail comes responsibility. The most important part of bluebirding is weekly checking each nestbox contents and recording your observations. The checking of the nesting boxes from April 1 through early September will enable you to correct any problems that could cause nesting failures. It's important to keep your trail of nesting boxes to a number that is easy for you to properly maintain. Remember to keep it FUN and enjoy making many happy memories while helping the bluebird population to grow.

"Nature is NOT putting up boxes for the birds to nest in. Putting up a box is interfering with nature. With that intervention comes responsibility". Nicholas A Zbiciak, Bluebird_L 2000.

Establishing a Bluebird Trail

Starting a Bluebird trail requires a commitment of your time for checking your nestbox contents on a weekly basis during nesting season. Usually, the timeline for this season is April to early September. Select your nesting box sites wisely. The bluebirds like open fields, meadows, gardens, large lawns, golf courses, scattered trees, short grassy areas and 300 feet from underbrush. One should avoid placing nestboxes in wetland and dense wooded areas which are better habitat for the tree swallow and house wren. Bluebirds hunt from perches, dropping down onto the ground to catch insects, their favorite food. In placing your nesting boxes look for snags, overhead power lines, fences or other perching areas with a clear view. One to two acres around the nesting site is needed for hunting insects. These birds are territorial, so do not overcrowd an area with nestboxes. Overcrowding may result with an increased population of competitive birds, such as house wrens and tree swallows. These birds will nest in excess boxes and may cause problems in future years.

Select a nestbox style that is easy for you to open for weekly checking and cleaning after each nesting and at the end of the season. BBPMN recommends the Gilbertson PVC, Peterson, Gilwood, Troyer, and NABS boxes. Whatever style you select they need to be mounted on a 1/2" to 3/4" smooth metal pole. BBPMN recommends the Steve Gilbertson pole assembly, which consists of a 1/2"x 4-5 foot of rebar with a 1/2"x 4 1/2" - 5-foot conduit pole. NEVER mount on trees, fences, wooden posts or T-posts without raccoon baffles. Failure to use proper poles, places the bluebird's eggs, chicks and nesting adult birds in danger from climbing predators. The entrance hole should be at least 5 feet from the ground. Rather than facing a certain direction, face the hole towards a tree for fledglings to fly to on their maiden flight. Amazingly, they can fly up to 300 feet on their first flight. For nesting boxes located along road ditches, be sure to face the entrance hole away from the roadway. Nestbox sites should be at least 1,000 feet apart. If you have tree swallow competition, a second box can be installed at each site 10 – 15 feet from the first nestbox (commonly called "box pairing").

Before placing your poles into the ground, have the area checked for underground utilities. **Call: The One Call Center 811** (This number is for six states, Iowa, Minnesota, Montana, North Dakota, South Dakota and Wisconsin) Listen to your state's options. For Minnesota you will press 1 (Gopher State One)

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Monitoring a Bluebird Trail

- Open and check nestbox contents weekly during the nesting season. Keep records of the activity on your bluebird trail. This information is valuable for compiling data on bluebird populations. Annual Nesting Report Forms are available on the *Bluebird Program* website, bbpmn.org, August through December each year. Some important items to record include the number of nesting attempts, the number of successful broods, the total number of bluebird eggs laid, how many hatched, and the number of bluebirds fledged.
- Have your bluebird boxes in place by late March when the bluebirds return from their winter migration (close doors and open PVC holes). However, boxes may also be put up later in the nesting season. Bluebirds usually nest in late April and early May, depending on weather conditions.
- Bluebirds usually have two broods per season, but three are possible.
- Recognize a bluebird nest - it is a cup-shaped nest that is usually made up entirely of woven grass. Occasionally, pine needles may be used. Bluebirds have no sense of smell, so if you touch the nest, they will not abandon it. Relocate boxes that have not been used for two years and any boxes in high predation areas or in areas encroached by wren habitat.
- Males return first and look for a female. The female builds the nest and performs all incubation duties.
- After a male attracts a mate, he performs a flight display and directs her to nesting sites within his territory. Ultimately, however, the female makes the nestbox selection. During your regular monitoring visits, you may discover a blade of grass, or a pine needle left inside, which may be the beginning of a nest.
- Bluebirds lay one egg per day until the clutch is complete, then incubation starts. A clutch is usually 4 to 5 light blue eggs but may contain 6 or 7. A small percentage of the eggs may be white.
- Incubation lasts for 12 to 14 days.
- Nestlings often hatch the first two hours before dawn. It seldom takes more than a day for the entire clutch to hatch. The parents will start feeding soft insects to the chicks within an hour of hatching. The male may be especially busy feeding while the female broods the babies to keep them warm, so if it is a cold, rainy day, refrain from monitoring boxes with young nestlings unless you are certain the female is not incubating. If the female is scared away from the box, the chicks may become cold, while she waits to return.
- The first time you check a box of nestlings; you may find that not all of the eggs hatched. Unhatched or infertile eggs occur in about 10 to 15 percent of nests. By the fourth or fifth day after the other eggs have hatched, you can remove the unhatched eggs.
- Do not open the box after nestlings are 12 to 14 days old. Doing so could result in the nestlings leaving the box before they are able to fly, greatly reducing the chance of survival. By this time, you should have been able to determine the sex of the nestlings; - males reveal bright blue wing feathers while females are blue gray.
- Nestlings remain in the nest 18 to 21 days before they fledge. The number of days until fledging depends on the weather and the amount of food the nestlings received.
- Parents will take fledglings to an area with cover to continue raising their young, so you may not see them for a while.
- Remove bluebird nests and those of other birds as soon as the young birds have fledged. Dispose of the old nest at a minimum of 50 feet from the nestbox site.
- **At the end of the nesting season clean your boxes out, leave doors open and plug the PVC holes to keep mice and house sparrows from using them during the winter months.**

Problems and Solutions

- A BLUEBIRDER must also keep the bluebirds we already have safe. We must remove or relocate nestboxes that are poorly placed or are improperly mounted. (Over the years what once was good bluebird habitat may no longer be.) Boxes in poor condition should be repaired, replaced or removed.
- Avoid placing boxes in wren habitat. Wrens typically won't tolerate other songbirds nesting in the same area, even other bluebirds. Wrens can pierce or carry out bluebird eggs and will sometimes kill young nestlings. Boxes should be placed 300 feet from cover (brush or trees). Male wrens typically stuff twigs inside nest boxes to stake claim on them. These "dummy nests" allow the wren to reserve the nest until his prospective mate arrives to build a softer nest among the twigs. It is legal to remove the dummy nests but removing these won't necessarily prevent wrens from taking over the nest, for they may continue to fill it with twigs to prevent other birds from nesting there.
- If tree swallows take over half of your boxes, try placing two boxes 10 to 15 feet apart ("box pairing").
- Maximum occupancy by bluebirds may be achieved by placing pairs up to 1000 feet apart, if your habitat permits.
- House Sparrows are not a protected native bird. Remove House Sparrow nests immediately. To avoid retaliation by the House Sparrow, do not remove nests if the bluebirds are nesting in the paired nestbox until bluebirds have fledged. A House

Bluebird

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The sparrow's nest is described and pictured on the inside pages. These birds are known to kill adult bluebirds and destroy eggs and nestlings. Boxes in areas heavily used by house sparrows should be relocated. Avoid placement in towns, cities and livestock farms where the House Sparrow populations are large.

- If you feed the birds, use high quality birdseed that does not contain cracked corn and millet, these are the House Sparrows favorite foods.
- Wet nests can be deadly to nestlings. When checking a box, it is important to check the nest itself and not just the nestlings. Be sure to check nestboxes for a wet nest after a heavy rainstorm and replace them with dry grass if necessary.
- If your nestbox has vent holes, cover them for the first nesting to help keep the chicks warm. Reopen the vent holes for the remaining nesting season.
- To avoid predator problems by raccoons, cats, snakes and any other climbing predators, mount boxes on proper poles as previously stated. Conduit poles should be cleaned with coarse steel wool, waxed with either a car wax or furniture polish early in the spring before nesting starts.
- Bluebirds will not nest in a box occupied by wasps. Gnats swarming over and biting nestlings can cause death. Be watchful for ants, they can infest a nest. Use a pyrethrin-based product sparingly to take care of these pests.
- When starting a new trail install your boxes sparingly. Resist overcrowding boxes, which may result in an increased population of competitive birds. Set a goal to fledge at least 3 bluebirds per site (1 box or one pair) before adding more nesting boxes.
- If you find a dead nestling in the box, remove it and dispose of it at least 50 feet away from the nesting site.
- Don't be discouraged if your boxes are not used the first year. If bluebirds are not common in your area, it may take them a few seasons to find your new box. Bluebirds generally return to the same area each year.
- Have fun with your trial and make certain to check your nest box contents weekly to ensure nesting success.

Check BBPMN Web site for more information: www.bbpMN.org

Become a member of BBPMN and receive the quarterly informational Bluebird News

Nest Guide to Nest Cavity Nesters

Eastern Bluebird

Fine or coarse grass, or pine needles, lined with fine grasses. Eggs are light blue or, on rare occasion, white.



Photo by: Kevin Oldrige



Photo By: Lance Krog



Photos by Linda Foellmi



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Black-Capped Chickadee

Moss, fine grass, lined with animal hair. Chickadees sometimes cover their eggs with fur when they leave the nest. Eggs are white with fine brown speckles.



Photo By: JoAnn Adelman



Photo By: Linda Foellmi



Photo By: Ardy Murphy



Photo By: Linda Foellmi

Tree Swallow

Similar to bluebirds, grass & straw, lined with feathers when eggs are laid. Eggs are white and elongated.



Photo By: Linda Foellmi



Photo By: Linda Foellmi



Photo By: Linda Foellmi



Photo By: Pat Ready

House Wren

Sticks and twigs jammed in tight. Lined with a small amount of fine grass. Often builds dummy nest with a few sticks but no grass lining.



Photo By: Lance Krog



Photo By: Lance Krog

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House Sparrow

Grass, straw, feathers, paper, plastic, etc. and they usually swirl the grass upward to fill the box, then tunnel down in. Sometimes when a nest is first started it may be hard to tell what species is nesting. Wait a day or two to see how the nest develops. Feathers and wrappers early on with some grass pieces are definite signs of house sparrows.



Photo by Pat Ready

Beginning nest. Similar to bluebird and tree swallow but note chicken feathers and debris – signs it's a house



Photo by Lance Krog

Eggs – white or grey with brown speckles.

Species Identification of Cavity Nesters

Photo by Lois Nissen



Male and Female Bluebird

Photo by Lance Krog



Tree Swallow, Sexes Similar

Photo by Linda Foellmi



Black-Capped Chickadee, Sexes Similar



Photo by Dick Peterson
House Sparrows, Sexes Similar



Photo by Lance Krog
House Wrens, Sexes Similar