# **NESTWATCH DIGEST**

### **NESTING SEASON 2017**

The CornellLab of Ornithology



### Thanks for another great year!

Pelcome to our annual report, featuring stories and data highlights from the 2017 breeding season. This was the first year that we had our mobile app available for recording nests, and the app received about 13% (4,101 nests) of the total annual data. We also bulk-uploaded 732 nest records last year. Altogether, we reached our highestever number of nest attempts submitted: 24,783 nest attempts, plus thousands of unused-but-monitored boxes. We were also glad to see that the number of participants grew by 20% in 2017.

On the science front, we fulfilled six external requests for data (for researchers not affiliated with Cornell), and three research papers were published in 2017 (see pages 4 and 6 for summaries of two of them). We also launched our new science communications blog in 2017. As you can see, it was a productive year!

Please enjoy—and share—this edition of the *NestWatch Digest*, and as always, we hope you'll join us again for the upcoming breeding season as a participant. It's guaranteed to bring exciting new discoveries right to your doorstep!

Cover: Pileated Woodpeckers by James McDonald Above right: American Robin by Jennifer Marutiak Below: Wood Ducks by Tamra Tiemeyer





*Focus on Citizen Science* is a publication highlighting the contributions of citizen scientists. This issue, *NestWatch Digest*, is brought to you by NestWatch, a research and education project of the Cornell Lab of Ornithology. The NestWatch project is made possible by the efforts and support of thousands of citizen scientists.

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#### Join NestWatch!

Anyone, anywhere, who finds a nest is welcome to join. Help scientists monitor nesting birds while you support bird conservation in your own community. To join, visit **NestWatch.org** and get certified as a nest monitor. Certification is free and ensures that nest monitoring activities follow our code of conduct designed to protect birds and their nests.



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## A Challenge for 2018

Find a New-to-You Species

#### BY ROBYN BAILEY, PROJECT LEADER

e were excited to see that the total number of species submitted in 2017 grew nearly 26% compared to the previous year. Was it because our new mobile app brought in some additional nests? Or is NestWatch gaining a foothold in new areas?

Whatever the reason, this growth is exciting! We want to try to beat this high-water mark this year by posing a challenge to NestWatchers: find a newto-you species in 2018. For some of you just starting out, this will be easy, as nearly all nests will be new. But for those of you who've been doing this for a few years, challenge yourself to find a nest type you know is around but haven't found before.

Those warblers, hummingbirds, vireos, and juncos that taunt you all summer, then turn up later with their young—can you find their nests? Make this the year to spend a little more time searching for clues. Maybe the Red-winged Blackbird that sings from the cattails, or the Song Sparrow that "barks" at you from the weedy creekside, or perhaps the neighborhood hawk that has eluded you for years will reward you this year for some time well spent outdoors, learning more about less-familiar nests.

And because challenges are fun, we're going to join you. We plan to rise to our own challenge and find something new (to us) to share with you. When you find your new species, be sure to tell us about it by uploading a photo to our **Participant Gallery**.





Regional variation in species diversity of the 2017 nest records. Darker shades represent more species diversity.





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## Nesting in a Warming Climate

### BY MORGAN W. TINGLEY, ASSISTANT PROFESSOR OF ECOLOGY & EVOLUTIONARY BIOLOGY, UNIVERSITY OF CONNECTICUT

lobal temperatures have risen about one degree Celsius over the past century, which has resulted in changes evident across the natural world. For birds, warming temperatures mean some species are migrating back earlier, changing the timing of breeding, or moving to live in cooler places. But what

impact might warming temperatures have on nesting, the most critical stage of a bird's life? Until recently, no one had investigated the potential impacts of warming on nesting at large spatial scales across a diversity of species.

This past November, my colleagues and I published the first such study in the prestigious journal, *Proceedings of the National Academy of Sciences*, and our novel results are possible, in part, due to the hard work of NestWatchers.

In our study, we analyzed the success or failure of 47,023 monitored nests from 110 North American species, all available thanks to NestWatch. With this incredible sample, we examined whether nests succeeded or failed at different rates during particularly hot or cold summers (i.e., anomalies). We found that these temperature anomalies were indeed correlated with nesting success, but only at the northern or southern edges of a species' breeding range.

This result is particularly fascinating: in the colder parts of a species' summer range, abnormally warm summers increase nest suc"In the colder parts of a species' summer range, abnormally warm summers increase nest success, but in warm southern parts of ranges, the same abnormally warm summers decrease success."



cess, but in warm southern parts of ranges, the same abnormally warm summers decrease success. So, while warming temperatures may be bad for birds in one part of their range, it may help birds in another part. The results show the consequences of staying put in a warming world and why many birds in North America are moving farther north.

But what about those birds that do stay put? In the second part of our study, we used long-term data from California to demonstrate that birds are now breeding 5–12 days earlier than they did a century ago, which potentially explains



why some bird populations have not moved their breeding range despite rising temperatures. By breeding earlier, nesting birds experienced average temperatures at least one degree cooler than they would have if they had not started nesting earlier; the difference corresponds to the approximate rate of warming that they have experienced during the same time period. In other words, by breeding earlier, they can keep their eggs and nestlings cooler, which may just offset the warming that has occurred.

Although shifting the timing of breeding is a mechanism birds use to cope with warming temperatures, it could be a temporary solution to a long-term problem. Birds time their reproduction to coincide with peaks in food availability, and if their food source does not respond similarly, a mismatch in food abundance and tolerable nest temperatures could occur. This is an ongoing area of study for me and my colleagues, and we are incredibly grateful to the thousands of NestWatchers who make our research possible. So from all of us, thank you for your time and efforts!

Socolar, J.B., Epanchin, P.N., Beissinger, S.R., and Tingley, M.W. 2017. Phenological shifts conserve thermal niches in North American birds and reshape expectations for climate-driven range shifts. *Proceedings of the National Academy of Sciences*, 114(49): 12976-12981. DOI:10.1073/pnas.1705897114



## **Investigating Invasives**

#### BY HOLLY FAULKNER, PROJECT ASSISTANT

Do invasive cavity-nesting bird species battle with your native species for access to a nest box? We know many of our participants have witnessed this competition, but what are the consequences at the continental scale? NestWatch is interested in finding out, and we made it our goal to investigate this year. While invasive species have been implicated in the decline of several native species, it is currently unclear how much they reduce nesting success of native cavity-nesting



birds in nest boxes. We are also interested in learning the percentage of nest monitors who are taking actions to exclude these non-native birds.

In spring 2018, we sent a survey to NestWatchers and other nest box monitors, asking for information about whether or not invasive species have "taken over" any of their native species' nests.

We also included a form at the end of the survey for participants to keep track of nest "takeovers" that they notice while monitoring during the 2018 season, and we'll send out a follow-up survey in autumn to collect this data.

With these data, we hope to be able to see how frequently nest takeovers are occurring, if there are differences in impacts across species, and how people respond to the issue. We'd like to thank everyone who has responded to our survey.

### Download the free NestWatch App today!







"Easy to follow step-by-step questions help you enter observations. It's so much nicer having the mobile app than having to enter into a computer."

-Ryan, Google Play



## Which Predator Guards Work Best?

#### BY ROBYN BAILEY, PROJECT LEADER

hen it comes to the best type of predator guard, it seems that everyone has an opinion or anecdote to share. Our **blog post** summarizing our formal research study generated more comments than any other post in the last year, so we decided to expand upon that post in this year's annual report. Our readers had lots of questions, and we want to clarify what the study does—and doesn't—suggest.



These four common types of predator guards were compared in our national study. Types A (cone baffle), B (stovepipe baffle), and C (entrance hole extender) were equally effective, while D (Noel guard) was somewhat less effective.



#### What We Found

Using NestWatch data from 24,114 nest records submitted from 2014-2016, we tested whether installing predator guards on nest boxes is an effective management technique. We also tested how different guard types compared to each other and whether or not multiple guards are any better than a single guard. We examined only the most common types of guards shown at left. We did not examine the so-called sparrow spookers, snake nets, wren guards, or other types of DIY solutions because we didn't receive enough reports about them (they are lumped together into an "other" category that includes greasing the nest box poles, among other things).

When we looked at all species combined, the nest survival data suggested a 6.7% increase in nest success for attempts in boxes with guards versus attempts in boxes without guards. That may not be the 100% protection that many people believe they're providing, but 7% is actually a large increase at the national level. However, all species did not benefit equally. The Western Bluebird stood out as a species for which a predator guard did not seem to make a difference. We're not sure why, but it could be that other factors (e.g., drought, insect supply) have more impact on their nesting success than do predators. Other species, such as the Carolina Wren, showed a 15.7% increase in nest survival when guarded!

Although all types of guards were correlated with improved nesting success (including "other"), birds nesting in boxes with cone-type baffles, stovepipe baffles, or entrance hole extenders (also called "wooden block hole guards") were most likely to result in successful nesting. The Noel guard did not rise to the top as a clear leader, although it is surely better than nothing. Additionally, birds nesting in boxes with multiple predator guards (such as a cone baffle and a hole extender) were more successful, on average, than birds nesting in boxes with only a single guard.

#### What It Means

The predator guard is indeed an inexpensive, passive, and effective way to increase the survival of offspring, especially with other factors being less under our control (e.g., weather, food supply). Most of the styles are pretty good. Our findings also show that small individual actions can create ripples <sup>§</sup> that amplify across the country when more birds fledge, increasing the number of birds that could  $\overline{k}$ potentially return in the spring. Nevertheless, predator guards may not increase a population in the long term. Some species may continue to decline despite high reproductive rates due to factors that are occurring in other parts of their life cycle, such as overwinter survival.

It took legions of NestWatchers monitoring 12,274 nest boxes (including unguarded boxes). to complete this study. Without you, large-scale studies like this would not be possible! As you can see from the Regional Roundup tables (pp. 8-13), overall nesting success for cavity nesters is exceptionally high, so don't worry if you don't have a predator guard on every box. Many people, especially newcomers just learning about nest boxes, may not have the resources to guard each and



A female Eastern Bluebird feeds her youngster through an extended nest hole entrance. Not all extenders are made of wood; some designs are made of metal or plastic. Extenders keep predators from easily reaching into the box.

every box. If you're providing nest boxes for rare or declining species, however, our results might motivate you to take that extra step of protecting a box. (Find out which birds are declining in your region using our **<u>Right Bird</u>**, **<u>Right House tool</u>** on our website.) Thank you to everyone who submitted data for this study. If you would like a PDF copy of the original research article, please send a request to nestwatch@cornell.edu.

Bailey, R.L. and Bonter, D.N. 2017. Predator guards on nest boxes improve nesting success of birds. *Wildlife Society Bulletin*, 41(3): 434-441. DOI:10.1002/wsb.801

"The value of these data is easy for me to recognize because I have so many bird boxes. Thank you for researching something I can really use!"

-Peggy Falk, NestWatch participant, on using data from Predator Guard study

## **Regional Roundup**

Highlights from the 2017 Season

#### BY ROBYN BAILEY, PROJECT LEADER

he 2017 nesting season was our biggest yet. At the time of writing, participants had reported 24,783 nest attempts by 247 species. Job well done, NestWatchers! In the pages that follow, you'll find data summaries from each region highlighting interesting trends and results.

Note that for calculations of nesting success, we can only use nests for which the nest fate was reported (another great reason to monitor a nest attempt



2017 NestWatch Season Totals

24,783 Nest Attempts 2,478 Participants 247 Species 80,243 Eggs 53,233 Fledglings



to its conclusion). We defined nesting success as the percentage of nests fledging at least one young. We only report results for species having a minimum of 10 nests with known outcomes per year. We used only successful nests to estimate average number of fledglings as a measure of productivity; therefore, average number of fledglings may exceed average clutch size in our regional tables. The "change" column indicates how 2017 nesting success was different from the average of previous years (1997-2016). This can help you interpret whether 2017 was a "good year" or a "bad year" for a species in your region, but it's not necessarily an indication of a long-term trend. Two arrows up or down signifies an increase or decrease of more than 10%. One arrow signifies an increase or decrease of 5–10%. No arrow is given for changes less than 5%, and an asterisk (\*) indicates insufficient data for a region.

Note that House Sparrows, which are a non-native species in North America, typically have extremely low nesting success across all regions. This reflects the fact that most NestWatchers manage invasive species in their nest boxes and does not reflect a natural nesting success rate (i.e., of unmanaged nests).

#### ALASKA AND NORTHERN CANADA: 9 NESTS

Rank	Species	2017 Total nests reported
1	Tree Swallow	3
2	American Robin	1
2	Black-capped Chickadee	1
2	Chestnut-backed Chickadee	1
2	Great Horned Owl	1
2	Northern Pintail	1
2	Red-necked Grebe	1



n the Southwest, Tree Swallows led the pack with a total of 880 nests reported. However, their relative, the Violet-green Swallow, claimed the highest nest success rate at a remarkable 91%-an increase over last year and good news for a species that has been experiencing population declines in many parts of the Southwest (particularly California, New Mexico, and Utah). The Violetgreen Swallow data reported to NestWatch have been decreasing over the last six years, even as participation has risen in the region.

Mourning Dove nesting success (65%) was nearly 20% higher than last year, although still quite close to the long-term average (63.1%). It appears to have been a good year for this granivorous species. Oak Titmouse, a species that is on several conservation watch lists, continued to have better-than-average nesting success, as was also the case in 2016. House Wren nesting success was up in every region.

Southwest region participants monitored an additional 242 bluebird nests (both Western and Mountain) compared to last year's numbers; however, nesting success for both species was slightly lower than it was in 2016. In general, the total number of all species' nests monitored in 2017 was up 12.5% over 2016 for the region.

> The earliest egg of the year for all regions was laid Jan. 12, 2017, in a Barn Owl nest in California!





#### **TOP-10 LIST: 3,032 NESTS REPORTED FOR ALL SPECIES**

		2017 Total nests	2017 Average	2017 Average	2017 Nesting	Previous nesting	Change from
Rank	Species	reported	clutch size	fledglings	success	success	previous
1	Tree Swallow	880	5.0	4.3	82.6	76.5	A
2	Western Bluebird	859	4.7	4.1	78.7	78.2	
3	Mountain Bluebird	614	4.7	4.3	72.4	79.0	A
4	Violet-green Swallow	79	4.4	3.8	91.4	75.1	AA
5	House Wren	69	5.1	5.5	89.2	78.0	AA
6	Mourning Dove	46	1.9	1.9	65.0	63.1	
7	Barn Owl	37	4.9	3.1	86.1	78.1	A
8	Bewick's Wren	34	4.2	3.8	88.5	85.4	
9	Ash-throated Flycatcher	34	3.8	3.7	86.7	77.8	A
10	Oak Titmouse	29	6.9	6.7	87.5	78.0	A

**Southeast and Gulf Coast Region** 



t was a great year for the wrens of the Southeast and Gulf Coast: Carolina, Bewick's, and House Wrens had nesting success rates greater than 80%. Eastern Bluebird nesting success in 2017 was on par with previous years at 78.6%, second only to the Central region. Tufted Titmouse also had a notably good year at an 85% success rate.

Northern Cardinals experienced a dip in success rate, with only about one in three nests succeeding. This makes 2017 the secondlowest year for cardinal nesting success (after 2015) for this region (see graph this page).

The total number of all species' nests reported in 2017 was up 17.5% over 2016 for the region.

Two NestWatchers shared the honor of recording the earliest egg-laying dates for Eastern Bluebirds. Both eggs were laid on Jan. 28, 2017, and both were in Texas!



NORTHERN CARDINAL BY RAISA KOCHMARUK

Northern Cardinal Nesting Success Rate Dips 100 90 Nesting Success (%) 80 70 60 50 40 30 20 10 0 2009 2010 2011 2012 2013 2014 2015 2016 2017 Year

Northern Cardinal nesting success was down in 2017 but not as low as in 2015.

#### **TOP-10 LIST: 4,947 NESTS REPORTED FOR ALL SPECIES**

Rank	Species	2017 Total nests reported	2017 Average clutch size	2017 Average fledglings	2017 Nesting success	Previous nesting success	Change from previous
1	Eastern Bluebird	3,164	4.3	3.7	78.6	73.7	
2	Carolina Chickadee	383	4.9	4.6	71.8	74.0	
3	Carolina Wren	226	4.4	4.0	80.7	72.2	A
4	Bewick's Wren	129	5.4	5.1	83.3	72.7	AA
5	House Wren	86	5.1	5.2	88.1	60.2	AA
6	Tree Swallow	83	4.7	4.2	76.7	80.6	
7	House Sparrow	75	1.8	*	7.2	26.6	AA
8	Northern Cardinal	69	2.6	2.6	35.3	52.2	AA
9	Tufted Titmouse	67	5.2	4.9	85.1	77.6	A
10	Northern Mockingbird	58	3.5	3.5	52.4	60.6	A

\*INSUFFICIENT DATA



As in the Southwest region, nesting success for the Violetgreen Swallow was markedly increased in 2017, at 92% (up 13% from last year). This species appears to be faring better in the Northwest than in the Southwest; however the population is declining in Oregon, according to the most recent Breeding Bird Survey data.

lative year, with 100% nesting success. Mountain Bluebirds enjoyed slightly better nesting success than Western Bluebirds in 2017 (85% compared to 73%). The Northwest Region boasts the highest nest success for Black-capped Chickadees (or any chickadee species!) across all of the regions, at 86%. The Northwest also had the biggest gains in number of nests reported, with a 28% increase. Great job!

House Wrens also had a super-







The Northwest had the highest proportion of hatching eggs of all the regions (all species combined; excludes House Sparrows). Hatching success is defined as the ratio of hatched young to clutch size.

#### **TOP-10 LIST: 766 NESTS REPORTED FOR ALL SPECIES**

Species	2017 Total nests reported	2017 Average clutch size	2017 Average fledglings	2017 Nesting success	Previous nesting success	Change from previous
Tree Swallow	345	5.3	5.1	84.7	79.7	
Mountain Bluebird	151	5.1	4.8	84.8	80.2	
House Wren	34	4.5	5.6	100.0	78.5	AA
Black-capped Chickadee	28	6.9	3.9	85.7	84.9	
American Robin	22	3.0	2.6	83.3	73.7	A
Violet-green Swallow	21	4.3	3.2	92.3	80.6	AA
Western Bluebird	17	5.2	*	72.7	71.0	
Dark-eyed Junco	15	3.4	*	70.0	*	*
Northern Flicker	14	2.8	*	*	71.1	*
Chestnut-backed Chickadee	11	6.3	*	*	70.0	*
	Species   Tree Swallow   Mountain Bluebird   House Wren   Black-capped Chickadee   American Robin   Violet-green Swallow   Western Bluebird   Dark-eyed Junco   Northern Flicker   Chestnut-backed Chickadee	2017 Species2017 StatianestsSpeciesStatianestsTree Swallow345Mountain Bluebird151House Wren34Black-capped Chickadee28American Robin22Violet-green Swallow21Vistern Bluebird17Dark-eyed Junco15Northern Flicker14Chestnut-backed Chickadee11	2017 Total ness2017 Average DetendedSpecies2017 Total ness2017 SpeciesTree Swallow3455.3Mountain Bluebird1515.1House Wren344.5Black-capped Chickadee286.9American Robin223.0Violet-green Swallow115.2Western Bluebird153.4Northern Flicker142.8Chestnut-backed Chickadee116.3	2017 Dtal ness2017 Average bereige2017 Average bereigeSpeciesStal nessStarTree Swallow3455.3Mountain Bluebird1514.8House Wren344.5Black-capped Chickadee286.9American Robin223.0Violet-green Swallow175.2Western Bluebird153.4Northern Flicker142.8Chestnut-backed Chickadee116.3	2017 Total ness2017 Average2017 Meerage2010 Meerage2017 Meerage2017 Meerage2017 Meerage2017 Meerage2017 Meerage2017 Meerage2017 Meerage2017 Meerage2017 Meerage2010 Meerage20	2017 bypecies2017 bypecies2017 bypecies2017 bypecies2017 bypeciesPrevious bypeciesTree Swallow3455.35.184.779.7Mountain Bluebird1515.14.884.880.2House Wren344.55.6100.078.5Black-capped Chickadee286.93.985.784.9Violet-green Swallow214.33.292.380.6Western Bluebird175.2*71.0*Dark-eyed Junco153.4*70.0*Intern Flicker142.8*%71.1Chestnut-backed Chickadee116.3**70.0

\*INSUFFICIENT DATA



From the Great Swamp National Wildlife Refuge in New Jersey, Leo Hollein wrote to ask, "I have coordinated the monitoring and maintenance of a 140-box nest box trail for more than 15 years. Our data indicate that House Wren populations have increased sharply in the last few years. Have others reported this increase?"

House Wren nesting success was slightly better than average in the Northeast (76.1%), as well as in all other regions. To answer Leo's question, we compared both nesting success and percentage of boxes utilized by House Wrens in all regions. We found that for the last five years nesting success has consistently been higher than in any of the previous sixteen years. However, looking at the graph to the right, we see that the proportion of monitored boxes utilized by House Wrens for nesting has been more cyclical, and occupancy in the past five years has been close to the median (median = 13.5%, range: 8.7-23.3%). In the Northeast, there were no

major departures from previous years' averages among the region's top-10 species, however, American Robin nesting success was slightly down (57.8%).

> Long-term survey data show a decline in Northeast House Wren populations.





The percentage of northeastern nest boxes utilized by House Wrens has increased slightly in the past five years but is still on par with previous years. Unused (a.k.a. "dummy") nests were not included.

#### **TOP-10 LIST: 15,103 NESTS REPORTED FOR ALL SPECIES**

		2017 Total nests	2017 Average	2017 Average	2017 Nesting	Previous nesting	Change from
Rank	Species	reported	clutch size	fledglings	success	success	previous
1	Eastern Bluebird	4,355	4.2	4.0	75.4	74.7	
2	Tree Swallow	4,344	4.6	4.3	76.2	75.6	
3	House Wren	1,848	4.6	5.0	76.1	70.8	A
4	House Sparrow	1,345	1.8	3.5	5.6	5.7	
5	American Robin	464	3.1	2.9	57.8	64.4	$\mathbf{A}$
6	Purple Martin	464	4.9	4.3	84.5	84.3	
7	Black-capped Chickadee	318	5.3	5.3	63.6	62.1	
8	Eastern Phoebe	203	4.3	3.8	78.7	77.1	
9	Carolina Chickadee	203	4.5	4.8	61.1	61.2	
10	Wood Duck	123	11.2	10.8	68.0	69.2	



n the Central region, Eastern Bluebirds had the highest success rate of any region in 2017, as well as the largest number of fledglings per successful nest. House Wrens, Black-capped Chickadees, and Barn Swallows also had a better-than-average success rate in 2017, whereas Tree Swallows and American Robins had slightly lower-than-average success rates.

As in 2016, 100% of reported House Sparrow nests were managed in the Central region in 2017. NestWatch has launched a new initiative in 2018 to





American Robins by Rey McGehee

better understand the impacts of House Sparrows and other non-native invasive species on native cavitynesting birds. To learn more, see our article on page 5 of this issue.



American Robin nesting success has dropped over the past five years in the Central region.

#### **TOP-10 LIST: 857 NESTS REPORTED FOR ALL SPECIES**

Rank	Species	2017 Total nests reported	2017 Average clutch size	2017 Average fledglings	2017 Nesting success	Previous nesting success	Change from previous
1	Eastern Bluebird	264	4.4	4.2	79.9	74.9	A
2	Tree Swallow	233	5.5	4.8	69.8	77.5	A
3	House Wren	54	5.4	5.9	70.8	63.1	A
4	American Robin	42	2.9	3.1	61.1	72.9	AA
5	Black-capped Chickadee	33	5.6	3.3	68.4	57.8	AA
6	House Sparrow	33	3.0	*	0.0	10.4	$\mathbf{A}$
7	Purple Martin	20	5.0	*	*	88.0	*
8	Mourning Dove	17	2.0	*	*	*	*
9	House Finch	16	5.0	*	*	*	*
10	Barn Swallow	15	4.4	*	90.0	81.1	A
10	Eastern Phoebe	15	4.6	*	81.8	79.7	

American Robin by Raisa Kochmaruk

## Wood You Be So Kind?

#### BY ROBYN BAILEY, PROJECT LEADER

question that ne common NestWatch receives is "What kind of wood should I buy for my nest box project?" There are several considerations when choosing your lumber, including cost, availability, durability, and the type of box you are making (large or small). One facet that is often overlooked, however, is where the lumber comes from. The irony of cutting down trees and using them to make birdhouses is not lost on us. Internationally, deforestation is a major threat to many species of birds and other wildlife.

With support from the Sustainable Forestry Initiative<sup>®</sup>, NestWatch has been creating a curriculum for middle schoolers that teaches youth how to build nest boxes and then monitor them as citizen scientists. The curriculum, which will be published later this year, encourages students to think about where our forest products come from, how forests can be managed to help birds, and why we might choose sustainable lumber for making nest boxes. With that in mind, we wanted to bring these same opportunities to our adult woodworking readers.



Zoe Ahn snaps a photo while completing a nest box in a Virginia workshop.

Did you know that most major hardware stores carry sustainably-sourced lumber? These are boards from trees certified to have been managed in a way that considers ecosystem health, as well as social responsibility. There are three major certifiers within the United States: the **Sustainable Forestry Initiative** (SFI®), **American Tree Farm System** (ATFS), and **Forest Stewardship Council** (FSC). Similar to purchasing **certified bird-friendly coffee**, choosing certified forest products (including paper, furniture, and packaging) gives you some assurance that the product you're buying is attached to a set of science-based standards that are designed to benefit human and natural systems.

As a consumer you have options: around the world, hundreds of millions of acres of woodland have been certified as sustainably managed. These working forests provide habitat for wildlife, carbon sequestration, air filtration, and numerous other "ecosystem services" before they reach the consumer. Why not build your birds an eco-friendly nest box certified to one of these sustainability standards?



Lumber certified to the Sustainable Forestry Initiative<sup>®</sup> standards is a good choice for making birdhouses.

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## Fourth Annual Home Tweet Home Photo Contest

#### BY ROBYN BAILEY, PROJECT LEADER

n July, NestWatch hosted its fourth annual <u>Home Tweet Home photo contest</u>. The month-long contest featured four themes: Nests and Eggs, Cutest Baby, Feeding Time, and Eyewitness.

Winning photos from each category were eligible for the People's Choice and Judges' Choice awards. In addition to the winning photos, the judges selected a handful of honorable mentions.

Category winners received great prizes including books from the Cornell Lab Publishing Group, birdfriendly coffee, Cornell Lab memorabilia, and artistsigned copies of our new Eggs of North American Birds poster. The Judges' Choice and People's Choice winners also received Zeiss Terra ED 8 x 42 binoculars. We appreciate everyone who submitted their best work, as well as those who took time to vote for photos. To view more photos from the contest, visit the **Home Tweet Home gallery**.

Get your cameras ready for this coming July when Home Tweet Home returns! The contest is open to everyone, and is free to enter, so submit your best photos.

**Below**: Soo Baus won the People's Choice and Cutest Baby category with these 24-day-old Anna's Hummingbirds. This nest was stretched to capacity with these two big babies who didn't want to leave their nest.

See more photos online!



Kim Caruso does it again, capturing Judges' Choice and the Eyewitness category with a stunning image of two Northern Cardinals in a moment of bonding and dancing. How mesmerizing!



Melanie Furr's sweet capture reminds us to stop and smell the roses! These Northern Mockingbirds perfectly coordinated the pink ribbon in the nest to match the rose petals that surrounded the eggs.



Sheila Rudesill reports that this Northern Mockingbird fledgling was particularly demanding and often adopted this "feed me now" posture. Irresistible, don't you agree?