2020 Bluebirding Success On the Blue Ridge Parkway
By Carol Whiteside, Roanoke Valley

The Blue Ridge Parkway bluebird trail was first established by Norma and Raymond Harper as reported in the Roanoke Times on March 16, 1969, with 52 boxes extending 52 miles from Roanoke to Lynchburg (Route 24 to Route 709 to Route 811). Then, Route 24 became too dangerous due to the new Smith Mountain Lake traffic, so in 1988 Jack and Sandy Cheapé moved some boxes from Route 24 and expanded the Blue Ridge Parkway Roanoke section to 31 boxes within 20 miles. The 469 mile Blue Ridge Parkway is the most visited U.S. National Park with more visitors than Yellowstone, Yosemite and Grand Canyon combined.

Today, the 33 boxes of the Blue Ridge Parkway Trail have survived this year’s record-breaking July heat wave, and extreme rainy and dry seasons with fantastic results! Since the National Park Service suspended volunteer work due to the COVID-19 pandemic, I took the sole responsibility of monitoring as the parkway remains open to visitors, and being a park agricultural lessee for over 30 years, I know most of the district park personnel. Then, on May 26, 24 miles of the park was closed (and could possibly remain closed for 18 months or more) due to two tremendous landslides that were produced by the heavy spring storms. This closure made 15 of our 33 bluebird boxes inaccessible.

Our accomplished birding friend and volunteer monitor, Ranger Dan Whitcomb and his family (wife Jen, and twins Emma and Levi) came to the rescue by continually monitoring the closed section weekly on Dan’s days off from work. How fortunate are we to have a National Park Service law enforcement officer as a monitoring volunteer! Dan, by the way, has widespread birding skills in identification, vocabulary, and birding by ear. His career has led him through many birding adventures from bird banding to hawk watching, and other functions found in our national parks.

Therefore, the entire Blue Ridge Parkway Bluebird Trail was monitored weekly as I monitored the open northern half, while Dan and team monitored the southern closed section of the park. In the midst of all this, I had surgery and the Whitcomb’s covered the entire trail during my missed time. Dan probably prefers to be in the background, but he is the one that made it all possible to take good care of our box nesters in the park, and to complete the trail’s records for this unusual year.

It commenced early with the first egg on March 21, and all 33 boxes were occupied, producing eggs. These two instances broke Blue Ridge Parkway trail records of the past 21 years of...
record keeping.

There were:

- 203 eggs/168 fledged bluebirds, 82% success rate (third highest number fledged in 21 years).
- 19 eggs/19 fledged chickadees (trail records for both highest number and 100% success rate).
- 44 eggs/24 fledged tree swallows, 55% success rate (*house wrens reduced numbers).
- 12 eggs/12 fledged house wrens (trail record for 100% success rate with highest number).

Two boxes produced three separate fledgings each.

*In six strikes, house wrens were responsible for the demise of 11 bluebirds and 13 Tree Swallows (eggs, youth, and adult combined). Last winter six boxes were replaced with ones equipped with wren guards. Four of those boxes were successful, but two could not prevent the determined house wrens.

The 2020 TOTAL is 278 eggs, 223 fledglings, a success rate of 80%. Although this is an outstanding year, our best year occurred in 2017 with a success rate of 92% with 223 eggs and 205 fledglings, even though the numbers produced weren’t quite as high.

In the last 21 years of record keeping the Blue Ridge Parkway trail has produced 5,112 eggs and 3,838 fledglings, with an average success rate of 75%. I have no records prior to 2000, but let’s not forget that the Virginia Bluebird Society was not organized until 1996, which established our record keeping.

Finding Comfort in the Nest

By Susanne Miller, Fairfax County, Virginia

During COVID-19 confinement, my husband and I were entertained daily by a pair of bluebirds working endlessly from mid-March to mid-July building a nest in a nest box within our view. They equally shared the chores taking turns carrying and loading materials, snacking on the mealworms we provided, and guarding and resting in intervals. A lesson in cooperation I hoped my husband and I would eventually learn while being confined. We spent these early confinement days looking forward to their birdsong busyness as they took turns popping in and out of the nest, suggesting the arrival and care of nestlings.

One day the pair quietly disappeared into the trees and straw was spilling from the entrance to the box. Inspection showed an empty nest. Hopefully, they fledged the nest safely escaping the usual predators that patrol our yard. We were amazed at the beauty and precision of the structure left behind.

Now we occasionally hear their birdsong as they perhaps track their fledgling’s skills while passing on the hope of the cycle of life and persistence of nature, just as we continue during these trying times learning to find comfort in our own nest.

White Bluebird Eggs

By Jim Widzinski, Round Hill, Virginia

This is something we have never seen in the many years we have been monitoring. In the same year and in the same box, we found two different clutches of white bluebird eggs. In both cases, all bluebirds successfully hatched and fledged. Dad and daughter were monitoring the bluebird trail at the Loudoun Golf and Country Club, Purcellville, Virginia.

*Left: five white bluebird eggs, taken April 21, 2020
Photo by Ally Widzinski (iPhone)
Right: four white bluebird eggs, taken June 30
Photo by Jim Widzinski (Samsung S8)*
Paired Nest Box Experiment Follow-up
By Doug Rogers, VBS Board Member

Dear Fellow Bluebird friends, here is the final report for this nesting season on my experiment with my nest box trail. If you recall from the previous issue of The Bird Box, I stated that my trail has been providing housing for too many Tree Swallows to suit me. I have tried the VBS protocol of pairing the boxes. I had 4 sets of paired boxes – with the boxes spaced about 15 feet or so apart in the areas that were affected by swallows the most. That worked for one year, and for the past three years, all eight of those boxes were occupied by Tree Swallows.

This nesting season, I reshaped my trail. I had seven poles with two closely paired boxes on each of them and six poles with one box each for a total of 20 boxes. The 14 paired boxes were in the area most affected by Tree Swallows.

Here are the results as of July 29. (EABL = Eastern Bluebirds; TRES = Tree Swallows). I compared this year’s results with the averages of the prior three years.

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<th>Nests</th>
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<td>TRES 2017</td>
<td>12</td>
<td>40</td>
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Nests
Eggs
Hatched
Fledged

EABL Prior 3 yr average
12.00
51.00
45.00
40.00

TRES Prior 3 yr average
10.33
40.67
30.67
27.00

EABL % change 2020/3 year average
58.33%
70.58%
71.11%
82.50%

TRES % change 2020/3 year average
-51.63%
-36.06%
-15.22%
-29.63%

I have been asked why this happened. Short answer: I’m still trying to figure it out.

My first sighting of an Eastern Bluebird sitting on a nest box was February 23. My first sighting of a Tree Swallow in the area was March 8, and the first sighting of a Tree Swallow actually going into a nest box was March 14.

The first Eastern Bluebird nest building activity was observed on March 17 but that nest was subsequently abandoned. The next week, March 24, a lot of Eastern Bluebird nest building activity began and all of those nests were completed and fledged young. At that time no Tree Swallows had begun building nests; the first Tree Swallow nests were started on April 28. In two boxes, Tree Swallows began building nests and were bootied out by Eastern Bluebirds.

It seemed that, with the closely paired boxes, the Eastern Bluebirds were better able to defend them from the marauding Tree Swallows. My theory is that, when the paired boxes were 15 feet apart, the Tree Swallows would gain a foothold in one of the boxes and four or five of them would use that as a staging area to successfully attack the Eastern Bluebirds in the other box. There would be only two Eastern Bluebirds defending the other box and they would be overpowered by the Tree Swallows. With the two boxes back-to-back, the Eastern Bluebirds would arrive first and then defend both boxes against the Tree Swallows who, now, did not have a nearby staging area to use to rest between attacks. The Eastern Bluebird could stand his ground on the box, thus expending less energy while the Tree Swallow had to remain airborne to try to dislodge him. Does this make sense to anyone else?

No theory will hold up unless it is peer reviewed and repeated. Please give me your ideas and comments. Next year, I will do this again and keep the same data as this year. Whether I will get the same results, remains to be seen. Stay tuned.

A Message of Grateful Appreciation From Our President
As Lexi Meadows’ hiking boots take her down a new trail, the Board of Directors of Virginia Bluebird Society wishes to thank Lexi for her many years of service to the board, including most recently as Vice President, Membership and Trails. Lexi has been a wonderful asset to the Board, from her unstinting enthusiasm for bluebird conservation, to the many fabulous bird photos she posted as administrator of the VBS FaceBook page, and not insignificantly as the #1 seller of raffle tickets at the biennial VBS conference. We wish Lexi a thousand and one more photo ops, and at least that many more miles of happy trails. Thanks, Lexi!
An Unusual Cavity
By Christine Boran, Patrick County

Along the Woolwine House Bluebird Trail, I have a few Virginia Bluebird Society grant boxes in a public park. Bluebirds usually are the users of those nestboxes. At Nestbox 40, a Tree Swallow quickly moved in a few days after the first bluebirds fledged, which usurped the bluebird couple building nest number two. That bluebird couple then moved into the nearby park’s pet waste station and built a nest inside the green metal "cavity," which was void of the waste bags for the dog walkers. They laid 4 eggs. I became concerned as to how to protect it from the numerous avian, reptile, and mammal predators at the park (including some worry about humans, too) with the metal box 3.5 feet from the ground. How does one protect that station from predators? I kept a watch several times a week. The four eggs hatched during the hottest period of the summer. I then had to make a sudden trip out of town. After returning from my trip, I walked by the pet waste station in the park to peer in to get an update if they survived. To my surprise, I was there during the fledging! One fledgling was left in the station, and I heard the other youngsters in the nearby tree. The parent birds were upset that I was anywhere near the nest in the station. I actually like that - it’s a good sign of the health of the parent birds and their natural instinct to protect their young. We know bluebirds are opportunists and have been resourceful, nesting in the most interesting and unusual cavities they sometimes find. I am glad they made it into the world and hope the best for them to survive their first year. I will add another trail nestbox to this public park this autumn. I will get permission from the county first. Many locals asked me if I knew about the birds nesting there, including the walkers in the park and the community’s Postmaster. It indeed takes a village.

Eastern Bluebird – It Carries the Sky on its Back
Mason Neck State Park Critter of the Month

This article was originally written for the August 2020 Friends of Mason Neck State Park newsletter. Reprinted with permission.

By Randy Streufert, Fairfax, Virginia

Eastern Bluebirds are a common sight on Mason Neck in Northern Virginia. At Mason Neck State Park, they are most often observed near the Visitor Center and picnic grounds. What many who see them do not realize is that Bluebirds are not blue. They have no blue pigment in their feathers.

According to Scott Sillett, a wildlife biologist at the Smithsonian Migratory Bird Center, there is no such thing as a blue bird. Sillett explains that the red in feathers of birds, like the Northern Cardinal and the yellow in feathers of birds like American Goldfinches, get their color from actual pigments (carotenoids) that are in the foods the birds eat. Those deep red male Northern Cardinals highly likely had a diet rich in red holly berries. Blue is different; while some berries eaten by blue-appearing birds contain blue pigment, it is destroyed in the digestive process. Therefore, no bird species can make blue from pigments.

The blue that is seen on a bird is created by the way light waves interact with the feathers and the arrangement of protein molecules, called keratin, in the cells of the feathers. In other words, blue is a structural color. Different keratin structures in different species reflect light in subtly different ways to produce different shades of what our eyes perceive as the color blue. The intense blue look of a male Eastern Bluebird compared to that of the female is due to the differences and concentrations in the keratin structures in the feathers of the two genders.
To put it more simply: just as the sky appears blue because all other visible colors are filtered out by the atmosphere, the feathers of birds that appear blue (Eastern Bluebirds, Blue Jays, Blue Grosbeaks, and Indigo Buntings) perform a similar filtering function.

The Eastern Bluebird residents at the Mason Neck State Park are one of three species of Bluebird in the continental US. The Western Bluebird and Mountain Bluebird are found in the far western states; the Eastern Bluebird can be seen from the Midwest to the Atlantic. Bluebirds have long been a symbol of happiness, good health, and hope, and are the official state birds of four states – the Mountain Bluebird for Idaho and Nevada, and the Eastern Bluebird for Missouri and New York.

The diet of Eastern Bluebirds consists mainly of arthropods (insects, caterpillars, and spiders) which has made farmers want them to live where they live. Bluebirds are year-round residents – they do not migrate. When winter weather arrives in the Northern Virginia area, they will eat berries from holly, cedar, and other trees and shrubs if insects are scarce.

Bluebird parents feed their chicks a variety of arthropods, an occasional skink, and berries when available. They do this for at least two reasons: first, a typical brood of four chicks needs a lot of food and the parents get whatever is available to keep them fed and growing. Second, by receiving this variety of food, the chicks learn not to depend on any one food source, thus enhancing their prospects for long-term survival.

How is “a lot of food” defined? Studies by Douglas Tallamy, professor and chair of the Department of Entomology and Wildlife Ecology at the University of Delaware has documented songbirds’ critical need for arthropods. A single pair of songbirds, like Eastern Bluebirds, must find and capture between five and seven thousand arthropods to feed to a single brood of chicks. That’s a minimum of 180 bugs per day for their brood from the time the chicks hatch to about two weeks after they fledge. Imagine the numbers of arthropods required for all the pairs of the many species raising chicks every spring and summer.

On the drive from US Rt. 1 to Mason Neck State Park, bluebirds are frequently seen on the telephone wires along Gunston Road staring at the open grasslands below. They are patient observers; when insect movement is detected, they swoop down to grab their prey.

In early spring Eastern Bluebird pairs begin looking for nest sites. Unlike most other songbirds, Eastern Bluebird pairs often raise two, sometimes three, or rarely four broods of chicks during their nesting season of May through August.

Eastern Bluebirds as well as several other species of songbirds are cavity nesters – that is they require an enclosed space in which they build their nests. Eastern Bluebirds rely on either naturally occurring hollows in trees or unoccupied cavities created by woodpeckers. They also prefer their nest site to be in or next to open fields with trees or other perches nearby. Those same nest preferences are shared with Tree Swallows. Other native species in the Northern Virginia area such as Carolina Chickadees, Tufted Titmice, and Prothonotary Warblers add to the considerable competition for nest cavities.

What is helping the populations of the Eastern Bluebirds on Mason Neck and elsewhere in the state? Thank the volunteers of the Virginia Bluebird Society (VBS) who put up, monitor, and maintain nest box trails throughout the Old Dominion. On Mason Neck, there are trails on the various public lands including Gunston Hall plantation (home of George Mason), Pohick Bay Golf Course, the BLM Meadowood Special Recreation Management Area, and Mason Neck State Park.

VBS has a team averaging between four and eight volunteers per nest box trail. Once a week, starting in the spring, one or two volunteers open each box along the trail and note whether there is a nest, the number of eggs, the number and approximate age of chicks, and number that fledge. The data is collected primarily for Eastern Bluebirds but is also recorded for the other cavity-nesting species. The bluebirds still face stiff competition primarily...
from Tree Swallows for the nest boxes, but these additional nesting places provide Bluebirds a much greater opportunity to successfully raise their young.

The VBS trail at Mason Neck State Park has twelve nest boxes with most of them near the Visitor Center, playground, and picnic area. The nest box trail at Pohick Bay Golf Course (the one I help monitor) has 24 boxes located along the entire length of the course’s 18 holes. When this article was written in early August, Bluebird pairs were still raising chicks in some of the park’s nest boxes and a couple on the golf course trail as well. Last year the park’s boxes hosted five bluebird nests with a total of 25 fledglings.

Since there are four individuals/couples on our golf course nest box trail team, we each monitor the trail about once per month. This year the golf course had to be closed for several weeks due to the pandemic. But thanks to great support from the golf course management for the nest box trail program, we were able to enter and conduct our monitoring without missing one week. Our trail takes about 90 minutes to check during which we get some exercise and put forth a small amount of effort; in return we receive a great deal of satisfaction knowing we’re each doing our part to help bluebirds continue to live and thrive among us.

If you are interested in assisting with a bluebird nest box trail, contact your County Coordinator listed on the VBS website, www.virginiabluebirds.org, under the “About VBS” tab.

And - the next time you see an Eastern Bluebird flying past you, remember the words of Henry David Thoreau who wrote: “The Bluebird carries the sky on his back.”

**Warbler Refuge During the Flood**

*By Vickie Fuquay, VBS Vice President*

Southside Virginia has had quite a breeding season for our bluebird trails, with many ups and downs, but seemingly more than usual. Our Riverwalk Trail in Danville, Virginia has seen two major floods. One flood came as we were gearing up and getting our houses ready for the 2020 season. After repairs, replacements and much anticipation we were off to a great start by early March. By mid to late April almost all houses had seen their first brood fledge.

In May as we were enjoying second broods, disaster struck again! The third week of May heavy rain fell. The river flooded to one of the highest flood stages ever, with experts calling it the 100 Year Flood! We had houses with water just to the bottom of the box, and some houses were submerged in fast moving flood waters. We lost some eggs and nests but no babies! A couple of weeks later I started getting calls from monitors finding strange nests. When they saw a bird emerge they reported seeing a flash of yellow. Both monitors emailed me to say the mystery bird was a Yellow Throated Vireo in their box. I knew something was up, but it couldn’t be a vireo as they are not cavity dwellers. After speckled eggs were laid in the strange nests, I went out for a look and found we had Prothonotary Warblers! I was thrilled. In the thirteen years these houses have been in place, I have never had them nest in our area bluebird houses. What a treat as we had three nests, 14 eggs, 12 hatched, and 8 fledged. I am convinced the tragic “100 Year Flood” we had here in Danville, invited these beautiful birds into our bluebird boxes.

Prothonotary Warblers (PROWs) are a native cavity nester that prefers to nest in tree hollows in standing water. Nest height ranges from about 2-33 feet above the ground, depending on availability of nesting holes. The male places moss inside the hole prior to attracting a mate, but the female builds the remainder of the nest with rootlets, plant down, grape plants, or cypress bark. She lines the cup-shaped nest with grasses, sedges, rootlets, old leaves, and poison ivy tendrils. It takes the female 3-8 days to build a nest. The eggs hatch up to two days apart, unlike our bluebirds. They fledge in 9-10 days, which surprised me. I was trying to figure out what got them since they were all gone on day 12! After reading up I realized all was well because they fledge quickly. Typically PROWs nest 2-3 times in summer, but their numbers are low due to habitat loss.

They are making a comeback through conservation efforts of the Ward Burton Wildlife Foundation, who has been lending a helping hand since 2017 to this beautiful species through Project Prothonotary. For more information on their conservation efforts see [http://www.twbwf.org/project-prothonotary/#:~:text=Project%20Prothonotary%20is%20a%20wildlife%20initiative%20implemented%20in%20migrant%20is%20utilizing%20Foundation%20wetlands%20as%20breeding%20habitat](http://www.twbwf.org/project-prothonotary/#:~:text=Project%20Prothonotary%20is%20a%20wildlife%20initiative%20implemented%20in%20migrant%20is%20utilizing%20Foundation%20wetlands%20as%20breeding%20habitat).

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**Above: Nest boxes on the Mason Neck trail.**

**Below: Male Eastern Bluebird**

*Photos by Randy Streufert*

**Left: Prothonotary Warbler nest**

**Second: Prothonotary Warbler eggs**

**Third: Hatchlings**

**Fourth: Warbler pair (male on the left)**

*Photos by Vickie Fuquay*
Wasps

Q: What do we do about wasps? I usually just brush out the wasp nest if it’s reachable. The wasps were pretty aggressive and one stung me. Can we spray them, or what would you suggest?

A: There are two types of paper wasps I have seen in my trail nest boxes - the native (all dark brown colored ones with a few white lines on their thoraxes) and non-native (yellow and black striped) European paper wasps. The native species are generally docile and easy to crush up into the ceiling with a metal paint scraper, and scrape out the nest without incident. The European paper wasps are more aggressive. It is helpful to learn to ID them first when you see them in nest boxes. If it is the non-native European paper wasp, they are the ones that will sting if you disturb them. Try removing them at night instead when they are inactive. Do not use chemical insecticide inside bird housing. Here is a trick I learned from Ron Kingston: mix water with some dish soap and put it in a spray bottle. Spritz a tiny bit of this directly on the paper nest and wasps there. That disables the wasps long enough so that you can quickly remove them with a paint scraper. If there is an active nest with birds and a new paper wasp building (which does not happen often), lay a lightweight small cloth over the nest first (I use a clean lightweight terry washcloth) to keep anything from dripping on the nest, then spritz the small amount of the dish soap-water solution on the wasps and then scrape them out. Don’t forget to remove the cloth and close up the box. Most paper wasps and mud dauber wasps build nests in empty boxes - no need to use a cloth. I take a clean paper towel to rub excess solution from the ceiling to dry faster. Below are two photos of both native and European wasps so you can see the differences. Now that this season’s nesting is completed, mud daubers build their mud tunnel nests starting in August to overwinter their larvae inside with paralyzed spiders to feed on during the winter months. You can check your boxes later this fall and scrape out the mud tunnels without worrying about getting stung. Keep in mind if it’s very warm in early spring before the bluebirds have started to nest, the paper wasps emerge quickly looking for a place to start their paper comb nests again. You can be prepared with the right tools to remove them. I also suggest a deterrence reinforcement of using a mild chemical- and perfume-free bar soap (such as Ivory) rubbed thinly on the ceiling again for the new nesting season.

Above left: Native paper wasps
Above right: European paper wasps
Photos used with permission from www.sialis.org
Mark Your Calendars

September  Clean and winterize boxes, add clean grasses or pine straw, install ventilation plugs
November 1  Deadline for submitting TRAIL SUMMARY REPORTS to your County Coordinator. For blank forms or CC email address, contact vbs@virginiabluebirds.org.
January 30  Deadline for submitting articles, photos, ideas, and artwork for Spring newsletter
March 1    Clean out nesting materials added in the fall
April 1    Begin monitoring bluebird boxes
April 15   Remove ventilation plugs from nest boxes

Check out our Facebook page https://www.facebook.com/Virginia-Bluebird-Society-133048243442687/ for photos and videos throughout the year, and follow us on Twitter at https://twitter.com/VA_Blubirds.

How To Join
Send your name, address, phone number and/or email address along with a check for $10 for an individual with emailed newsletter ($15 if you prefer a mailed print newsletter) or $15 for a family with emailed newsletter ($20 for a print newsletter) to:

Virginia Bluebird Society
726 William Street
Fredericksburg VA 22401

Membership forms are available on the VBS web site: http://www.virginiabluebirds.org

Send An Article to The Bird Box

We welcome articles and photos from our active VBS members. We want to share our success stories from your home and your trails. Send your original articles, photos, or artwork, or suggest a topic for a future newsletter. Submit materials to Judy Hall, Editor, at birdboxeditor@gmail.com by January 30 to be considered for the spring newsletter. Please include your county, and for photos, identification of people and birds, and name of photographer.