



# The Mountain Warbler

Newsletter of the Highlands Plateau Audubon Society – December 2015

Cashiers – Franklin – Highlands – Scaly Mountain

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*The mission of the Highlands Plateau Audubon Society is to provide opportunities to enjoy and learn about birds and other wildlife and to promote conservation and restoration of the habitats that support them.*

*From the President . . .*

## **Nest box lessons from 2015**

Thanks in large part to many of you, we have completed our first year of experimenting with nest boxes as a chapter. I know you have enjoyed observing the avian goings on at your nest boxes, sometimes even rescheduling human activities when baby birds were about to emerge. Our well-identified boxes have made a community ‘statement’ that I hadn’t anticipated when we first began installing boxes last fall...we have deployed our own diminutive HPAS version of “See Rock City.”

As you will recall, all of our boxes were installed in pairs, one box with the standard 1 ½” diameter entrance hole and the other with a smaller 1 1/8” diameter entrance hole. All boxes are of almost identical construction and mounted on ¾” diameter galvanized conduit, approximately 5 feet off the ground. One of the initial questions we hoped to answer was whether or not offering nest boxes with two entrance hole diameters would provide obvious benefits to cavity nesting birds, specifically those smaller species that might otherwise be out-competed by larger bird species for boxes with the larger-sized box entrances. Smaller diameter nest entrances significantly enhance the numbers of nesting Brown-headed Nuthatches elsewhere in NC (a species not common on the Highlands Plateau) that can’t compete with Eastern Bluebirds for the nest cavities with larger diameter nest entrances. And we wanted to know if perhaps a similar phenomenon might occur with our local cavity nesting species. We were wondering, for example, whether we might encounter a surge in observed nesting of the Red-breasted Nuthatch, a small, more northerly mountain species that most of us haven’t experienced using traditional, large-holed nest boxes, at least in our area. At least for this season we ‘scored’ nests by presence or absence of complete nests built in a box, not for example by how many eggs were laid, or how many hatchlings might have survived, etc.

Looking back on our first season of nest box results, what are some of our preliminary observations? William McReynolds has had a first shot at analysis of the data that Michelle Styring and Kyle Pursel helped to compile.

Firstly, hats off to all of you who provided data on your nest boxes! By the time Michele was finished, 100% of nest box results were accounted for! Some of you obviously provided more extensive notes and accounts (and perhaps had more fun) than did others, however, we clearly had an excellent response from our human landlords...Bravo!

The nest boxes were in high demand by nesting birds. Overall, the 100 boxes accounted for 118 nests; several boxes hosted more than one nest. Only 15 boxes (15%) remained empty of nesting materials throughout the spring and summer, or to look at the ‘glass half full’, 85% of all boxes were occupied at least once.

This high occupancy rate surprised me somewhat considering that many of these boxes were in what might be considered relatively mature forest habitat that should contain naturally occurring snags and potential nest cavities. So perhaps one of the most significant findings is that even in what appears to be good natural habitat, high-quality nesting cavities are in high demand. This makes me wonder if suitable natural nesting cavities might be a limiting factor for forest dwelling, cavity-nesting birds in general? If suitable nesting

cavities are a limiting factor in forest bird cavity nesting success, one begins to wonder how many nest boxes per acre would be required to begin to reach nest cavity saturation? Yikes!

Carolina Chickadees (CACH) were our most frequent nesters: 36 nests in smaller entrance boxes and 32 in the larger entrance boxes for a total of 68 nests. As percentages, 65% of small entrance boxes contained CACH nests compared to 51% of boxes with larger entrances for a total of 58% of all nests accounted for. CACH tended to nest early in the season and although we did see CACH nests which were layered on top of other CACH nests, it was not possible to determine from our observations whether these stacked sets of nests represent two broods from the same set of parents, two broods from two separate sets of parents, or perhaps a second nest building after an unsuccessful first nest attempt. The CACH nests were very easy to identify as thick moss nests capped with a few strands of some other fuzzy material.

Whether Carolina Chickadees actually have a slight preference for nest cavities with smaller holes (as perhaps suggested by the numbers above) awaits further analysis because although CACH nesting percentages were higher in small diameter nest boxes, it is quite likely that part of this result is due to some level of competition with Eastern Bluebirds (EABB) for boxes with larger hole diameters. Nineteen Eastern Bluebird nests appeared in the 100 nest boxes, all 19 appearing in the boxes with the larger entrance holes. The small entrances did function, as expected, as EABB excluders. It is noteworthy that, perhaps again as might have been expected, EABB nests were predominantly found in boxes that are proximal to open field areas. Eastern Bluebird competition for nest cavities in forested areas appears to be much less of an issue than what is experienced in more open Piedmont areas of NC. Like the CACH, many EABB nests were initiated early in the season (e.g., April), exploiting their presence as full year avian residents, however, EABB continued to build nests well into summer, perhaps as second (or more) broods, although whether these later nests represented double brooding was not verified. Bluebird nests were easy to identify as they were always built of pine needles or some equivalent, pine needle-like material.

A surprise to me was the nesting House Wrens (HOWR). House Wrens are not what I would normally consider particularly common birds on the Highlands Plateau, however, when it comes to utilizing nest cavities, they were our second most common species, following after CACH's. HOWR built a total of 29 nests (25% of all nests), 18 or 32% of all small diameter entrance nests and 11 or 17% of nests in the boxes with larger entrances. Although HOWR's appeared to exhibit a preference for the boxes with smaller entrances, like with the CACH, it might be necessary to factor in possible competition with EABB for boxes with larger entrance hole diameters before concluding that HOWR actively sought out boxes with small diameter entrances.

It was quite obvious that the HOWR nests appeared later in the season than did most of the CACH and many of the EABB nests; not uncommonly the HOWR nests were built on top of what appeared to be completed nests of other species. Presumably, the later arrival of HOWR reflects their status as breeding migrants that arrive from lower altitudes after the first round of CACH and EABB had already begun. On several occasions later in the season, dead chicks were encountered in HOWR nests for unknown reasons; one hypothesis is that by nesting later in the summer they may also have encountered high nest temperatures when boxes were exposed to hot afternoon summer sun. HOWR build very distinctive stick nests and may build more than one 'real' nest per pair; our figures for HOWR nests may be exaggerated by 'faux' nest structures.

What species did not utilize our boxes? We had only one Tufted Titmouse recorded as a nester species and this surprised me, especially since Tufted Titmice are a relatively common species at bird feeders and one that I frequently associate with artificial nest boxes. Likewise, we had nary a single White-breasted Nuthatch or Red-breasted Nuthatch utilizing boxes with either sized entrance holes this year. For accuracy of compiling data often based on nest structure type, it would be good in the future to make sure some of our observers (e.g., me especially!), who don't actually watch each nest to identify occupant species, learn to recognize Nuthatch and Titmouse nests in the absence of adult birds.

The strategy of installing nest boxes on metal conduit appeared very successful from the standpoint, as noted above, that we had overall very high box occupancy and only one, post-season encounter with a rodent (a mouse). However, perhaps there is something about a box on a metal post that isn't attractive to either Titmice or Nuthatches (??). It will be interesting to see if next season we observe any additional Titmouse or Nuthatch

activity.

As we began this project, we weren't sure what impact bears might have on our nest boxes. In the end, only a few boxes were compromised by bear activity, which consisted of bending over the conduit posts; these bent posts were easily replaced for the upcoming season. This bear activity was most notable around Highlands Falls Country Club and may be the result of one bear with an interesting expectation that birdseed should be associated with wooden structures set on metal posts.

So, to circle back to our initial question regarding entrance hole sizes, unlike in the Piedmont, it doesn't appear that within mostly forested mountain areas that entrance hole size is a critical factor for increasing nesting potential for smaller bird species, since presumably larger species, such as EABB, didn't appear to compete with smaller species in wooded environments. If you have property adjacent to large open areas, EABB may utilize boxes with larger diameter hole sizes and be excluded from boxes with smaller entrance hole diameters. It will be interesting to watch for possible future interactions between EABB and Tree Swallows in open areas (e.g., new boxes behind the Cashiers library). As we install additional boxes in and around the Franklin area we may see more in the way of obvious competition for boxes with large diameter entrance holes...we may even see Brown-headed Nuthatches using boxes in suitable pine habitat at lower elevations!

An especially noteworthy success of the HPAS nest box project has been the successful use of nest boxes as teaching tools at local elementary schools and at libraries. From all accounts, the nest boxes and their inhabitants have become quite the subject of real-life biologic interest! The HPAS ad-hoc nest box committee (Michelle Styring, George Kaye, William McReynolds, Kyle Pursel, our liaison with local schools, Ann Campbell, and I) are looking forward to continuing this project next season. Our boxes may even become 'sentinels' for observing possible changes in nesting species associated with climate change (e.g., is the HOWR just such a 'new' species on the Highlands Plateau nesting scene?). This next year we hope that we can interest a student(s) and faculty from local universities in helping to ask and answer more sophisticated questions as relate to micro-habitat nest box preference for individual species, and perhaps begin analysis of what factors contribute to successful avian nest box productivity. We would be thrilled if our matched set of well-documented, geo-referenced nest boxes can function as an accessible research resource for encouraging more young people to become involved with meaningful biological field studies.

*Russell Regnery*

## **Blue Ridge School farewell**

On a recent Thursday in October, 170 students, grades K-6, and 15 adults at the Blue Ridge School were given a parting presentation by Doris Mager aka The Eagle Lady. The students were thrilled to see up close the Great Horned Owl that Mager has cared for the last 34 years. They also saw an Eastern Screech Owl and learned something about its distinctive call.



**Doris Mager and a Great Horned Owl.**  
*By William McReynolds*

Mager gave heartfelt lessons on wild birds and other natural wonders including stories about the 80 Bald Eagles and numerous other birds of prey she has cared for over her 50 year career as a conservationist and bird advocate.

The still vigorous Mager celebrates her 90<sup>th</sup> birthday on October 25<sup>th</sup> and is moving to Washington State to be near family. "I'm not retiring," she says often. "There is too much work to be done."

True to form, the students were given a moving lesson about the beauty and wonder of raptors, such as how owls fly without making a sound. She also shared some of her best chestnuts about life: "Children, never lie," she told her rapt audience and "Always be proud of what you do in life."

The Blue Ridge school has had visits from Doris Mager many times over the last 20 years and this final visit ended in a fond farewell on both sides. This program was sponsored by the Highlands Plateau Audubon Society.

*Ann Campell*

## **Join the annual Christmas Bird Count**

One of our Chapter's most important annual activities will take place in December. This highly collegial event is both enjoyable and relevant to our mission of environmental and wildlife conservation. You do not have to be an expert birder to join in. If you have not participated in the Christmas Bird Count or CBC before, consider becoming involved this year on December 18.



### **Wild Turkey**

*By Ed Boos*

Every winter since 1900 the National Audubon Society has sponsored the CBC. Today, CBCs take place across the U.S., Canada, Latin America, and beyond. Last year's CBC involved over 2400 counting groups including over 60,000 individuals whose counts totaled over 68 million birds. These yearly bird counts feed what is perhaps the largest citizen science database in the world.

The cumulative bird counts are being used to specify winter bird distributions and the "climate space" in which many of our bird species exist. Last year, National Audubon released "The Audubon Report" focusing on 588 North American bird species and the likely impact of rising temperatures. A shocking 126 North American bird species are projected to lose 50% of their existing ranges to climate change by 2050; another 188 birds could lose half their current range by 2080. Like the canary in the mine, bird data from the CBC are being used to foretell our collective future.

Local species that are forecast to be pressured include Scarlet Tanager, Ovenbird, Canada and Black-throated Blue Warblers, Ruffed Grouse, Veery, and Wood Thrush. Beyond Western North Carolina, ten states could lose all of their state birds including Minnesota (Common Loon), Maryland (Baltimore Oriole), Louisiana (Brown Pelican), Vermont (Hermit Thrush) and New Hampshire (Purple Finch). Both the Bald Eagle and Golden Eagle are threatened.

The CBC provides important data on winter bird populations as well as a good time for socializing and birding here on the Highlands Plateau.

The Highlands Plateau Audubon Society will conduct our local CBC Friday morning, December 18 at 7:30 a.m. Binoculars and expert guidance will be provided. A chili lunch will be offered at the home of Bev and Hillrie Quin. Call Brock Hutchins (404-295-0663) for more information.

*William McReynolds*

## **Nantahala-Pisgah Forest Planning**

The US Forest Service (USFS) is currently revising its management plan for the Nantahala-Pisgah National Forests. Since the last forest plan was finalized over 20 years ago, our region and county have grown tremendously, and both are expected to continue to grow over the course of this new forest plan. This growth reflects a demand for living in a landscape where our green infrastructure ensures a high quality of life, and we need to protect those values through this forest plan.

The USFS has released its Wilderness and Wild & Scenic River Inventories. This is a very important step in forest planning because it identifies areas that have wilderness characteristics – and rivers that have wild and scenic characteristics – and determines whether those areas should be protected as such. These inventories are broad and inclusive by design, so the USFS is requesting public (that's us!) input to help determine if the

areas in the inventories truly do have Wilderness or Wild & Scenic characteristics. It is important to note that these inventories reflect only those areas that the Forest Service is evaluating for possible recommendation. This does not mean that all of the areas will be recommended for Wilderness or Wild & Scenic River designation. Only an act of Congress can designate Wilderness.

The Wilderness Society has developed a helpful chart with information about each area to help you make the case for better protection of these special places: <http://www.ncmountaintreasures.org/nantahala-pisgah-forest-plan-revision/>

And the USFS has a lot of information on their website, including presentations, mapping tools and the evaluation forms: <http://www.fs.usda.gov/detail/nfsnc/home/?cid=fseprd476345>

If you haven't already done so, it's time to speak up for our mountain treasures before the December 15<sup>th</sup> deadline.

*Michelle Ruigrok*

## **The 2015 Hawk Watch**

We had an abbreviated hawk watch on Whiteside Mountain this year due to bad weather conditions and scheduling problems for some key observers. Nevertheless, in just three days of observation over a four-day period from September 21st to the 24th, we observed 658 raptors from the top of Whiteside. As usual most were Broad-winged Hawks (640) but there were also seven other species seen including an Osprey which has not been seen for a couple of years.

Mark your calendar for next year around the 20th of September and join us on the mountain.

*Brock Hutchins*

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