NestWatch **Digest**

NESTING SEASON 2023

CornellLab | NestWatch

Impressed By These Nests!

Welcome to our annual report in which we celebrate another impressive year of NestWatchers going above and beyond to contribute nesting data for science. In 2023, we received 36,035 nest attempts from 43 countries—a huge increase from the prior year! Additionally, we uploaded 48,614 nest records from our historic North American Nest Record Card Program, which were digitized with the help of thousands of volunteers (see page 5 for details). We further uploaded a total of 26,227 nest records from previous years in addition to the Nest Record Cards in our ongoing efforts to preserve other unarchived datasets. Remarkably, six scientific papers were published based on the NestWatch data in 2023. We also launched our mobile app in Spanish and made our entire database of nesting records open-access for easier use by researchers!

This report highlights achievements in conservation, research, and community action for 2023. We have redesigned our annual report, and we hope that you find it more streamlined and attractive. As ever, NestWatchers are at the heart of everything we do, and we welcome your feedback about how we can improve to better meet your needs.

For the birds,

Robyn Bailey

Robyn Bailey

Cover: Wood Duck by Noella Beaudoin
Right: Fish Crow by Margaret Poethig

This issue of the *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 participants across the world. This document contains accessibility features for those with visual impairments; for assistance contact nestwatch@cornell.edu.

Anyone, anywhere, who finds a nest is welcome to join NestWatch. 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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CornellLab | NestWatch

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"It's like being an explorer, it's just so fascinating.

Once you start checking the boxes and those little beaks gaze back at you—they're my little babies.

I look forward to it every spring because I'm so excited to get out there and see them."

Kimberlie Sasan, Tarrant County NestWatch, TX

Carolina Chickadee nest by Patricia Brown

"If there is anything I can do to help birds, I'm going to do it."

Joe Sedlacek, Nest Record Card Recorder and NestWatcher

Nest Quest GO!

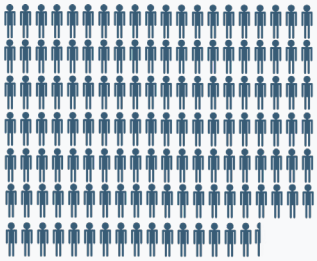
The Nest Quest Go! project endeavors to digitize, transcribe, and integrate hundreds of thousands of historical nest records from the North American Nest Record Card collection into the NestWatch database. Nest Quest Go! uses the Zooniverse platform to crowdsource nest record card transcription from thousands of dedicated volunteers. We organize these cards into individual projects and often separate them into species groups.

In 2023, the Nest Quest Go! project pushed closer than ever to completion. With only two groupings left to complete in Zooniverse, we anticipate finishing up transcription by the end of 2024, and finishing data upload by 2025.

Transcription Progress 2019–2023

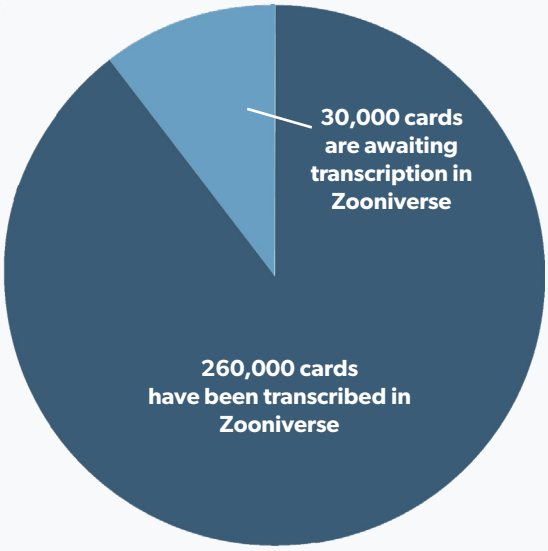
45 projects in Zooniverse

13,658 people transcribed data



= 100 people

1,623 days of transcription



We're in the home stretch! Only a few Zooniverse projects remain for transcription, and data are being uploaded regularly to our database.

Visit **Nest Quest Go!** on Zooniverse.org or download the Zooniverse app and start transcribing today!

Thank You, Volunteers!

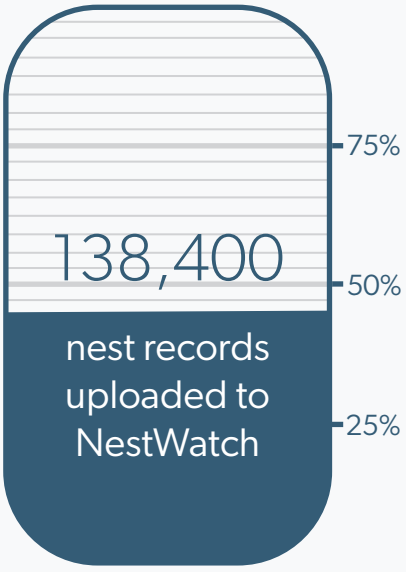


Photo credits page 4: Curve-billed Thrasher by Tania Morris, Tree Swallows by Ann-Janette Vander Ende, American Kestrels by Shauna Robinson, House Finch nest by Allie Mickey

27,405

NEST STRUCTURE PLANS
DOWNLOADED IN 2023

Eastern Bluebird by Deer Pond Farm

Conservation Highlights

Mottled Owl by Richard Rasp

The Xalapa Wildlife Conservation Management Unit in Veracruz, Mexico, works to boost populations of Mottled Owls in urban green spaces. They are piloting a first-of-its-kind nest box program to help the owls find safe nesting spots in cities. In collaboration with NestWatch, they produced a new nest box plan for Mottled Owls in Spanish and English. Find it in our **Right Bird, Right House** tool on NestWatch.org

NestWatch team members attended the Ornithological Congress of the Americas in Gramado, Brazil, in August to share research results from NestWatch and FeederWatch in a symposium on wild bird feeding. We also learned about conservation challenges facing birds in South America. We formed an exciting new collaboration to support endangered parakeets, and we can't wait to share more with you soon!

Violet-green Swallow by Christine Haines

Purple Martins by Lake Metroparks

In 2023, we highlighted the conservation needs of a group of birds experiencing long-term declines called "aerial insectivores" (birds that eat flying insects). We hosted a webinar on Common Nighthawks viewed by 9,955 people, and we also produced **a tip sheet** on managing landscapes for aerial insectivores downloaded by 5,907 people. We have plans to continue raising awareness of this group of birds into 2024.

Regional Roundup

Highlights from the 2023 season

In 2023, participants reported 36,035 nest attempts (up 12%) by a total of 294 species. Here, we summarize data from the United States and Canada; however, we also received data on 495 nests (up 73%) of 107 species from an additional 41 countries in 2023! Overall participation increased by 4%. Way to grow, NestWatchers!

2023 NESTWATCH SEASON TOTALS

36,035	Nest Attempts
2,672	Participants
294	Species
117,096	Eggs
80,007	Fledglings

TOP CONTRIBUTORS OVERALL

Lee Pauser
California Bluebird Recovery Program
601 nests

Penny and Fritz Brandau
Black River Audubon Society
593 nests

Darrell Gammon
Berlin Lake Army Corps of Engineers
Ohio Bluebird Society
524 nests

NORTHERNMOST NEST - SWEDEN

EUROPEAN PIED FLYCATCHER

SOUTHERNMOST NEST - AUSTRALIA

EURASIAN BLACKBIRD

REGIONAL TOTALS

ALASKA AND NORTHERN CANADA
Total nests: 74
Total reported species: 4

SOUTHWEST
Total nests: 3,679
Total reported species: 89

SOUTHEAST AND GULF COAST
Total nests: 6,859
Total reported species: 82

NORTHWEST
Total nests: 2,775
Total reported species: 60

NORTHEAST
Total nests: 20,791
Total reported species: 104

CENTRAL
Total nests: 1,362
Total reported species: 52

Photo credit: Eurasian Blackbird by Manuel Segura Herrero / Macaulay Library; European Pied Flycatcher by Frédéric Pelsy / Macaulay Library

Nesting Productivity for Top 16 Species Reported in 2023

Table 1. The average number of fledglings (F) and the percentage of successful nests (%) for each region.

Species	Total Nests	Overall		Northeast		Southeast		Central		Northwest		Southwest	
		F	%	F	%	F	%	F	%	F	%	F	%
Eastern Bluebird	11,525	3.15	80.10	3.14	78.12	3.11	82.45	3.76	86.91	-	-	-	-
Tree Swallow	8,785	3.51	78.28	3.64	81.25	3.66	86.30	3.38	68.35	**2.81**	61.19	3.63	82.46
House Wren	3,285	4.13	79.85	4.16	81.19	2.88	**50.00**	4.24	68.25	3.72	77.50	4.18	75.00
Purple Martin	1,366	3.32	82.55	3.31	83.21	2.53	**54.43**	3.71	91.72	*	*	*	*
Mountain Bluebird	1,296	**4.07**	82.14	-	-	-	-	*	*	3.71	80.64	**4.81**	85.39
Western Bluebird	875	3.54	82.84	-	-	-	-	*	*	3.89	80.65	3.51	83.04
Carolina Chickadee	720	3.70	75.77	3.41	67.88	3.80	80.06	4.33	64.29	-	-	-	-
American Robin	512	1.64	53.90	1.63	52.89	*	**70.00**	**1.53**	**56.52**	*	*	*	*
Carolina Wren	504	3.10	76.45	3.11	72.88	3.12	79.56	2.50	63.64	-	-	-	-
American Kestrel	476	3.03	76.92	3.05	76.83	*	*	*	*	*	*	2.87	81.25
Black-capped Chickadee	369	4.29	72.62	**4.21**	68.65	4.90	**90.91**	**4.19**	82.14	4.16	78.26	*	*
Bewick's Wren	219	4.37	85.42	-	-	4.37	84.00	*	*	-	-	4.39	94.44
Barn Swallow	216	3.99	85.09	3.14	88.89	3.96	88.46	*	*	**1.50**	77.78	*	*
Violet-green Swallow	205	3.20	79.65	-	-	-	-	-	-	2.88	73.68	3.23	80.39
Eastern Phoebe	199	2.65	71.88	2.54	70.65	2.68	71.43	*	*	-	-	-	-
House Finch	198	2.28	60.00	2.46	64.29	**1.77**	**50.00**	*	*	*	*	2.88	74.07

KEY:
(-) species not present in the region
(*) insufficient data (< 10 nests)
[**blue text**] indicates a ≥20% increase from 10-year average
[**red text**] indicates a ≥20% decrease from 10-year average

Mountain Chickadee by Christine Haines

Chapters Celebrating 10 Years

NestWatch Chapters are hosted by nature centers, parks, wildlife refuges, zoos, and other nature-minded organizations all across the world. These groups help recruit and train NestWatchers in their local communities while using NestWatch to monitor nesting birds as part of their mission. Congratulations to these chapters who started their tenure as a NestWatch Chapter in 2013.

- Boulder County Parks and Open Space; *Longmont, CO*
- Delaware Nature Society; *Hockessin, DE*
- EcoTarium NestWatch; *Worcester, MA*
- General Motors–Warren Technical Center; *Warren, MI*
- Inland Empire NestWatch; *Riverside, CA*
- Northern Kentucky Bluebird Trail in Kenton County's Parks; *Independence, KY*
- Washtenaw Wilderness; *Ann Arbor, MI*

Black-capped Chickadee nest by Tracey Avequin

Surprising Shots

▲ Look at all of those nails! Jack Perreault was cleaning out his nest boxes when he found this old House Wren nest. He counted 102 nails as part of the nest construction.

▼ Mary Roen spotted this albino Eastern Bluebird nestling that grew up and fledged as a part of a brood of normally-plumaged siblings.

▲ Barbara Spagnuolo found this massive clutch of Mountain Bluebird eggs—12 total! Clutches typically contain 4–8 eggs. Barbara reports that at least one chick fledged from this supersized nest.

Community Highlights

The Colorado Bluebird Project, based in Centennial, Colorado, and headed by longtime nest monitor, Kevin Corwin, helps manage hundreds of nest boxes all over the state. "We are a resource for nest box monitors (without telling them what to do). We give presentations tailored to the skill and interest levels of the audience, manage a Google group and a Facebook page, organize nest box and kit sales, and provide NestWatch data entry service for folks who can't do their own data entry," says Kevin.

House Wren by Karen McBride

Along with friends from the Ohio Bluebird Society and Preservation Parks of Delaware County (OH), we honored the conservation legacy of the late Mr. Dick Tuttle by archiving his 17,362 nest records of 10 species of native birds. We think that Dick would be proud to know that his life's work was preserved in perpetuity to further science and conservation of his beloved birds.

Leaders of the Northern Kentucky Bluebird Trail at Kenton County's Parks—a NestWatch Chapter—established a collaboration with Dr. Lindsey Walters at Northern Kentucky University. This endeavor allows undergraduate research students to monitor nest boxes along with their other field work. Students are trained in NestWatch protocols, and collecting and entering data is part of their field work routine.

American Kestrel by Kelleigh Farr

Red-tailed Hawk by Margaret Poethig

"I take great pride in being a cheerleader for NestWatch, because I know that our data is much more useful in a continentwide database that is used by researchers and scientists on a scale so much larger than any state or local bluebird organization can do on their own."

Kevin Corwin, Colorado Bluebird Project

Mountain Bluebird by Michelle Desrosiers

Research Highlights

Killdeer by James Tietgen

Researchers from the University of California, Davis, (**Lauck et al. 2023**) investigated how heat waves impact the nesting success of numerous bird species. They found that forests buffered nesting birds from the effects of extreme heat, whereas nests in open agricultural landscapes suffered a decline in survival. They suggest ways we can help birds cope with climate change.

Many songbirds are nesting earlier in spring because of warmer temperatures brought about by climate change. But the shift brings another danger that is especially deadly for nestlings: greater exposure to temperature variability in the form of cold snaps and heat waves. A new study (**Taff and Shipley 2023**) documents that such extremes result in more nest failures.

American Robins by Emily Stashower

Shorebird populations have declined significantly in the last 40 years, and the threats to these populations are varied. A new study (**Abernathy et al. 2023**) used records from NestWatch along with various museum databases to examine how climate change might affect the nesting phenology of three shorebird species. According to the study, which looked at the period 1852–1989, the three focal species responded differently to changing temperatures in their nesting area, making it hard to apply one-size-fits-all predictions about how climate change will impact nesting birds.

Caleb Gruber completed a **Master's Degree thesis** entitled "The relationship between temperature, rainfall, and tree swallow fledging times" at the University of Tennessee at Chattanooga. The study explored how weather variables like temperature and rainfall influence how long it takes for Tree Swallow chicks in Tennessee to fledge.

Tree Swallows by Karen McBride

"I would like to thank the Cornell Lab of Ornithology and their NestWatch program. Without the contribution of the NestWatch data, this project would have been less likely to make it off the ground."

Caleb Gruber, M.S. Graduate

¿Te enteraste?

Have you heard?

¡La aplicación para teléfonos móviles NestWatch está disponible en español!

The NestWatch mobile app is now available in Spanish!

Gracias a los participantes de nuestro equipo en PAU Colombia, ¡quienes ayudaron revisándola!

Thank you to the beta testers from our South American chapter, PAU Colombia!

Violet-green Swallow by Christine Haines

¡Descarga gratis la aplicación NestWatch en tu teléfono hoy!

Download the free NestWatch app today!

Find us on Google Play or the App Store!

Descarga | Download



Prothonotary Warbler photo credits, clockwise: nest check, Loyd Marshall; natural nest, Nathanael Vaught; nest box, Savannah Jordan

Thanks for another great year!

Connect with us digitally—sign up for our monthly eNewsletter, check out our blog, and follow NestWatch on Facebook and X (Twitter) for the latest updates.

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