



**THE VIRGINIA BLUEBIRD SOCIETY**  
726 WILLIAM STREET  
FREDERICKSBURG, VA 22401  
[www.virginiabluebirds.org](http://www.virginiabluebirds.org)

## BLUEBIRD CONSERVATION

In the early 1900's the Eastern Bluebird was one of Virginia's most common songbirds. Human activities and several harsh winters resulted in a severe decline of the bluebird population. Thanks to conservation efforts, such as establishing and maintaining BB trails, the bluebird is making a strong comeback. However, the continuing loss of natural nesting sites and other problems faced by bluebirds indicate that this beloved bird may always need help to survive.

## REASONS FOR DECLINE

**Sprawl** - cities have spread into rural areas reducing preferred habitat.

**Dead trees** – Snags are removed by homeowners. This reduces nesting sites for primary cavity nesters (woodpeckers). Bluebirds, chickadees, tree swallows and house wrens are all secondary cavity nesters. These birds nest in the holes in trees made by woodpeckers.

**The introduction of the starling and house sparrow** to North America resulted in a loss of available nest sites for bluebirds. These non-native species are so adaptable and aggressive that they spread across the continent taking nesting cavities, killing our native birds and destroying their eggs.

**Many small farms** have been combined into large operations with huge fields that destroy the mixed habitat needed by native cavity nesters.

**Winter food supply** has declined with suburban sprawl and the increase of lawns over gardens, and native vegetation is reduced. The few wild berries that remain are often stripped quickly by large flocks of starlings.

**Pesticides and herbicides** can be lethal for birds. Pesticides kill the food supply (insects) and the toxins from the pesticides also build up in the birds as they ingest the insects. Contact with herbicides (such as glyphosate) can kill bluebirds very quickly.

## LIFE CYCLE

The eastern bluebird belongs to the Thrush family. The male is brilliant blue with a rusty breast and throat. The female is gray blue with a buff breast. Their diet consists of mostly insects in the summer and wild berries when insects are not available. The fledglings have spotted feathers until the fall molt when all bluebirds grow dull feathers for protection from predators. The males are bright blue again by spring.

As early as March, or late as June, the male bluebird locates a nesting site, establishes a territory around it, and sings to attract a female and warn other male

bluebirds to stay away. Once a female accepts the male and the nest site, she builds a neat cup nest of dry grass or pine needles. Nest building can take five days to three weeks, depending on weather and time of year.

The female lays one blue – or, occasionally, white egg, each morning, until three to six are produced. She does not incubate the eggs until all are laid. Incubation takes 12 to 14 days. All the chicks hatch within hours of each other.

The adults feed the nestlings with soft insects and caterpillars, graduating to larger ones as the nestlings grow. The parents keep the nest clean by removing the fecal sacs, which enclose the nestling's waste.

The young grow rapidly. By the eighth day their eyes are open, and their feathers are beginning to unsheath. They have a white eye ring by the 12<sup>th</sup> day.

At 18 to 21 days after hatching, the nestlings fledge, (leave the box). All the chicks usually leave the box within a period of two or three hours. The fledglings can flutter 50 to 100 feet on their first flight. They try to land in a bush, shrub or low branches of trees to be off the ground and away from predators. The parents continue to care for the young, teaching them to hunt for insects. The male will carry on this job while the female begins the second nest.

After the nesting season is over, bluebirds give up their territories and flock together. In Virginia, bluebirds often do not migrate, but are joined by migrant northern bluebirds and roam looking for berries in mixed flocks. The northern migrants usually move farther south after October. Bluebirds roost in stands of pine trees, tree cavities, and trail boxes during cold weather. As many as 10 or more may roost in the same cavity in order to share body warmth.

## VIRGINIA NESTING SCHEDULE

Mid February – Male bluebird selects territory

March - Female bluebird selects mate

April - Nest building, egg laying, incubation

Mid April – Mid May - First brood hatches

June 1 – July 25 - Second brood (and possible third)

## NEST BOXES

A bluebird trail is a series of five or more nest boxes placed along a prescribed route. Bluebird populations are increasing in areas where nestboxes have been placed in suitable habitat.

## NEST BOX DESIGN

There is no perfect bluebird box design, but basic principals must be followed. A good bluebird nestbox should:

- Be well ventilated (Virginia summers can be very hot),
  - Be watertight, and have drainage holes.
  - Not be made from treated lumber due to toxicity.
  - Can be painted or stained if a light color is used (do not paint or stain the interior of the box).
  - Include at least one panel (front or side) that opens for easy monitoring and cleaning.
  - Never have a perch. Sparrows and wrens are attracted to perches and perches also enable larger birds to predate the nest.
  - Have a hole 1-1/2 " in diameter (this hole size excludes starlings).
  - Floor size of the box approximately 4x4 or 5x5
- Please see our website for an easy-to-make nest box design that is attractive to bluebirds.**

## MOUNTING & PLACEMENT

Habitat is the key factor to consider when setting up a bluebird trail. Select an open area with scattered trees and low ground cover. Suitable habitat should also include perch sites, such as fence lines, overhead wire, or tree branches, where the bluebirds can alight to search for food and guard their nests.

Pastures, parks, golf courses, meadows, and cemeteries are ideal places for a bluebird trail: shun areas where pesticides are used. Avoid locations that are brushy or heavily wooded. The house wren, a native cavity nester that competes with the bluebird for nesting sites, prefers these habitats. Avoid areas that are dominated by house sparrows, such as farmyards, feedlots and urban centers.

Nest boxes should be spaced at least 100 yards apart. In areas where tree swallows are present, many bluebirders pair their boxes. By placing two boxes close together (5 to 25 feet apart) both species will usually nest together peaceably.

Boxes should be mounted on a pole (**never on a tree**), 4 to 5 feet above the ground, facing a shrub or tree with low branches (for fledgling's maiden flight). Face the box toward the east or northeast with the entrance hole pointing away from the prevailing wind. Nest boxes should be in place by the end of February, or even earlier if possible.

**Predator guards should be used on every pole to protect the nestbox.** Stovepipe baffles work best: and prevent snakes, raccoons, squirrels, and mice from accessing the box. (See our website for plans)

## MONITORING

Do not put up a bluebird box if you do not plan to monitor it. Many people are hesitant about looking into a nestbox, but supervising your boxes can give the bluebird a much greater chance of survival. Monitoring leads to the early detection of problems and provides valuable research data.

Don't be discouraged if your nestbox is not used the first year; it may take the birds a while to find it.

Boxes should be monitored weekly during the nesting season. Only remove house sparrow nests; leave the nests of other native cavity nesters. (Federal law prohibits destroying or tampering with a nest of any native species).

## MONITORING TIPS

- Monitor once a week in spring and summer. Try to monitor at the same time every week to be consistent with your data
- Monitor only during warm, dry weather to prevent chicks from being chilled (the chicks are most vulnerable to cold in the first 8 days of life before they are fully feathered). During these first few critical days, open the box for only a brief time.
- Talk quietly as you approach the box in order to alert the birds inside.
- Stand away from the entrance hole and open the box slowly, counting the number of eggs and nestlings and note the age of the nestlings.
- Check for parasites in and around the nest box.
- Record your findings. At end of season - data is collected by VBS. The forms are on the website.
- Ensure box is closed securely when you leave.
- Do not open the nestbox after the nestlings are 12 days or older. This may cause them to fledge early before they are able to fly.
- After the chicks fledge, remove the old nest and carry the nesting material away from the nestbox (disposing of the nest near the nest box may attract predators).

## NEST IDENTIFICATION

**Bluebird** – Cup shaped, fine grass or pine needles. Eggs are blue (sometimes white).

**Chickadee** – Made of moss, grass and animal hair. Eggs are very small, creamy with brown speckles

**Wren** – Nest of twigs with a cup of fine grass inside. Eggs are very small, dark brown and speckled.

**Tree Swallow** – Fine grass nest with feathers. Eggs are small, oval and white.

**House sparrow** – Box full of grass, feathers and trash. Gray white eggs speckled with brown.

## PREDATORS & PESTS

**Snakes** – Black rat snakes are a major predator in Virginia. When the eggs or chicks disappear from the box but the nest remains intact, it is usually a snake. Snake guards are essential on all nest boxes. Place boxes on a pole, away from trees or overhanging branches. See our website for the predator guards.

**Squirrels, Raccoons, Large Birds** – The nest is destroyed and eggs and/or the young are gone. Use wire guard over the hole to discourage any predators. See our website for the design of the wire guard.

**Cats** – Can jump 6 feet straight up and kill the adults as they feed the young, or will perch on box and pull chicks out of the nest. Use cat/raccoon guard over the hole to protect adults and chicks.

**House Wrens** – Are a protected species but they can be major pests on a BB trail. Wrens build “dummy” nest in many boxes; will pierce or remove the eggs or chicks; and also may kill the adults. They are prolific and can drive out all other songbirds from and area. Move boxes at least 200 feet from brush or trees. Check our website for more information on house wrens.

**Ants** - Put heavy grease on the pole (up under the snake guard). If nest is infested, build a new nest out of dry grass, and transfer the eggs or chicks.

**House sparrows** - Adult and/or young found dead in box with head pecked in. Sparrow may start new nest on top of dead birds. Remove any house sparrow nests and eggs from box and carry away from nest so sparrows cannot conveniently reuse the materials for their next nest. House sparrows will re-build every week all summer long, so be persistent- they are hard to discourage. Traps are an effective way to reduce or eliminate sparrow problems. House sparrows are not native species and are not protected by law. Don't put up a nestbox unless you monitor it.

**Wasps** – Can drive birds from the box. Remove the wasp nest and use soap on roof of box to discourage.

**Blowflies**- Adult flies lay eggs in box, larvae then sucks the blood of nestlings at night. During day larvae can be found on the floor of the nest box. Check under nest for signs of larvae.

## FEEDING BLUEBIRDS

During cold weather when insects are not available, bluebirds feed on berries. The fruit converts to fat to help the bird survive the cold. Bluebirds do not eat seed, but feeders with mealworms, suet or fruit will attract them. Planting berry producing trees and shrubs is also an excellent way of providing help to the bluebirds. Visit the NABS website for information to learn more about feeding mealworms to bluebirds.

## VIRGINIA BLUEBIRD SOCIETY

The Virginia Bluebird Society (VBS) was founded in 1998 to promote bluebirds and other cavity nesting birds. VBS is affiliated with The North American Bluebird Society (NABS) and is a Chapter of the Virginia Society of Ornithology (VSO). VBS is a non-profit, Virginia corporation with 501c(3) tax-exempt status.

This pamphlet is intended as an introduction to what you can do to help the bluebirds and other native cavity nesting birds (titmouse, chickadee, tree swallow, kestrels, wood ducks and owls). If you have further questions or would like the name of your County Coordinator please visit our website:

[www.virginiabluebirds.org](http://www.virginiabluebirds.org)

Or you may contact us:

Anne Little 540 373-4594

Julie Kutruff -703 339-5218

Barbara Chambers 703 978-6609

## YOUR DUES AT WORK

VBS helps to promote working bluebird trails, workshops, and educational programs.

VBS helps build and maintaining bluebird trails on public lands throughout Virginia.

VBS supports educational programs on bluebirds and other cavity nesters.

(We are available to speak to your group about bluebird conservation. Please contact us.)

## HOW YOU CAN HELP

- Increase nesting sites by installing boxes

- Monitor your nest boxes.

- Plant berry producing plants or shrubs.

- Supply fresh clean water all year.

- Erect a bluebird feeder with dogwood berries, raisins, suet and mealworms.

- Join VBS and NABS.

- Volunteer to become a county coordinator.

## OTHER RESOURCES

The Bluebird Book by Don & Lillian Stokes

The BB Monitors Guide by Berger, Kridler & Griggs

NABS: 481 Athens Rd, Royston, GA 30662

[www.nabluebirdssociety.org](http://www.nabluebirdssociety.org)

## MEMBERSHIP APPLICATION

Names: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

County: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

## Annual Membership Fee:

\_\_\_\_\_ New Membership \_\_\_\_ Renewal

\_\_\_\_\_ Individual 1yr \$10.00 / 3 yr \$27.00

\_\_\_\_\_ Family 1 yr \$15.00 / 3 yr \$42.00

\_\_\_\_\_ Sustaining 1yr \$50.00

\_\_\_\_\_ Endowment 1 yr \$100.00

\_\_\_\_\_ Membership 1 yr - North American Bluebird Society \$20.00

\_\_\_\_\_ Sponsor a Bluebird Box (tax deductible) Each \$20.00

\_\_\_\_\_ Additional Tax Deductible Contribution

\_\_\_\_\_ Total (Make Check Payable To VBS)

**Mail this form and your check to:**

**The Virginia Bluebird Society**

**726 William Street**

**Fredericksburg, VA 22401**

**[www.virginiabluebirds.org](http://www.virginiabluebirds.org)**

\_\_\_\_\_ I currently monitor a bluebird trail

\_\_\_\_\_ Number of nest boxes monitored

\_\_\_\_\_ I will volunteer to help VBS