FOCUS ON CITIZEN SCIENCE • VOLUME 15

Winter Bird Highlights

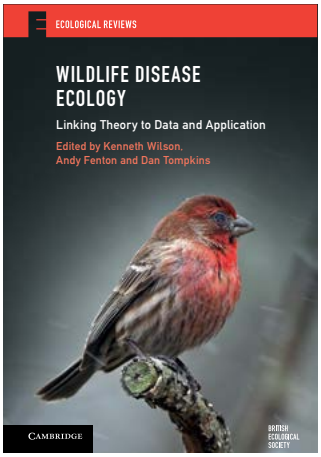
FROM PROJECT FEEDERWATCH 2018–19

The Cornell Lab of Ornithology

Bird Studies Canada / Études d'oiseaux Canada

A FeederWatcher photo on the cover of a new book!

An upcoming book, *Wildlife Disease Ecology*, features a chapter by Cornell Lab ornithologists and House Finch eye disease researchers André Dhondt and Wes Hochachka. According to the publisher, Cambridge University Press, "Each chapter in the book introduces a host and disease and explains how that system has aided our general understanding of the evolution and spread of wildlife diseases, through the development and testing of important epidemiological and evolutionary theories." The book's cover (pictured above) has a photo of a House Finch with eye disease taken by FeederWatcher Gary Mueller. The book is scheduled for publication in November.



Cover: Cedar Waxwing feeding on crabapples at an orchard in Orrtanna, Pennsylvania. The photo was taken by FeederWatcher Laura Frazier and was the winner of the second-place Grand Prize in last year's BirdSpotter photo contest. See the back cover for additional BirdSpotter photos.

House Finch by Gary Mueller

Focus on Citizen Science is a publication highlighting the contributions of citizen scientists. This issue, *Winter Bird Highlights 2019*, is brought to you by Project FeederWatch, a research and education project of the Cornell Lab of Ornithology and Bird Studies Canada. Project FeederWatch is made possible by the efforts and support of thousands of citizen scientists.

Project FeederWatch Staff

Cornell Lab of Ornithology

Emma Greig
Project Leader and Editor

Anne Marie Johnson
Project Assistant

Holly Faulkner
Project Assistant

David Bonter
Director of Citizen Science

Wesley Hochachka
Senior Research Associate

Bird Studies Canada

Kerrie Wilcox
Project Leader

Rosie Kirton
Project Support

Kristine Dobney
Project Assistant

Jody Allair
Director of Citizen Science

Denis Lepage
Senior Scientist

Join Project FeederWatch!

Anyone in the U.S. and Canada with an interest in birds and a feeder to watch is welcome to join. Help scientists monitor winter bird populations while you learn more about the birds in your neighborhood. To join, contact the FeederWatch office in your country.

United States

Cornell Lab of Ornithology
159 Sapsucker Woods Road
Ithaca, NY 14850
1-800-843-BIRD (2473)
feederwatch@cornell.edu
feederwatch.org

Canada

Bird Studies Canada
P.O. Box 160
Port Rowan, ON N0E 1M0
1-888-448-BIRD (2473)
pfw@birdscanada.org
birdscanada.org/pfw.html

Research shows some birds benefit from bird feeding

BY HOLLY FAULKNER, CORNELL LAB OF ORNITHOLOGY

Have you ever wondered if feeding birds is harmful or helpful? A new study published in *Nature Communications* provides insights into this long-standing question. The study shows that bird species in the United Kingdom that regularly visit feeders have increasing populations. "These results suggest that feeding birds may lead to increased survival or productivity," says U.S. Project FeederWatch leader Emma Greig.

The researchers in the U.K. used data from Garden Bird Feeding Survey (GBFS); the U.K. version of FeederWatch, from 1973 to 2013 to assess how species' populations have changed over time. They found that since 1973, about half of bird species regularly found in Britain visited feeders and that species diversity at each backyard location had increased. The study also showed that populations of birds that regularly visit feeders in the U.K. are increasing, whereas populations of non-feeder-bird species remain unchanged.

The findings in this study are similar to findings by Emma Greig and colleagues using data from Project FeederWatch. Their preliminary analysis found that North American bird species that use feeders a lot tend to be doing better than species that use feeders less. Read about the research on the FeederWatch blog at **feederwatch.org/blog/impacts-supplemental-feeding-bird-populations**.

What could be causing the increased bird diversity in backyards in the UK? Researchers wondered if people had been adding more and different types of feeders to their backyards over the years and if that could be the cause of the increased diversity. The researchers had a clever idea for how to explore this possibility; they looked at how commercial advertisements for bird feeding changed since the 1970s. They postulated that since advertisements impact demand, advertisements could provide insight into what kinds of bird food and feeders people used over the last 40 years. They found that the proportion of advertising space devoted to bird foods and feeders increased significantly over time both in quantity and in diversity of the type of foods and feeders advertised. Indeed, the number of feeders that individual homeowners provided increased over time based on GBFS data, suggesting that the researchers were correct about advertisements reflecting human behavior.

But maybe there were other causes for the increased bird diversity in backyards. What about changes in climate or habitat? To address these alternative possibilities, the U.K. researchers created statistical models that tested the association between climate, habitat, and feeder abundance on species diversity in backyards. They found that the abundance of feeders was the most important driver of backyard bird communities, more important than winter temperatures or surrounding habitat.

The take-home message from this work is that our actions have consequences for the creatures that live around us. We often think of humans as having a negative impact on wildlife, but in some cases, people may truly be helping some species thrive. For Project FeederWatch and Garden Bird Feeding Survey participants, there is another message: your bird counts matter. This kind of research would not be possible without your collective efforts to monitor the birds in your backyards and contribute your observations to science. Thank you all!

Plummer, K. E., Risely, K., Toms, M. P., and Siriwardena, G. M. (2019). The composition of British bird communities is associated with long-term garden bird feeding. *Nature Communications*, 10(1): 2088.

Blue Jay by Harry Foster

Your legacy for birds

Contributing data to Project FeederWatch is an important way to leave a lasting legacy. A pledge of financial support through a gift in your estate plans is a way to help ensure that FeederWatch thrives into the future.

To learn more about planned giving, in the U.S. please visit **birds.cornell.giftplans.org**, and in Canada please visit **birdscanada.org/legacy**. Or donate to FeederWatch by visiting **feederwatch.org** and clicking on the Donate button on the home page. Thank you!

Keeping House Sparrows away from feeders

A FeederWatcher shares his strategies

BY ANNE MARIE JOHNSON, CORNELL LAB OF ORNITHOLOGY, AND BILL KAMPEN, FEEDERWATCH PARTICIPANT

An invasion of House Sparrows last fall almost caused FeederWatcher Bill Kampen in Leavenworth, Washington, to stop feeding birds. A few sparrows appeared at Bill's feeders one day, and soon there were so many House Sparrows that they crowded out other species—something many participants have observed first hand.

It can be difficult to prevent House Sparrows from dominating a backyard. Bill tried many strategies, like spreading bark butter (a soft suet) on the underside of tree limbs, hoping House Sparrows wouldn't attempt to reach such an inaccessible food source. Bill told us that the sparrows "hovered in place like hummingbirds," to get at the bark butter. "You have to admire their tenacity and ingenuity." After some trial and error, Bill found a few effective strategies that we invited him to share with FeederWatchers (right).

If you've tried everything, consider taking down feeders for a couple of weeks. Then build back the feeding operation one feeder at a time. And if you have nest boxes that House Sparrows are using, swap them for wren or chickadee boxes, which have smaller entrance holes.

Because House Sparrows are not native, it is legal to remove them. Given their invasive nature, reducing their populations may in some cases help native bird populations, but this option isn't for everyone. Individuals who would like to take an active role in reducing House Sparrow populations can find information on the NestWatch website at **bit.ly/invasive_mgmt**.

Although there is evidence that House Sparrows outcompete native birds for nest cavities, it's unclear if feeding them harms native bird populations. Nevertheless, we know that many people would rather not feed House Sparrows, and we hope that these suggestions will help them attract a wider variety of birds to their feeders.

House Sparrow by Cheryl Fagner

Tips for feeding birds without feeding House Sparrows

Provide suet without embedded seeds.

Most suet-eating birds, like woodpeckers, jays, chickadees, and nuthatches, are more interested in the suet than the seeds. House Sparrows, however, favor the seeds. If you choose to use suet with embedded seeds, "upside-down feeders" that only allow access from the bottom will discourage most House Sparrows.

Try preformed seed shapes.

House Sparrows don't seem to like seeds provided in hard, preformed shapes, such as cylinders or bells. Perhaps the seeds are too difficult to remove. If you use a seed cylinder, place an old CD disc on top to prevent larger birds from perching near the top and pecking down, forcing the cylinder to break apart.

Use nyjer-seed feeders to attract finches.

Small finches like American Goldfinches, Common Redpolls, and Pine Siskins will come to nyjer-seed feeders that have perches and ports too small for House Sparrows. House Sparrows may perch and attempt to feed, but their larger bodies and bills make it awkward. Crushed sunflower chips can also be provided in these feeders to attract a few more small species, such as chickadees.

Protect sunflower seed feeders with a halo baffle.

Bill Kampen

University of Nebraska researchers discovered that the hanging wires used to keep gulls away from landfills and reservoirs could be used to deter House Sparrows without bothering other species. You can construct your own halo using a dome squirrel baffle/weather shield. Drill two holes on opposite sides from each other near the bottom of the baffle. Attach one end of a strand of wire through each hole, and attach a small weight to the other end of each wire. Two more strands can be added if needed by drilling holes halfway between the first holes. Find more information plus suggestions from participants on our blog by searching for "halo baffle" on the FeederWatch website.

Avoid millet, cracked corn, and all ground feeding.

House Sparrows favor millet, especially when it's on the ground. If you want to continue providing food for ground-feeding birds such as quail, doves, and native sparrows, limit the feeding to small amounts at a time to help reduce the number of House Sparrows attracted to the food.

Why not start a count when I see an exciting species?

BY HOLLY FAULKNER AND EMMA GREIG, CORNELL LAB OF ORNITHOLOGY

If you see a new or uncommon bird species, it's completely understandable to want to report it on a FeederWatch count. We get it—some birds knock your socks off! It's great to notice rare birds, but reporting counts only when you see exciting species misrepresents the birds at your feeders and makes it seem as if rare species are more common than they really are.

Let's say we have three FeederWatchers, Lucy, Peter, and Maria, all of whom had Pine Siskins visiting their feeders over the course of a month (see illustration below). Lucy and Peter rarely saw siskins, but Maria saw siskins frequently. Let's see what their counts would look like if Lucy and Maria counted in the correct way (i.e. chose their count days irrespective of siskins being present) and Peter counted in an incorrect way (i.e. chose to count only on days when he saw siskins).

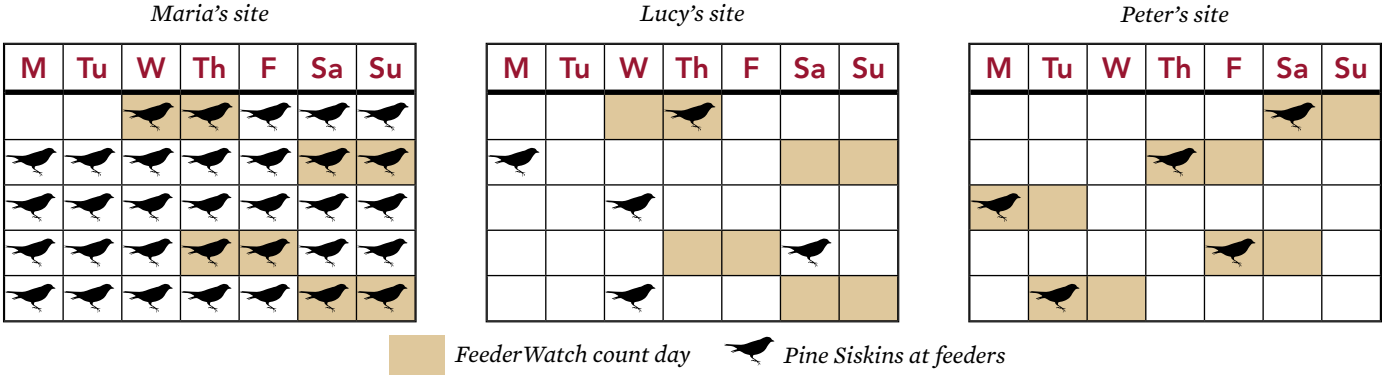
Pine Siskin by Helena Garcia

As the illustration shows, Maria's counts correctly indicated that she saw siskins frequently, and Lucy's counts correctly indicated that she saw siskins rarely. However, because Peter did his FeederWatch counts only when he saw siskins, his counts misleadingly indicated that he saw siskins as frequently as Maria. Peter counted in what is called a "biased" manner—he biased his counts toward overrepresenting siskins, making it look like Pine Siskins were common at his feeders when they were actually as uncommon as at Lucy's feeders. Peter wanted us to know every time he saw siskins, but counting this way makes it impossible for us to get an accurate picture of where siskins are common and where siskins are rare. Of course, there is always a chance that a species will be over or underrepresented in a count just by chance. That's why getting lots of counts from lots of participants is so valuable. Having a large sample of counts means that a few anomalies won't change the entire picture.

We know it may be boring to count even when there aren't "exciting birds" around, but making sure your counts are unbiased is part of what makes Project FeederWatch data valuable. We want to know where and when the rare birds show up, but we need to know where and when they aren't around too. Otherwise, we wouldn't know they are rare!

The next time you see an exciting bird outside of your chosen count days, don't despair. Make a note in your journal, take a photo, and enjoy the fantastic sighting. Keep to your normal FeederWatch schedule and trust that your counts are valuable whether you have rare visitors or not.

Illustration of biased vs. unbiased counts



Maria and Lucy recorded counts on their scheduled days (unbiased). Peter started his counts only when Pine Siskins were at his feeders (biased). Peter and Maria reported Pine Siskins on all of their counts, even though Pine Siskins visited Maria's feeders more often.

Feeder birds of the Canadian boreal forest

BY KERRIE WILCOX, BIRD STUDIES CANADA

Boreal Chickadee by Nick Saunders

The North American boreal forest stretches 6,000 km from Alaska to Newfoundland and Labrador and is incredibly vast, covering 5.9 million sq. km. (1.5 billion acres). The area consists mainly of coniferous forests, particularly spruce, scattered with extensive wetlands. It is the breeding area for one-third of all North American land-bird species, and 94% of the birds that breed there spend only a short time in the boreal forest before moving south for the winter. Many remain in North America, where they are counted by FeederWatch participants.

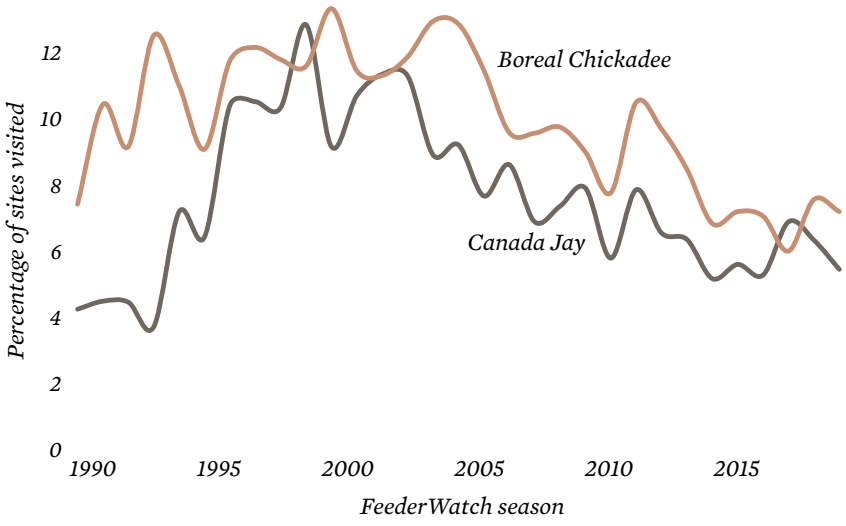
"Boreal specialists" are species for which the majority of their breeding range falls within the boreal forest. FeederWatchers make an important contribution to understanding the abundance and distribution of many of these boreal birds by monitoring their winter movements and numbers. In particular, FeederWatch makes a significant contribution to monitoring these nine boreal specialists: Boreal Chickadees and Canada Jays (resident birds that live in the boreal forest year round); Pine Grosbeaks, Evening Grosbeaks, White-winged Crossbills, Pine Siskins, and Purple Finches (species that are non-migratory, but that move when food supplies are low); and Dark-eyed Juncos and White-throated Sparrows (migratory species).

Only 6% of the birds that breed in the boreal forest are non-migratory (resident). Canada Jays and Boreal Chickadees are resident feeder birds that have adapted to dealing with cold and snow in the boreal forest by storing food extensively in the fall to provide a source of energy in midwinter when temperatures are lowest. Other adaptations include superior insulating properties in their feathers and an ability to reduce body temperature at night to save energy. Boreal Chickadees may undertake short-distance irruptive movements every six to eight years in response to scarce food supplies.

This past season, Canada Jays were reported at 7% of Canadian FeederWatch sites, down from an all-time high of 13% in 1999. FeederWatchers reported Boreal Chickadees at 5% of Canadian sites this past season, compared with the long term average of 7%. Despite annual fluctuations in visitation, it appears that the percentage of feeders visited has been declining steadily since the late 1990s, with both species now visiting 30–50% fewer Canadian sites in winter.

Boreal finches—Pine Grosbeaks, White-winged Crossbills, Pine Siskins, Evening Grosbeaks, and Purple Finches—are less strictly residents of the boreal forest, with large proportions moving out when food supplies are

Percentage of Canadian sites reporting Boreal Chickadees and Canada Jays.



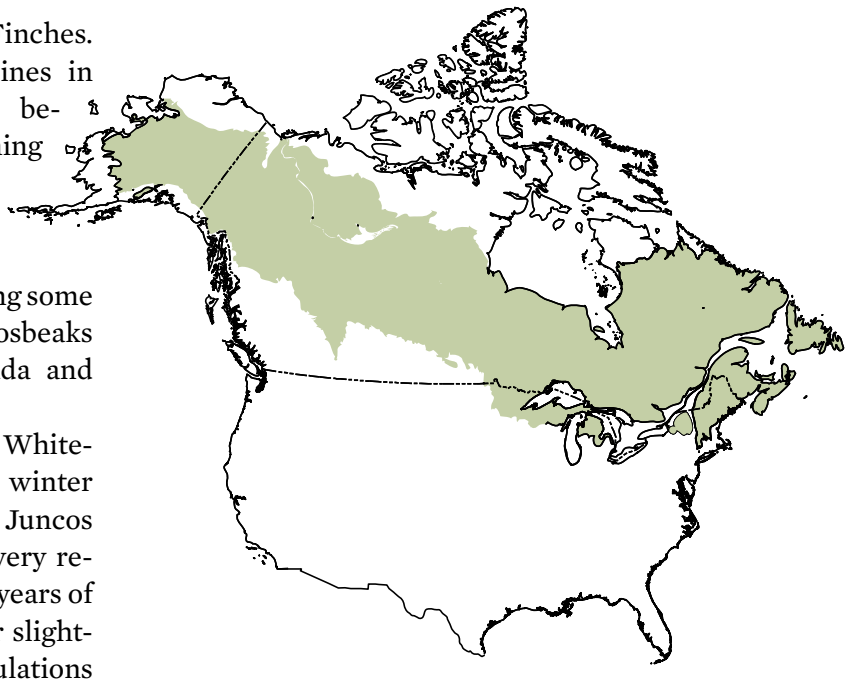
Boreal Chickadees and Canada Jays live in the boreal forest region year round, and Canadian FeederWatch reports show a slight downward trend for both species since the late 1990s.

low. They have adapted to the cyclic seed production of boreal trees by moving south in poor crop years in search of cones, seeds, and bird feeders—much to the delight of FeederWatchers! The top food choice at feeders is sunflower seeds—black-oil, striped, or hulled. Thirty-year FeederWatch trend data show stable populations of Pine Grosbeaks, White-winged Crossbills, Pine Siskins, and Purple Finches. FeederWatch data have shown steady declines in Evening Grosbeaks, however. The factors behind these declines are not clear. The Evening Grosbeak has been identified as a "Species of Special Concern" in Canada, meaning that it may become threatened or endangered. This past season, however, nostalgia broke out among some veteran FeederWatchers as lots of Evening Grosbeaks turned up at feeders in southeastern Canada and many areas of the U.S.

PERCENTAGE OF SITES VISITED BY BOREAL SPECIES

Boreal birds	*British Columbia*	*Prairie Provinces*	*Ontario*	*Quebec*	*Atlantic Canada*
Canada Jay*	10.0	16.4	7.3	5.3	9.5
Boreal Chickadee*	2.4	13.9	3.8	5.8	10.6
Pine Grosbeak*	13.1	42.0	13.0	18.9	8.1
White-winged Crossbill*	0.4	6.1	0.1	1.7	5.1
Purple Finch	30.6	12.0	32.4	34.4	47.3
Pine Siskin	61.3	26.1	27.6	33.1	45.3
Evening Grosbeak	24.6	32.3	19.2	31.5	46.9
White-throated Sparrow*	4.4	4.8	14.2	10.5	29.6
Dark-eyed Junco*	92.9	50.3	79.8	65.4	84.2

The average percentage of FeederWatch sites visited in each Canadian region from 1989–2019. An asterisk (*) indicates that more than 80% of the breeding population is in the boreal forest.



The boreal forest stretches across much of Canada.

The migratory Dark-eyed Juncos and White-throated Sparrows leave the boreal forest in winter for southern Canada and the U.S. Dark-eyed Juncos were one of the top 10 species reported in every region of Canada this past season. More than 30 years of data show that their populations are stable or slightly increasing. White-throated Sparrow populations in Canada have been stable since the beginning of FeederWatch in the late 1980s.

While few FeederWatchers are fortunate enough to host resident boreal specialists (Canada Jays or Boreal Chickadees), many host boreal finches periodically, and most have hosted Dark-eyed Juncos and White-throated Sparrows. It is exciting to see the contributions that FeederWatch participants are making to understanding the abundance, winter distribution, and movements of boreal specialists.

Evening Grosbeaks by Gord Belyea

Regional roundup

Trends and highlights from the 2018–19 FeederWatch season

BY EMMA GREIG, CORNELL LAB OF ORNITHOLOGY

Thank you to everyone who supported Project FeederWatch last season. Collectively, you reported more than 7 million birds (7,103,945!) on a record 160,177 checklists. Your counts, whether full of diversity or showing few species, are incredibly valuable and help us to see where birds are thriving and where they are struggling. In this Regional Roundup we highlighted the population trends and natural history of some species that are familiar to many of you, and a few species that may not be so familiar.

As in past years, the arrows in the Trend column of the Top-25 lists indicate how species did last year compared to the average across previous years. One arrow indicates an increase or decrease in percentage of sites visited by 5–10%, and two arrows indicate an increase or decrease by more than 10%. You can explore the full dataset and make discoveries of your own using the Trend Graphs on our website.

In addition to the summary data available on the website, raw FeederWatch data are available to anyone who wishes to use them. We had some data requests last year that serve as great examples of how to put FeederWatch data to use for your own investigations. Tamima Itani from Evanston, Illinois, and treasurer of the Illinois Ornithological Society, requested FeederWatch observations from the 2018–19 season so she could investigate how the polar vortex that hit the Midwest in winter affected the local bird community. She wrote, "The numbers of birds at feeders dropped significantly after the polar vortex compared to pre-vortex levels. For example, in the last feeder count I had before the polar vortex, I counted 17 species and 71 individual birds. In the count during/post polar vortex, I had 4 species and 5 individuals."

Another example comes from Robert Dryja from Los Alamos, New Mexico. Robert uses FeederWatch data for his monthly column in the *Los Alamos Daily Post*, where he writes about the bird communities in Los Alamos County. We were delighted to see Robert's and Tamima's creative uses of FeederWatch data.

2018–19 FeederWatch season statistics

23,806 PARTICIPANTS
160,177 CHECKLISTS
7,103,945 BIRDS

HAWAII TOP-10 LIST: 3 SITES

Rank	*Species*	*Average flock size*	*Percent of sites*
1	Spotted Dove	9	100
2	Java Sparrow	6	100
3	Zebra Dove	5	100
4	Red-crested Cardinal	3	100
5	Red-vented Bulbul	3	100
6	Common Myna	2	100
7	Northern Cardinal	2	100
8	Japanese White-eye	2	100
9	Red-whiskered Bulbul	3	67
10	House Finch	2	67

We are grateful to the three participants from Hawaii last season that reported their backyard visitors. Hawaii feeder birds are almost always non-native species, and last year was no exception. Species such as Spotted Doves, Java Sparrows, and Red-vented Bulbuls frequented the yards of every participant. Even Common Waxbills, a petite African species, showed up in one backyard.

Java Sparrow by Susan Szeszol

Northeast region

TOP-25 LIST: 7,335 SITES REPORTING

Rank	Species	Average flock size	Percent of sites	Trend
1	Chickadee*	3	95	
2	Dark-eyed Junco	4	94	
3	Downy Woodpecker	2	93	
4	Northern Cardinal	3	91	
5	Mourning Dove	4	90	
6	Blue Jay	3	90	
7	White-breasted Nuthatch	1	88	
8	American Goldfinch	4	86	
9	Red-bellied Woodpecker	1	74	
10	House Finch	4	74	
11	Tufted Titmouse	2	65	
12	Hairy Woodpecker	1	64	
13	European Starling	4	63	
14	House Sparrow	6	61	
15	American Robin	2	61	
16	Red-breasted Nuthatch	1	56	
17	White-throated Sparrow	3	51	
18	Song Sparrow	1	51	
19	Common Grackle	4	47	
20	Red-winged Blackbird	4	46	
21	Carolina Wren	1	45	
22	American Crow	2	43	
23	Cooper's Hawk	1	32	
24	Brown-headed Cowbird	3	32	
25	Purple Finch	2	29	

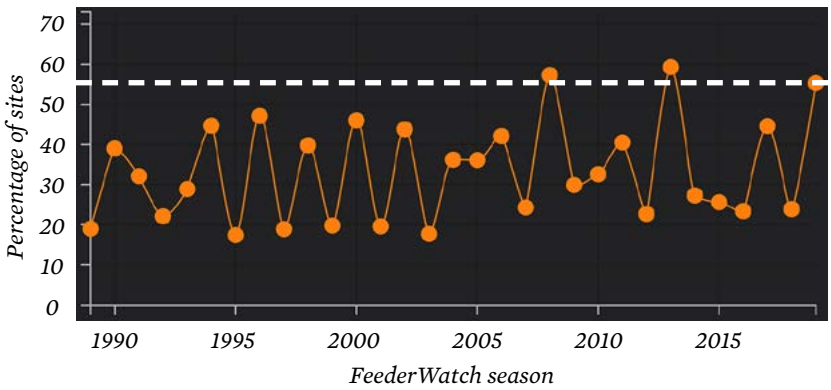
*Chickadee combines Black-capped Chickadee and Carolina Chickadee

This past season in the Northeast, we saw an abundance of some of our favorite feeder visitors that sport gray, black, white, and red plumage palettes: Black-capped/Carolina Chickadees, Downy Woodpeckers, Dark-eyed Juncos, and Northern Cardinals. These species brighten up any winter day, and we are always glad to see their populations stable across years. Red-breasted Nuthatches made a noteworthy appearance at many feeders in the Northeast, showing up at more feeders last year than in all but two other years in this region since FeederWatchers began keeping count in the late 1980s. Last year they visited 56% of feeders in the Northeast, which is lower than the two highest seasons: 2013 (59%) and 2008 (57%).

One very surprising visitor spent several weeks at the Merrill Creek Reservoir in Harmony, New Jersey, last winter: a Boreal Chickadee! These tiny chickadees are normally found in Canada and rarely show up in the U.S., especially as far south as New Jersey. The last eBird record for Boreal Chickadees in New Jersey was in the 1980s. They spend most of their time in coniferous forests, foraging for seeds and insects high in the forest canopies. The chickadee must have been happy to find a feeder, being so far from its normal winter range and typical food sources.

Rare Boreal Checkadee in Harmony, New Jersey, photographed by FeederWatcher Barb Sendelbach.

Percentage of sites reporting Red-breasted Nuthatches



Red-breasted Nuthatches in the Northeast were more abundant than last year only in 2008 and 2013 (years above the white dotted line).

Southeast region

The top species reported in the Southeast last year is one of the all-time favorites of many participants, the Northern Cardinal, reported at 97% of sites. Northern Cardinals have been slowly expanding their winter range north and west during the past several decades and have remained abundant in the Southeast all the while. One of the most endearing characteristics of this species is food sharing that happens between males and females, called "allofeeding." Mates will often share food with one another, enhancing the pair bond.

Another flashy resident of the Southeast that is also expanding its range north and west is the Red-bellied Woodpecker. According to the FeederWatch behavioral interaction data that participants have been collecting over the past several years, Red-bellied Woodpeckers are more aggressive than we would expect based on their body size alone, and perhaps this aggression has helped them to spread into new areas on the edge of their range. Notice how the proportion of sites visited by Red-bellied Woodpeckers has increased in the Central and Northeast regions, catching up to the proportion of sites visited in the Southeast.

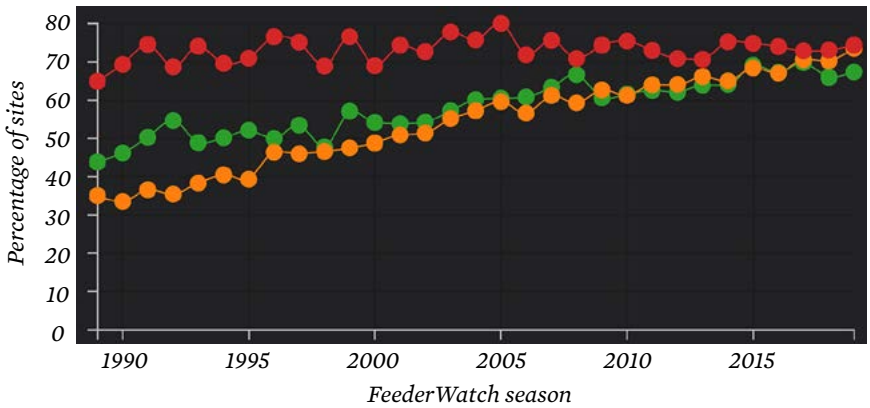
THOMAS CASTELLI

These Northern Cardinals are engaging in allofeeding—sharing food as a way of enhancing the pair bond.

TOP-25 LIST: 1,536 SITES REPORTING

Rank	*Species*	*Average flock size*	*Percent of sites*	*Trend*
1	Northern Cardinal	3	97	
2	Carolina Chickadee	2	88	
3	American Goldfinch	4	85	
4	Mourning Dove	3	84	↘
5	Carolina Wren	1	82	
6	House Finch	3	82	↗
7	Tufted Titmouse	2	81	
8	Blue Jay	2	76	
9	Red-bellied Woodpecker	1	75	
10	Downy Woodpecker	1	70	
11	Northern Mockingbird	1	64	
12	Dark-eyed Junco	3	60	
13	American Robin	3	57	↘
14	Chipping Sparrow	5	55	↗
15	Eastern Bluebird	2	53	↗
16	White-throated Sparrow	3	49	
17	Yellow-rumped Warbler	2	48	
18	White-breasted Nuthatch	1	46	
19	Brown-headed Cowbird	4	40	
20	Red-winged Blackbird	6	40	
21	Pine Warbler	2	40	
22	American Crow	2	39	
23	Purple Finch	3	39	↗
24	Brown Thrasher	1	38	
25	Spotted/Eastern Towhee	2	38	

Percentage of sites reporting Red-bellied Woodpeckers in Northeast, Southeast, and Central regions



Red-bellied Woodpeckers remained abundant in the Southeast (red) and increased in the Northeast (orange) and Central (green) regions as their range expanded.

Central region

TOP-25 LIST: 831 SITES REPORTING

Rank	Species	Average flock size	Percent of sites	Trend
1	Chickadee*	3	94	
2	Downy Woodpecker	2	93	
3	Dark-eyed Junco	5	91	
4	Blue Jay	3	87	
5	White-breasted Nuthatch	1	85	↑
6	American Goldfinch	5	76	
7	Northern Cardinal	3	73	
8	Hairy Woodpecker	1	72	
9	House Finch	4	71	
10	Red-bellied Woodpecker	1	68	↑
11	House Sparrow	7	67	
12	Red-breasted Nuthatch	1	64	↑↑
13	American Robin	2	58	
14	Mourning Dove	3	55	
15	European Starling	4	50	
16	Pine Siskin	6	44	↑↑
17	American Crow	2	39	↓
18	White-throated Sparrow	3	38	↑↑
19	Northern Flicker	1	37	
20	Purple Finch	3	37	
21	Common Grackle	4	31	↓
22	Pileated Woodpecker	1	28	
23	Red-winged Blackbird	4	26	↓
24	Carolina Wren	1	26	
25	American Tree Sparrow	3	25	

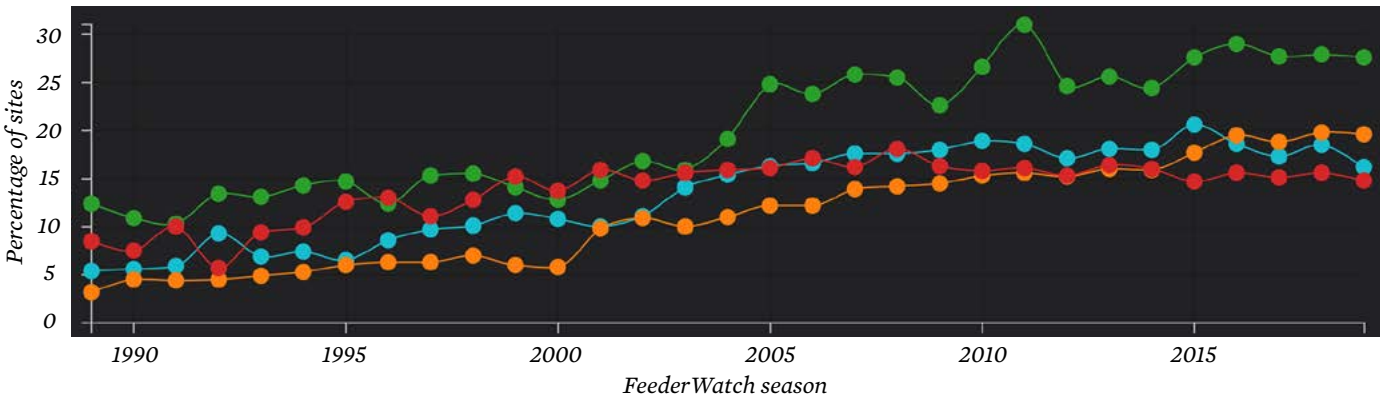
*Chickadee combines Black-capped Chickadee and Carolina Chickadee

The largest woodpecker in North America continued to have a strong presence in the Central region last season, showing up at 28% of the 831 sites reporting to FeederWatch. Pileated Woodpeckers have been thriving in recent decades, making the most of habitats that have stands of old, large trees. Their numbers have been slowly on the rise throughout their range. These woodpeckers will visit backyards for suet, sometimes startling observers because they are so enormous. They nest in large tree cavities that they excavate with their incredibly strong bills, so if you have these woodpeckers in your area, leaving large dead trees in your yard can be a way to entice them to spend a bit more time around your feeders.

KL Thalin

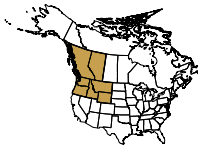
Surprisingly, Pileated Woodpeckers will feed on hanging suet cages despite their enormous size.

Percentage of sites reporting Pileated Woodpeckers in several regions



Pileated Woodpecker reports are on the rise throughout their range. They were seen most often in the Central region (green) but have also been gradually increasing in prevalence in the Northwest (blue), Northeast (orange), and Southeast (red).

Northwest region



Dark-eyed Juncos are the most commonly reported species continent-wide; they can be found almost everywhere in the U.S. and Canada. (Florida is one exception—sorry Floridians!) North of the Northwest region, they stay only for the summer, and south of the region they stay only for the winter, but in much of the Northwest region they stay year round. Perhaps it is no coincidence that they are the species most commonly reported to FeederWatch in the Northwest region.

There are several subspecies of Dark-eyed Juncos, and all can be reported in your FeederWatch counts if you wish to distinguish them. In the West, you are most likely to see the Oregon form, which has a brown body and dark gray head. In the East you will see the slate-colored form, which is gray all over with a white underbelly. To report a subspecies, use the Add Species button to add the subspecies to your list when entering your counts.

Anna's Hummingbirds continue to increase in the Northwest, visiting 53% of sites this past winter. They feed from many non-native plants, especially eucalyptus, and they survive some of the toughest days of winter by visiting nectar feeders, which have helped them expand their winter range in the Northwest. Because of your FeederWatch observations we have a good understanding of this range expansion, so thank you to everyone who has reported FeederWatch counts over the years.

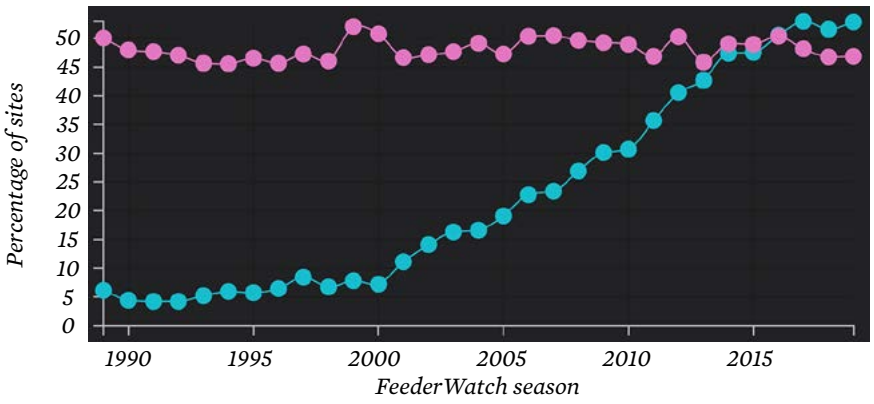
Oregon subspecies of Dark-eyed Junco.

JOAN TISDALE

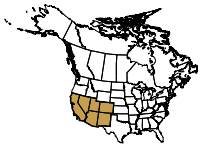
TOP-25 LIST: 1,208 SITES REPORTING

Rank	*Species*	*Average flock size*	*Percent of sites*	*Trend*
1	Dark-eyed Junco	7	89	
2	Black-capped Chickadee	3	82	
3	Northern Flicker	2	80	
4	House Finch	4	72	
5	American Robin	3	67	
6	Downy Woodpecker	1	65	
7	Red-breasted Nuthatch	1	60	
8	Song Sparrow	1	57	
9	Spotted Towhee	2	56	
10	Anna's Hummingbird	2	54	▲▲
11	European Starling	4	51	
12	Steller's Jay	2	47	▼
13	American Goldfinch	5	46	▲
14	House Sparrow	6	44	▼
15	Chestnut-backed Chickadee	2	42	
16	Varied Thrush	2	40	
17	Bushtit	10	37	▲
18	American Crow	2	37	
19	Pine Siskin	4	34	▼▼
20	Eurasian Collared-Dove	3	34	▲▲
21	Hairy Woodpecker	1	33	
22	Golden-crowned Sparrow	3	28	
23	Fox Sparrow	1	27	
24	White-crowned Sparrow	2	26	
25	Mourning Dove	3	25	

Percentage of sites reporting Anna's Hummingbirds in the Northwest and Southwest



Anna's Hummingbirds have become as common in the Northwest (blue) as they always have been in the Southwest (pink).



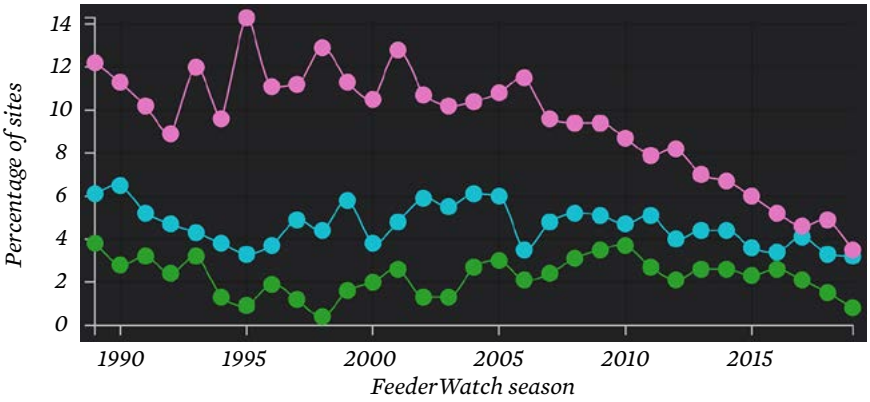
Southwest region

TOP-25 LIST: 1,127 SITES REPORTING

Rank	Species	Average flock size	Percent of sites	Trend
1	House Finch	5	92	
2	Dark-eyed Junco	4	78	
3	Mourning Dove	4	60	↘
4	Lesser Goldfinch	6	56	
5	White-crowned Sparrow	5	56	
6	American Robin	2	51	
7	Northern Flicker	1	50	
17	Scrub-Jay*	2	50	↘↘
8	House Sparrow	5	49	↘
9	Eurasian Collared-Dove	3	49	↗↗
10	Anna's Hummingbird	2	47	
11	Spotted Towhee	2	46	↗
12	American Goldfinch	4	44	↘
13	Downy Woodpecker	1	38	↗
14	White-breasted Nuthatch	1	37	
15	Cooper's Hawk	1	37	↗
16	Bushtit	7	36	↗
18	Yellow-rumped Warbler	2	35	↗
19	California Towhee	2	33	
20	American Crow	3	33	
21	Black-capped Chickadee	2	31	
22	Oak/Juniper Titmouse	1	28	
23	Pine Siskin	5	27	↘↘
24	Bewick's Wren	1	26	↗
25	Ruby-crowned Kinglet	1	26	

*Scrub-Jay combines California Scrub-Jay and Woodhouse's Scrub-Jay

Percentage of sites reporting Brewer's Blackbirds in several regions



Brewer's Blackbirds are in decline across their range, in the Southwest (pink), Northwest (blue), and Central (green) regions.

House Finches are at the top of the list in the Southwest region again, being reported at 92% of sites in the 2018–19 season. Flocks of these active reddish or brown birds are a delight to see, although some suffer from a disease known as House Finch Eye Disease (caused by the bacteria *Mycoplasma gallisepticum*). The disease causes distress not only for the finches but also for the people who notice sick birds. If you notice House Finch Eye Disease, be sure to make note of it in your Project FeederWatch counts. Your observations help researchers monitor the spread of the disease in wild populations. Regularly wash feeders, and if you see sick birds, temporarily take down your feeders to help prevent the spread of the disease to other finches.

A regularly occuring species that never makes the Top-25 in the Southwest region is the Brewer's Blackbird. These blackbirds, like many blackbird species in North America, are in decline across their range. Brewer's Blackbirds also are tricky to identify. Check your field guide to compare Brewer's Blackbirds to Common Grackles, Brown-headed Cowbirds, and Rusty Blackbirds. Because Common Grackles and Rusty Blackbirds are very rare in the Southwest region, if you see a blackbird there's a high probability that it's a Brewer's. Scatter some seeds on the ground to bring blackbirds—and maybe a few quails—to your backyard so you can get a closer look.

Brewer's Blackbird by Brandon Green

Far North region

Counts from the Far North are always exciting because the winters can be so harsh in the region. It is a tough region not only for birds but also for people, which might explain why there are only 61 FeederWatchers in this region. Nonetheless, those 61 participants gave us a window into the populations of some special birds.

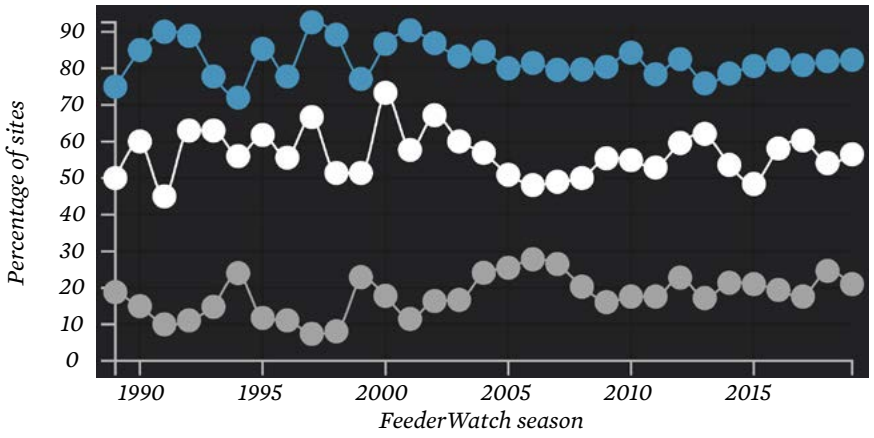
Last winter several tiny species—chickadees, redpolls, and nuthatches—had a large presence in the Far North. How do these little birds survive such cold weather? Have you ever noticed a bird looking "fat" on a cold day? It has probably fluffed its feathers, trapping a layer of warm air and increasing the insulative properties of the plumes. But what about their bare feet? To keep their feet from freezing without losing a lot of body heat in the process, they have what is known as "countercurrent exchange." In their legs and feet, the blood vessels with warm blood flowing from the core of their body lie next to the vessels with cold blood running back to the body from the feet. Heat transfers between the vessels without letting much heat escape into the environment. Birds such as ducks and gulls also have this feature, which allows them to paddle their feet in cold water.

Chickadees are so good at living in cold weather that three species made the Top-25 list in the Far North: Boreal, Chestnut-backed, and Black-capped. What a treat it must be to have all three species visit your feeders!

TOP-25 LIST: 61 SITES REPORTING

Rank	*Species*	*Average flock size*	*Percent of sites*	*Trend*
1	Black-capped Chickadee	4	82	
2	Common Redpoll	18	69	↓
3	Boreal Chickadee	2	56	
4	Red-breasted Nuthatch	2	54	
5	Black-billed Magpie	2	54	
6	Downy Woodpecker	1	51	↓
7	Dark-eyed Junco	4	48	
8	Common Raven	2	48	
9	Pine Grosbeak	6	44	↓↓
10	Hairy Woodpecker	1	44	↓↓
11	Canada Jay	2	41	
12	Steller's Jay	3	33	
13	Pine Siskin	17	21	↓
14	Chestnut-backed Chickadee	4	21	
15	American Robin	18	18	↑
16	Song Sparrow	1	16	
17	Hoary Redpoll	4	15	↓
18	Northern Shrike	1	15	
19	Red Crossbill	12	13	↑
20	Bald Eagle	2	13	
21	Bohemian Waxwing	20	11	
22	Varied Thrush	2	10	
23	Sharp-shinned Hawk	1	10	
24	Northwestern Crow	6	8	
25	White-crowned Sparrow	4	8	

Percentage of sites reporting chickadees in the Far North region



Chickadees thrive in cold weather. Black-capped (blue), Boreal (white), and Chestnut-backed (gray) regularly visit feeders in the Far North.

Black-capped Chickadee by Holly Kaltenstein

Distinguishing American Tree Sparrows, Chipping Sparrows, and Field Sparrows in winter

BY ANNE MARIE JOHNSON, CORNELL LAB OF ORNITHOLOGY

The Field Sparrow, American Tree Sparrow, and winter-plumaged Chipping Sparrow may be three of the most difficult birds to distinguish at feeders in eastern North America in winter. In the West, Field Sparrows are absent and the winter range of American Tree Sparrows is north of the winter range of Chipping Sparrows (although there is overlap during migration). In the East, however, Field Sparrows overlap with both species south of Maine, Ontario, Michigan, and Wisconsin. And in recent years, Chipping Sparrow numbers have been increasing in the North, creating more overlap with American Tree Sparrows—and creating more opportunity for confusion!

American Tree Sparrow

- 6.25 in (16 cm), slightly larger than Chipping and Field Sparrows
- Rust-colored cap year round with faint gray streak down middle in winter
- Rust-colored eyeline
- Bicolored bill—dark upper bill, yellowish lower bill
- Single dark spot on chest, sometimes hidden
- Rusty patch on shoulder
- Two bold, white wingbars, but upper one sometimes hidden

Carol Stack

Chipping Sparrow

- 4.7–5.9 in (12–15 cm)
- Rust-colored cap only in summer
- Gray/tan eyebrow in winter (bright white eyebrow in summer)
- Black or dark brown eyeline
- Pinkish bill in winter (black bill in summer)
- Grayish breast with no dark spot
- Plain gray shoulder
- Buffy wingbars in winter (white or gray in summer)

Bob Vuxinic

Field Sparrow

- 4.7–5.9 in (12–15 cm)
- Rust-colored crown
- Rust-colored patch behind the eye
- Distinct white eyering
- Pink bill
- Buffy breast with no dark spot
- Two weak wingbars

Bob Vuxinic

The Cornell Lab of Ornithology
Project FeederWatch
159 Sapsucker Woods Road, Ithaca, NY 14850-1999
feederwatch.org

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Highlights of the
7th BirdSpotter photo contest

BY HOLLY FAULKNER, CORNELL LAB OF ORNITHOLOGY

Last season Project FeederWatch hosted its 7th annual BirdSpotter photo contest. We received more entries and votes than ever! Nearly 2,400 entries garnered more than 16,900 votes in total. There were many great entries, including the second-place Grand Prize winning photo that was selected for the cover of this publication. You can find all the photos on our website at **feederwatch.org/birdspotter** (click on Browse Photos). Get the full stories behind the winning photos, classrooms, and data entry responses on the FeederWatch blog.

Weekly and grand-prize winners received a prize pack containing goodies from the Cornell Lab and our contest sponsor, Wild Birds Unlimited. Thank you to all Birdspotter participants and to Wild Birds Unlimited for their support. Join us this November when BirdSpotter starts up again!

↑Contestant Ostdrossel took home the top Grand Prize with this up-close-and-personal shot of a Mourning Dove, dubbed Mourna Lisa.

←Walt Cochran was birding with his daughter when they chanced upon this Short-eared Owl hunting along a spillway in Kansas. His photo won third-place Grand Prize.

Muhammad Arif captured this photo of a Red-winged Blackbird showing off his brightly colored epaulettes and won Judges' Choice for Category 8: Boring is Beautiful.

Neva L. Scheve waited for days to snap a photo of this Pileated Woodpecker family at just the right moment! She won Judges' Choice for Category 5: Woodpeckers and Nuthatches.