

Winter Bird Highlights

FROM PROJECT FEEDERWATCH 2017-18

The **Cornell** Lab of Ornithology



BIRD STUDIES
ÉTUDES D'OISEAUX CANADA



Gray Jay renamed Canada Jay

In 1957, the American Ornithologists' Union (AOU) changed the name of the Canada Jay to Gray Jay, much to the dismay of the Canadian birding community, whose members were also disappointed that the American, rather than Canadian, spelling of "gray" was adopted. This past spring, the AOU voted to restore the name to Canada Jay, putting an end to the decades-long debate. The new name will appear in this issue of *Winter Bird Highlights* and on FeederWatch checklists this fall. Welcome back, Canada Jay!

COVER: AMERICAN GOLDFINCH BY BOB VUXINIC
BELOW: CANADA JAY BY TAMARA REISER



Focus on Citizen Science is a publication highlighting the contributions of citizen scientists. This issue, *Winter Bird Highlights 2018*, 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.

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Join Project FeederWatch!

Anyone in the United States 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.

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Red-breasted Nuthatch irruptions and winter mortality

Combining Project FeederWatch data with other data sets yields new discoveries

BY ERICA H. DUNN, PROJECT FEEDERWATCH FOUNDER

The Red-breasted Nuthatch is an “irruptive” migrant, meaning that it moves only in some years, and when it does move the distance traveled can vary widely. Red-breasted Nuthatch irruptions occur when high population levels coincide with low conifer seed crop years. During irruption years lots of birds visit peoples’ feeders, so we might think that irruptions are an easy solution to the low natural seed crop—just move to a place with more food and you’ll be fine. But migration is a difficult activity, so maybe irruptive movements are also a costly activity for birds. To find out, I used five decades of daily banding data from the Long Point Bird Observatory (LPBO), located in southeastern Canada.

The abundance of birds at the LBPO banding station tells us how many individuals are passing through at a given time, so it provides a measure of migration or movement behavior. I found that the abundance of nuthatches at LPBO in autumn correlated strongly with counts reported the following winter across the



RED-BREASTED NUTHATCH BY BRUCE GATES

entire eastern U.S. by Project FeederWatch, Christmas Bird Count, and eBird. In other words, when fall irruptions at LPBO are high, nuthatch abundance reported by FeederWatch participants, Christmas Bird Count participants and eBird participants is also high. So do feeders attract nuthatches in higher numbers during years with irruption movements? It seems that this is the case, because during irruption winters nuthatch counts declined in Ontario Christmas Bird Count circles that had extensive (often coniferous) forest cover but increased in circles that were largely agricultural or urban—where there are also more bird feeders. It therefore seems clear that bird feeding can affect winter distribution. But how does it affect breeding and survival?

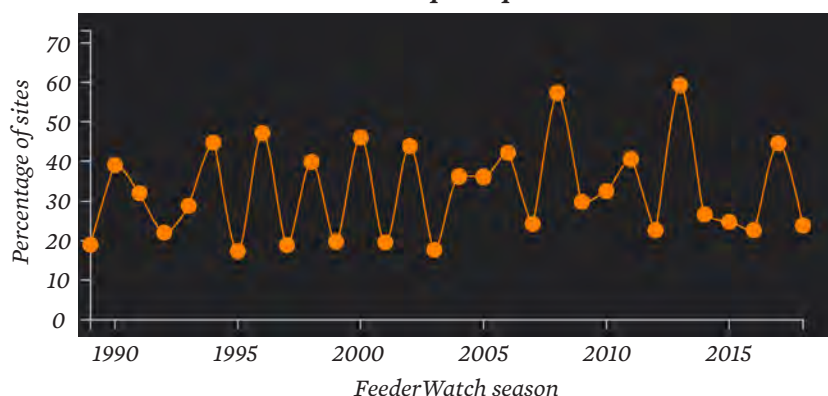
I used Breeding Bird Survey data to compare LPBO fall abundance with breeding density the following summer in the eastern part of the breeding range. I found no evidence that after years with irruptive movements larger numbers of nuthatches stayed south to breed; nuthatches still moved north to breed. Nevertheless, I found that the bigger the fall irruption, the lower the breeding density the next year, suggest-

ing reduced survival after irruptive movements. Although irrupting may give nuthatches a better chance of finding winter food, it appears that winter mortality is still higher during an irruption than in non-irruption years. The take-home message is that irruptive movements appear to be a difficult activity after all, and although irrupting may be better than staying put, the birds are probably making the best of a bad situation.



Erica (Ricky) Dunn established the Ontario Bird Feeder Survey in 1976 before joining forces with the Cornell Lab of Ornithology to expand the survey throughout the U.S. and Canada, creating Project FeederWatch.

Red-breasted Nuthatch irruptive pattern in Northeast



Percentage of FeederWatch sites in the Northeast FeederWatch region reporting Red-breasted Nuthatches since 1990.

Focus on Research

New findings about House Finch eye disease and cleaning bacteria from feeders

BY HOLLY FAULKNER, CORNELL LAB OF ORNITHOLOGY

New research examining House Finch eye disease demonstrates how disease-causing bacteria can evolve to become more dangerous over time. A second study tests the effectiveness of several methods for removing dangerous bacteria from feeders.

House Finch eye disease becomes more dangerous over time

Usually the immune systems of individual birds infected with a pathogen develop an “immune memory” that helps protect them from reinfection. It is identical to how your body creates antibodies after you get sick or receive a vaccine. The antibodies help prevent reinfection by that same pathogen. Immune memories are not always perfect, however, and we’re learning about this phenomenon from House Finch eye disease.

Recent findings indicate that the bacterium that causes House Finch eye disease, *Mycoplasma gallisepticum*, is becoming more dangerous than earlier versions of the pathogen. This finding was published in March in the journal *Science* by researchers at the Cornell Lab, Virginia Tech, Princeton, University of San Diego, and North Carolina State University.¹ The researchers found that limitations in immune memory allow stronger strains of *M. gallisepticum* to survive and make the next host they infect even sicker.

This study specifically looked at whether incomplete immunity favors the evolution of pathogen strains that are more virulent and leads to greater host mortality. The authors found that over time, when *M. gallisepticum* replicated in the first host, more virulent strains of the patho-

gen survived to be passed on to the next host, causing a worse case of the disease. The researchers determined that these stronger strains were almost twice as deadly as the initial strain that infected House Finches.

What can you do if you see sick birds at your feeders? Continue to wash your feeders regularly with a diluted bleach solution or boiling water and keep an eye out for infected individuals. If you see a sick bird at your feeders, we recommend that you take down the feeders that the sick bird was using for a week or more to let the birds disperse and to minimize disease transmission in your yard. If sick birds return once you reinstall your feeders, make sure that you wash your feeders at least weekly. If you see infected birds during your FeederWatch counts, report your observations with your counts.

¹Fleming-Davies, A.E., Williams, P.D., Dhondt, A.A., Dobson, A.P., Hochachka, W.M., Leon, A.E., Ley, D.H., Osnaas, E.E., Hawley, D.M. 2018. Incomplete host immunity favors the evolution of virulence in an emergent pathogen. *Science* 359:6379, 1030–1033.

Preventing disease: What’s the best way to clean your bird feeders?

Feeding birds can be a great source of joy, but bird feeders can increase the risk of disease transmission in the birds we love if we do not clean the feeders adequately. For example, *Salmonella* bacteria can cause sickness in birds and is transmitted through the digestive system. What is the best cleaning method to prevent the spread of disease? According to a recent study published in *The Wilson Journal of Ornithology*,² researchers at Kutztown University in Pennsylvania compared several cleaning methods to determine which was the most effective at reducing levels of *Salmonella enterica enterica* bacteria on wild bird feeders.

The researchers gathered data from two sets of feeders:



BRANDON GREEN

Pine Siskin appear to be highly susceptible to *Salmonella* infections.


Learn More

You can find more information about bird diseases on our website at feederwatch.org/learn/sick-birds-and-bird-diseases, and you can learn more about feeding birds safely at feederwatch.org/learn/feeding-birds/#safe-feeding-environment.

a set that had gathered debris from normal feeding activity and a set of unused, clean feeders. First, they applied cultures of *Salmonella* to the entire perch and seed well areas of each feeder and then measured the concentration of bacteria on the feeder. Then the researchers tested three cleaning methods: scrubbing feeders with soap and water, soaking feeders in a diluted bleach solution for 10 minutes, and scrubbing feeders with soap and water followed by a soak in a bleach solution. Finally, the researchers tested the feeders to determine how much bacteria remained.

The researchers found that all three cleaning methods reduced the amount of *Salmonella* on the feeders. The best methods, however, were the two that

involved a bleach soak. Additionally, they found that feeders with debris, such as seed hulls and dirt, had more bacteria after cleaning than new feeders, regardless of the cleaning method used. Furthermore, the debris-laden feeders that received only the soap and water treatment still had enough *Salmonella* to risk disease transmission.

What does this mean for FeederWatchers? We recommend that, at minimum, when you clean your feeders you soak or scrub them with a dilute bleach solution (no more than 1 part bleach to 9 parts water), rinse them thoroughly, and let them dry before adding bird feed. If your feeders have visible debris, be sure to scrub them as long as necessary to remove all debris before cleaning with bleach. Remember that prevention is the key to avoiding the spread of disease and that you should regularly clean your feeders even when there are no signs of disease. 

²Feliciano, L.M., Underwood, T.J., and Aruscavage, D.F. (2018). The effectiveness of bird feeder cleaning methods with and without debris. *The Wilson Journal of Ornithology*, 130(1):313-320.

Introducing Research Associate Vicki Martin

BY ANNE MARIE JOHNSON, CORNELL LAB OF ORNITHOLOGY

We are happy to introduce Vicki Martin, one of the Rose Postdoctoral Research Associates at the Cornell Lab of Ornithology. She joins us from Australia to continue her research on public engagement in citizen science.


Vicki is a social scientist, meaning she studies people. She is particularly interested in understanding the “people” part of environmental issues. Before coming to the Cornell Lab, she worked in Australia and New Zealand in a wide range of environments, including the Great Barrier Reef, New Zealand’s geothermal areas, national parks, and marine parks. Her research covered such diverse topics as environmental and protected species management, climate change, energy efficiency, and waste production. Vicki says these experiences sparked her interest in

public engagement in science and the way science is communicated to the public.

While she is here at the Cornell Lab, Vicki is very interested in you—our wonderful FeederWatchers! In fact, you may have already heard from Vicki. She is conducting two studies with FeederWatch participants. The first has already begun and involves working with some of you to determine whether participating in FeederWatch, or taking one of the Cornell Lab’s Bird Academy courses, increases peo-



Vicki Martin working at an ocean site in Australia.

ple’s confidence in their feeder bird identification skills. The second study involves working with young adults who feed wild birds but do not (yet!) participate in Project FeederWatch, to understand why some people participate and others do not. We will keep you posted on Vicki’s research! 

Black-capped Chickadee

The most reported bird in Canada

BY KERRIE WILCOX, BIRD STUDIES CANADA

The Black-capped Chickadee seems to have a cheerful personality and is a widespread and welcome visitor at feeders. Since FeederWatch began 31 years ago, this chickadee has topped the list for the most reported bird in Canada.

FeederWatchers have reported Black-capped Chickadees at least once each season at nearly 100% of all FeederWatch sites in all provinces except British Columbia, where it has been reported at about 70% of sites. This hardy bird has adapted itself to thrive in Canada's harsh winter conditions.

FeederWatch data are showing remarkably stable population trends across most of Canada. The exception is British Columbia, where there appear to have been more fluctuations in sites reporting chickadees. The number of FeederWatch sites in British Columbia visited by Black-capped Chickadees hit an all-time

low in 2000, when chickadees appeared at only 58% of sites. Much like trends seen in FeederWatch, the Breeding Bird Survey is showing stable populations across most of Canada, with a slight increase in numbers in the East and some declines in the West.

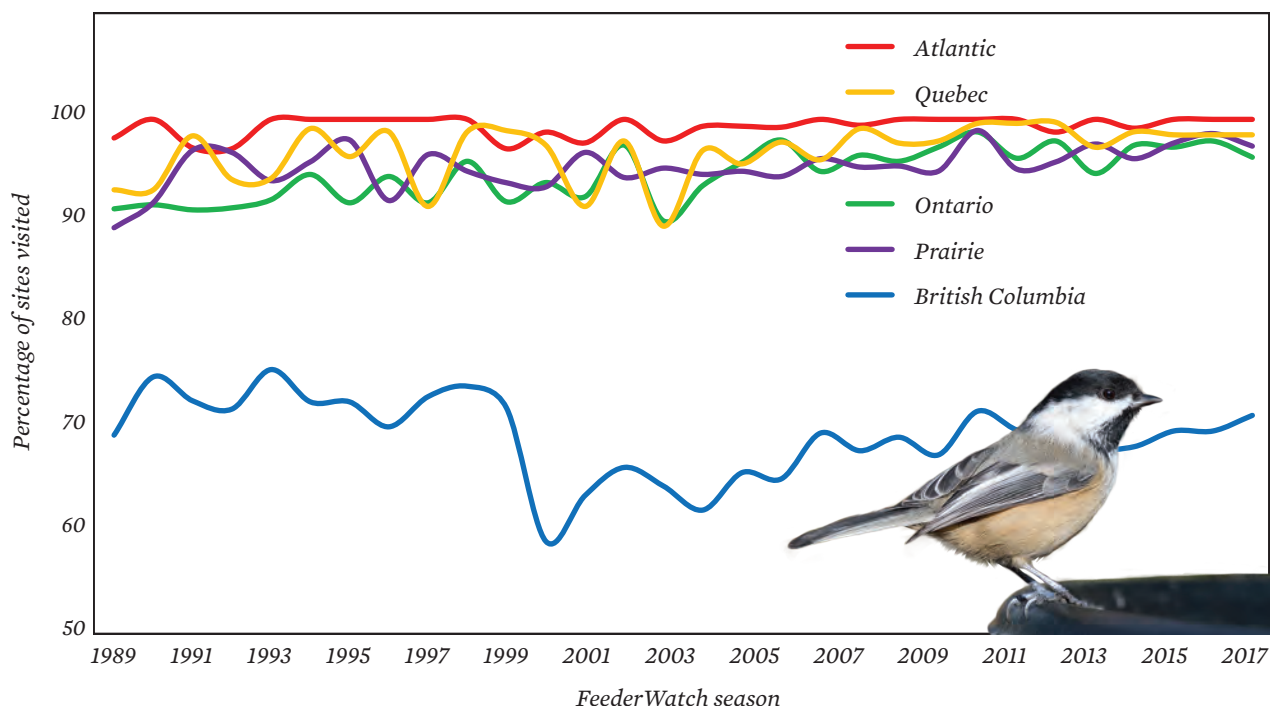
Natural history

Chickadees spend winters in flocks of 3 to 12 individuals. Each flock is composed of a resident pair and



NICK SAUNDERS

Percentage of sites visited by Black-capped Chickadees



CHEERYL FAGNER

In Canada, FeederWatchers have reported Black-capped Chickadees at nearly 100% of sites in all provinces except British Columbia, where it was reported at about 70% of sites.

a number of unrelated juveniles. The resident pair dominates all other flock members and gains preferential access to food. The average group size of Black-capped Chickadees at FeederWatch sites in Canada ranges from 3.5 to 5.5 birds.

The Black-capped Chickadee's range is confined to North America (from west to east, Alaska to Newfoundland, extending southward to northwestern California and the Appalachians). They are non-migratory, but irruptions sometimes occur due to fluctuations in northern seed crops or high reproductive success.

Pairs of this species mate for life. The average lifespan is 2.5 years, but the longest lifespan recorded is 12.5 years. A chickadee's winter diet is about 50% animal (mostly insects and spiders) and 50% plants (seeds and berries). Chickadees cache food mostly in autumn—primarily seeds, but also insects.

Black-capped Chickadees typically carry off seeds one at a time—one individual was recorded collecting 70 seeds in a single day! Much of their food is stored for later use. Many FeederWatchers have observed this caching behavior because chickadees stash

most items within 100 ft (30 m) of the food source. A Wisconsin study showed that food from feeders can make up 21% of a chickadees' diet in winter.

Deformed bills

Over the past two decades, an alarming number of bill deformities have been documented among Black-capped Chickadees and other species in Alaska.

Researchers at the U.S. Geological Survey's Alaska Biological Science Center now believe a virus may be causing the deformities. Thank you, FeederWatchers, for reporting your unusual-looking birds and helping scientists learn more about deformed bills. You can learn more about bill deformities on our website at feederwatch.org/learn/unusual-birds.

You can help!

Studies showed that ready access to feeders had no effect on the overwinter survival of Black-capped Chickadees under mild winter conditions. However, if temperatures dropped below zero (-17C) for more than five days in a row, chickadees that were able to visit feeders fared better than birds without a food supplement.



Brittingham, M.C. 1992. Use of winter bird feeders by Black-capped Chickadees. *J. Wildl. Manage.* 56:103-110.

Foote, J.R., D.J. Mennill, L.M. Ratcliff, and S.M. Smith. 2010. Black-capped Chickadee (*Poecile atricapillus*), version 2.0. In *The Birds of North America* (A.F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.

Mennill, D.J., S.M. Doucet, R. Montgomerie, and L.M. Ratcliffe, 2003. Achromatic color variation in Black-capped Chickadees, *Poecile atricapilla*: black and white signals of sex and rank. *Behavioral Ecology and Sociobiology*. 53: 350-357.

Cool Facts

They are smart: Chickadees have a remarkable memory.

Studies of chickadees hiding and recovering seeds in laboratory settings have shown that 24 hours after caching, the birds not only remember where they hid things but also which sites they had already emptied. They also remember which cache sites hold the highest quality seeds and will visit those first. Studies have documented accurate cache recovery after 28 days. Chickadees have a large hippocampus (the brain region associated with memory), and chickadees living in northern climates have a larger hippocampus than birds living farther south. Chickadees have the impressive ability to increase their hippocampus size by 30% in the fall to expand their spatial memory capacity, and then shrink it down to normal size in the spring.

They can survive in frigid temperatures: Chickadees have the ability to go into regulated hypothermia every night. By lowering their body temperature well below their normal daytime temperature, chickadees can conserve large amounts of energy and greatly increase their chance of survival. The colder it is out-

side, the more energy the birds conserve. Studies in Alaska showed that chickadees gained an additional 10% of their body weight each day to store enough energy for the night. At night, the chickadees went into hypothermia and used the excess body fat by shivering all night to keep warm. Because chickadees are so small, they need to find a well-insulated place to spend the night. Cold winter nights are often spent in tiny tree holes.

Chickadees see ultraviolet wavelengths: While male and female chickadees look identical to our eyes, they actually have variations in ultraviolet coloring. Chickadees, like many birds, can see ultraviolet light. To them, males have significantly brighter white and gray areas than females. Also, high ranking males (the ones preferred by females) have significantly darker black plumage than other males.

Feeding Black-capped Chickadees: Foods that FeederWatchers have identified as chickadee favorites include: sunflower seeds of any type, safflower seeds, hulled peanuts, suet, and peanut butter mixes.

Regional roundup

Trends and highlights from the 2017–18 FeederWatch season

BY EMMA GREIG, CORNELL LAB OF ORNITHOLOGY

Thank you for another great year of Project FeederWatch. This past season you reported more than 7 million birds on a record 156,076 checklists. That's a lot of data! We looked

at the patterns that emerged from your efforts and report some highlights here in the Regional Roundup. You can also explore all the data yourself using the Trend Graphs on our website at feederwatch.org/explore/trend-graphs.

Where are the birds?

One common theme in the correspondence we received this past season was that many people noticed fewer birds at their feeders. Long-time participant Jean Segerstrom from Nisswa, Minnesota, wrote: "I have never seen or counted so few birds...I know the lack of birds is as important to know as the abundance, but it was surely a heart breaker...I hope others had bushes of birds to report." Lynn Moore from Clifton, Idaho, wrote: "We have NO winter birds. We have magpies...but no doves, sparrows, juncos, nothing." We wondered if the data on a continental scale reflected these local patterns, especially because other participants had different experiences this winter: "The feeders were like a busy airport," wrote Sylvia Dobek from Belgrade, Montana.

Overall, we found that most species were doing as well as usual (note the Trend column on the Top-25 tables), so the lack of birds that some people were observing probably reflects local changes in feeding behavior rather than continental-scale population declines. Was it a bumper crop of natural food in the forests, drawing birds away from feeders? Maybe. Irruptive species such as Red-breasted Nuthatches and Purple Finches showed declines at feeders in several regions, suggesting that natural foods were abundant (particularly the Northeast, Central, and

Southeast). In contrast, Pine Siskins and Common Redpolls showed increases at feeders in most regions, suggesting that natural foods in the Far North were scarce.

What about common, non-irruptive residents, such as Tufted Titmice, Downy Woodpeckers, and chickadees? We saw subtle declines in some of these species, suggesting that what people were observing in their backyards was widespread: Tufted Titmice declined slightly in several regions, for example. But many species were as abundant as ever. Look for the trend arrows in the Top-25 lists, which indicate an increase or decrease in percentage of sites visited: 5–10% (1 arrow) or > 10% (2 arrows). We are eager to see what the next season holds and if the common species that declined make a rebound in the winter of 2018–19.



GARY MUELLER

2017–18 FeederWatch season statistics

24,319 PARTICIPANTS
156,076 CHECKLISTS
7,105,887 BIRDS

HAWAII TOP-10 LIST: 4 SITES

Rank	Species	Average flock size	Percent of sites
1	Zebra Dove	8	100
2	Spotted Dove	7	100
3	Common Myna	4	100
4	Red-crested Cardinal	2	100
5	Java Sparrow	6	75
6	Red-vented Bulbul	4	75
7	Northern Cardinal	2	50
8	Japanese White-eye	2	50
9	House Finch	1	50
10	House Sparrow	11	25

We were delighted to have four participants from Hawaii this season, giving us enough data to create a summary of their counts. We would love to have even more people in Hawaii participating!

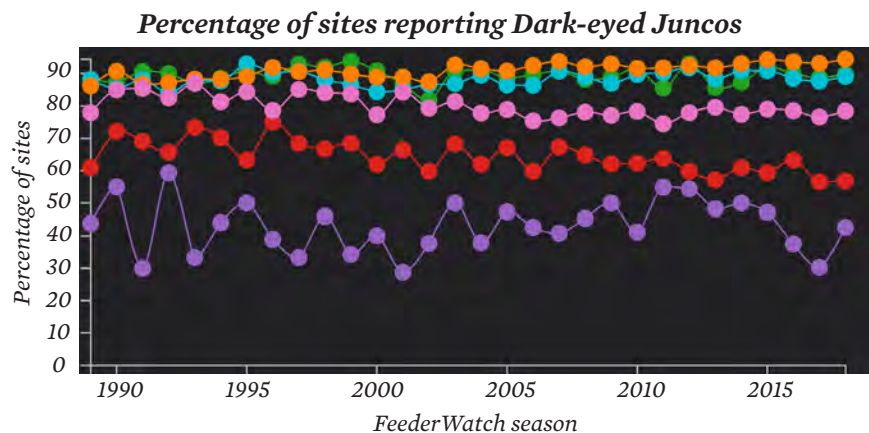


Northeast region

TOP-25 LIST: 6,930 SITES REPORTING

Rank	Species	Average flock size	Percent of sites	Trend
1	Chickadee*	2	97	
2	Dark-eyed Junco	5	95	
3	Downy Woodpecker	2	92	
4	Blue Jay	3	91	
5	Mourning Dove	4	91	
6	Northern Cardinal	3	90	
7	American Goldfinch	5	86	
8	White-breasted Nuthatch	1	81	
9	House Finch	4	74	
10	Red-bellied Woodpecker	1	71	▲
11	Tufted Titmouse	2	65	
12	European Starling	4	65	
13	Hairy Woodpecker	1	62	
14	American Robin	2	62	
15	House Sparrow	6	61	
16	Common Grackle	4	52	
17	American Crow	2	50	▼
18	Red-winged Blackbird	4	50	▲
19	Song Sparrow	1	49	
20	White-throated Sparrow	3	45	
21	Carolina Wren	1	42	
22	Brown-headed Cowbird	3	36	
23	American Tree Sparrow	3	34	
24	Cooper's Hawk	1	32	
25	Purple Finch	2	31	

*Chickadee combines Black-capped Chickadee and Carolina Chickadee

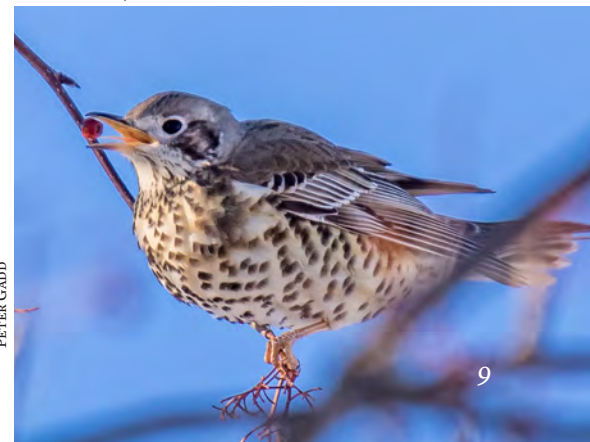


Dark-eyed Juncos are showing stable population trends in all regions (each color represents a different FeederWatch region).

In the Northeast this season, some common species such as Tufted Titmice and American Goldfinches—species that usually show very stable populations based on the percentage of FeederWatch sites visited—showed subtle declines (from 68% to 65% of sites for Tufted Titmice and 88% to 86% of sites for American Goldfinches). Other species that people mentioned being missing from their backyards, such as Dark-eyed Juncos, chickadees, and woodpeckers, were as abundant as last season, so even if they weren't present as often, they did show up at feeders eventually. The biggest declines in the Northeast were in Red-breasted Nuthatches, which decreased in several eastern regions. This supports the idea that natural food was abundant in the Northeast: the eastern nuthatches were able to find all they needed without visiting feeders. An abundance of natural foods may have driven the subtle declines we observed in titmice and goldfinches as well.

The Northeast had an exciting rare visitor to New Brunswick. A Mistle Thrush showed up in the yard of Deana and Peter Gadd in Miramichi. Mistle Thrushes are normally found in Europe and Asia, but now and then a vagrant will show up in North America. They are in the same genus as American Robins, and you can see the resemblance, especially to a juvenile American Robin, which has similar spots on the belly and chest. What a great sighting!

A vagrant Mistle Thrush reported in Miramichi, New Brunswick.



PETER GADD

Last season in the Southeast we noticed a striking increase in Pine Siskins, which were reported at 28% of feeders compared to 11% during the 2016–17 season. This pattern was evident in all other regions as well, indicating that it was an irruptive year for siskins. Other irruptive species, such as Common Redpolls, similarly increased in most regions continent-wide, but Red-breasted Nuthatch trends varied by region. In the Northeast, Central, and Southeast regions, Red-breasted Nuthatches were reported at fewer feeders this season compared to last, but in the Southwest and Northwest they were reported at more feeders.

The species showing the most dramatic decline in the Southeast was the Purple Finch—they were reported at only 19% of sites, compared to 30% of sites last season. This dramatic decline may be related to changes in food abundance. If natural food was abundant, it may have allowed these finches to spend more time in the forests rather than in the backyards of FeederWatchers.

Species on the rise in the Southeast included Yellow-rumped Warblers, Ruby-crowned Kinglets, and Orange-crowned Warblers. These small, typically insectivorous species will often visit suet feeders in winter. Warm-weather-loving Chipping Sparrows and Eastern Bluebirds remain on the rise as well.

Southeast region



TOP-25 LIST: 1,395 SITES REPORTING

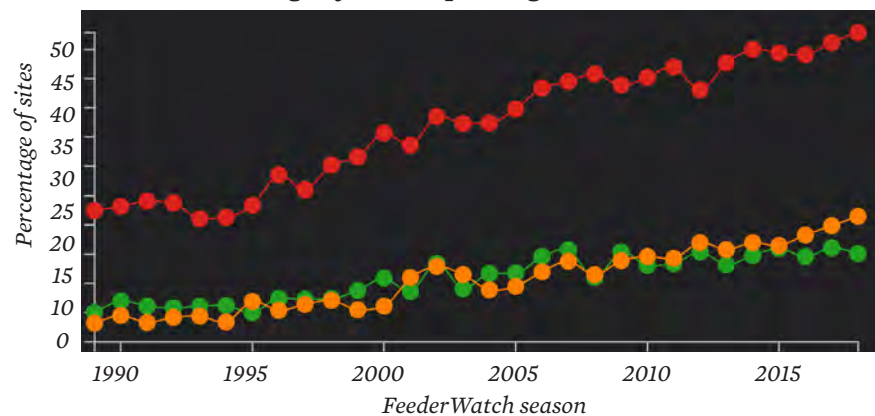
Rank	Species	Average flock size	Percent of sites	Trend
1	Northern Cardinal	3	97	
2	Carolina Chickadee	2	89	
3	Mourning Dove	3	84	▼
4	Carolina Wren	1	83	
5	Tufted Titmouse	2	81	
6	House Finch	3	79	
7	American Goldfinch	4	78	▼
8	Blue Jay	2	78	
9	Red-bellied Woodpecker	1	74	
10	Downy Woodpecker	1	68	
11	Northern Mockingbird	1	67	
12	American Robin	2	61	
13	Dark-eyed Junco	3	58	▼
14	Yellow-rumped Warbler	2	57	▲▲
15	Chipping Sparrow	5	54	▲
16	Eastern Bluebird	2	54	▲
17	White-throated Sparrow	3	48	▼
18	American Crow	2	42	
19	Brown-headed Cowbird	4	40	
20	White-breasted Nuthatch	1	40	
21	Brown Thrasher	1	40	
22	Red-winged Blackbird	6	38	
23	Pine Warbler	1	38	
24	Eastern Towhee	1	36	
25	House Sparrow	4	36	



BOB VUXINIC

Bob Vuxinic of Crossville, Tennessee, noted when he submitted this photo to FeederWatch's Participant Photos Gallery, "For the past five years, I've seen a few more Eastern Bluebirds staying around during the winter each year."

Percentage of sites reporting Eastern Bluebirds



Eastern Bluebirds show steady increases in the Southeast (red), Central, (green) and Northeast (orange) regions.



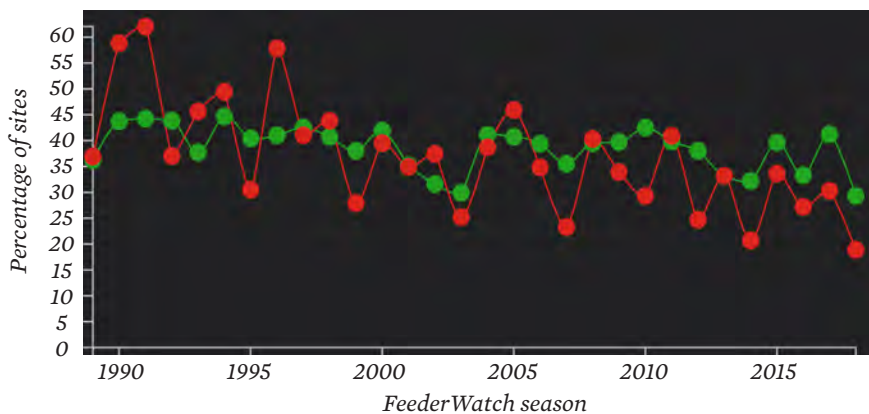
Central region

TOP-25 LIST: 779 SITES REPORTING

Rank	Species	Average flock size	Percent of sites	Trend
1	Downy Woodpecker	2	94	
2	Chickadee*	3	93	
3	Dark-eyed Junco	5	90	
4	Blue Jay	3	87	
5	White-breasted Nuthatch	1	84	
6	Northern Cardinal	3	72	
7	American Goldfinch	5	72	▼
8	House Finch	4	71	
9	Hairy Woodpecker	1	70	
10	House Sparrow	6	70	
11	Red-bellied Woodpecker	1	66	
12	Mourning Dove	3	58	
13	American Robin	2	56	
14	European Starling	4	50	▼
15	American Crow	2	44	
16	Common Redpoll	11	39	▲▲
17	Northern Flicker	1	35	
18	Common Grackle	4	33	▼
19	Red-winged Blackbird	4	30	
20	Pine Siskin	4	30	
21	Red-breasted Nuthatch	1	30	
22	Purple Finch	3	30	▼
23	White-throated Sparrow	3	29	
24	Pileated Woodpecker	1	28	
25	Tufted Titmouse	2	28	

*Chickadee combines Black-capped Chickadee and Carolina Chickadee

Percentage of sites reporting Purple Finches



Purple Finches declined last season compared to the 2016-17 season in the Central (green) and Southeast (red) regions.

Like the Southeast region, the Central region showed a strong decline in Purple Finches last season, reported at 30% of sites compared to 42% the previous season. Red-breasted Nuthatches and American Goldfinches also declined at feeders in the Central region. These widespread declines suggest that natural foods were abundant last year. We look forward to seeing if counts for these three species bounce back this coming season.

Some exciting news came from Saskatchewan this year. FeederWatchers Harvey and Brenda Schmidt reported the first provincial record of a Fieldfare! These stunning birds typically live in Northern Europe and Asia, but occasionally vagrants show up in North America. They are a relative of the other rare visitor to Canada this year, the Mistle Thrush, which was reported by a FeederWatcher in the Northeast region (see page 9). Fieldfares and Mistle Thrushes are relatives of American Robins, so it is no surprise to see them in a backyard...but it is a surprise to see them so far from their usual range!



Harvey and Brenda Schmidt found this vagrant Fieldfare in their yard in Creighton, Saskatchewan—the first record of the species in the province!

Large sparrows were thriving in the Northwest this past season. White-crowned and Golden-crowned Sparrows both showed increases that were small but consistent with long-term trends in the region. These species are members of the *Zonotrichia* genus and are among the largest sparrows in North America. Another large sparrow that continues to be on the rise in the Northwest is the Fox Sparrow, a wonderful “chunky” sparrow that rivals the other *Zonotrichia* in their size and sparrow-charisma. All three species forage on the ground, scratching for seeds and insects in leafy understory. You can attract them to your yard by offering seed on the ground or on platform feeders.

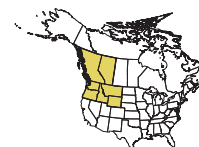
FeederWatcher Janice Hurlburt of Edmonton, Alberta, captured a perfect photo of Bohemian and Cedar Waxwings. She wrote, “Usually in December in central Alberta, we have the Bohemians Waxwings, with a few Cedars in the mix. This year there was a flock of 30 Cedar Waxwings in my yard that was eventually joined by around 200 Bohemians.” Neither species typically visits feeders, but they will eat berries from trees and bushes in backyards, which is why they show up in counts.

A rare photo of a Bohemian and a Cedar Waxwing side by side, making for a perfect comparison between these two similar but distinct species! Notice the distinctive yellow wing strip and rufous vent feathers on the Bohemian Waxwing on the right.



JANICE HURLBURT

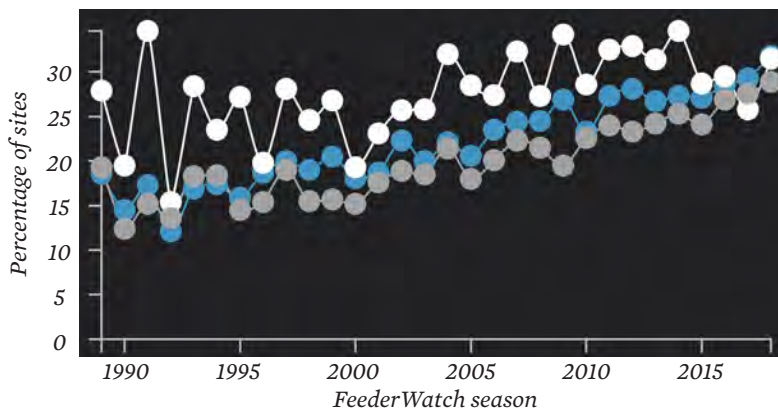
Northwest region



TOP-25 LIST: 1,167 SITES REPORTING

Rank	Species	Average flock size	Percent of sites	Trend
1	Dark-eyed Junco	7	90	
2	Northern Flicker	2	82	▲
3	Black-capped Chickadee	3	82	
4	House Finch	4	73	
5	Red-breasted Nuthatch	2	71	▲
6	Downy Woodpecker	1	67	▲
7	American Robin	2	60	▼
8	Song Sparrow	2	59	
9	Spotted Towhee	2	57	
10	Steller's Jay	3	57	
11	Pine Siskin	5	55	
12	Anna's Hummingbird	2	52	▲▲
13	Chestnut-backed Chickadee	2	48	
14	European Starling	4	48	
15	House Sparrow	6	45	▼
16	Varied Thrush	2	43	
17	American Crow	3	38	
18	Bushtit	9	36	▲
19	Eurasian Collared-Dove	3	34	▲▲
20	American Goldfinch	4	34	
21	Golden-crowned Sparrow	3	32	▲
22	Fox Sparrow	2	32	
23	Hairy Woodpecker	1	32	
24	White-crowned Sparrow	2	29	▲
25	Mourning Dove	4	27	

Some sparrows visiting a higher percentage of sites



Fox (white), Golden-crowned (blue), and White-crowned (gray) Sparrows have been appearing at more FeederWatch sites in the Northwest.



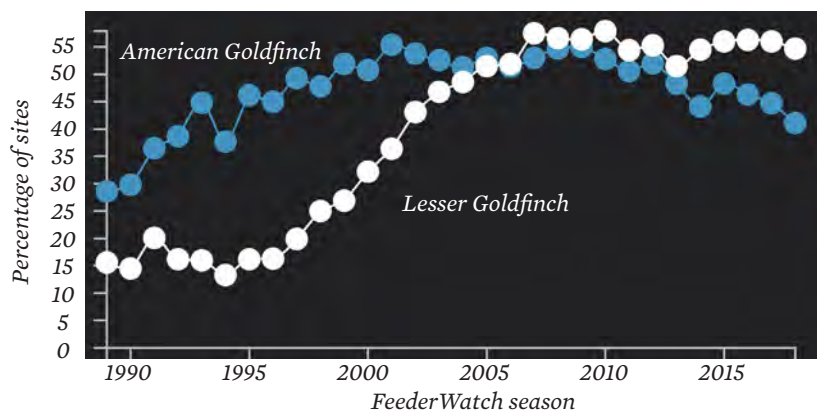
Southwest region

TOP-25 LIST: 1,003 SITES REPORTING

Rank	Species	Average flock size	Percent of sites	Trend
1	House Finch	5	90	
2	Dark-eyed Junco	5	79	
3	Mourning Dove	4	60	▼
4	White-crowned Sparrow	5	59	
5	Lesser Goldfinch	5	55	
6	Northern Flicker	1	50	
7	Eurasian Collared-Dove	3	50	▲▲
8	House Sparrow	5	49	▼
9	Anna's Hummingbird	2	48	
10	American Robin	2	47	▼
11	Spotted Towhee	1	44	
12	American Goldfinch	4	42	▼▼
13	White-breasted Nuthatch	1	41	▲
14	Pine Siskin	4	39	
15	Scrub-Jay*	2	56	
16	Downy Woodpecker	1	38	▲
17	Cooper's Hawk	1	36	▲
18	American Crow	3	33	
19	California Towhee	2	32	
20	Mountain Chickadee	2	32	▲
21	Steller's Jay	3	31	
22	Oak/Juniper Titmouse	1	30	
23	Bushtit	5	30	
24	Black-capped Chickadee	2	30	
25	Yellow-rumped Warbler	1	29	

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

Percentage of sites visited by goldfinches



Lesser Goldfinches are now seen at more feeders in the Southwest than American Goldfinches.

The Southwest region produced an uptick in nuthatches and chickadees this past season; White-breasted Nuthatches and Mountain Chickadees increased significantly (41% and 25% of feeders respectively, compared to 29% and 19% the previous season). Red-breasted Nuthatches didn't make the Top-25 list, but they also increased this season (27% of feeders) compared to the previous season (13% of feeders).

We saw a decline in American Goldfinches in the Southwest region; 42% of participants reported them this past season compared to 46% the previous season. Lesser Goldfinches have slowly become more common than American Goldfinches in this region. One reason for this change may be increasing temperatures in the Southwest. If Lesser Goldfinches are better able to cope with the arid and hot climate, they may be better able to survive than American Goldfinches. We need your counts to keep watch on goldfinch populations, and we also recently started tracking eye disease in American and Lesser Goldfinches. Make sure to check the goldfinches coming to your feeder to see if they have eye disease and report your observations with your FeederWatch counts.



LESSER GOLDFINCH BY JOAN TISDALE

Last season there were some interesting changes in the Far North that suggest natural foods may have been scarce in the region. Common Redpolls showed a decline, yet they were irrupting in more southern regions, suggesting they moved to areas with more food. Steller's Jays, Pine Siskins, and Varied Thrushes all showed increases at feeders last season compared to the previous season, and because these are also irruptive migrants it suggests that natural foods may have been lower than usual in the Far North. Steller's Jays, like most members of the crow and jay family, are great at taking advantage of foods provided by people. If you've ever camped or picnicked in the West, there is a good chance you have had these "camp robbers" try to steal some crackers from your table!

One species that made the Top-25 list this year, but that we don't typically think of as a feeder bird, was the Bald Eagle. They don't visit FeederWatch sites enough in any other region to make the Top-25 list of feeder birds, but in the Far North they do. Sometimes they are just perched in trees, but some participants offer carrion (dead animals) and attract eagles to their yards!

Canada Jay reports declined during the 2016–17 season, but made a rebound last season, appearing at 43% of feeders in the Far North (compared to 37% in 2016–17). As we reported in last year's *Winter Bird Highlights*, the species has been on a slow but steady decline over the years, probably related to climate change. Warming temperatures at the southern part of their range make it difficult for them to cache food items that spoil, so their range is contracting. We are glad that there are some participants in the Far North to document how the jays are doing at the northern limits of their range.

Far North region



TOP-25 LIST: 60 SITES REPORTING

Rank	Species	Average flock size	Percent of sites	Trend
1	Black-capped Chickadee	4	82	
2	Common Redpoll	13	72	
3	Downy Woodpecker	1	60	
4	Pine Grosbeak	7	58	
5	Red-breasted Nuthatch	2	57	
6	Boreal Chickadee	2	55	
7	Black-billed Magpie	2	55	
8	Dark-eyed Junco	5	43	
9	Canada Jay	2	43	
10	Common Raven	2	43	
11	Hairy Woodpecker	1	43	▼▼
12	Steller's Jay	3	42	▲▲
13	Pine Siskin	21	32	
14	Chestnut-backed Chickadee	4	25	
15	Hoary Redpoll	4	20	
16	Sharp-shinned Hawk	1	20	▲
17	Varied Thrush	2	17	
18	Northern Shrike	1	17	
19	Ruffed Grouse	3	13	
20	Northwestern Crow	10	12	
21	Song Sparrow	2	12	
22	Bald Eagle	1	12	
23	Fox Sparrow	1	12	
24	Brown Creeper	1	12	
25	American Robin	8	10	



STELLER'S JAY BY DONALD BURNS

Featuring Anne Coffey

Counting birds even when there are no birds to count

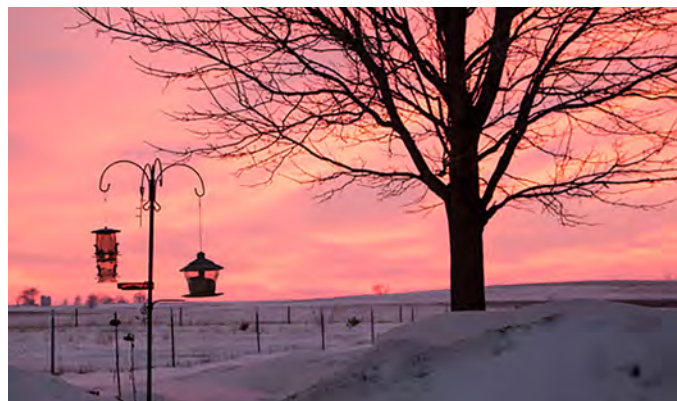
BY ANNE MARIE JOHNSON, CORNELL LAB OF ORNITHOLOGY

Because we know our participants enjoy seeing and learning about new and different birds, we tend to highlight unusual sightings and the participants lucky enough to see them. But because consistent reports of common birds, or the lack thereof, are what make FeederWatch data so valuable, this year we decided to feature a participant whose sightings more accurately reflect what some participants see at their feeders year after year—low counts of the same birds, or no birds at all.

Anne Coffey started FeederWatching in 2013 with an active count site in a place one would expect to see few birds—Tysons, Virginia, a densely populated area near Washington, D.C. Her site was surrounded by high-rise buildings and within walking distance of a large shopping mall. Nevertheless, she saw as many as 17 different species and 49 individual birds during counts at that location—results most FeederWatchers would be delighted to have.

Then in November 2017, Anne moved to Asheville, North Carolina. Her new neighborhood did not permit seed feeders, so she hung a suet feeder and a fruit feeder above a berry-laden holly bush. After doing two counts with no birds, she wrote to FeederWatch saying that although she had seen Carolina Wrens and American Robins close by, no birds were coming to her count site. Then she asked one of the most common questions we hear from FeederWatchers, “Should I continue counting when I may not see any birds? It seems like a waste of your time having to include zero counts.”

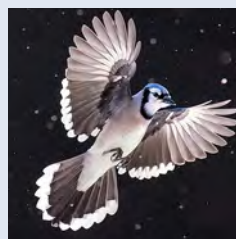
We assured Anne that the absence of birds is just as important as the presence of birds, and we encouraged her to keep counting. Anne’s low counts could be attributed to the lack of seed feeders, and having data from sites with no seed feeders allows researchers to assess the impact of seed feeders on winter feeder-bird populations. She found the counts especially



CHRISTINE GITZTIE

discouraging because she was working part-time at a Wild Birds Unlimited store and was hearing customers share their exciting sightings. She wrote, “It’s definitely not as much fun to get so little traffic, but it helped to know it was worthwhile.” She conducted six more FeederWatch counts before finally observing birds.

We are so grateful to Anne and all the FeederWatchers who continue to watch their feeders even when few or no birds visit or the same species appear for every count. We know it can be hard to get motivated to watch feeders week after week just to report the same birds, but those counts really are valuable! The only way we can know if birds are declining is if people seeing few or no birds collect and submit their counts. 🐦



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!

BLUE JAY BY HARRY FOSTER

FeederWatch's sixth BirdSpotter photo contest

BY HOLLY FAULKNER, CORNELL LAB OF ORNITHOLOGY

Last season, Project FeederWatch hosted its 6th annual BirdSpotter photo contest. We received 1,853 entries, and 12,165 votes were cast to choose contest winners! We wish we could print all of the winners and eye-catching honorable mentions, but you can find these photos at **feederwatch.org/birdspotter** (click on Browse Photos).

Wild Birds Unlimited sponsored last season's contest, and winners received Cornell Lab gifts and Wild Birds Unlimited gift cards to help them create the ultimate feeder site. We thank all the contestants for participating and our sponsor for supplying great prizes. Remember, you can submit your photos at any time of the year to our Participant Photos gallery!



Dee Elliot took home the First Place Grand Prize for her photograph of a Scissor-tailed Flycatcher maneuvering its dinner.



Laura Frazier won Third Place Grand Prize for her photo of an Indigo Bunting perched on a bright yellow sunflower.



Linda Peterson's perfectly framed shot of a Baltimore Oriole took home Second Place Grand Prize.