Contents

Fall Message to our Affiliate Organizations - Phil Berry ................................................................. 1

From the President - Jonathan Ridgeway ................................................................................................ 2

From the Managing Editor - Scott W. Gillihan ..................................................................................... 3

Successful Western Bluebird Reintroduction - American Bird Conservancy ...................................... 5

Notices from NABS Affiliates .................................................................................................................. 6

“Mexican Bears” in Idaho? - Bob Franz ................................................................................................. 7

So, You Want to Raise Mealworms - Barbara Chambers ...................................................................... 8

My Beloved Bluebirds and Swifts: What Do They Have in Common? - Rose-Marie Schulz ................... 9

Brown-headed Nuthatches in Southside Virginia - Vickie Fuquay ....................................................... 10

Nestbox Color, Ventilation, and Heat Shield Testing - Neil Yeager ...................................................... 13

The White Bluebird Egg Phenomenon - Bob Peak ............................................................................. 16

Remembering Ray Briggs ....................................................................................................................... 20

On Bluebird Nesting - John Burroughs ................................................................................................. 20

Book Reviews - Scott W. Gillihan ........................................................................................................... 22

Bluebirds Everywhere ............................................................................................................................ 24

Research Review - Scott W. Gillihan ....................................................................................................... 26

Index to Volume 33 ................................................................................................................................ 28

Affiliates of the North American Bluebird Society ............................................................................. 30

Cover photo: Eastern Bluebird ©Kathy Miller. Kathy is a teacher, professional cellist, nature photographer, and award-winning author (her first book, Chippy Chipmunk Parties in the Garden, was featured in the Fall 2010 issue of Bluebird; her second book, Chippy Chipmunk: Babies in the Garden, is featured in this issue on page 22). You can see more of Kathy’s photographs at www.celticsunrise.com

Table of Contents photo: Maridith Denton took this photo in June of McKenzie, an 11 year-old Gordon Setter, and her little blue friend. This Mountain Bluebird came by every day for about a month, sometimes with his lady friend. They produced a brood of four, which kept him very busy but he still looked in once in awhile. This is in Emigrant, Montana, about 30 miles from Yellowstone Park’s north gate.
Fall Message To Our Affiliate Organizations

By the time you read this the NABS 2011 Annual Meeting/Convention will have come to an end. If you missed it, you missed a great time (I will tell you all about it in the next issue). If you did not attend, I hope you don’t let another event like this pass you by. This is the only opportunity we have as individuals to get together with folks just like us, from all over North America. Please start planning now to meet in Newport Beach, California, next September, for NABS 2012. You really don’t want to miss this one.

I hope everyone had as great a bluebird year as I did. We fledged 288 Eastern Bluebirds on our trail here in NW Florida. Now it’s time to clean out the boxes and get ready for a new season. And consider it a new year for the relationship between NABS and its Affiliates. Plans are being made to get us closer together, along with the ability to share information more easily. More on this in the next issue.

What can you do to further the knowledge of the Eastern/Mountain/Western Bluebird? Give talks to garden clubs, school children, women’s clubs, and anywhere people get together. If you have friends who are bluebirders, meet with them and share what you know about these wonderful birds. I saw some things this year with our backyard birds that taught me a lot, and I have been raising them for 18 years now. Anything we can do to promote bluebirds will help them. Encourage local birders to come walk your trail with you. We always offer a couple of nestboxes at our talks, and I will even install them for the winners.

Now that the weather is getting cooler and our birds have largely left the area (even in Florida), we have plenty of time to get ready for next year. Keep your boxes in good shape, start a trail if you don’t have one, keep good records, and happy bluebirding in 2012.

Phil Berry

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
Greetings of peace.

Before the new NABS Bylaws were adopted in September 2009, there were individuals who voiced concern about the abolition of term limitations. I heard an explanation that a small number of people could take over the organization and maintain perpetual control. I was uncertain if I agreed, or for that matter, if I considered that it would necessarily be a bad thing. Either way, the new Bylaws were successfully adopted as proposed.

At the same meeting, almost all of the current Directors were elected to new three-year terms and most of us had already been on the Board a year or more. Our terms will expire at our 2012 annual conference which will be hosted by the Southern California Bluebird Club. It seems uncertain how many of the hardest working members of the current Board may seek reelection, but absolutely not because anyone is any less committed to the cause of bluebirds. It is just that the burden of carrying so many big stones for most of the past four or five years has lead to some fatigue and key individuals seem to doubt if they are willing or able to continue for three more years, not to mention that the circumstances of people’s lives have changed.

Two things are certain. If the organization is to continue to flourish it will need new blood and anyone who might consider being nominated for a Board position in 2012 will be more prepared if they begin participating in our monthly conference call meetings sooner rather than waiting until the time for nominations is at hand.

In my Summer article, just before this one, I described my assessment of the NABS organization over the past four years. I explained that our current model is based on an all-volunteer workforce and I believe it is unlikely we will be able to sustain the same pattern much longer. More importantly, I asserted how truly confident I was that even if we cannot get enough volunteers, paying people to do a lot of the labor on a consultant basis will not have to put NABS back on a path toward financial despair. Quite the contrary, there is every reason to expect NABS to continue to grow if the work of the organization is run as a proper business and of course, we must be vigilant to avoid any conflicts of interest.

Our organization was established more than 30 years ago. We have members who have been with us from the start and we have Affiliates all over the continent. Our members support our mission, to preserve and promote bluebirds and other native cavity nesters, so they want us to prosper. We also have the advantages of being tax exempt. These are all factors that favor the probability of our success.

I am prepared to work on developing methods and processes to implement the management concepts I suggested, if the Board chooses to pursue them. If other alternatives are preferred, I will help with that too.

NABS needs people with leadership and business skills to advance the financial aspects of our missions. Of course having an interest in bluebirds may be important but knowledge about the science of bluebirds is not a big part of job. Even in this time of national and international financial challenges, I believe NABS is on a path toward sustained growth but it will only continue to thrive if members of the organization are willing to step in and help. In my opinion, the crux of the matter is that the organization needs to begin to function as a successful business and we need some people who can and will help us do that. I most respectfully ask you to consider becoming involved with the shaping of the future of this organization.

My wife, Lynne, and I have dedicated vast hours to NABS for the past five years. I cannot tell you how relieved I was in August when Sherry Linn wrote to me and agreed to stand for election as my successor as NABS President. This will permit Lynne and me to serve the final year of our 3-year Board terms working in support of the new leadership and doing everything we can to make a smooth transition which is seamless to the membership at large.

Thank you to every one of our members, our readers, our Affiliates and everyone else who has been so supportive of the NABS organization since we became involved. Without your participation NABS could not have prospered as it has. Thank you.

Yours in peace,
Jonathan Ridgeway
NABS President
845-883-7908
From the Managing Editor
Scott W. Gillihan

The day after I sent the Summer issue to the printer—the issue that included an article about the importance of keeping cats indoors, lest they kill birds and other wildlife—I opened up an issue of the scientific journal BioScience and found an article about the negative impact of dogs on wildlife populations. Hey, I love dogs as much as I love cats, but they’re both predators. And in the interest of fairness: Please keep your dogs from roaming freely, lest they kill birds and other wildlife.

No issue of Bluebird comes together without the generous contributions and hard work of a number of people—authors, photographers, newsletter editors, to name a few. My thanks to Jody Anderson (Adventure Publications), Kathy Clark, Judy Derry (New York State Bluebird Society), Brenda Martin, Kathy Miller, Lynne Ridgeway, Anne Sturm, and Pauline Tom (Texas Bluebird Society) for their assistance with this issue.
ENJOY OUR WESTERN BLUEBIRDS!
Please share your nest box experiences with us and chat with our enthusiastic members who fledged 7554 bluebirds in 2010.

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LAURA ERICKSON IS OUR DYNAMIC KEYNOTE SPEAKER ON:
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Author: “101 Ways to help birds” and “Sharing the Wonder of Birds with Kids”
Producer of the longest running bird radio program: “For the Birds”

www.laurae Erickson.com/radio/podcasts/FTB.html

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MEET A HERO OF CONSERVATION!
Steve Simmons from Merced, CA, will talk about his work with nine different species of cavity nesting birds. Steve has built and monitored 800 nest boxes a season and banded over 40,000 birds. He has received several notable awards for his work. Watch his video on YouTube.
Steve Simmons, Flying M Ranch
A cooperative effort involving several organizations has succeeded in returning the Western Bluebird to Washington’s San Juan Islands. The bird had historically inhabited the islands, but changing land-use practices and a shortage of nesting sites meant the species had not nested there in more than 40 years.

Over the last five years, biologists with the Western Bluebird Reintroduction Project captured and moved 45 breeding pairs from an expanding population at Fort Lewis Military installation, Washington, and another four pairs from the Willamette Valley in Oregon. The birds were kept in aviaries on San Juan Island prior to release to acclimate them to their new surroundings.

One pair of translocated birds nested in the first year, and in each succeeding year the nesting population increased. Over the five years, 212 fledglings were produced. Most encouragingly, some of those fledged birds have returned each year and are now part of the breeding population, giving hope that the population will be able to sustain itself into the future.

Thirty birds returned to the San Juan Islands this year. Ten were translocated birds from previous years, 18 were fledged from previous years, and two were of undetermined origin. The 15 pairs of birds built 25 nests, of which 14 were successful.

Unusually cool, wet spring weather caused nesting to be three to four weeks behind schedule, and nest productivity was reduced from last year. House Sparrows also caused three or four nesting failures.

The project is now moving into a two-year monitoring phase to determine the stability and growth of the population, and the need for future population management.

One potential enhancement to the population is Western Bluebird translocations in nearby British Columbia that may be starting next year. The San Juan Islands are only 20–25 miles as the bluebird flies from the proposed release site on Salt Spring Island, British Columbia, and it is likely that the continuation of translocations in British Columbia will help to sustain the San Juan Islands population in the future.

In tandem with the translocations, project partners also are working to conserve the oak-prairie ecosystem that the birds depend on. To that end, the San Juan Preservation Trust made a key oak-prairie land acquisition: 120 acres in the center of the San Juan Valley, which hosts two nesting pairs of bluebirds and is a primary location at which flocks of bluebirds congregate during the post-breeding season. In addition, approximately 600 nestboxes have been put up on the islands to provide additional nesting opportunities for the returning birds.

The success of the project is due in no small part to the numerous volunteers who hosted aviaries and nestboxes on their properties, helped construct nestboxes and move aviaries, provided materials and project equipment, and helped monitor nestboxes and look for released birds.

The project collaborators included American Bird Conservancy, Fort Lewis Military Conservancy, Ecostudies Institute, San Juan Preservation Trust, San Juan Islands Audubon Society, Washington Department of Fish and Wildlife, and The Nature Conservancy of Washington.
Notices from NABS Affiliates

Texas Bluebird Society Wins Email Marketing Award

Texas Bluebird Society was recently recognized by VerticalResponse, Inc. as one of the winners in their quarterly customer awards program. This program highlights the top 500 small business customers that have maintained high email engagement rates, as demonstrated by their average email open rates and click-through rates. To qualify for the awards, customers had to have sent at least four email campaigns in the quarter, and mailed to a list of 100–500 opt-in subscribers.

Texas Bluebird Society uses VerticalResponse to create and deliver electronic communications (newsletter, renewal notices, volunteer opportunities, event information, etc.) to hundreds of members. The service is free to nonprofit organizations.

For more information, go to www.texasbluebirdsociety.org and www.verticalresponse.com/vr500
His name is Dave Richmond and he lives in the Central Rockies of Idaho. I met Dave through an email program that I initiated through the southern California Bluebird Club (SCBC) in 2011. The purpose of the program was to initiate communication with other areas of the country to trade information on how we each monitored bluebirds and to discover any significant differences. Dave was nice enough to respond and we have been trading bluebird trail tales ever since.

Dave is not only a bluebirder but, more specifically, he is a Mountain Bluebirder, and the Mountain Bluebird happens to be the state bird of Idaho. His experiences in monitoring a Mountain Bluebird trail are different from those of us who live in the much flatter suburbs and rural landscapes of southern California and I felt they were interesting enough to tell you about them.

Dave and a small number of nature lovers formed Rocky Mountain Blues with the purpose of making and installing a series of nestboxes in and around Challis, which is about 140 miles north of Twin Falls. They started with only seven nestboxes in 1998 and the trail now numbers 57. Accordingly, as the number of nestboxes increased, so did the number of Mountain Bluebirds—from just six in 1998 to a high of 124 in 2006.

Their Mountain Bluebird trail is now roughly seven miles long and it takes Dave about three hours, twice a week, to walk the trail and to observe and record bluebird activities. This is an amazingly short amount of time when you consider that his trail encompasses the lower slopes of the White Cloud Mountain range in southern Idaho at elevations of over 7,000 feet!

Since I started bluebirding in 1997, the most trouble that I encountered with predators was nestboxes taken over by House Sparrows and invasions by ants, wasps, and mites. What would I have done when confronted with the devastation created by a large four-footed animal? That’s what Dave had to contend with at the beginning of his trail when he discovered nestboxes being destroyed and bluebird eggs eaten by black bears. To try to outwit the bears, Dave made a small cake of peanut butter and laced it with cayenne pepper and red pepper flakes. He placed these cakes next to nestboxes as soon as Mountain Bluebird eggs had been laid. This unique concoction worked fairly well at the start to discourage bear vandalism. But in the past few years, Dave found that the bears were no longer deterred by the hot cakes. He deduced that Idaho must have been invaded by some “Mexican Bears” who actually enjoyed the cakes as a side dish to Mountain Bluebird eggs.

Move forward to 2011, when I contacted Dave and told him that in southern California we place hooks on our nestboxes and hang them from tree limbs, ostensibly to place them above sprinkler system spray and prying eyes. This method must work since we have never had problems with black bears. Dave thought that the hook/hanging nestbox system was worth a try to thwart the bears, so we sent him a Purvis Lifter and in 2011 he added hooks to 40 nestboxes. The results are in: no “Mexican Bears” and no black bears either.

I’m sure that when Dick Purvis designed the lifter and nestbox hook solution to placing nestboxes out of harm’s way, he never imagined that some day his invention would be instrumental in countering black bear predation of Mountain Bluebirds in Idaho. So kudos to Dick and his lifter solution and to Dave for his resourcefulness in adapting his nestboxes to it.

Bob Franz is a member of the Southern California Bluebird Club.
So, You Want to Raise Mealworms

Barbara Chambers

The first thing you will need to do is buy a supply of live, loose mealworms from a reputable seller like Grubco or Nature’s Way or Bassett’s Cricket Ranch, Inc. You can find them on the internet by searching for the name. Or, if you don’t have a computer, call me at 703-978-6609 and I will give you the phone number or address. [Their ads also appear regularly in Bluebird — Ed.]

While you are waiting for the mealworms to arrive you will need to gather some equipment and locate a place INSIDE YOUR HOUSE where you can have your little mealworm farm. If you have a cool basement that would work well too. If you use the garage or an outside shed, these mealworms, eggs, and beetles will die of the temperature extremes.

You will need a plastic sweater box to house your mealworms. It is a flat, long, rectangular box that could easily be stored under a bed or sofa, for example. With a small drill or ice pick or other sharp pointed tool, make many small holes in the top of the plastic box. Fill the box with strips of newspaper and wheat bran or oatmeal or any grain that will feed them as they grow and change to other forms. Mealworms are the larval form of the darkling beetle. This beetle will lay eggs that hatch into more mealworms and there you have your mealworm farm. When the mealworms you ordered arrive, place them into this wonderful habitat you have just prepared.

If you keep adding the bran or oatmeal and a slice of apple or a damp paper towel for moisture on a weekly basis, you will have a never-ending supply of yummy mealworms to feed your bluebirds and all the other hangers-on in your backyard. I have a friend in Massachusetts who takes them out to his trail and puts some of them on top of each box (in a little container that he has secured up there) when the adults are feeding young. He has a very healthy trail of cavity nesters, you can be sure.

If you’re uneasy about handling mealworms, you should know that they have a soft smooth feel to them and are easy to handle. Unlike angleworms, for instance, these “worms” are actually larva and have a dry feeling.

Mealworms go through a metamorphosis just as butterflies do. I once raised them in a classroom for a science project about metamorphosis. The students all named their mealworms and drew pictures of them and the stages they went through. You may not do all that, but you will definitely get hooked on your mealworm farm and it will begin to pay for itself very soon. With a little effort you will have a never-ending supply of mealworms for your bluebirds.

NABS is pleased to announce that we have just made arrangements to participate in a

**Vehicle/Property Donation Program**

If you have a car, truck, motorcycle, RV, boat, or even an airplane that you no longer need, NABS would like to receive it as a tax-deductible charitable donation.

To donate, simply call our toll-free number: **866-244-8464**. Our agents will have your vehicle, boat, RV, etc. picked up and brought to a facility where it will be evaluated by experts and a determination will be made regarding what should be done to maximize its selling price, thereby resulting in significantly higher value than it might otherwise generate so you will receive the maximum tax benefit allowable by law. For tax purposes you, the donor, will receive a formal Certificate of Donation complying with all State and Federal requirements for authenticating your donation to NABS, an IRS 501(c)(3) tax-exempt charity.

Thank you for supporting the conservation of bluebirds and other native cavity nesters!
My Beloved Bluebirds and Swifts: What Do They Have in Common?
Rose-Marie Schulz

No doubt! They are all adorable! When I came to live in Alabama nearly one decade ago, among other things, I learned to love the Eastern Bluebirds. I was lucky enough to be able to encourage them on our property by installing nestboxes. Each and every year, they built their well-made nests of pine needles.

My window gave me beautiful views of the bluebirds, be it on the nearby wire, poles, or at the bird bath. The only help that I withheld was feeding them due to our frequent travels away from home.

Back in Germany, moving into a townhouse, I was lucky again—encountering the Common Swift (Apus apus) under our very eaves! Originally swifts used natural nesting sites in rocks and old trees. However, they began to join humans in their urban areas in the Middle Ages. Nowadays, the populations rely on buildings, bringing up their chicks in crevices in the wall and under roof tiles. They have become a town’s summer landmark, which contributes to making life in our cities worthwhile.

Soon, I learned about the threats swifts face today due to losing nesting places to insulation and refurbishing activities. Not only swifts, but other species—especially House Sparrows—suffer for the same reasons, and they nowadays are in steep decline in Europe. For this reason they need to be protected (other than maybe in North America). Thus, we don’t impede their nesting in swift boxes—they nest mostly before the swifts come and swifts like used nestboxes very much!

I joined a nearby swift working group in order to help swifts in particular but also other cavity nesters and bats, which rely on our buildings. We talk to builders, architects, homeowners, and administration, we inform the public by offering excursions, exhibitions and consultation. We work with the media and we publish leaflets and booklets. Last but not least, we record swift numbers in our town.

Back to the head question: Certainly there are essential differences between these two fascinating species—be it the habitat, the flight pattern and speed, the diet, and the breeding behavior. However, I would like to point out four of the most important similarities:

• They both are cavity nesters.
• They both have been severely threatened by human activities.
• They both have very many lovers and supporters.
• They both stand to benefit from human help when offered.

So let’s do it!

Rosie Schulz was born in Germany in 1952, and studied Visual Arts and worked as a freelance artist for more than 30 years. She raised two daughters. Living in Alabama from 2003 to 2007, she joined North Alabama Birdwatchers and NABS. Love for nature and the outstanding biodiversity in Alabama brought her to work in this field as a photographer and now as a nature activist as well. She currently lives in Hanover, Germany.
The bluebird efforts in Southside Virginia are off to a great start this year. In late February, we had our annual monitor meeting and training day. An important point we cover during this meeting is how to identify the different nests that one might find in a bluebird box. Besides NEVER allowing a House Sparrow to nest in our boxes, I asked that they keep an eye out for the Brown-headed Nuthatch (BHNU) nests.

Upon doing a little research on our sprightly little nuthatch, I found that they had been put on the watch list for the Audubon Society. In the past 35 years, their numbers have dropped by 45%. They need a very specific habitat which consists of open, mature loblolly and longleaf slash pine forest with snags present. They prefer the forest with open understory, rather than dense undergrowth. They are showing up in parks and neighborhoods that have large live pines in open areas. They readily feed on suet, sunflower chips, and peanuts. Here in Southern Virginia, they are beginning to use our bluebird boxes for nesting.

Two years ago two successful nestings were reported and all nine baby nuthatches fledged. Last year three nests were built, eggs were laid and bluebirds built over the nuthatch nest with eggs and raised their families. In light of the decreasing numbers of the BHNU and our overwhelming increase of bluebirds in the area, I asked that the monitors notify me at the first sign of a BHNU nest. I had purchased a hole plate with a 1¼" hole which would keep the larger bluebirds from interfering with their nest. The very first BHNU nest showed up in my own backyard.

In early March, they began building a very tidy nest with strips of bark and a few leaves. Right away the bluebirds came along to claim the same box. Feeling very guilty (local bluebird lady that I am) I got my husband to put the smaller hole plate on the box. We watched the bluebirds continue to try in vain to get in the box for 2–3 days. Our feisty little nuthatch buzzed their heads until they finally gave up. After building and building and building I began to wonder if they were ever going to lay any eggs. They even stuffed the ventilation holes along the top of the box with strips of bark. I checked the house on March 28th . . . nothing. I had my husband to check on the 29th to see if they had laid their first egg and he said there was a “pile of eggs.” Sure enough there were six tiny cream eggs with reddish brown spots and I realized they had been covering their eggs until they were through. I checked again a week later to see if all was well and there were seven eggs! So incubation began on the 30th of March.

Both parents were seen going and coming from the nestbox during incubation and at times both would stay in the box together. We watched and waited and they hatched April 13th, 14 days after the last egg was laid. Once the babies hatched the activity picked up. They were both busy feeding, but the amazing part to watch was how they well they defended the nest. The box was located about 25 feet from all my bird feeders, which I might add, they took advantage of all winter and spring. Every woodpecker that came
to the suet feeders was harassed by this tiny bird. Even the Red-bellied Woodpeckers were buzzed and chased from the yard. The parents were seen gathering insects from the bark on my pines as well as carrying suet, nuts and shelled sunflower seeds to the nest. They knew they had a good thing going with multiple feeders and three sources of water within sight. Today as I write this my box is finally silent as all seven babies fledged. For a week now the box sounded like it contained squeaky dog toys and I was surprised they did not fledge until day 22.

I hope this will encourage a few more bluebirders to look out for our brown headed nuthatches. I will clean out the box today and replace the 1½” hole plate, once again putting out the welcome mat for my beautiful blues. My bluebirds will still have time for a couple of nests before the end of summer.

Vickie Fuquay installed her first bluebird box in 1985 after seeing an Eastern Bluebird for the very first time. Her first nesting pair came in 1990. After joining the Virginia Bluebird Society in 2007 and becoming Pittsylvania County Coordinator she and her husband Daniel have installed 214 nest boxes on public land with the help of grants through VBS and the Adopt-A-Box program in the Danville, VA area. During the 2010 nesting season, Pittsylvania County reported more than 3,000 bluebirds fledged. With the help of a hard-working team who monitor bluebird houses in cemeteries, school grounds, nursing homes, local parks, and along the river walk trail, bluebirds can be readily seen in all of Danville and Pittsylvania County. Vickie currently serves on the board for VBS and the Speakers Bureau for NABS.
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“Feeding live insects to the wild birds in my yard has helped me build a special bond with individual birds.”
—Julie Zickefoose

Bluebird 12 Fall 2011
Nestbox Color, Ventilation, and Heat Shield Testing
Neil Yeager

With the very hot weather this year many birders are very concerned about high temperatures in their nest boxes. It’s widely known that temperatures in the 105°F and up range can be dangerous to young chicks. I live in South Carolina and the heat concerned me as well. So in the summer of 2010 I started a series of tests to document the attributes that can be controlled that affect temperatures inside nestboxes. The three attributes I studied were box color, ventilation, and heat shields. Of these three it was found that box color is the most important factor to reduce heat.

Note: Because of the number of tests I have organized the data on my website and all can be viewed at this navigation page: www.zbestvalue.com/HeatshieldsColorTestNavigation1.htm Links are also there for the video documentation of all the tests.

Nestbox Trials
In August 2010 I used four boxes: dark brown, gray (to simulate a weathered box), light tan painted, and a light tan painted box with light tan ¼-inch PVC shields. All boxes were identical in size, shape, and design. Results indicated that the light-colored boxes were cooler (see graph at right). An additional 2°F–3°F of cooling can be obtained by adding light-colored heat shields to a light-colored box. Other boxes were hotter. At 4:30PM with ambient temperature at 87.8°F the dark brown test box was 108.7°F while the gray box was 105.1°F.

In 2011 I was able to obtain several weathered boxes from the builder (thanks Greg Seaford of North Carolina) and also added a new unpainted box to the tests (see photo above). In addition, a weathered box with dark shields was added to see how it would perform since some people might not want a light-colored box in their yard. All boxes were identical in size, shape, and design.

The results (see May 25, 2011 graph above) show that weathered boxes do not perform well in direct sun and are potentially dangerous to baby birds. At 4:00PM with ambient temperature at 88.9°F the weathered test box was 105.8°F.

The best cooling was obtained by a combination of light exterior color and light-colored heat shields. Dark heat...
shields were better than nothing but not as effective as the light-colored shields. Also, we can see from the data that as boxes weather and get darker they also get hotter.

I continued testing in June and July 2011. I added Texas Bluebird Society nestboxes to the tests and also tested for ventilation and heat shield materials (see photo above).

July 3 was a test between different heat shield materials. The three were \( \frac{1}{16} \)-inch FRP (Fiberglass Reinforced Plastic), \( \frac{1}{8} \)-inch Sintra PVC, and \( \frac{1}{4} \)-inch Sintra PVC. The Sintra PVC is a modern closed cell foam which is rigid but an excellent insulator. I had been using the \( \frac{1}{4} \)-inch for my boxes but after experiments it was found that the \( \frac{1}{8} \)-inch is virtually as good but much better cost. Also the \( \frac{1}{8} \)-inch PVC was much easier to cut than the \( \frac{1}{16} \)-inch FRP.

I found that all three boxes with shields were within 1.3°F of each other (see July 3, 2011 graph above). The \( \frac{1}{8} \)-inch Sintra PVC is the most cost-effective material and thickness. It is also the easiest to cut to shape.

In a series of tests conducted in mid-July, I compared a Light Tan Seaford Box to a Light Tan Seaford Box with extra ventilation. I also compared an Unpainted Texas Bluebird Society box to a Light Tan Painted Texas Bluebird Society box (see photo above). The Seaford Box is made by Greg Seaford of NC and has a floor size of 4½ inches by 4 inches. The Texas Bluebird Society nestbox is larger and has a 4½-inch x 4½-inch floor.

The results show that the Seaford Light Tan Box with extra venting was cooler by up to 1.9°F than the regular vented Light Tan Box (see July 16, 2011 graph above). The extra venting was obtained by lowering the back panel \( \frac{1}{2} \) inch. The Light Tan Texas Box was up to 4.5°F cooler than the regular unpainted Texas Box. The Light Tan Painted Texas Box performed amazingly well at or just above ambient. This can be attributed to its color as well as the excellent top cross ventilation.
On August 9, I tested different configurations of tan and white boxes (see photo above). The Seaford white box with white shields and extra venting, the Texas tan box with ½-inch vents, the Texas white box with ½-inch vents, and Texas white box with ⅝-inch vents all performed close to equally in the test. The Texas white box with white shields and ⅝-inch vents was noticeably cooler than the other four. At 4:00PM, when ambient temperature was 93.7°F, the first four boxes averaged 99.2°F while the Texas white box with white shields and ⅝-inch vents was 97.5°F—the addition of white shields to the Texas white box with ⅝-inch vents added up to an extra 2.2°F of cooling.

The August 10 test was primarily for the Gilbertson PVC nestbox; the other boxes were tested at the same time for comparison (see photo above).

The Gilbertson PVC nestbox performed rather poorly, reaching 104.5°F at 4:00PM, when ambient temperature was 91.2°F (see August 10, 2011 graph above). The weathered Seaford box was again very hot, reaching 105.3°F at 4:00PM. The poor performance of the Gilbertson box could be due to a lack of good top cross-ventilation and/or other factors.

Conclusions
The three factors tested in these experiments were box color, ventilation, and heat shields. All three are significant but box color is the most important. I recommend that you use a light-colored paint and/or heat shields to protect your nestboxes. Also make sure your boxes have adequate top cross ventilation. The best cooling is obtained using a combination of light color, good ventilation, and light colored heat shields.

Neil Yeager is a gem cutter and rock dealer in Myrtle Beach, SC. He has been a bird enthusiast for 20 years and bluebird host for two years. He also has perfected a system to capture high-quality video of nesting activity in nestboxes and has over 200 videos on his youtube channel: www.youtube.com/agile1111
Throughout North America, thousands of bluebird eggs are discovered in nestboxes every nesting season. Surprisingly, many people—even experienced birders—may not know that bluebirds are capable of producing two distinctly different eggs. As members of the thrush family, more than ninety-five percent of bluebird eggs are the so-called “robin’s egg blue” color that tends to be characteristic of most birds in that group. However, unlike birds that have a singular coloration and pattern for their eggs, all three species of bluebirds may also lay eggs that are white. Although white bluebird eggs (also known as albinistic eggs) are not considered rare, they are uncommon enough that some managers of bluebird trails have never seen them in a nestbox.

The scarcity of white bluebird eggs causes one to ponder the question, how often do bluebirds produce them? A cursory review of the issues of Bluebird, and its predecessor, Sialia, reveals the fact that there have been only a few brief articles about white bluebird eggs published in those journals. Furthermore, the journal articles do not disclose much information about the incidence of white eggs among relatively large samples of eggs, on a long-term basis, for each species of bluebird. Unfortunately, since white egg documentation is apparently not a standard part of the data collection forms or field sheets for the majority of bluebird monitors in North America, there appears to be a dearth of reliable white egg data, particularly for Mountain Bluebirds and Western Bluebirds.

Bearing this in mind, and reflecting on the approximate eighty-year history of bluebirding, what then are some of the better known published statistics about white bluebird eggs? In 1935, T.E. Musselman, the man considered to be the originator of bluebird “trails,” reported that 5.48% of the bluebird eggs produced in his nest boxes during a three-year period were white. Amelia Laskey, a trail-blazing bluebird researcher in Nashville, Tennessee during the 1930’s, found the percentage of white bluebird eggs in parts of her study area to be about 9%. In her 1994 book, Bluebirds Forever, Connie Toops reported that white eggs account for roughly 5% of all bluebird eggs. According to the Bluebird Monitor’s Guide, in 1997, 4.3% of the bluebird clutches reported to Cornell’s Birdhouse Network had white eggs, and in 1998, the percentage was about the same, at 4.5%. An additional 1.7% of nests had both blue and white eggs.

More recently, avian researchers and Eastern Bluebird monitors in some parts of the country have found white egg percentages of 2–3% in study areas of varying sizes. Dr. David Pitts, a University of Tennessee-Martin biology professor and author of the recently published book, Studying Bluebirds: A Biologist’s Report and Reflections, has written that “based on reports from various parts of the nesting range of bluebirds, I believe that, on average, about 1 to 2 percent of their eggs will be white but with considerable local variation in the percentage. The higher percentage occurrences, such as Mrs. Laskey found, may be due to related birds mating with each other, a situation referred to as inbreeding.” As corroboration of Dr. Pitts’ statement about percentages, during this writer’s twenty-two years of experience with Eastern Bluebirds in western Kentucky and northwestern Tennessee (1990-2011), over 28,000 bluebird eggs have been deposited in our nestboxes, and the percentage of white eggs has been almost exactly 3% (3.06%, to be precise).*

Interestingly, an informal survey of the NABS Affiliates—conducted via electronic mail in the spring of 2011—revealed that practically all of those bluebird organizations do not routinely gather and record data pertaining to white bluebird eggs, and therefore*

 Due to a monthly monitoring protocol, a few eggs were laid and subsequently hatched between nestbox inspections, and it is therefore possible that the white egg percentage is slightly higher.

*The White Bluebird Egg Phenomenon
Bob Peak
hardly any of those groups have any reliable, long-term statistics for the phenomenon. Fortunately, one exception is the Aldo Leopold Audubon Society in Wisconsin. From 2006 to 2010, this NABS Affiliate compiled white egg data pertaining to nestboxes located in the Wisconsin counties of Portage, Wood, Monroe, Waupaca, Marathon, and Clark, finding that 877 of 30,000 Eastern Bluebird eggs were white—2.92% of the total.

To further complicate white-egg data collection, observant bluebird trail managers have discovered there may be quite a variation in the actual blue color of bluebird eggs. That is, some eggs may be a light blue, while others more closely resemble the previously mentioned American Robin’s egg color. In fact, some eggs are such a light blue color that a flashlight may be necessary for identification, or on particularly cloudy days, gentle removal from the dark recesses of a nestbox may be required to determine whether eggs are actually blue or white. (If handling is necessary, disposable rubber gloves are recommended to protect the eggs and the trail monitor from the possible transfer of pathogens.) Ornithologists tell us that, generally speaking, if a female bluebird lays eggs that are a very light blue, then all of the eggs in the clutch are that color. Also, there is seldom a mixture of white eggs and blue eggs in the same clutch, unless a second female bluebird enters the nest box at an opportune moment and “dumps” eggs of her own, or a female bluebird possesses the rare ability to lay different colored eggs. Dr. Pitts encountered such a female in his Weakley County, Tennessee study area. “In each of female 954’s eleven clutches, the first egg was distinctly blue (although it was usually not as blue as the eggs laid by other bluebirds), and the remaining eggs were either bright white or slightly off-white. For some reason (and I do not know what that might be), she apparently could produce enough blue pigment to color only one egg in each clutch. She obviously had the genetic instructions for manufacturing blue pigments, but something limited the amount of pigment she could produce. Female 954 was not the only female that fertilized by different male bluebirds. At the very least, verifying the theory would require the banding and recovery of many generations of bluebirds in multiple study areas. For more conclusive confirmation, DNA testing would be needed. Unfortunately, since much of the funding for avian research seems to be skewed toward agricultural improvements or economic benefits, it does not seems likely that DNA testing will be conducted in the immediate future to determine the definitive answer for the precise source of white bluebird eggs.

Several additional points of information or generalities about white eggs should be mentioned. First, there is no absolute certainty that female bluebirds fledged from a clutch of white eggs will also produce white eggs when they become sexually mature. As supportive evidence of that assertion, Laskey reported that some banded “daughters” and
“granddaughters” of a white egg-laying female laid blue eggs; conversely, another female in Laskey’s study area that hatched from a blue egg laid white eggs. Based on these documented cases and others like them, it seems apparent that if white eggs are indeed caused by a recessive gene, a female bluebird must receive the genetic code from both of her parents to have the capability of producing white eggs. A second point of importance is that female bluebirds which lay white eggs are blue in color, and bluebird hatchlings from white eggs always have blue feathers and look exactly like the bluebirds hatched from blue eggs—except in the case of an albino or leucistic bird. (It should be noted that there is no apparent link between white egg color and albinism in bluebirds, and any such occurrence would be extremely rare and purely coincidental.) It may also be noted that studies seem to indicate white bluebird eggs are as fertile as blue ones, and there does not appear to be any evidence that any significant differences exist between the eggs—except their color.

What about other birds’ eggs? Dr. Pitts has stated that “numerous species of birds that do not nest in cavities also lay white eggs. Most of these birds keep their eggs covered virtually all of the time and predators have little chance of seeing the eggs. At a Mourning Dove nest with its two white eggs, one adult (usually the male) incubates the eggs during the day and the other adult incubates the eggs at night. The eggs are rarely left uncovered and exposed to predators. Bald Eagle eggs and Great Horned Owl eggs are also white, but an adult covers them most of the time. In some other species of birds the incubating adult may periodically take recesses from the nest, but before leaving the nest the bird pulls nesting material over the eggs and covers them so they are not visible to predators. Some ground-nesting birds that lay white eggs, such as bobwhite quail, construct their nests in dense vegetation and may have a canopy that reduces the visibility of the eggs to potential predators.”

As most birders know, the majority of bird eggs are pigmented, oftentimes with one basic color. Other eggs may have a basic background color, with variations of spots, blotches, or other markings on them. The coloration and pattern of these markings may vary somewhat among individual eggs, but most species have consistent colorations and patterns that nearly always make identification possible. Considering the fact that many birds have a single egg color or pattern, the white-egg phenomenon in bluebirds begs the question, why do bluebirds produce two types of eggs that are so distinctly different in hue?

To answer the question, one might begin by considering the process whereby birds produce eggs and, in particular, the specific phase that determines the eventual coloration of the eggs. Biologists have determined that a female bluebird’s ova, with yolk surrounding them, are expelled from the bird’s left ovary into the oviduct, where each ovum is fertilized by the male bluebird’s sperm. (The right ovary remains undeveloped, perhaps as an evolutionary development for flight.) A fertilized ovum then proceeds through the oviduct, where egg white (albumen) is added, and then the inner and outer shell membranes encase everything. In the final stage—by now, the ovum has moved into the uterine section of the oviduct—the shell forms, and the pigments which determine the egg color are added during the final hours before the egg is laid. The porphyrins (pigments) which determine the color of the egg are produced by the breakdown of hemoglobin from ruptured blood cells, and this material is transformed into bile pigments, which are carried to the bird’s uterus and deposited in the developing shell. Blue (and green) hues are caused by the pigment biliverdin. If no such pigment is produced by the female bluebird, white eggs are the end result.

Hal H. Harrison (author of the Peterson field guide, Birds’ Nests) further explained that “during an egg’s descent through the oviduct, the large end comes first and often picks up the greater supply of pigment from the cellular walls. Heaviest pigmentation is generally found in open nests where cryptic colors help protect the eggs from predators and may also protect the embryos from intense radiation of the sun. White eggs or eggs with little pigment are characteristic of hole-nesting species. Not all cavity-nesting birds lay white eggs, however. Chickadees, nuthatches, and titmice are examples. Since these species also build cupped nests within a cavity, these birds may still be evolving from a time when they too built nests and laid eggs in the open.”

The Audubon Society Encyclopedia of North American Birds also points out that “many birds lay white or nearly white eggs, as do reptiles, and it is thought that originally all birds’ eggshells were white—the primitive condition—and natural selection may have later favored colored eggs in birds, owing to the protective coloration and markings of such eggs, which are usually less conspicuous than white ones. This theory has gained support by the fact that certain
birds that nest in hollows in trees or in burrows in the ground, where the eggs are usually hidden from the sight of natural enemies that would eat them, lay white eggs. Examples are swifts, some owls, most petrels, parrots, woodpeckers, kingfishers, and certain other birds. According to Allen (1961), wrens, nuthatches, chickadees, crested flycatchers, and *bluebirds*, all of which build “unnecessary” nests at the bottom of the tree cavities in which they nest (and lay colored eggs), must have recently (in an evolutionary way) developed the hole-nesting habit.”

If these theoretical explanations are correct, perhaps bluebirds really are evolving. That is, if bluebirds, like robins and other thrushes, did lay eggs in open nests at some point in their natural history, perhaps the white egg color truly is a relatively recent evolutionary development, serving as an aid to adult bluebirds as they detect and nurture eggs in a very dark cavity, in the same way woodpeckers, kingfishers, and purple martins are assisted. These theories also prompt many questions about whether white bluebird eggs will become more common in the future. As Dr. Pitts suggests, “Any variation (such as white) that occurs will be tested by the environment in which the birds live. The color that results in the production and survival of the largest number of offspring will eventually become the most common. Many cavity-nesting birds lay eggs with white shells. Certainly in the near future, most bluebirds will lay blue eggs, but will the percentage of bluebirds laying white eggs gradually increase as bluebirds become better adapted to nesting in cavities? Or, will white eggs continue to be uncommon? This is one of the many intriguing ideas that biologists debate and, with time, will probably clarify.”

In future years, perpetuating the three bluebird species, as well as the other native cavity-nesters, will require ever-increasing knowledge and greater conservation efforts. If we are to gain insights and determine more information about bluebirds and their nesting habits, there is no doubt that more study and research needs to be done along bluebird trails across the continent. Perhaps a starting point might be a more coordinated effort among the NABS Affiliates to collect and compile more specific information about all facets of the birds’ nesting behavior, including the frequency of white eggs within the nesting range of each bluebird species. Although there are many unanswered questions about the white-egg phenomenon and other issues, people will undoubtedly continue to enjoy bluebirds throughout North America, and regardless of the egg that produced it, the bird that Thoreau said “carries the sky on his back” will always be a beautiful sight to behold.

**LITERATURE CITED**


Bob Peak and his wife, Judy, are retired public school teachers who monitor and manage 250 bluebird nestboxes in western Kentucky and Tennessee at Land Between the Lakes National Recreation Area, Lake Barkley State Resort Park, and John James Audubon State Park. The Peaks also have 12 prothonotary warbler nestboxes at J. J. Audubon State Park. Bob and Judy reside in Henderson, Kentucky, and they have been members of NABS since 1990.
Ray Briggs, a past president of the New York State Bluebird Society (NYSBS), passed away on August 3rd at the age of 87. After earning bachelor’s and master’s degrees in education at Cornell University, Ray spent 23 years teaching agriculture and conservation. In his role as teacher, he introduced students to bluebirds—as early as the 1960s, he recognized the plight of the bluebird and he encouraged his students to install nestboxes in pesticide-free areas.

After retiring in 1983, Ray formed the Schoharie County Bluebird Society. In the 1990s, as president of NYSBS, he was instrumental in setting up the 375 mile-long Route 20 trail, a series of about 1700 nestboxes stretching from one end of the state to the other. In 1998, New York’s governor, George Pataki, recognized Ray for helping the Eastern Bluebird, which is New York’s state bird. Governor Pataki gave Ray the first in a new series of New York State bluebird license plates. They display the initials RDB, for Ray D. Briggs. Up until the time of his death, Ray continued to be an active member of the NYSBS and was always encouraging others to help his beloved bluebirds by putting up nestboxes.

On Bluebird Nesting

John Burroughs

When Nature made the bluebird she wished to propitiate both the sky and the earth, so she gave him the color of the one on his back and the hue of the other on his breast, and ordained that his appearance in the spring should denote that the strife and war between these two elements was at an end. He is the peace-harbinger; in him the celestial and terrestrial strike hands and are fast friends. He means the furrow and he means the warmth; he means all the soft, wooing influences of the spring on one hand, and the retreating footsteps of winter on the other.

The bluebird usually builds its nest in a hole in a stump or stub, or in an old cavity excavated by a woodpecker, when such can be had; but its first impulse seems to be to start in the world in much more style, and the happy pair make a great show of house-hunting about the farm buildings, now half persuaded to appropriate a dove-cote, then discussing in a lively manner a last year’s swallow nest, or proclaiming with much flourish and flutter that they have taken the wren’s house, or the tenement of the purple martin; till finally nature becomes too urgent, when all this pretty make-believe ceases, and most of them settle back upon the old family stumps and knotholes in remote fields, and go to work in earnest.

With the bluebirds the male is useful as well as ornamental. He is the gay champion and escort of the female at all times, and while she is sitting he feeds her regularly. It is very pretty to watch them building their nest. The male is very active in hunting out a place and exploring the boxes and cavities, but seems to have no choice in the matter and is anxious only to please and to encourage his mate, who has the practical turn and knows what will do and what will not. After she has suited herself he applauds her immensely, and away the two go in quest of material for the nest, the male acting as guard and flying above and in advance of the female. She brings all the material and does all the work of building, he looking on and encouraging her with gesture and song. He acts also as inspector of her work, but I fear is a very partial one. She enters the nest with her bit of dry grass or straw, and, having adjusted it to her notion, withdraws and waits near by while he goes in and looks it over. On coming out he exclaims very plainly, “Excellent! Excellent!” and away the two go again for more material.

John Burroughs was an essayist who wrote about nature, an early influence on the conservation movement in America, and a personal friend to Walt Whitman, Thomas Edison, Teddy Roosevelt, and Henry Ford. These excerpts are from The Bluebird, an essay he wrote in 1867.
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Book Reviews

Scott W. Gillihan


Who hasn’t found a feather on the ground and wondered which bird it came from? But figuring out the identity of the bird is no simple matter, given the thousands of feathers on a typical bird, the thousand or so different species in North America, and the half-dozen basic feather types. On top of that, there is variation in plumage due to season, age, sex, and geography. Unless the answer is obvious (like a Northern Flicker), it can be daunting.

Thankfully, help has arrived in the form of this book. The first 60 pages or so are packed with information about wings and feathers— their structure, function, and so on. More to the point, this section provides information on how to identify the position of a particular feather—is it a primary, or a secondary? A midrange primary or a transitional primary? Knowing where the feather came from on a bird goes a long way toward identifying the bird that lost the feather. Some feathers can also provide clues about the general shape of the wing, which can also aid in identification.

The book includes photos of the wing feathers, tail feathers, and body feathers of nearly 400 species. Each species account also includes measurements of the feathers, and a range map. I found the photographs a bit disappointing, with poor lighting and distracting shadows. Still, this is a well done and long-overdue book, and I will refer to my copy regularly.


In his first book (“Last Child in the Woods”), Richard Louv coined the term “nature-deficit disorder” to describe the lost connection between children and nature, and the consequences of that loss—children indifferent to or even fearful of nature, and a future where no one protects the natural world because so few appreciate it. He broadens his approach in this book to include adults, many of whom have also lost their connection (or never had a connection) with the natural world. His premise is this: A connection with the natural world is essential to the physical, mental, and emotional health of both children and adults, and is vital to the smooth functioning of society (to paraphrase the title of an article Louv cites, “nature makes you nicer”). He presents support for his argument, then provides concrete steps for re-forging that connection. He proposes such things as weekly family outdoor adventures, nature-based retreats for adults (essentially “summer camp” for grown-ups), vegetable gardens and natural features at homes and workplaces.

This book offers guidance to individuals, parents, grandparents, teachers, urban planners, developers, business owners, health-care professionals, and anyone else concerned about the widespread and profound lack of appreciation for the natural world brought about by a lack of exposure to it.

Great Gramma Nellis has a house full of great-grandkids for the summer. The kids are treated to all kinds of adventures in rural Oregon—hiking, swimming, horseback riding—but they are captivated by the local Western Bluebirds and the story of how they came to nest there.

In addition to the story, the book includes a glossary of words that might be unfamiliar to children, and photographs of flowers, birds, and other animals. One page features plans for a bluebird nestbox, and the story provides basic information on nestbox placement and monitoring.

The terrific illustrations and charming story should inspire young people to learn more about bluebirds (and about Nature in general).


This book includes all the features you would expect from a book about a particular group of birds: their natural history, identification, distribution, and so on. But this isn’t just any group of birds—these are birds that chisel nest cavities in solid wood using only their beak, hike up and down the vertical surfaces of trees, and extract insects hiding under tree bark. This book describes all the unique features that allow woodpeckers to do these amazing things. The informative text is illustrated with beautiful photos on nearly every page, showcasing the stylish plumage and remarkable behaviors of woodpeckers.

Tekiela ends the book with a wonderful feature I’ve never seen anywhere else: a two-page spread of photos of all the North American woodpeckers, in identical poses, with a small range map underneath. It makes comparing the species a snap.

Other books in this series cover owls, eagles, hummingbirds, loons, and bluebirds (Captivating Bluebirds, published in 2008). A set of these books would be a welcome addition to any bird-lover’s library.


Kathy Miller’s first book (Chippy Chipmunk Parties in the Garden) garnered 15 awards. That’s a tough act to follow, but Miller has done it with this “squeakquel”. Chippy and Lily are the proud parents of four young chipmunks. The book follows the youngsters as they explore the world and learn about its wonders and its dangers.

Captivating text and outstanding photography make for a book that will capture and hold the attention of all kids aged 4 and older (even older—adults will be as entertained as the kids). Along the way, readers will learn a bit about the natural world right in their own backyards, enhanced by the two pages of factual information about chipmunks and other animals at the end of the book.
Bluebirds Everywhere

“Bluebirds Everywhere” is a feature that celebrates the widespread and creative uses of bluebird images and the word itself. We invite you to submit your own images and ideas — simply e-mail them to me at NABSeditor@gmail.com or mail them to me at 5405 Villa View Dr., Farmington, NM 87402. Let’s see what bluebirds you can find!

Jill Freeman reports that she’s had this box for many years—it even made the trip when she moved from Sidney, Nebraska to Denver in 1966!

Don Bissonnette of Harrow, Ontario sent this image of a small tin container, about 5 inches across and 1 ½ inches deep. The lid shows a painting of a European street scene; on the bottom of the tin is stamped:

BLUE BIRD TOFFEE
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Hunnington, near Birmingham

Sir Harry Vincent started making toffee in the early 1890s, peddling it door-to-door, traveling through town by bicycle. By 1898 his firm had grown enough for him to establish a factory. The firm was quite successful, and marketed itself with the slogan, “Blue Bird: Britain’s Best Toffee”. In the 1920s and 30s, Vincent sponsored Malcolm Campbell in his attempts to establish speed records on land and water in a variety of boats and cars, all called Blue Bird or Bluebird. Sadly, after just over 100 years in business, Blue Bird Toffee is no more.

Twitter

This little guy is popping up everywhere, and could be the most famous blue bird around right now. Twitter is a social-networking system used to send and receive short text messages, called “tweets”, via smartphones or the internet. Current estimates are that the nearly 200 million Twitter users worldwide send 1 billion tweets per week. That’s a lot of chirping!

Bluebird juices are produced by Florida’s Natural Growers, a cooperative of central Florida citrus growers organized in 1933.
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Can golf courses provide good bluebird habitat?
As development steadily consumes native habitat, biologists wonder about the potential for some developed (but semi-natural) landscapes to support wildlife populations. Bluebird enthusiasts have long known that bluebirds readily take to nestboxes on golf courses because the combination of low grasses bordered by trees is similar to the birds’ native habitat. But just because bluebirds will use golf courses does not mean that golf courses are good habitat. Sometimes, an area looks like it will provide good habitat, but it’s actually what’s known as an ecological “trap”—the birds set up a home there and breed, but then experience poor breeding success because of a lack of food or an abundance of predators, or other problems.

Two recent studies looked at golf courses in Virginia to determine their value as breeding habitat for Eastern Bluebirds. The researchers monitored nesting success in nestboxes placed on golf courses and in nearby habitat (suburban parks, parks with abundant natural habitat, cemetery, horse pasture, and other areas). They also placed tiny radio transmitters on fledgling bluebirds to track their movements and their survival.

Their conclusions:
- Bluebirds on golf courses laid as many eggs as bluebirds in other habitats, but the golf course birds had slightly higher hatching rates and fledged more young.
- Fledglings from the most natural habitat (a state park) had the highest survival rate. Fledglings from golf courses survived as well as fledglings in the other habitat types.
- After fledging, bluebirds move away from their parents’ territories.
- Fledgling bluebirds move into areas with denser trees and shrubs, and less grass.
- In order to improve overall breeding success, nestboxes should be placed in areas with tree and shrub cover nearby to provide protective cover to fledglings.


Can House Wrens smell danger?
For many years, it was believed that birds had little or no sense of smell. Gradually, it became clear that some species (especially vultures and others that need to find dead animals) could, indeed, smell. Subsequently, evidence has been building that many other bird species possess a sense of smell.

A sense of smell could be an important survival mechanism for birds, especially cavity-nesting birds—if they could perch outside their nest cavity and take a deep whiff, they might be able to detect a predator inside the nest cavity before they enter. Studies designed to test the ability of cavity nesters to smell predators have had mixed results. Two studies done in Europe seemed to show that cavity nesters do have a sense of smell, but a study done with Eastern Bluebirds suggested that they do not have a sense of smell.

What about House Wrens? Researchers in this study placed pieces of paper soaked with different scents into active House Wren nestboxes and videotaped the adults approaching and entering the boxes to watch for a reaction. However, the House Wrens did not appear to notice the smells (which were either mink urine, cologne, garlic, vinegar, or plain water)—they went about their business of feeding and brooding young with no apparent reaction. They entered a mink-infused nestbox just as readily as they entered one with any of the other scents, or the plain water. And there was no difference in the amount of time wrens spent in their boxes.

The authors conclude that House Wrens either have a poor sense of smell, or they can smell potential predators but they don’t react to the odor for some reason.

Those of us who are familiar with the pugnacious personalities of House Wrens know the real answer: they’re tough little street punks who aren’t afraid of a smelly old weasel.

**How can rat snakes help Red-cockaded Woodpeckers?**

We tend to think of predators as only being detrimental to the well-being of their prey. But by an odd twist of natural history, rat snakes are actually *beneficial* to the endangered Red-cockaded Woodpecker.

Here’s how it works: The woodpeckers excavate nest cavities in live pine trees of the southeastern U.S. Rat snakes, which can easily climb the rough bark of pine trees, are significant predators of cavity-nesting birds. The woodpeckers deter snakes by maintaining a barrier of sticky tree sap around the nest cavity opening. Each evening, the bird pecks at the tree to keep the tree wounds open and the sap oozing.

At the same time, the woodpeckers face competition from southern flying squirrels and other cavity-nesting birds, some of whom will claim unoccupied cavities (making them unavailable to woodpeckers) or displace the woodpeckers and take over their nest cavities. This competition can significantly depress woodpecker numbers, since the cavities are already in short supply.

Unfortunately for these other species, they never learned the trick about maintaining the resin barrier. If not maintained, the sticky sap dries up in a few days, making the cavity easily accessible by rat snakes. The snakes have a difficult time reaching woodpecker nests with the resin barrier, so they go after these other species (including the flying squirrels). By preying on the other species, rat snakes actually benefit Red-cockaded Woodpeckers, by making more cavities available for woodpecker nesting or roosting.


**Are House Finches driving down House Sparrow populations?**

It seems that the bane of bluebirders, the introduced House Sparrow, is declining in North America. This species was introduced to New York City from Europe in 1853 and wasted no time in dispersing—in about 50 years this aggressive and adaptable species had spread across the continent. The House Finch, normally a western species, was introduced into New York City in 1943, and promptly spread throughout the East. While the House Finch population was growing in the East, the House Sparrow population was declining. Coincidence? Or do House Finches enjoy a competitive advantage over House Sparrows?

Analysis of these species’ populations in the Northeast seems to show that, even though House Sparrow populations had already started declining when the House Finch arrived on the scene, the presence of the House Finch accelerated the House Sparrow’s decline. Score one for the House Finch.

But in the Southeast, even though House Sparrows are declining, there does not appear to be a link with House Finches. If the finches were out-competing the sparrows for, say, food or habitat, we would expect to find areas where House Finches had driven out all the House Sparrows. But this study could find no sparrow-free zones with House Finches. The authors conclude that, although House Sparrows are declining in the Southeast, it’s not because of competition with House Finches—the real reason remains elusive.

## Index to Bluebird Volume 33

### Author

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbey, Bill</td>
<td>Tanglewood Bluebird Trail Goes Digital</td>
<td>3:19</td>
</tr>
<tr>
<td>American Bird Conservancy</td>
<td>Successful Western Bluebird Reintroduction</td>
<td>4:5</td>
</tr>
<tr>
<td>Ball, Marion</td>
<td>Why Go Out in the Rain?</td>
<td>3:19</td>
</tr>
<tr>
<td>Ball, Marion, and Ray Richmond</td>
<td>Bluebird Rescue Story</td>
<td>1:11–13</td>
</tr>
<tr>
<td>Berry, Jackie</td>
<td>Tiger Point Bluebird Trail Fledges an Eagle</td>
<td>3:21</td>
</tr>
<tr>
<td>Berry, Phil</td>
<td>Message to Affiliate organizations</td>
<td>1:1, 2:1, 3:1, 4:1</td>
</tr>
<tr>
<td>Brewer, Shirley J.</td>
<td>Blue</td>
<td>1:25</td>
</tr>
<tr>
<td>Brock, Roger</td>
<td>God’s World is Blue Today</td>
<td>2:27</td>
</tr>
<tr>
<td>Burroughs, John</td>
<td>On Bluebird Nesting</td>
<td>4:20</td>
</tr>
<tr>
<td>Chambers, Barbara</td>
<td>So, You Want to Raise Mealworms</td>
<td>4:8</td>
</tr>
<tr>
<td>Chambliss, Matt</td>
<td>The Gift That Keeps on Giving</td>
<td>3:22–23</td>
</tr>
<tr>
<td>Daniels, Les</td>
<td>Protecting Bluebirds from Buffalo Gnats</td>
<td>3:14–15</td>
</tr>
<tr>
<td>Eltzroth, Elsie K.</td>
<td>Big Boy Blue</td>
<td>3:11–13</td>
</tr>
<tr>
<td>Franz, Bob</td>
<td>“Mexican Bears” in Idaho?</td>
<td>4:7</td>
</tr>
<tr>
<td>Gallagher, Patrick</td>
<td>Leucistic Western Bluebird in Oregon</td>
<td>1:8–9</td>
</tr>
<tr>
<td>Cooper, Evelyn</td>
<td>A Note on Winter Feeding</td>
<td>1:22</td>
</tr>
<tr>
<td>Fuquay, Vickie</td>
<td>Brown-headed Nuthatches in Southside Virginia</td>
<td>4:10–11</td>
</tr>
<tr>
<td>Garr, Steve</td>
<td>Summer Bluebird Reminders</td>
<td>3:25</td>
</tr>
<tr>
<td>Gillihan, Scott W.</td>
<td>Book Reviews: Bird Feathers by S. David Scott and Casey McFarland</td>
<td>4:22</td>
</tr>
<tr>
<td></td>
<td>Chippy Chipmunk: Babies in the Garden</td>
<td>4:23</td>
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<tr>
<td></td>
<td>Magic Summer of Bluebirds by Lucille Nellis and Micki Nellis</td>
<td>4:23</td>
</tr>
<tr>
<td></td>
<td>The Nature Principle by Richard Louv</td>
<td>4:22</td>
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<tr>
<td></td>
<td>Remarkable Woodpeckers by Stan Tekiela</td>
<td>4:23</td>
</tr>
<tr>
<td></td>
<td>From the Managing Editor</td>
<td>1:5, 2:6, 3:6, 4:3</td>
</tr>
<tr>
<td></td>
<td>Leucistic Male Eastern Bluebird</td>
<td>2:22–23</td>
</tr>
<tr>
<td>Gordin, Raylene</td>
<td>Networking Fosters Joy: Special Bluebirds and their People</td>
<td>1:9</td>
</tr>
<tr>
<td>Harmet, Joan</td>
<td>Saving Old Bluebirds</td>
<td>2:10–11</td>
</tr>
<tr>
<td>Hughes, Loren</td>
<td>How to Make a Sparrow Spooker</td>
<td>1:10</td>
</tr>
<tr>
<td>Leese, Benjamin E.</td>
<td>The Empty Nest Syndrome: Extra Nest Building and Nest Destruction by Wrens</td>
<td>2:14–16</td>
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<td>Linn, Sherry</td>
<td>From the Membership Committee</td>
<td>2:5</td>
</tr>
<tr>
<td>Maxson, Marion</td>
<td>The Summer of the Bluebirds 2010</td>
<td>1:14–16</td>
</tr>
<tr>
<td>Mickle, Nanette</td>
<td>Bird Science in a Virginia Backyard</td>
<td>2:8–9</td>
</tr>
<tr>
<td>Miller, Stella</td>
<td>Why Cats Belong Indoors</td>
<td>3:16–17</td>
</tr>
<tr>
<td>Peak, Bob</td>
<td>The White Bluebird Egg Phenomenon</td>
<td>4:16–19</td>
</tr>
<tr>
<td>Read, Bill</td>
<td>Report from the 32nd NABS Annual General</td>
<td>28</td>
</tr>
</tbody>
</table>

### Notices

<table>
<thead>
<tr>
<th>Notice</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t Forget International Migratory Bird Day</td>
<td>2:24</td>
</tr>
<tr>
<td>Habitat Purchased to Protect Lewis’s Woodpecker</td>
<td>1:17</td>
</tr>
<tr>
<td>In Memoriam: Lance Krog</td>
<td>3:26</td>
</tr>
<tr>
<td>Letters to Bluebird</td>
<td>1:7, 3:7</td>
</tr>
<tr>
<td>NABS 2011: Updates and Corrections</td>
<td>3:9</td>
</tr>
<tr>
<td>NABS 2012 4:4</td>
<td></td>
</tr>
<tr>
<td>NABS Conference 2011</td>
<td>2:insert</td>
</tr>
<tr>
<td>Nestbox Build Day</td>
<td>3:17</td>
</tr>
<tr>
<td>North American Bluebird Society Award Nominations</td>
<td>2:9</td>
</tr>
<tr>
<td>North American Bluebird Society Grants</td>
<td>2:5</td>
</tr>
<tr>
<td>Notices from NABS Affiliates</td>
<td>1:6, 2:7, 3:13, 4:6</td>
</tr>
<tr>
<td>Remembering Ray Briggs</td>
<td>2:40</td>
</tr>
<tr>
<td>The Road to Eagle Scout</td>
<td>3:21</td>
</tr>
<tr>
<td>Vehicle/Property Donation Program</td>
<td>4:8</td>
</tr>
<tr>
<td>Yahoo! Bluebird Group</td>
<td>1:13</td>
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</tbody>
</table>

### Subjects

<table>
<thead>
<tr>
<th>Subject</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bluebird, Eastern: leucism</td>
<td>4:27</td>
</tr>
<tr>
<td>orhan nestlings 1:11–13</td>
<td></td>
</tr>
<tr>
<td>Bluebird, Western: banding 3:11–13</td>
<td></td>
</tr>
<tr>
<td>longevity 3:11–13; nestbox management 4:7</td>
<td></td>
</tr>
<tr>
<td>reintroduction 4:5</td>
<td></td>
</tr>
<tr>
<td>Bluebirds: egg color 4:16–19; in advertising, etc:</td>
<td></td>
</tr>
<tr>
<td>1:24, 2:24, 3:24, 4:24; insect pests 3:14–15</td>
<td></td>
</tr>
<tr>
<td>predators 3:16–17, 4:7; threats 2:13; winter feeding 1:22, 4:8</td>
<td></td>
</tr>
<tr>
<td>Buffalo gnats: 3:14–15</td>
<td></td>
</tr>
<tr>
<td>Cats: 3:16–17</td>
<td></td>
</tr>
<tr>
<td>Coffee, shade-grown: 1:26</td>
<td></td>
</tr>
</tbody>
</table>
Geolocators: 2:8–9.
Martin, Purple: migration 2:8–9.
Mealworms: 4:8.
Memorabilia: 2:10–11.
NA BS: annual meeting 3:8, 3:9, 4:4; call for awards nominations 2:9; grants 2:5; Membership Committee 2:5.
Plumage: leucism 1:8–9.
Poetry: 1:25, 2:27.
Sparrow spooker: 1:10.
Woodpecker, Lewis’s: 1:17.

Titles
Bird Science in a Virginia Backyard, Nanette Mickle 2:8–9.
Blue, Shirley J. Brewer 1:25.
Bluebird Rescue Story, Marion Ball and Ray Richmond 1:11–13.
The Empty Nest Syndrome: Extra Nest Building and Nest Destruction by Wrens, Benjamin E. Leese 2:14–16
From the Managing Editor, Scott W. Gillihan 1:5, 2:6, 3:6, 4:3.
From the Membership Committee, Sherry Linn 2:5.
From the President, Jonathan Ridgeway 1:2–4, 2:2–4, 3:2–5, 4:2.
God’s World is Blue Today, Roger Brock 2:27.
How to Make a Sparrow Spooker, Loren Hughes 1:10.
Leucistic Male Eastern Bluebird, Scott W. Gillihan 3:27.
Leucistic Western Bluebird in Oregon, Patrick Gallagher 1:8–9.
A Mother’s Day Gift, Brenda J. Young 2:25–27.
A Note on Winter Feeding, Evelyn Cooper 1:22.
Report from the 32nd NABS Annual General Meeting, Bill Read 3:8.
Saving Old Bluebirds, Joan Harmet 2:10–11.
So, You Want to Raise Mealworms, Barbara Chambers 4:8.
Successful Western Bluebird Reintroduction, American Bird Conservancy 4:5.
Summer Bluebird Reminders, Steve Garr 3:25.
The Summer of the Bluebirds 2010, Marion Maxson 1:14–16.
Why Go Out in the Rain? Marion Ball 3:19.

Bluebird
Affiliates of the North American Bluebird Society

The North American Bluebird Society serves as a clearinghouse for ideas, research, management and education on behalf of all bluebirds and other native cavity-nesting species. NABS invites all state, provincial, and regional bluebird organizations to become NABS affiliates in a confederation of equals all working together toward a common goal, a further partnership in international bluebird conservation. No cost is associated with affiliating with NABS. Your affiliated organization will be recognized and listed on the NABS website and in Bluebird. If your organization has a newsletter, please forward a copy to our headquarters. To find out more about becoming a NABS affiliate, read our Affiliate Letter. Notice: If you are listed below, please check listing to see if it is current. If not, please contact web@nabluebirdsociety.org and NABSEditor@gmail.com with correct information.

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Bluebird 30  Fall 2011
<table>
<thead>
<tr>
<th>Region</th>
<th>Society Name</th>
<th>Contact Person</th>
<th>Address</th>
<th>Phone</th>
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</tr>
</thead>
<tbody>
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<td>Iowa Bluebird</td>
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<td>[website]</td>
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<td>Nebraska</td>
<td>Bluebirds Across Nebraska</td>
<td>Derry Wolford</td>
<td>705 9th Ave, Shenandoah, IA 51601</td>
<td>307.587.7064</td>
<td><a href="mailto:president@mountainbluebirdstrails.com">president@mountainbluebirdstrails.com</a></td>
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<td>New Hampshire</td>
<td>NH Bluebird Conspiracy</td>
<td>Bruce Burdett</td>
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<td>603.763.5705</td>
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<td><a href="mailto:derry@prodigy.net">derry@prodigy.net</a></td>
<td><a href="http://www.bbne.org">www.bbne.org</a></td>
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<td>New Jersey</td>
<td>New Jersey Bluebird Society</td>
<td>Frank V. Budney</td>
<td>173 Carolyn Road, Union, NJ 07083-9424</td>
<td>908.687.2169</td>
<td><a href="mailto:jdb@myfairpoint.net">jdb@myfairpoint.net</a></td>
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