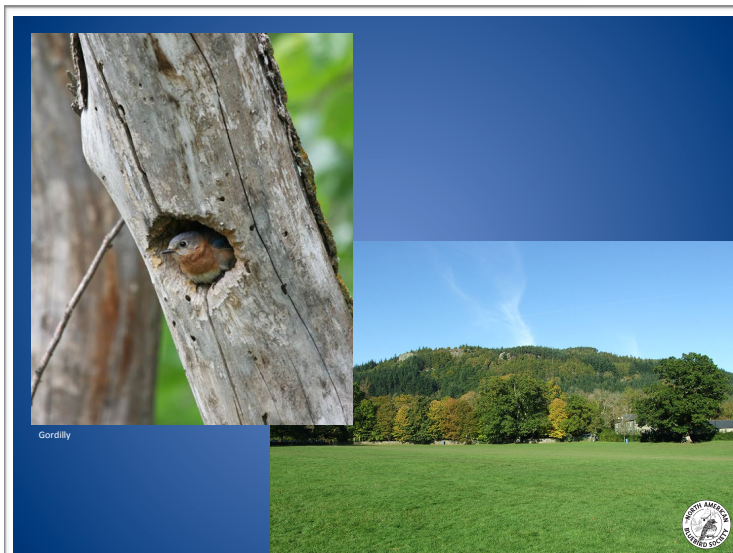


# The Tennessee Bluebird

## *Special Conservation Edition*



### In This Issue

- Good-For-Something House Sparrow Eggs - by Mariah Patton
- Let Our Legacy Be Dead Trees - by Gillian Martin
- Beauty is a Woodpecker - H. Dawn Wilkins, PhD
- 2016 North American Bluebird Conference - Lacombe, AB, Canada

### North American Bluebird Society Annual Meeting

This years North American Bluebird Society Annual meeting is shaping up to be an excellent meeting.

The host this year is The Ellis Bird Farm in Lacombe, AB, Canada.

The meeting will be from July 7 - 10, 2016. For details on speakers, agenda and cost visit the Ellis Bird Farm website at [www.ellisbirdfarm.ca](http://www.ellisbirdfarm.ca).

Make sure to stay a few extra days and visit Banff and Lake Louise only a few hours away.

We hope we see you.

Chuck James

### BLUEBIRD QUOTES

**B**luebird conservation offers an unusual opportunity for people who are truly concerned about our wildlife heritage to accomplish something by



means of direct action.

- Larry Zeleny, *The Bluebird, How you can Help Its Fight for*

**PRESIDENTS LETTER** CHUCK JAMES

We are blessed this spring in East Tennessee with some beautiful weather.



Chuck James

Our bluebirds are also happy with this weather and began nesting early. At this writing at the end of April we are already seeing nestlings

that are about ready to fledge. Hopefully, this year we will see more bluebirds have three broods.

It has been a very busy few weeks for us giving bluebird presentations, training programs for people monitoring nest box trails. Several weeks ago, over a weekend I drove 847 miles visiting bluebirders around the state. For me it was very energizing to see the interest in bluebirds and willingness to help them survive. We have started a TBS chapter in Collierville, TN in the western part of TN lead by Joanne Watson TBS board member. We visited with TCAT Tennessee College of Applied Technology in Shelbyville. They will be establishing a nest box trail in HV Griffin Park. The students are very excited about this project. We are starting our county coordinator program, seeking out individuals that are willing to be the contact person for their county.

If you have ever put together newsletters you know often it is difficult to

find good articles to fill space and be of interest to your readers. This is not the case this spring for the Tennessee Bluebird Society newsletter. We had more than enough for our first two newsletters.

In this newsletter we want to focus on things you can do as a citizen scientist to help research and create natural habitat for our native cavity nesting birds.

Our first article was written by Mariah Patton, Project Manager of the Sparrow Swap Program at the North Carolina Museum of Natural Sciences. Please consider helping with this project.

The second article was written by Gillian Martin from The Cavity Conservation Initiative Program of the Southern California Bluebird Society. In this article you see the effort of bringing back the natural cavities for our native cavity nesting birds, through leaving dead trees in place to provide habitat. Wouldn't it be great if we didn't have to build more nest boxes.

The third article by H. Dawn Wilkins, gives us insight into the woodpecker. Of course, the woodpecker helps make those cavities that the bluebird likes to build their nest.

We hope you find these articles informative.

*Chuck James*

*President*

*Tennessee Bluebird Society*

## GOOD-FOR-SOMETHING HOUSE SPARROW EGGS

By Mariah Patton

A common sentiment among bluebird monitors is that house sparrows are good for nothing.

But scientist Dr. Caren Cooper and her Sparrow Swap Team at the North Carolina Museum of Natural Sciences have a great use for them, with the help of bluebird monitors across the nation.

Museum specimens, particularly eggs, are valuable for monitoring long-term environmental change. A textbook example of the use of bird eggs to identify environmental hazards is the peregrine falcon and the pesticide DDT. In the 1960s, researchers were able to compare eggshells from decades before the presence of DDT to those after its use. The difference in eggshell thickness was apparent, making the cause of Peregrine endangerment indisputable. The research helped the US movement to ban DDT and informed a strategic recovery plan for the falcons.

The Migratory Bird Treaty Act has helped bird conservation since 1918, but one consequence to comprehensive bird protection

has been the loss of the hobby of egg collecting, called oology. In the absence of volunteer collectors, most Museums today lack

significant egg collections and the corresponding ability to use eggs to monitor environmental change. The Sparrow Swap Team hopes to revive the hobby of egg collecting, in the realm of where it is legal, which is with non-native species like house sparrows.

What purpose will donated eggs serve?

The Sparrow Swap needs your help investigating whether the house

sparrow egg could be a useful bio-monitoring tool to assess human exposure to environmental contaminants. House sparrow eggs bio-accumulate heavy metals like lead and mercury. The eggs harbor flame retardants (such as in sewage sludge) and other endocrine disruptors from pesticides and pharmaceutical waste. Current maps of these types of environmental contaminants are interpolated from few sampling locations, and based on samples of the abiotic environment, such as soil, water, and





## GOOD-FOR-SOMETHING HOUSE SPARROW EGGS

presence of pollutants in house sparrow eggs would indicate their movement into a living system.

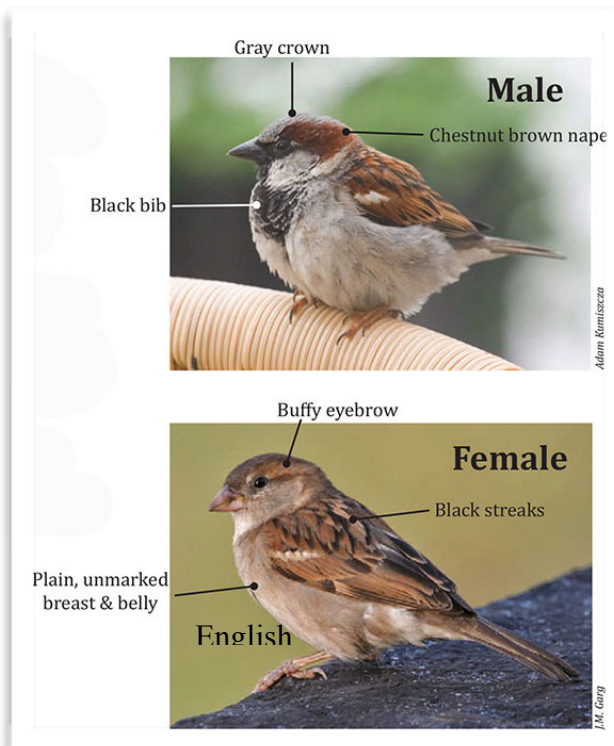
House sparrows also are ideal for bio-monitoring because many people are already collecting (and discarding) their eggs. Because house sparrows take readily to nest boxes, communities near a potential hazard could place birdhouses strategically to sample eggs around a site, for example at concentric distances from a point source. House sparrows are commensal with humans, meaning they only exist where we exist and their environmental exposure might be representative of our own. House sparrows are also ideal for bio-monitoring because their eggs are highly variable in color. Metabolic pathways related to blood create this variety in coloration and patterns of eggshells, which means contaminants accumulating in the blood and the breakdown of blood cells could alter eggshells.

With the help of citizen scientists, the Sparrow Swap Team is pursuing three long-term research areas.

The first area relates to the use of egg contents for mapping the distribution of a variety of hazardous compounds in a living commensal species. This alone might be useful for identifying pollution hot spots. Taken a step further, researchers will examine whether there is a reliable link between egg concentrations and human exposure.

The second area relates to eggshell characteristics and their potential to

make bio-monitoring affordable to communities. Measuring the concentration of many contaminants is expensive, and doing so over many sites over time could be prohibitive. If a characteristic of house sparrow eggshells, such as color or micro-structure of the shell, is highly correlated with the concentration of a contaminant in eggs,



## GOOD-FOR-SOMETHING HOUSE SPARROW EGGS

then assessing shell characteristics could save money. For example, the concentration of PCBs in a Herring Gull egg can be predicted with an 85% reliability based solely on the color of the egg.

The third area is to facilitate public stewardship of birds. Because the Sparrow Swap Team requests the unbridled collection of house sparrow eggs, researchers would be remiss if they didn't look at the effect of egg removal on house sparrow behavior and the consequences to the neighboring native species they might impact. There are plenty of anecdotes from nest monitors about removing house sparrow eggs and then suspecting the pair to move and usurp a box from a neighboring native species. This is just one of many examples of unintended consequences that often can occur in the face of implemented wildlife management strategies. The Sparrow Swap Team offers fake eggs for participants to swap with original house sparrow eggs upon removal from a nestbox in an attempt



Wood

to trick house sparrows into remaining occupied with failed nests. By having some participants remove and donate eggs and other participants

remove, donate, and swap replicas of eggs into nests, we can compare and test the effectiveness of these two management options. We ask you to record details of nest visits over two weeks after egg removal or swapping. The shared observations will help to collectively figure out the most effective management regarding house sparrows.

Participation in this project is easy and any bird monitor with a nestbox is welcome to join. Whether you would like to try the swap with fake eggs provided by Caren Cooper's lab or solely ship house sparrow eggs to the Museum, you can

find detailed instruction including a YouTube video on Sparrow Swap's

SciStarter site, which will guide you through important steps that help make this project successful. Here, you can also find very detailed instruction regarding packaging these extremely fragile eggs using Press'n Seal plastic wrap and plastic Easter eggs so that donated clutches make it to the NC Museum of Natural Sciences uncracked.



## GOOD-FOR-SOMETHING HOUSE SPARROW EGGS

If you would like to become a citizen scientist on the Sparrow Swap Team and make house sparrows good-for-something, visit [bit.do/sparrowswap](http://bit.do/sparrowswap), and register today. If you have any questions, post to the Sparrow Swap forum or contact the Sparrow Swap Team at [nc.museum.collection@gmail.com](mailto:nc.museum.collection@gmail.com). You can also ask questions and share your experiences with us on Facebook at <http://www.facebook.com/sparrowswap>. Please remember: only the eggs of non-native species may be collected without a permit. Do not send any eggs of birds other than House Sparrows, even if they did not hatch.

*Article provided by: Mariah Patton,  
Project Manager, Sparrow Swap Team,  
North Carolina Museum of Natural  
Sciences, 11 West Jones Street, Raleigh,  
NC 27601. (919) 707-9800.*




### Websites

Tennessee Bluebird Society  
[www.tnbluebirdsociety.org](http://www.tnbluebirdsociety.org)  
North American Bluebird  
Society



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## LET OUR LEGACY BE DEAD TREES

By Gillian Martin

**W**hat a brow-furrowing, head-shaking idea! Compare it to “Let our legacy be nest boxes.” Oh my! It’s a grenade on a well-travelled road and it has about as much appeal as a proposal to bang our heads against a brick wall. This legacy however, is the goal of the Cavity Conservation Initiative (CCI). And believe it or not, we don’t have a concussion...not yet! In 2011 the Southern California Bluebird Club conceived of this initiative to address the systemic removal of dead trees. What’s ahead is an exposé of our philosophical, and practical challenges, as well as our struggle for an ethically sound conservation plan.

The stage for the CCI was set by several conditions not unique to California. Rampant urban and agricultural development eliminated the natural conditions and the availability of standing snags that met the needs of bluebirds. When their numbers declined our genuine concern and desire to make a tangible difference suggested the obvious solution. Open spaces such as golf courses, urban parks, and backyards

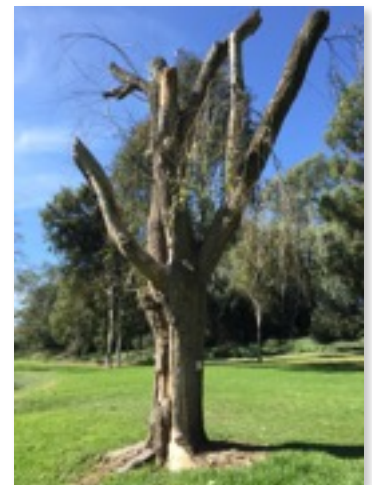


became hosts to thousands of nest boxes with people as landlords. Bluebirds rebounded famously. Observation and maintenance of nest boxes fostered an interest in nature. We found in this hobby a great deal of pride, satisfaction and meaningful purpose. We installed more boxes with the guiding philosophy that, “We must continue to help bluebirds.”

Fifteen years later, the number of abandoned nest box trails (to which birds are still returning) continues to grow but with fewer people to care for them. Meanwhile more boxes are installed in

new locations as bluebird populations in California seek homes in ever-widening ranges. It’s a familiar struggle of supply and demand with no end in sight. We fast forward our thoughts and the Purple Martin comes

to mind; and then the growing number of other species using nest boxes. What about species for which nest boxes are not practical or wise?



## LET OUR LEGACY BE DEAD TREES

We have started asking many other difficult questions:

What is the most sustainable plan for bluebird conservation? Are we using the latest conservation science to support our efforts, or are we moving forward blindly? What should our role be? What is truly the driving force behind our nest box advocacy? Are our passion, pride, and personal pleasure preventing us from asking and answering the right questions?

It didn't take us long to remember that Mother Nature already had the best plan, i.e. before humans came along. Dead trees, aided by the cavity excavations of woodpeckers and decomposers, added to both sustainability and habitat diversity. A win/win for all cavity nesters, other wildlife and essential organisms.

So the CCI was born and set out to change public perception of dead trees. Our program, *The Wonderful Life of a Dying Tree*, raised curiosity and transformed a number of furrowed brows

into smiles. A new website explained our rationale as well as provided downloadable resources. Among these resources are instructions for safely retaining a dead tree and an opportunity to purchase a sign to

turn a dead tree into a teacher. Partnerships with Audubon chapters were formed to help deliver the message. We excited outdoor educators who picked up the torch and walked off with teaching tools. Three small grants made a free science-based program possible for elementary schools.

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Photo by:



## LET OUR LEGACY BE DEAD TREES

Our earliest and biggest target was our Orange County park system. It took us two years *and* yes, a bit of head banging, but our Wildlife Tree Policy proposal was accepted. The inventory of dead trees in our county parks is slowly growing. We moved on to golf courses and municipalities. We've had good luck with some golf courses but poor luck with city park managers. In some cases, fear of litigation is just too high and overcomes sound recommendations.

Many professional publications have featured our articles. We were honored by a request to speak at the annual Partners in Community Forestry Conference in Denver. That experience led to our petition to the National Urban Community Forestry Action Council to add dead tree retention to our nation's 10-year urban forestry plan. We're still



waiting on the outcome of that effort, while we increase our partnerships with the tree care industry. The CCI's newest undertaking is a task force to establish best management practices and educational tools for tree care for birds. This effort includes the management of dead trees and dead limbs in otherwise healthy trees. We hope the resulting products will be a model for other states.

None of us wants a future without nest boxes. The emotional rewards, practical advantages and value for teaching and scientific study are indisputable. However, stacked against the wider ecological benefits of a dead tree, a nest box is a sad substitute indeed.

Meanwhile, for the sake of all cavity nesters and for healthy forests in the long term, the CCI's motto remains "Let our legacy be dead trees."

**Article by: Gillian Martin,**

***The Cavity Conservation Initiative is a program of the Southern California Bluebird Society. A 501 (c) 3 non-profit located in Orange County, CA.***

## BEAUTY IS A WOODPECKER

By H. Dawn Wilkins, PhD

It is a quiet, cool morning as I enjoy a hike through the forest. My breath is visible in the air in front of me as I exhale. The wind is calm and the sun is out. All of the sudden drumming fills the air. The hair on the back of my neck stands on end. I immediately move towards the sound and find a dead snag protruding into the sunlight. At the top of the snag is the most beautiful thing in the world to me: a Red-bellied Woodpecker. The sun causes the red on his head to glow. The black and white stripes on his back are a contrast against the dead wood of the snag beneath him. Every time I see a woodpecker, it takes my breath away.

I have been interested in woodpeckers since I was a college student participating in my first research project. The project had nothing to do with woodpeckers, but while I was sampling vegetation, I began to appreciate their unique calls and their loud, resonant drumming. I was inspired to pursue graduate work focusing primarily on woodpecker behavior and ecology. Since that time I have learned a lot about this group of birds and I'm

thrilled to have the opportunity to share some of what I have learned.

Woodpeckers often get attention in the spring when they are searching for loud, resonant surfaces on which to drum. Drumming consists of rapidly beating the bill against a tree (or other surface) and is a form of communication. Just like vocalizations in songbirds, drumming is primarily association with attracting mates and

defending territories. While it is not easy to identify woodpeckers based on their drums, there is a difference in cadence depending on the size of the woodpecker. The smaller the woodpecker the faster the cadence. In other words, during the drumming of a Downy



Red Bellied Woodpecker

Woodpecker, the hits are closer together than the much larger Pileated Woodpecker. I'm often asked how to get a woodpecker to stop using a gutter as a drumming post. Since drumming is used for communication, usually the bird will cease drumming once they have found a mate

## BEAUTY IS A WOODPECKER

and the male shifts his attention from mate attraction to raising a family.

Since woodpeckers choose dead snags or limbs to excavate their cavities in, these same snags are often resonant enough to serve as a drumming post. One day I was watching a pair of Red-bellied Woodpeckers excavating a cavity. I could hear the bird inside the cavity excavating and every so often the woodpecker would appear in the opening with a bill full of wood chips that he would drop. I was focused on making observations at the cavity and did not notice the arrival of a Downy Woodpecker at the top of the dead snag. All of the sudden, rapid drumming filled the air taking me and the Red-bellied Woodpecker inside the tree by surprise. The Red-bellied Woodpecker appeared at the opening looking around. As the Downy continued to drum, the Red-belly came out of the cavity and hitched his way up towards the Downy until he was close enough to peck at the intruder. The Downy Woodpecker flew away and I never saw it return to drum on the Red-bellied Woodpecker's nest tree.

Following woodpeckers and watching them interact is a rewarding experience. For example, when I was working in Eastern Kentucky, I was following a marked pair of Red-bellied Woodpeckers when I located their nest

cavity. It was located about three feet below another cavity that looked like it had been excavated by the woodpeckers in the past. All of the sudden, from behind me I heard the leaves rustle and something small and furry run past me and up the tree. It was a flying squirrel that was trying to nest in the upper



Downy Woodpecker

cavity. The male Red-belly did not like the squirrel being in such close proximity to their nest. He hitched up the tree and began pulling nesting material out of the squirrel's cavity.

The squirrel, having just arrived home, swatted at the

woodpecker with his paw and began a tug of war to get his nesting material back. This interaction was still going on when I had completed my observation period and needed to move on. A storm hit the area before I returned to the two cavities. In that time, the snag had broken above the woodpecker's cavity, but below the squirrel's cavity. The woodpeckers continued nesting in their cavity. Woodpeckers are fun to watch and listen to; they also play a key role in the environment. Woodpeckers are considered keystone species, meaning that their presence influences the success of other species in the community. Using their chisel shaped bill, they are able to excavate into trees creating cavities that they use for roosting and nesting.



## BEAUTY IS A WOODPECKER

This ability earns them the title of primary cavity excavators. These cavities eventually become available to what are called secondary cavity users such as birds, bats, frogs, squirrels, and insects to name a few. Without woodpeckers, these species rely on naturally formed cavities that are less abundant, harder to find, and are often not sheltered from the elements as those excavated by woodpeckers.

I enjoy watching woodpeckers, especially Red-bellied Woodpeckers, because they are active, dynamic, flashy birds. They are relatively large and active all year in Tennessee including the winter when some species can be seen in your backyard visiting bird feeders and suet. The next time you hear a drum in the distance, I hope you think about what that means and, like me, get excited by the activities of this interesting group of birds.

***Dr. H. Dawn Wilkins, is a Professor at The University of Tennessee Martin, she is the Scientific Advisor for the Tennessee Bluebird Society.***



### ***Stan Colburn's Bucket List***

Stan, is the treasurer of TBS and a life long birder. He has been instrumental in

developing a monitor training program for those interested in monitoring nest boxes. Here are some of the items he carries with him when checking his nest box trail on Tanasi Golf Course.

### **Recommended Items To Carry While Monitoring Nestboxes**

**Gloves:** Throw away garden gloves

**Pilers:** To remove nail holding box door

**Phillips screw driver:** Tighten any loose screws.

**Regular screw driver:** Pry open any stuck doors.

**Putty knife:** Clean out nest box

**Hand sanitizer**

**Garbage bag:** For old nest/ trash

### **Optional Items**

**Roach Away:** Boric Acid for ant problems - sprinkle on floor inside nestbox.

**Small Spray Bottle:** 1 to 10 ration Clorox and water to disinfect box after removing old nest

**Bar soap / wax:** To rub on onside roof to prevent wasps from building nest

***Questions email Stan Colburn:  
mockingbirdtn@att.net***

<b>2016 NORTH AMERICAN BLUEBIRD SOCIETY CONFERENCE</b>
--------------------------------------------------------

Located in the heart of central Alberta, *Ellis Bird Farm* is both a working farm as well as a non-profit organization dedicated to the conservation of Mountain Bluebirds, Tree Swallows and other native cavity-nesting birds. Drop-in visitors and tour groups are welcome at *Ellis Bird Farm* during the summer months, when they are open to the public. They invite you to stroll the trails, enjoy the beautiful gardens, see the world's largest outdoor collection of bluebird nest boxes, take a tour out to their bluebird trail, visit the Visitor Centre and linger in the Ellis Café. Enjoy a country drive in Central Alberta.

Please take the time to consider making this conference. For details go either to [nabluebirdsociety.org](http://nabluebirdsociety.org) or [ellisbirdfarm.ca](http://ellisbirdfarm.ca). On either of these websites you will be able to review the full schedule of speakers and trips. We are convinced this is going to be one of best NABS conferences in recent years.

Here is a partial list of speakers:  
Tracking Mountain Bluebirds, Dr. Kevin Fraser; RFID Technology, Alisha Ritchie; Engaging the next generation of bluebirders, Dr. Glen Hvenegaard; Thinking inside the nest

box , Dr. Margo Pybus; Tree Swallow nest mites, Alexandra Gross; The Tree Swallows of Beaverhill Lake, Dr. Geoff Holroyd; Tracking Purple Martins, Dr. Kevin Fraser. On July 10 and 11th, there will be two field trips: Sunday, July 10th, bluebird trail, local cultural, historical

and natural history. Monday, July, 11th, Medicine River Wildlife Centre and other



**We need help in the following areas**

**\* *County coordinators -***  
*Give presentations to local civic groups and organize one community project per year.*

**\* *Data Collection - Must***  
*have strong spreadsheet skills.*  
*Collect trail data and collate for research.*

**\* *Woodworkers - Willing***  
*to build nest boxes.*

**\* *TBS Board Members -***  
*We need people interested in taking a leadership role in TBS.*

**\* *Newsletter Publisher -***  
*Must have past experience putting together newsletters.*

*Email us if your interested in the above opportunities to:*  
[tnsialia@gmail.com](mailto:tnsialia@gmail.com)

## Tennessee Bluebird Society Board of Directors

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Chuck Cruickshank - Loudon  
Chuck James - Loudon  
Jerry Rysticken - Knoxville

### Central Region:

Duane Rice - Chapmansboro  
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### Western Region:

Farrell Roe - Jackson  
Stacey Roe - Jackson  
Joanne Watson - Collierville

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## TENNESSEE BLUEBIRD SOCIETY APPLICATION

Category	1 Year	3 year	Lifetime
Household	\$15	\$35	\$150
NABS	\$15 (First Time Member with a TBS Membership) \$30 Value		
Corporate	\$150		

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Please send your application and payment to the address at the bottom of this form

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Total: \_\_\_\_\_

I have interest in helping the following areas: Newsletter \_\_\_\_\_,

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Becoming a Board Member of Tennessee Bluebird Society \_\_\_\_\_

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