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*Cover photo:* An early snowfall provided a unique autumn palette for Pennsylvania photographer Kathy Miller. See more of her photos at www.celticsunrise.com  
*Table of Contents photo:* Male Red-bellied Woodpecker in flight (www.shutterstock.com/FloridaStock).
Fall Message to Our Affiliate Organizations

Phil Berry

If you missed NABS 2014 in Boise, Idaho, you missed a fun trip. We were checking Mountain Bluebird nests at the 9,000-foot level in the mountains around Boise. And we were led by a 92-year-old man. The Bluebird Man. We also had a screening of his new movie, which brought out a lot of local people.

And it is not too early to get prepared for NABS 2015, which will be held at the Baluchon Spa, in St-Paulin, Quebec. France and Andre Dion hosted us back in 1988 and have asked to host again. This will be a tribute to Lawrence Zeleny, as they were good friends. You won’t want to miss this one—mark your calendar for September 2015 in Quebec. Andre wrote the book *The Return of the Bluebird*.

Also, let’s look ahead to 2016 in Lacombe, Alberta. Myrna Pearman is going to host us and already has an outline of what we are going to do.

Please send me any updates to your organization so that I may update our records. Once again, I encourage you to share your experiences with us via *Bluebird*, our quarterly magazine. We always encourage you to write an article. We know that you all have an annual meeting in your own area, and we are interested in hearing about them.

Write something up and send it to Scott Gillihan, our Managing Editor. He will get it into the next issue.

I hope you all had a great bluebird year. I know we did here, with almost 300 new babies out there.

Sincerely,
Phil Berry
NABS Vice President - Affiliate Relations
The nights are starting to cool off and sleeping becomes comfortable again. You know fall is just around the corner when you waken to the plaintive cry of the Say’s Phoebe as though she were saying goodbye. Bluebird families flit around the yard and come less to the mealworm feeder. It’s as though they too know it won’t be long until they depart. I hope your nesting season passed without too many sad events and that the joy of watching new life burst forth revived your spirits and will carry you through to next year.

Many of us have fond memories of our time in Boise for the NABS conference. I enjoyed seeing so many new faces while at the same time having two full days to get to know them and renew old acquaintances during the field trips. What a pleasure to be among the members who have so many years of experience in bluebird and native cavity-nesting bird conservation! Those present in Boise represented a collective of many hundreds of years of nestbox building, monitoring, and mentoring. The sharing of stories and knowledge throughout the event and an opportunity to have an open Q&A after the Friday evening showing of the documentary Bluebird Man showed just how much we have to offer one another—regardless of our background and history for our cause. Many thanks go out to Matt and Neil of Wild Lens Inc. for taking time from their busy filming schedule and travels to organize and host our conference. Special thanks also to the Golden Eagle Audubon Society for their assistance and support.

I would like to acknowledge our photographer extraordinaire, David Kinneer, for sharing so many of his great pictures with us on Facebook and allowing us to use them in the Journal. It was special to be able to point out both rare and common western species and have David be able to “capture” them during the field trips while several folks added new birds to their life lists. We thank David for the conference photos, too! With Linda Schamberger’s expertise on managing the NABS Facebook page, and great photos posted by our followers, it attracts folks to return to the site over and over again. (Surely 3,661 of us can’t be wrong!) And while talking about Facebook—the queries that once were the sole domain of our Hotline, handled so ably by Bob Benson and his team of helpers, are now starting to migrate to Facebook. With help from experienced people like Kathy Kremnitzer and Dan Sparks, folks get quick responses to a variety of problems both privately and in the open forum. We all end up with new ideas to combat nestbox or trail problems and to expand our knowledge while it reinforces the fact that what works in one place does not necessarily work in another—regardless of the proximity of the locations.

Your NABS Board has been keeping busy and we thank you for sharing your ideas and staying in close contact. We are looking at some possible ways we may take a larger role in addressing trail management and have been asked about a certification program. Our problem with undertaking these kinds of projects are manpower and funding. With no staff or physical office to work from, and covering the continent, this is the kind of opportunity for NABS to work more closely with our Affiliates. Our Education Committee is looking at golf courses with a view to compiling a handy reference guide that may develop into something larger down the line. We know at least one Affiliate, the Bluebird Society of Pennsylvania, has already undertaken a program working with golf courses throughout the State and I know there are other loosely organized projects with dedicated monitors elsewhere across both Canada and the U.S. We stand ready to assist with educational materials and our Speaker’s Bureau.

I would like to thank Farrell Roe for his years of service on the NABS Board. He stepped down this year but his dedication to bluebirds will continue to flourish as a founding member of the newly formed Tennessee Bluebird Society. Farrell you will be missed—but we know where to find you!

I hope that you returned your completed election ballot. Although it may seem that it’s a simple gesture, your participation is very important in the

Like us on Facebook!
Great friends, great photos, great videos, and great information are all waiting for you on the NABS Facebook page. Stay connected with NABS members and other bluebird enthusiasts at www.facebook.com/NorthAmericanBluebirdSociety
The days are getting shorter, the leaves are turning, and Halloween candy has appeared in the stores. This can only mean one thing for me: it’s almost bluebird season. Here in the dry desert Southwest, the bluebirds spend their summers in the cool conifer forests, high in the mountains. In winter, they move down into town. I can always count on seeing flocks of Western Bluebirds in my neighborhood, sometimes even in my back yard. They dine on the small fruits of ornamental trees and shrubs, and compete with Townsend’s Solitaires for juniper berries. Western Bluebirds are currently performing an important role in a drama that’s playing out in Montana and probably elsewhere in the West, in which forest management and nestboxes may be driving down Mountain Bluebird populations. Don’t miss the fascinating story, beginning on page 6.

Recently, news outlets have been covering the 100th anniversary of the passing of Martha, the last Passenger Pigeon. See a great naturalist’s moving description of another (apparently) extinct species beginning on page 23. In both cases, simple ignorance about the biology of the birds led to their extinction: the Passenger Pigeon’s extremely low reproductive rate and the Ivory-billed Woodpecker’s need for large tracts of old-growth trees. I fear that ignorance about the natural world will doom many more species in the years to come as our youth spend less and less time outdoors and become ever more disconnected from nature. Please encourage the young people in your life to go fishing, camping, birding, hunting, hiking, and anything else that takes them out into nature.

“The beauty and genius of a work of art may be reconceived, though its first material expression be destroyed; a vanished harmony may yet again inspire the composer; but when the last individual of a race of living beings breathes no more, another heaven and another earth must pass before such a one can be again.” — William Beebe, American naturalist

My thanks to everyone who contributed articles, photos, and feedback for this issue. Thanks also to Kurt Hagemeister (president of Michigan Bluebird Society, for allowing us to reprint an abbreviated version of Allen Bower’s memorial), William Robson (for pointing me toward the Western / Mountain Bluebird article), and Lauren Kane (for ongoing access to scientific journals via BioOne.org).

As always, please send any photos, articles, or ideas to me at NABSeeditor@gmail.com or 5405 Villa View Dr., Farmington, NM 87402.
Letters to *Bluebird*

I enjoyed Bet’s “Do No Harm” article in the Summer 2014 issue of *Bluebird*. There is a wide variety of philosophies on the ethical issues of intervention, and I don’t think we as a group discuss these issues enough. We provide nest cavities for wild birds to use, and then what? How far are we willing to go in following through on our intent? When is nurturing actually over-nurturing?

Personally, I thought Bet’s medical analogy was on spot. As a surgeon, my guideline in choosing whether to perform a procedure (intervention) is to weigh the risks against the expected benefits. I apply that principle to bluebirding as well. It is also important to act in a fashion consistent with one’s missions and objectives. Finally, one needs to bear in mind the resources available for troubleshooting, especially in the case of rescuing ill or injured nestlings, which can require more time, energy and money than expected.

Raylene Gordin  
Bluebird Trail Chair  
Audubon Society of Corvallis  
www.corvallis.audubon.or.us

**Membership Database Manager is on the Move!**  
Marion Ball has relocated to Tucson, AZ  
Please use membership@nabluebirdsociety.org or her new email: data.admin@centurylink.net  
Or contact her by phone 402-237-9818

**NABS Presentation DVD Available**  
The NABS Powerpoint presentation “Welcome Back the Bluebirds” has been revised and updated, and is now available on a DVD. The disc includes two complete Powerpoint presentations (long and short), a long and a short “script” to accompany the images, PDF versions of the presentations (in case you don’t happen to have a computer with the Powerpoint program), and a full set of the NABS fact sheets. You can order your copy online at the NABS store:  
[www.nabluebirdsociety.org/catalog/education.htm](http://www.nabluebirdsociety.org/catalog/education.htm)

**In Memory of Wendell R. Long**

Longtime NABS member Wendell Long of Waynesville, Ohio passed away on November 17th, 2013 at the age of eighty years. He retired in 1988 and spent his leisure hours further developing his hobby of photography. His favorite subject, and what became his specialty, were Eastern Bluebirds. NABS was fortunate to be granted permission to use many of Wendell’s photos and several still grace the NABS website. Our sincere condolences to Wendell’s wife Darlene and his three daughters and families.

**In Memory of Allen Bower**

Allen Bower died June 27th, 2014, after a prolonged illness. Allen was a co-founding member of the Michigan Bluebird Society and a member of the Ohio Bluebird Society and NABS. He was nationally respected as an innovator in the field of cavity-nesting birds and published numerous magazine, newspaper, and newsletter articles on the subject over the years. In addition, Allen worked tirelessly educating others about bluebirds and other native birds. He especially loved passing on his knowledge to children at schools. Allen designed his own “Bower Box” for bluebirds as well as an innovative nestbox tray. In addition to his efforts to help bluebirds, he was a huge advocate of the Northern Flicker. Known to many as the “Flicker Man,” Allen was very innovative in his approach to attracting them, including his development of a house and pole mounting system. Over the years, Allen received many awards in recognition of his bird conservation efforts. In 2003, he was given a service award from NABS for his longtime efforts helping bluebirds. In 2013, Allen and his wife Nina received the Ohio Bluebird Society’s coveted Blue Feather Award. Allen is survived by his wife Nina, sons Todd and Scott, daughter Andrea Mason, brother Carl, sister Arlene Martlock, and five grandchildren. Our deepest sympathies to the Bower family.
Membership Renewal
Is it time to renew your membership? Check your mailing label on the back cover for a message!

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One morning in early March of 1999, just like every year for the last 50 years or so, our great friend, the late Joe Waldbillig—a cattle rancher and self-taught naturalist—was driving his beat-up pickup down the snowy road that bisects his western Montana ranch. Ranging from 4000 to 5000 feet in elevation, the ranch that he purchased shortly after returning from the war was a haven for Mountain Bluebirds, and every spring Joe would go on daily drives around the valley eagerly awaiting the bluebirds’ return as a sign that the worst of winter was over. But that morning, much to his surprise, he came across a species of bluebird he had never before seen in his valley—an industrious male Western Bluebird was inspecting nestboxes along the fence. This sighting was a powerful preview of things to come—in a mere five years Joe would witness the nearly complete takeover of his Mountain Bluebird population by the newly arriving Western Bluebirds.

Over the next decade, such stories of rapid replacement of one bluebird species by the other would repeat itself over and over across our research sites that span western Montana. Joe’s ranch is one of 15 research sites where we have been investigating competitive interactions between Mountain and Western Bluebirds since 1995 to understand the mechanisms underlying these dramatic changes in distribution. Shifts in species abundance and distribution are increasingly common as climate change and habitat destruction alter the ranges of many species and bluebirds provide a unique opportunity to explore these shifts.

Of the three species of bluebirds, Mountain and Western are commonly found in western North America. As secondary cavity nesters, they need a tree cavity to breed but, unlike primary cavity nesters such as woodpeckers, cannot make their own. Because natural cavities are often rare in the environment, bluebirds are in constant competition with each other as well as with a diverse community of other cavity-nesting birds and mammals. Historically, bluebirds depended on forest fires as the smoke would clear, burned areas would be colonized by woodpeckers and in less than a year numerous cavities in dead and decaying trees would present prime real estate opportunities for bluebirds.

In general, there are two strategies for acquiring such fire-created real estate: find and colonize burned areas first, something that requires frequent and wide-ranging dispersal, or disperse at a lesser rate and frequency, but aggressively displace the earlier-arriving species. Over evolutionary time, the two species of bluebirds evolved a combination of these strategies which, together with the ephemeral nature of postfire habitat, forever locked them in a repeated cycle of colonization and species displacement.

Before the 1930s, the two species coexisted in western Montana. But with changing agricultural practices and the onset of a strict fire suppression policy that led to disappearance of natural nest cavities, Western Bluebirds, a species generally confined to lower-elevation valleys, began to disappear from many areas. Mountain Bluebirds were also impacted, but not as severely since they could retreat to higher elevations where impacts of agriculture and deforestation were not as intense.

Declining population trends for both species continued until, in the 1960s, people erected thousands of miles of nestbox trails in a massive
grassroots effort to bring the bluebirds back. In Montana, this effort was spearheaded by Art Aylesworth, who in 1974 put up five boxes near his cabin in St. Regis. Inspired by the success of these first few boxes, by 1980 Art was working with local lumber mills to produce thousands of boxes and the Mountain Bluebird Trails organization was born. In 1989, to help celebrate Montana’s Centennial, Mountain Bluebird Trails built 2800 nestboxes and put them up every quarter of a mile along Montana’s highway 200.

These efforts paid off and once again brought the two species in contact as Mountain Bluebirds reclaimed lower elevation areas and Western Bluebirds started to recolonize their historical range. However, these efforts also had several unintended consequences—replacing natural cavities with nestboxes fundamentally altered the dynamics of coexistence of these two birds and led to the rapid replacement of one species by the other.

The speed of these displacements was breathtaking. In only 15–20 years we would watch our research sites go from no bluebirds, to 100 percent Mountain Bluebirds, to 100 percent Western Bluebirds. When we conducted a census of nesting bluebirds in a popular recreation area near Missoula, Montana in the early 1990s, all but one breeding pair were Mountain Bluebirds. By the early 2000s, the Mountain Bluebirds were gone, completely replaced with a much higher density of Western Bluebirds. Just a few years later Western Bluebirds arrived to the western foothills of the Continental Divide, greeted by birdwatchers eager to see them in the easternmost locale of the species’ range in northern North America.

We set out to find out why Western Bluebirds were so successful in displacing Mountain Bluebirds. It wasn’t a simple case of size dominance as Western Bluebirds are actually slightly smaller than Mountain Bluebirds. Instead, we found an important behavioral difference between the two species. Western Bluebirds are more aggressive than Mountain Bluebirds and also breed at higher densities, and so once they arrive to an area and start to breed, they crowd out Mountain Bluebirds. In fact, Western Bluebirds are so successful at competing for nestboxes when they first arrive to a new area that Mountain Bluebird females are sometimes forced to breed with them to have any chance of breeding at all. Hybridizing pairs have been found across western Montana, usually in populations where Western Bluebirds have just recently gotten a foothold.

The Western Bluebird’s combination of traits seems paradoxical—how can a species be both aggressive and yet tolerate breeding at high densities? We found that Western Bluebirds have evolved two distinct behavioral strategies that enable them to successfully colonize newly created habitats and, at the same time, maintain previously established populations. As a facultative cooperative breeder, some grown-up offspring postpone their breeding for a year or two to help their parents and relatives raise nestlings. So, in any population, a young male Western Bluebird has two choices: either help parents raise kids and then inherit a part of their territory (and therefore nest near the birthplace) or disperse and compete for a territory in a new area. We found that the strategy a male pursues depends closely on his aggressiveness—highly aggressive males are more likely to leave their natal populations and disperse to new areas to breed, whereas nonaggressive males tend to remain in their natal population and eventually acquire a territory near relatives.

The persistence of both strategies—be aggressive and disperse or stay and be nonaggressive—is explained by their equal fecundity payoffs: males that stay and cooperate and males that disperse raise the same number of kids. Dispersing to new areas with...
a low density of bluebirds means that aggressive males are able to acquire larger territories than they would have gotten in the crowded natal area, while nonaggressive males, despite being poor competitors, can nevertheless obtain a territory from their parents and start a family of their own if they stay near their birthplace. And there is an additional, very important benefit: nonaggressive males are superb providers for their families, something that is particularly handy during late summer snowstorms that are a common occurrence in northwestern Montana and are the most common cause of egg and nestling mortality.

During these snowstorms the female has to stay on the nest and warm eggs and nestlings and thus is unable to forage on her own. Nonaggressive males provide nearly all the female's food during these times and consequently their broods tend to survive the yearly storms. Aggressive males, however, hardly ever feed their females and consequently their nests rarely survive such cold snaps, greatly limiting the Western Bluebird’s ability to establish in a new area until enough nonaggressive males remain in the population assuring a secure base from which Western Bluebirds can keep on dispersing.

And so historically, before people began placing nestboxes everywhere, the interaction of these two strategies would help Western Bluebirds colonize new areas and displace the Mountain Bluebirds that had arrived there before them. But eventually the post-fire habitat would regrow and the cycle would play out all over again—a fire would create a new patch of suitable habitat, Mountain Bluebirds would settle there first, aggressive Western Bluebirds would start to displace them, and over time, once Mountain Bluebirds were completely gone, nonaggressive Western Bluebirds would eventually take over. However, such fire-induced dynamics started to change as the American West was settled and reshaped by humans and, over the last 40 years, the ephemeral resource of natural nesting cavities was replaced with thousands of miles of nestboxes. However the constant nature of the man-made nestboxes has disrupted the natural cycle of repeated colonization and many of the lower elevation valleys of western Montana are now home to stable populations of nonaggressive Western Bluebirds that have permanently replaced Mountain Bluebirds.

Until recently, Mountain Bluebirds could escape this competition by breeding at higher elevations. Mountain Bluebirds have less trouble weathering summer snowstorms, whereas the Western Bluebird’s Achilles’ heel—the inability of aggressive males to feed their incubating and brooding females during summer snowstorms—created a safe haven for Mountain Bluebirds above 6000 feet, where summer weather can be so harsh that aggressive Western Bluebirds have no chance of settling.

Now, however, because of climate warming, these elevations are becoming newly suitable for Western Bluebirds, enabling them to expand their range in the other species’ stronghold and extending the arena of competition. Climate warming, particularly pronounced at higher elevations, is making western states drier and warmer. While a drier climate is increasing the number of forest fires—a boon for the highly dispersive Mountain Bluebirds—the warming of high elevation areas should also cause mountain-dwelling plants and animals to shift their ranges upward, a process well under way in many areas. Thus, it may only be a matter of time before we see a substantial upward shift in the Western Bluebird’s elevational range. If the battles over nest sites at the nestbox trails that crisscross Montana’s valleys are any indication, an upward shift of the Western Bluebird’s range may very well lead to the displacement of more Mountain Bluebird populations.

Back at Joe’s ranch, the Western Bluebird—by now a common resident—remains confined to the floor of the mountain valley, while breeding Mountain Bluebirds find refuge in the surrounding hillsides. This spring, like every other recent spring, all the talk is about the unusually low snow pack in the mountains and the fear of an early fire season. Ironically, such fires may be the salvation of the much loved and charismatic Mountain Bluebird that, in the near future, may find itself increasingly losing as rapidly warming mountainous areas become more hospitable to its equally loved and charismatic sister species.

Renée Duckworth, an ornithologist and ecologist at the University of Arizona has been studying dynamics of coexistence of two species of bluebirds in the western United States for more than a decade.

Alex Badyaev, an evolutionary biologist at the University of Arizona in Tucson, divides his time between long-term field research projects in northern Montana and southern Arizona.

This article originally appeared in a slightly different form in Montana Outdoors. It is reprinted here with permission.
NABS Awards in Boise, Idaho – June 13th, 2014
Sherry Linn

Following the Board of Directors meeting in the afternoon, the first main event of the 37th Annual NABS Conference was our banquet with presentation of the awards. This year I had the honor and pleasure to acknowledge the years of commitment of two very devoted bluebirders. Between them, their time spent monitoring, maintaining, and mentoring represents 80 years of conservation effort! Now that is true dedication—and they are still going strong!

Another bonus this year was being able to keep one of the awards under wraps right up until it was announced. It was fun but nerve-wracking to work behind the back of our Awards Committee Chair, Anne Sturm.

**Anne Sturm – Lifetime Achievement Award for Outstanding Contribution to Native Cavity Nesting Bird Conservation**

Anne started putting up boxes after the first Earth Day in April 1970. After doing everything wrong, she went on a field trip led by Lawrence Zeleny and benefited from the man who went on to found NABS. A founding member of NABS, Anne served as Recording Secretary and President in the early years and more recently on our Board again. Retiring as a NABS Director in 2013, Anne continues to Chair both the Grant and Awards Committees while also serving on the Maryland Bluebird Society Board. Over the past 44 years, Anne has been actively involved in educational projects for native cavity-nesting birds and in land preservation work to save the needed habitat for all our native birds. She continues to mentor students in a Global Ecology class each year at a local high school doing hands-on work and making herself available throughout the school year to the students as they prepare their final reports.

**Alfred (Al) Larson – Lifetime Achievement Award for Outstanding Contribution to Native Cavity Nesting Bird Conservation**

Al has been carrying out bluebird conservation work for 36 years and, as this year’s nesting season comes to a close, he is responsible for banding and fledging approximately 30,000 bluebirds during those years. This is an astonishing number for any one person and especially when you are only looking at two species—Mountain and Western Bluebirds. Always available to answer questions and work with the community advising on nestbox trail management, Al welcomes folks to come along for a day of monitoring on one of his many trails. Concerned about who will continue his work when he is no longer able is where the Golden Eagle Audubon Society came on the scene and what sparked the filmmakers Wild Lens, Inc. to make the documentary *Bluebird Man*. A large crowd of supporters enjoyed watching the premier showing of the film following the Awards presentations.
Vancouver Island’s ambitious Bring Back the Bluebirds project, aimed at reintroducing the extirpated Western Bluebird to the northwestern reaches of its historic habitat range, is now in its third year. The last known successful Western Bluebird nest on southern Vancouver Island occurred in the Cowichan Valley in 1991 (though regionally the last known nests were on Salt Spring and Galiano Islands in 1995). Thanks to three seasons of translocating breeding pairs and the installation of countless nestboxes throughout the Valley, the Garry Oak Ecosystems Recovery Team Society, with project partners Ecotudies Institute, Cowichan Valley Naturalists’ Society, Nature Conservancy of Canada, and the Province of BC, has begun to build a small and growing population of Western Bluebirds.

In spite of the project’s initial success—and a record number of nesting attempts this season—the 2014 breeding season saw a number of new challenges, perhaps the most interesting of which was an excess of unpaired males and the curious behavior and exciting family dynamics that played out as a result.

As can occur within small populations, the sex ratio of returning bluebirds this year was heavily skewed: of the eight bluebirds that returned on their own in early spring, four were lone males in search of a mate (the other four arrived as two breeding pairs). By mid May, the number of single males increased when three paired females were killed on their nests by predators, leaving behind male survivors. The return of the four single males, and the survival of the other three, was bittersweet. As happy as we were to see so many bluebirds flying about the valley, we knew that seven roaming males could pose a threat to the breeding success of translocated pairs post-release. Although certain males appeared and reappeared, causing minor concerns or disruptions, one male in particular kept resurfacing at the wrong place and the wrong time. A marvel in April, a frustration in May and June, and a source of pride in July and August: This is the story of the “Nanaimo Boy.”

Shortly after the initial sighting we were sent a photo taken by the birder who discovered the Nanaimo Boy, which revealed that he was in fact part of our reintroduction project: a juvenile from the second clutch of a breeding pair that had been translocated last year. His parents had returned to their former breeding territory in March. Had he migrated back with them only to continue flying north, perhaps following the Mountain Bluebird? Would he return to their territory from Nanaimo? By the time we arrived at the airport the next day he was gone, leaving everyone to wonder if, and where, he would turn up next.

The answer came 10 days later. On April 13th, just as the finishing touches were being made to an aviary that we had built for a breeding pair that was soon to be translocated, the Nanaimo Boy reappeared. He had made it back to the Cowichan Valley, but he could not have picked a worse site. For the next few days we watched and waited, dismayed, as the Nanaimo Boy seemed determined to claim his territory and wait for a female. All we could do was plug the nearby vacant bluebird boxes, hoping to dissuade him. If the Nanaimo Boy stayed put, we would have to move the aviary to a new site; we could not risk the added stress he would bring to the confined pair. To our relief, after three days the Nanaimo Boy again disappeared.

The Nanaimo Boy, frustrated and circling in his aviary, attracted the attention of another lone male (one of his siblings), who often perched calmly on the aviary. 

Photo by Jemma Green, GOERTS
A week passed and the Nanaimo Boy did not return to the aviary site. As the translocation day approached, we made the decision to keep the aviary where it was. However, no sooner had the breeding pair been released into the aviary than the Nanaimo Boy swooped down out of the trees. As he flew at the aviary again and again, harassing the pair, staff scrambled to set up a mist net. Within minutes the Nanaimo Boy was caught. The next morning he was placed in an aviary that had been vacated the evening before when another translocated pair was released. Left with no other option, the Nanaimo Boy would spend the next two weeks in this aviary—circling, vocalizing loudly, constantly agitated—until we released the pair that he had harassed, and could release him too.

Following his release on May 12th, the Nanaimo Boy was not resighted for over two weeks. But by the end of May, he had discovered the nesting territory of another breeding pair. Although this pair had tolerated other single males within their territory—and even at their supplemental feeder—throughout the breeding season, the paired male must have recognized the Nanaimo Boy as a threat because he repeatedly chased him away. After a week spent on the margins of this territory, the Nanaimo Boy found a new purpose: a newly translocated breeding pair, already with a brood of six nestlings, in an aviary only a quarter of a mile away.

The Nanaimo Boy first made contact with the pair in the aviary on June 4th, two days after they had arrived. Interestingly, he did not behave aggressively toward them, but rather called from nearby trees or perched atop the aviary. Although the female appeared unfazed by his presence, the male was noticeably agitated. The days wore on, and the Nanaimo Boy remained near the aviary, posing a concern to monitors by distracting the captive male from his task of feeding the nestlings.

By the morning of June 7th, the Nanaimo Boy was beginning to display courtship behaviour. Peeking inside the nestboxes positioned outside the aviary, calling as he flew from box to box, and perching near the female on the end of a branch which extended outside the aviary. On the evening of June 7th, it became clear that the Nanaimo Boy was a real threat to this pair when he flew to the end of an aviary perch to offer a large, bright green grub to the female through the wire mesh wall—and she opened her bill to accept it. Over the coming days, the male would continue to court the captive female and agitate the captive male.

On June 11th, the nestlings in the aviary fledged; it would soon be time for the family to be released. Not wanting to allow the Nanaimo Boy to scare off the parents during the release, which would spell certain death for the fledglings who were still too young to feed themselves, we knew that we would have to trap the Nanaimo Boy again. On June 13th, the day of the release, mist nets were set up around the Nanaimo Boy’s favored nestbox, and bluebird calls were played to lure him in. After two hours, the Nanaimo Boy had hovered in front of the net, perched atop the net, and flown under the net, but still he continued to thwart our attempts to trap him; he wasn’t going to be trapped the same way twice. We were left with no other option but to release the family and hope they stayed together in spite of the Nanaimo Boy.
Immediately following the release, much confusion ensued. With three adults and five juveniles to track, it took observers several minutes to realize what had happened. The Nanaimo Boy had chased away the other male. Within the next few days, it became apparent that the translocated male had been permanently displaced.

Thankfully, the female and all six fledglings remained on site in spite of the Nanaimo Boy. Over the next few days, the female tolerated the presence of the single male as she industriously fed her young. Several chase events also took place, which were initially perceived to be attempts by the translocated male to return to his territory but were later assumed to be aggressive courting of the female by the Nanaimo Boy. Much to our amazement, by June 17th the Nanaimo Boy had inserted himself into the family and was helping to feed his adopted juveniles.

On June 21st, it looked as though the Nanaimo Boy’s determination had finally paid off when he was spotted nest building with the female at a box on the property adjacent to the release site. Nine days later, the female laid their first egg, and four more eggs followed. Hot, dry weather held for the entirety of the incubation period, and the eggs hatched a day earlier than expected. The Nanaimo Boy seemed to feed his nestlings more energetically than any other parent, making constant trips to and from the nestbox with a bill loaded with mealworms whenever they were supplied. At 13 days old, the five healthy-looking nestlings were banded.

Six days later, at 19 days old, the Nanaimo Boy’s nestlings fledged. Suddenly, to those of us that had closely followed the trials and tribulations of this one individual over the last four and a half months (and cursed and wrung our hands with every wrench he threw in our plans), it seemed that this happy ending was befitting of such an exceptional bluebird. And although we make a point of not naming the birds involved in our reintroduction project, we could not help ourselves with the Nanaimo Boy; he was too great a reoccurring character not to.

Now that our field season has wrapped up for this year, all that remains is to wait and wonder what antics the Nanaimo Boy and his offspring will get up to next season.

The Bring Back the Bluebirds partners are grateful for NABS support for this project, through Zeleny Fund grants.

Jemma Green was the 2014 Bring Back the Bluebirds Project Technician with the Garry Oak Ecosystems Recovery Team Society, and has since migrated back to the office where she coordinates planning for the 2015 breeding season. She is a conservationist with years of outreach, fundraising, stewardship, and wildlife rehabilitation experience with a variety of environmental organizations, including restoration work in endangered Garry Oak ecosystems. This past summer of working closely with bluebirds for an entire breeding season was a perfect fit for her professional focus on animal behavior, wildlife ecology, and conservation planning.
Robert Strickland of Florida is a professional photographer who generously allowed us to publish these two photos of Eastern Bluebirds. “I am a self-taught photographer. I have been in this business for over 30 years. My specialty is nature and wildlife. All of my photos are the result of many patient hours spent in the field, exploring, absorbing, seeing, and figuring out the world around me to be able to get an outstanding image.” You can see more of his outstanding images online at www.flickr.com/photos/rstrickland/

Gene Wasserman sent in image. “On holidays, our Kiwanis Club puts up flags in front of houses in our neighborhood. It took me several trips, over three days around the 4th of July, to ‘catch’ this photo.”

In early June, Mary Roen wrote: “When I monitored my bluebird trail this week, I found this dwarf bluebird egg. I have had some variation of egg size over the years, but in 26 years of bluebird monitoring, I have never found an egg this small! This nest box is along a rural road near Baldwin, WI. There were four normal eggs in the nest with the dwarf egg. I ‘candled’ it and there was no yolk. The size is 1 centimeter.”
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Where Do They Go?
Kevin Corwin

We all enjoy our summertime with the bluebirds. They show up in late winter and early spring, set out their territories, build their nests in our boxes, raise their kids—sometimes two or three broods in a summer—then they’re gone. We know that they generally “Go South,” but where exactly do they go? Certainly just about every one of us has pondered that question. Sometimes we northerners travel to southern climes and perhaps we see bluebirds there. But are they “ours”? Do our bluebirds travel great distances? If we live in an area where we continue to see bluebirds in the winter are those really our summer residents or have our birds gone south and been replaced in our vicinity by birds that summered somewhere else? Do the bluebirds that summer north of us travel similar distances as ours or do they “leapfrog” our bluebirds to reach more southerly locations? Some of us have mulled over these questions for many years, but outside of the occasional Band Encounter Report there’s never been a comprehensive scientific way to discover exactly where our bluebirds spend their winters.

For many years researchers have been able to monitor and track the year-round travels of the larger species of birds with a variety of data loggers (sometimes called geolocators), GPS, and satellite transmitters. Until recently those technologies were unavailable to scientists researching the smaller birds—the equipment was simply too large and heavy. Now that has changed. Data loggers, the simplest of the tracking devices, have been miniaturized to the point that researchers can now safely put them on birds such as bluebirds and discover where those birds are going in the winter. Here in Colorado a team of researchers led by Professor Michael Wunder of the University of Colorado at Denver is doing just that. Two years ago Jessica Fish, a graduate student working under the tutelage of Dr. Wunder, started putting data loggers on Mountain and Western Bluebirds from several areas along the Front Range (eastern slope) of the Rockies as part of her graduate research. Some of the initial batch of loggers have been recovered and are being analyzed; meanwhile more loggers are being deployed as funding and opportunities to install them become available. Perhaps in a couple of years we will have a much clearer picture of where “our” bluebirds go.

As this project evolved many questions arose:
• Is anyone else out there doing similar work with bluebirds in other states and provinces?
• Are any other NABS Affiliates working with researchers the way the Colorado Bluebird Project is?
• Would researchers in other locales be interested in sharing information or working cooperatively?
• What better place to find answers to these questions than the NABS journal?

So here’s the reason you’re reading these words today: We’d like to get answers to these questions and the researchers in Colorado are interested in the possibility of working with other scientists on the migration of Western and Mountain Bluebirds. If your Affiliate is involved in any such studies we’d like to hear from you. Let us know what your projects entailed, how long they’ve been in progress, what the driving force is behind them (grad student project, Affiliate-driven project, etc.). You can contact me at CBPKevin@aol.com with your initial questions and/or information. Once we’ve established that line of communication we can put the scientists and researchers in touch with each other to do the heavy lifting. Thanks!

Kevin Corwin is Program Coordinator of the Colorado Bluebird Project, which is a program of the Audubon Society of Greater Denver and a NABS Affiliate.

Can you help answer these questions???
Why Not Help Bluebirds While You Shop?
Bet Zimmerman Smith

There are plenty of reasons to shop and do business locally. For example, local businesses generally have a much smaller environmental footprint than big box stores, they stock locally made or grown items, quality is often better, and they care about the community. Small local businesses also offer diversity and character you won’t find in a chain store. All of the 100 nestboxes on my bluebird trail were crafted by small businesses or bluebird societies.

However, sometimes it makes sense to buy certain items from a large store, due to price, convenience, or selection. One of the largest online stores is Amazon.com, which actually started out as a small business in a garage. This multi-billion dollar business is doing pretty good now. And last year, Amazon.com introduced a painless way for their customers to do good, too. You can make a small contribution to U.S. nonprofit organizations like the North American Bluebird Society (NABS) by shopping through AmazonSmile.

AmazonSmile is a simple and automatic way to support your favorite charitable organization when you shop, at no cost to you. It’s the same shopping experience. The only difference is that every time you buy an eligible product, Amazon donates 0.5% of its purchase price to the charity of your choice. So for every $100 you spend through Smile.amazon.com, they will donate 50 cents to the charity of your choice.

To shop at AmazonSmile, just go to Smile.amazon.com from the web browser on your computer or mobile device. (You may also want to bookmark AmazonSmile to make it easier to always start shopping at AmazonSmile.) You will be given the option to select the recipient charity of your choice. There are over a million organizations to choose from, and NABS and many of our affiliates are listed. You can pick NABS by typing “North American Bluebird Society” in the search box.

100% of the donation amount goes directly to the charity you choose. Tens of millions of products on AmazonSmile are eligible for donations. (Items not currently eligible are Subscribe and Save, and certain digital products like mp3s and video content.) Amazon’s privacy policy indicates they do not share individual customer information with the charitable organizations. And to top it all off, there’s no upper limit to the amount Amazon will give away.

Offering this option is probably motivated, at least in part, by their desire to make their customers feel good about shopping at Amazon. And they get the tax deduction. But you still get to do some good. Of course, if people donate less because they feel like

Next time you shop at Amazon.com, start at Smile.amazon.com. You will be given the option to select a charity to receive a donation of 50 cents for every $100 you spend. Choose “pick your own charitable donation.” Type “North American Bluebird Society” in the box. Hit “Search” and then “Select.” Sign up today! You can change your designated charity whenever you like. Alternatively, go to http://smile.amazon.com/ch/52-1118450

The newest addition to my trail was a Peterson box crafted by Steve Smith of Ned’s Nesting Boxes. I picked it up at the 2014 Missouri Bluebird Society conference. Conferences are a great place to buy unique, homemade goodies.

It’s not much, but it could add up, since Amazon has 244 million active customers.

Bet Zimmerman Smith

Bluebird | Fall 2014

www.nabluebirdsociety.org
they already “gave at the office” while shopping at AmazonSmile, charities could suffer. Naturally, you can always donate directly to the North American Bluebird Society, and U.S. residents can benefit from the tax deduction.

Donations of any amount make a big difference to a small organization like NABS. Your contributions help fund the publication you’re reading right now. They enable us to develop and distribute educational materials, support the annual conference, subsidize research programs targeted at learning more about our native cavity nesting birds, and much more. So please consider donating to NABS directly, or indirectly by selecting the North American Bluebird Society, or one of our affiliates, as your charity of choice when you shop at Amazon.com. Your generosity will help fill the skies with blue.

Bet Zimmerman Smith is a NABS Lifetime Member and a member of the Board of Directors, and maintains the educational website Sialis.org, and a 100-nestbox trail in northeastern Connecticut.

State of the Birds 2014: Conservation Works

Each year, a coalition of conservation organizations and government agencies publishes a State of the Birds report. This year’s report highlights two facts: conservation efforts work, but more conservation efforts are needed. The forests that cavity-nesters rely upon are an example. According to the press release, “The creation and preservation of large swaths of forests through public-private partnerships in the Appalachian Mountains and the Northwest has helped declining forest-dependent species such as the Golden-winged Warbler and the Oak Titmouse. Efforts like this are essential, as forest-dependent birds have declined nearly 20 percent in the western U.S. since 1968 and 32 percent in the East.” Clearly, more work is needed to protect cavity-nesting birds; the report outlines key steps that must be taken.

Released with the report are two lists: the Red Watch List (species of the highest conservation need) and Yellow Watch List (species of high conservation need). Few cavity nesters appear among the Red List species—just the endangered Ivory-billed and Red-cockaded Woodpeckers. Unfortunately, nine species have landed on the Yellow List: Flammulated Owl, Whiskered Screech-Owl, Lewis’s Woodpecker, Red-headed Woodpecker, Arizona Woodpecker, Gilded Flicker, Mexican Chickadee, Oak Titmouse, and Prothonotary Warbler. In addition, the Chimney Swift (clearly a cavity nester; see page 26) is one of 33 common species in steep decline.

The full report is available online at www.stateofthebirds.org

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Thank you for supporting the conservation of bluebirds and other native cavity nesters!

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Stocking the Pantry: Providing Sustenance for Nesting Birds
Lee Pauser

Since I began monitoring a small trail of nestboxes in 2002, I’ve been increasingly perplexed as what I could do to increase the fledge rate for the different species that grace my nestboxes. Too often upon a visit to a box one or more nestlings were found dead whereas during my previous visit all appeared well. I quickly began to suspect the lack of sufficient quantities of food as a major cause of nestling losses due to starvation and even abandonment. The disappearance of eggs and nestlings are losses for which I am also concerned, but for this article I want to present the extent to which I have tried augmenting the food supply to assist nesting species, and particularly the Western Bluebird. My efforts are especially relevant in a habitat where the food source normally declines as the nesting season progresses.

**Elderberries for Western Bluebirds**

During early June of the 2009 season I took note of ripening elderberries, and began cutting clusters of berries from the bushes. I attached these clusters to the top of nestboxes as shown in the photo. Numerous times after rehanging a box I witnessed adults eating a few berries, and then taking berries inside the box to feed their nestlings.

Upon my next visit, I found that the berries were gone from about half of the boxes. Furthermore, when the nestlings had fledged, the inside walls of the nestboxes were stained purple from the berries the nestlings had been fed.

For the other half of the boxes that had untouched berries, I assumed that either the adults didn’t recognize the berries as a food source, or that they had other preferable food sources available.

**Mealworms for Western Bluebirds**

In an effort to assist nesting bluebirds before the elderberries ripen, I began experimenting with providing the adults mealworms. My first efforts were not successful. Live mealworms were always found later to be dead and untouched. Canned mealworms attracted hornets so their use was immediately discontinued. I had read that adult bluebirds need to be taught that mealworms are a source of food, but with my having over 370 bluebird boxes the amount of time that I could spend at a box to train the adults was limited.

So, beginning in March of the 2014 season, I began putting some dried mealworms inside boxes where the female bluebird had laid one or more eggs to “train” the adults. The training worms were placed on the outside edges of the nest (not in the nest’s cup). In all cases the training worms were gone upon my next visit unless the worms had slipped down into the nest out of reach. I repeated this training during the next several visits. Having done this, I attached a can with several small holes in the bottom for drainage low on the front of the box. Besides providing more training mealworms on the nest inside the box, mealworms were also placed in the can on the outside of the box, and spritzed with water to semi-rehydrate them. If the mealworms in the can were gone upon my next visit, I discontinued providing training worms. I gradually increased the amount of mealworms being provided with each visit during which the eggs hatched, and nestlings grew with the most mealworms being provided.
provided when the nestlings were 14 plus days old.
As with providing elderberries, numerous times after re-hanging a box I witnessed adults eating a few worms, and then taking worms inside the box to feed their nestlings. I did not intend to replace their regular insect diet with mealworms, but rather to supplement their diet, and increase their fledge rate.

Upon witnessing the initial success, I ramped up the effort and by early June was providing mealworms to all bluebirds. During the 2014 season I experienced 168 Western Bluebird broods of which mealworms were left at a total of 149 boxes with some boxes bearing second clutches. During subsequent visits to the boxes, I found that about 95% of the time the mealworms were gone. For the 5% that ignored the worms, the adults apparently either failed to recognize the worms as a food source despite having gone through the training phase, or they found their existing food source to be adequate and preferable.

Mealworms for Ash-throated Flycatchers
Due to the success with bluebirds, using the same techniques mentioned above I provided mealworms to Ash-throated Flycatchers in 17 boxes and, for the first season ever, 100% of my hatchlings fledged. The flycatchers love mealworms even more than bluebirds—the worms were always gone.

Some Cautions
These two techniques to supplement the bird’s diet are not a magical solution guaranteeing a 100% fledge rate, and I need to inject some caution as there are downsides to this effort. The effect of using one or both techniques should be monitored to ensure that their use doesn’t have a negative effect. The downsides include:

1. Consuming too many mealworms is bad for the birds as it depletes calcium from their bodies. Bet Zimmerman Smith of sialis.org indicated that if one feeds only 15–20 worms per bird per day it shouldn’t be a problem, but with greater numbers you should supplement their diet with calcium as described on her web page http://www.sialis.org/feeder.htm#cal. This method basically coats the worms with calcium carbonate or calcium citrate powder.
2. A can mounted on the front of the box could be a perch for predators, and it can be moved to the side of the box if there is a perceived problem.
3. The mealworms can attract hornets. If hornets are a problem, try not spritzing the worms with water to lessen the attraction, or remove the can and place the mealworms inside the box. Lastly, try providing only elderberries.
4. Who’s eating the pantry’s food? I hope the box’s adults and nestlings are, but that’s not always the case. However, even if the resident adults consume only a portion of the food, they are still being helped.

What’s the upside of doing this? Had I not provided one or more of these supplements, I’m convinced that my losses would have been higher, especially during California’s continuing drought.

Mission Impossible
I’ll inject a little background on the “full pantry” box pictured above with worms and berries which offers proof that it is difficult, if not impossible, to fledge every nestling. The Western Bluebird adults that chose the box lost their first clutch of four nestlings to a Gopher Snake—I was expecting to see four nestlings when I opened the box, but instead found the snake coiled up inside the box, and the nestlings
absent. I cleaned the box out, and in less than two weeks another nest appeared followed by four eggs which hatched. This second clutch all fledged. Purple stains are evident on the inside walls of the box indicating the nestlings had been fed elderberries, and several mealworms adorned the flattened nest.

In closing I want to express a special thank you to Chuck Wade for his constructive comments on this article.

From Lee: “I and Janna (my avid birder spouse) live in San Jose, California. I’m not a birder so I tell folks that I raise birdies so she has something to watch. We are members of NABS and the Santa Clara Valley Audubon Society (SCVAS), and I have been monitoring nestboxes since 2002. The first trail consisted of 12 bluebird nestboxes, and I’ve since expanded using six different box types totaling 446 boxes as of the moment. I’ve been blessed having had 16 different species fledge from my boxes.”

One Dwarf Egg after Another
Ken Murray

I have monitored nestboxes for 30 years in Jasper County, located in northwestern Indiana. My trail at the present time consist of 75 boxes at 45 sites. I’ve found three dwarf eggs in the past but this year changed that number. The picture shows three pea size and one small egg all laid in the same box. The fifth egg (far right), was an infertile one salvaged from another nest for size comparison.

April 29 Activity started in this nestbox with a complete nest
May 8 First pea-sized egg
May 11 Removed egg
May 16 New nest constructed on top of original one
May 22 Second pea-sized egg
May 25 Removed egg and nest, nest was damp
June 6 Complete nest
June 13 Third pea-sized egg
June 17 Removed egg
June 22 Small egg laid

June 29 Yea! One normal-sized egg laid. I removed small egg because it was buried.
July 6 Three normal eggs
July 15 Eggs hatching
July 22 Three healthy babies
Aug 3 Three fledged
Aug 12 Four normal-sized eggs scheduled to hatch Aug 24th
Aug 26 Four babies
Sept 3 All four missing, nest undisturbed. Predator?

I removed the eggs because this female always added nesting material to the nest and covered up the small eggs.

Ken Murray of Rensselaer, Indiana, is a member of the Indiana Bluebird Society and NABS.

Editor’s note: For an in-depth examination of the causes of dwarf eggs, see Bob Peak’s article in the Summer 2013 issue of Bluebird.
Aerial insectivores—birds that feed on flying insects—are showing steep declines in the United States and Canada, according to data from the North American Breeding Bird Survey and other population estimates. Experts say the sharpest downturns have been taking place in northeastern North America, where population estimates of Barn Swallow, Bank Swallow, Chimney Swift, and Common Nighthawk are down by more than 70 percent since the mid 1970s.

Many other species that feed by plucking insects from the sky, including Purple Martin, Cliff and Northern Rough-winged Swallows, Olive-sided Flycatcher, Eastern Wood-Pewee, and Eastern Kingbird, are also declining sharply. In the last two decades, all of these birds have declined by more than half in Canada, according to Jon McCracken, Director of National Programs at Bird Studies Canada.

No one knows exactly what is causing these declines, but McCracken says it is probable that several changes are involved. Species such as Chimney Swift and Barn Swallow may have been affected by the fact that there are fewer open chimneys and barns to nest in, notes McCracken. Other species may also decline as thick forests fill the abandoned farmlands often used by open-country foragers.

But experts like McCracken say it is likely that the leading cause of these declines will be found up in the sky, which he calls an “ecosphere of what is essentially ‘aerial plankton’... flying in the airspace above us.” Scientists do not know much about the status of flying insects found over North America, but it has long been known that bird populations respond when the status of this “plankton” changes.

“It’s not unreasonable to suspect that aerial insectivores are declining, at least in part, as a result of a change in the abundance of their food supply,” wrote McCracken in Connecticut Audubon’s State of the Birds 2013. If this is what is happening—and that has not been proven—McCracken and many of his colleagues say the next step will be finding out why. Climate change could be affecting both the emergence of insects that some aerial insectivores rely on, as well as the timing of these emergences. The widespread use of pesticides on farms could be doing damage as well.

The American Bird Conservancy is a 501(c)(3) nonprofit organization whose mission is to conserve native birds and their habitats throughout the Americas.

This article (excepting the table below) originally appeared in the October 2013 issue of Bird Calls, the newsletter of the American Bird Conservancy. It is reprinted here with permission.

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North American population trends for cavity-nesting aerial insectivores. Values represent the average percent change per year over the time period indicated.
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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
The Ivory-billed Woodpecker

John James Audubon

Editor’s note: This summer marked the 100th anniversary of the death of the last Passenger Pigeon. We don’t know when (or even if) the last Ivory-billed Woodpecker passed, adding this grand species to the sad ranks of the extinct. The great artist John James Audubon was fortunate in that he was able to spend considerable time observing the species. The following account, reprinted in an abridged from from his Ornithological Biography (published in 1831), gives us a glimpse into this spectacular species, and all that we have lost by allowing it to go extinct.

I have always imagined, that in the plumage of the beautiful Ivory-billed Woodpecker, there is something very closely allied to the style of colouring of the great Vandyke. The broad extent of its dark glossy body and tail, the large and well-defined white markings of its wings, neck, and bill, relieved by the rich carmine of the pendant crest of the male, and the brilliant yellow of its eye, have never failed to remind me of some of the boldest and noblest productions of that inimitable artist’s pencil. So strongly indeed have these thoughts become ingrained in my mind, as I gradually obtained a more intimate acquaintance with the Ivory-billed Woodpecker, that whenever I have observed one of these birds flying from one tree to another, I have mentally exclaimed, “There goes a Vandyke!”

The flight of this bird is graceful in the extreme, although seldom prolonged to more than a few hundred yards at a time, unless when it has to cross a large river, which it does in deep undulations, opening its wings at first to their full extent, and nearly closing them to renew the propelling impulse. The transit from one tree to another, even should the distance be as much as a hundred yards, is performed by a single sweep, and the bird appears as if merely swinging itself from the top of the one tree to that of the other, forming an elegantly curved line. At this moment all the beauty of the plumage is exhibited, and strikes the beholder with pleasure. It never utters any sound whilst on wing, unless during the love season; but at all other times, no sooner has this bird alighted than its remarkable voice is heard, at almost every leap which it makes, whilst ascending against the upper parts of the trunk of a tree, or its highest branches. Its notes are clear, loud, and yet rather plaintive. They are heard at a considerable distance, perhaps half a mile, and resemble the false high note of a clarionet. They are usually repeated three times in succession, and may be represented by the monosyllable pait, pait, pait. They are heard so frequently as to induce me to say that the bird spends few minutes of the day without uttering them.

The Ivory-billed Woodpecker nestles earlier in spring than any other species of its tribe. I have observed it boring a hole for that purpose in the beginning of March. The hole is, I believe, always made in the trunk of a live tree, generally an ash or a hagberry, and is at a great height. The birds pay great regard to the particular situation of the tree, and the inclination of its trunk; first, because they prefer retirement, and again, because they are anxious to secure the aperture against the access of water during beating rains. To prevent such a calamity, the hole is generally dug immediately under the junction of a large branch with the trunk. It is first bored horizontally for a few inches, then directly downwards, and not in a spiral manner, as some people have imagined. According to circumstances, this cavity is more or less deep, being sometimes not more than ten inches, whilst at other times it reaches nearly three feet downwards into the core of the tree. The average diameter of the different nests which I have examined was about seven inches within, although the entrance, which is perfectly round, is only just large enough to admit the bird.

Both birds work most assiduously at this excavation, one waiting outside to encourage the other, whilst it is engaged in digging, and when the latter is fatigued, taking its place. I have approached trees whilst these woodpeckers were thus busily employed in forming their nest, and by resting my head against the bark,
could easily distinguish every blow given by the bird. For the first brood there are generally six eggs. They are deposited on a few chips at the bottom of the hole, and are of a pure white colour.

The Ivory-bill is never seen attacking the corn, or the fruit of the orchards, although it is sometimes observed working upon and chipping off the bark from the belted trees of the newly-cleared plantations. It seldom comes near the ground, but prefers at all times the tops of the tallest trees. Should it, however, discover the half-standing broken shaft of a large dead and rotten tree, it attacks it in such a manner as nearly to demolish it in the course of a few days. I have seen the remains of some of these ancient monarchs of our forests so excavated, and that so singularly, that the tottering fragments of the trunk appeared to be merely supported by the great pile of chips by which its base was surrounded. The strength of this Woodpecker is such, that I have seen it detach pieces of bark seven or eight inches in length at a single blow of its powerful bill, and by beginning at the top branch of a dead tree, tear off the bark, to an extent of twenty or thirty feet, in the course of a few hours, leaping downwards with its body in an upward position, tossing its head to the right and left, or leaning it against the bark to ascertain the precise spot where the grubs were concealed, and immediately after renewing its blows with fresh vigour, all the while sounding its loud notes, as if highly delighted.

This species generally moves in pairs, after the young have left their parents. The female is always the most clamorous and the least shy. Their mutual attachment is, I believe, continued through life. Excepting when digging a hole for the reception of their eggs, these birds seldom, if ever, attack living trees, for any other purpose than that of procuring food, in doing which they destroy the insects that would otherwise prove injurious to the trees.

I have frequently observed the male and female retire to rest for the night, into the same hole in which they had long before reared their young. This generally happens a short time after sunset.

When taken by the hand, which is rather a hazardous undertaking, they strike with great violence, and inflict very severe wounds with their bill as well as claws, which are extremely sharp and strong. On such occasions, this bird utters a mournful and very piteous cry.

Innovative Approach to Studying Swallows

The genus Tachycineta comprises nine species of swallow, including North America’s Tree Swallow and Violet-green Swallow. These nine species can be found from northern Alaska all the way down to Tierra del Fuego at the southern tip of South America. A novel collaborative research project called Swallows of the Americas (Golondrinas de las Americas in Spanish) brings together scientists studying the variation in swallow breeding biology and life history throughout that range. One trait of these swallows that simplifies studying them: they are all cavity nesters, so they will accept nestboxes provided by the researchers. The nestboxes provide easy access to nests, which can yield a treasure-trove of information—a recent scientific publication analyzed a whopping 16,000 nest records from the project. To learn more, visit http://golondrinas.cornell.edu/

Federal Grant to Aid Endangered Woodpecker

In early September, the U.S. Fish & Wildlife Service announced the awarding of $34 million in state grants through the Cooperative Endangered Species Conservation Fund. Of note, the state of North Carolina will receive nearly $1.1 million to support the acquisition of up to 1,761 acres of longleaf pine habitat in the Sandhills region of the state used by the endangered Red-cockaded Woodpecker. Acquisition, restoration, and protection of this property will promote connectivity among woodpecker groups to expand managed areas in and around the Fort Bragg and Camp Mackall woodpecker populations, and throughout the North Carolina Sandhills.
**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 email them to NABSeditor@gmail.com or mail them to NABS Editor, 5405 Villa View Dr. Farmington, NM 87402. Let’s see what bluebirds you can find!

Tena Taylor reports that “We recently took a wonderful motorcycle trip to Utah, Colorado, and many points in between! The Bluebird Café was located near Twin Pines, Utah.” No report on the fare, as they didn’t eat there. “It was an expresso/coffee/gift shop and we were looking for serious food! They very sweetly directed us about a mile up the road to a wonderful restaurant.”

No information accompanies this image from the San Diego Air and Space Museum’s archives. Anyone out there know anything about stunt pilot Bob Fowler and his plane, “Bluebird”?

---

**CHEER**

Judith Moffett

Picture a group of cheerleaders performing their acrobatics as they chant the following:

Cavity nesters hatch out twice,
Once from the egg,
Once from the cavity—
Bluebird, house wren, yellow-bellied sapsucker,
Once from a peck hole
Once defying gravity!
Boom chicka boom chicka
Pileated woodpecker
Great crested flycatcher
Chickabiddy chickadee:
Nuthatch, chimney swift, wood duck, screech owl,
Once from a peck hole
Once from a cavity,
Brown creeper, saw whet,
Red-headed woodpecker,
Cavity nesters
Hatch out
Twice—
Bufflehead, elf owl,
Tree swallow, common flicker,
Born once, born again, never born thrice;
Purple martin
Turkey vulture
Boom chicka ricka chicka
Owls wrens woodpeckers
Tufted tit-
Mice,
Once from the eggshell
Once defying gravity
Cavity
Nesters
Hatch out twice!
Research Review
A Summary of Recent Scientific Research on Bluebirds and Other Cavity Nesters
Scott W. Gillihan

What’s That You Say? The Messages of Feathers
Much scientific evidence supports the idea that the blue coloration of male bluebirds sends a message to other males: the darker and richer the color, the stronger and healthier the male. This message is important during competition for mates and nest sites because it can help males decide whether or not to fight a particular rival, and how vigorously to fight. But what about the chestnut-colored breast? Does that send any messages to other males?

Bluebird researcher Geoffrey Hill and his student Austin Mercadante used colored markers and hydrogen peroxide to darken or lighten blue feathers of the back, wings, and tail, and chestnut feathers of the breast, of male bluebird taxidermic mounts. The mounted birds were placed near the nestboxes of territorial males, and their reactions were recorded.

As expected, the territorial males were more aggressive toward the models with darkened blue feathers—the darker blue sends the message, “I’m fit, I’m tough, and I’m here to take your girlfriend.” But the territorial males were indifferent toward changes in intensity of the breast color—models with darker breast feathers were no attacked any more aggressively than those with pale breast feathers. Apparently, the chestnut coloration sends messages about the bird’s sex (males have darker chestnut coloration) and age (young birds have a spotted breast), but nothing about fitness.

Thus, a territorial male who confronts another bluebird in his territory looks first at the breast: a pale or spotted breast means the intruder is either a female or a juvenile, and not a threat. But if the breast is chestnut colored, which indicates an adult male, the territorial male next looks at the blue feathers: dark blue means the intruder could be a strong rival who will attempt to take the female and/or the territory, so the territorial male will fight him to attempt to drive him away.


Woodpeckers and Nuthatches Control Invasive Pest
Bluebird enthusiasts are all-too familiar with the disastrous ecological consequences of introducing non-native species (I’m looking at you, House Sparrow). Sometimes the native species have no defense, such as when domestic cats are introduced to an island with flightless birds. But other times, native species lead the charge against the intruders.

Such is the case with the emerald ash borer, a small insect that was inadvertently brought from its native Asia to Michigan in the 1990s. It has been spreading across the Great Lakes region ever since, wiping out the native ash trees as it goes. Enter the native woodpeckers and nuthatches—they love a good juicy beetle larva, and they’ve developed a taste for emerald ash borers.

A study in Ohio found that Downy, Hairy, and Red-bellied Woodpeckers, and White-breasted Nuthatches, removed as much as 85% of emerald ash borers in a given tree. The birds focused their attention on ash trees, and especially on trees with dying canopies (indicating infestation by the ash borer). The authors conclude that such heavy predation by birds might slow the spread of the emerald ash borer. They suggest that landowners and land managers could help the birds by retaining standing dead trees (snags) or by installing nestboxes if snags must be removed.

Chimney Swifts Return to Tree Cavities

The Chimney Swift’s name is really a misnomer. It wasn’t until the second half of the 1600s that the species started taking up residence in chimneys; for most of its long evolutionary history, it nested and roosted in cavities in very large trees. Man-made chimneys offered an attractive alternative, especially as forests were cleared and the very large trees disappeared, and Chimney Swifts made the switch.

Unfortunately, now it’s the chimneys that are disappearing as industrial practices change. This couldn’t come at a worse time for the Chimney Swift—its populations, like those of other aerial insectivores, are declining for reasons that are largely unknown. To try to reduce those declines, various government agencies in Canada and the U.S. have designated the species as a high priority for conservation actions.

The birds themselves are pointing the way for conservation: they are returning to their evolutionary roots by once again taking up residence in cavities in very large trees. These cavities are often created by heart rot in old trees, and especially when the top of such a tree is broken off by strong winds, creating a large chimney-like cavity. Additional cavities are created by Pileated Woodpeckers as they form their own nesting or roosting cavities.

Protecting very large trees within the range of Chimney Swifts would go a long way toward helping the species’ populations rebuild. Private and public land managers are encouraged to preserve all trees that are at least 0.5 m (~20 inches) in diameter at chest height, especially species known for growing large such as yellow birch, cypress, and white pine.

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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 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 working together in a partnership in international bluebird conservation. No cost is associated with affiliating with NABS. Your affiliated organization will be 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 send correct information to Phil Berry at pbsialia@gmail.com and info@nabluebirdsociety.org.

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