

**OMNRF Licensed Wildlife Rehabilitators Wildlife Rehabilitators Current List 2017 (within a one hour drive of RBG Main Centre)**  
**For issues or concerns with wildlife contact Animal Control (City of Hamilton 905-574-3433, or Burlington 905-335-3030)**

Licensed Authorization Holder	Facility	General Location	Address (due to need to call first, might only be a mailing address & not facility location)	Phone (ALWAYS call first)	Species they have the license, training, & equipment to care for	Drive time average
Ricciuto, Carol	Open Sky Raptor Foundation	Grimsby	R.R.#1 Grimsby, L3M 4E7	905-643-1391	RAP	30 min
Contardi, Cara	Urban Wildlife Care	Grimsby	23 Betts Avenue, Grimsby	905-945-7217	RVS, SMM	30 min
Precious, Carol	private home	Puslinch area	6783 Concession 1, Hespeler	519-651-2160	RAP, LCA, UNG	30 min
Gionet, Annick	Owl Foundation	Vineland	4117 Twenty-First St, Vineland Station, L0R 2E0	905-562-5986	RAP	35 min
Frankian, Dan	Hawkeye Bird Control Inc.	Halton Hills	Regional Road 25, Halton Hills, L7J 2M1	519-853-3323	RAP	40 min
Engel, Louise	private home	Vineland	3678 Victoria Ave, Vineland, L0R 2C0 (Featherstone Estate Winery)	905-562-1949	RAP	40 min
Knuff, Judy	Hickory Farms	Milton	RR5, Milton, L9T 2X9	905-877-8446	SMM	45 min
Mills-Mammoliti, Danielle	Stormhaven Garden Wildlife Rehabilitation	Guelph	Guelph, N1H 6V9	519-400-3108	SMM	45 min
Ker, Dr. Alistair	Thorold Vet Hospital	Thorold	2 Sullivan Ave, Thorold, L2V 2X9	905-227-7644	BIR, HER, SMM, SCA	45 min
Cox, Sherri	National Wildlife Centre	Caledon East; Sometimes Guelph	PO Box 192, Caledon East, L7C3L9	416-577-4372	RVS, BIR, RAP, HER, LCA, SCA, SAM	45 min-1 hour
Theijin, Chantal	Hobbitstee Wildlife Refuge	Jarvis	1226 concession 4 Walpole, Jarvis, N0A 1J0	519-587-2980	RVS, BIR, HER, SMM, SCA, UNG, SAM	50 min
Drake, Judi	Songbirds Only Avian Rehabilitation	Rockwood	145 Inkerman St. PO Box 75. Rockwood, N0B 2K0	519-656-4500	BIR	50 min
Kalbfeish, Darlene	private home	Waterloo	533 Stanwood Crescent, Waterloo, N2K 3P5	519-888-0154	BIR	55 min
Griffin, Shirley	Wayward Paws	Ingersoll	4 North Town Line East, Ingersoll, N5C 1R2	519-485-1976	RVS, BIR, HER, SMM, SCA, SAM	1 hour
Kuruziak, Mary Catharine	Niagara Wildlife Haven	Welland	461 Wright Street, Welland L3B 2K6	905-735-9556	Everything but black bears	1 hour
Karvonen, Nathalie	Toronto Wildlife Centre	Downsview	60 Carl Hall Rd., Unit 4, Toronto M3K 2C1	416-631-0662	RVS, BIR, RAP, HER, SMM, BEA, UNG, SAM	1 hour
Crombie, Dr. Christopher	Windrush Vet Services	Brantford		519-449-5080	No longer accepting wildlife; Dr. Crombie retiring. Will triage animals as-needed & then send elsewhere	

Current as of September 14, 2016; Published: July 17, 2014. From <https://www.ontario.ca/page/find-wildlife-rehabilitator>

**Key to Authorized Species Categories**

- RVS Rabies vector species (species that can carry and transmit rabies), including bat, fox, skunks, raccoon  
BIR Birds, excluding raptors  
RAP Raptors, including hawk, falcon, osprey, owl  
HER Herpetofauna (reptiles & amphibians), including turtle, lizard, frog, toad, snake, salamander  
SMM Small mammals, including squirrel, chipmunk, rabbit, hare (excludes RVS)  
BEA Black bears  
LCA Large carnivore (meat-eating) animals - wolf, bobcat, coyote, lynx, badger, fisher, opossum (not RVS & black bear)  
SCA Small carnivore (meat-eating) animals, including marten, mink, weasel, shrew (excludes RVS)  
UNG Ungulates (hoofed animals), including moose, deer, elk  
SAM Semi-aquatic mammals, including beaver, otter, muskrat

**NOTE:** No Ontario wildlife rehab facility is able to provide pick-up services; they are entirely run by volunteers & donations. The specimen must be brought to them.

**ALWAYS CALL FIRST** – Rehabilitators cannot release specimens anonymously dropped off at their facilities as they cannot determine where they originated from; this increases the likelihood the animal will be euthanized. Always drop the animal off in person.

Thank you all for attending and for your interest in birds and birding. In no particular order, here are a number of references and links that I recommend.

#### **Bird Identification and bird feeding:**

- 1) Book - *Feed the Birds* by Chris Earley
- 2) Book – *How to Feed Backyard Birds: A Step-by-Step Guide for Kids* by Chris Earley. Note I was not aware that he written this one when I gave my talk!
- 3) Cornell's free Merlin app [Download Merlin Bird ID for iOS and Android – Merlin Bird ID – Free, instant bird identification help and guide for thousands of birds \(allaboutbirds.org\)](#)
- 4) Online course on feeder birds: [Feeder Birds: Identification and Behavior | Bird Academy • The Cornell Lab \(allaboutbirds.org\)](#)

#### **Other books:**

- 1) *What it's Like to be a Bird* by David Allen Sibley
- 2) *Birds of Hamilton and Surrounding Areas* by Robert Curry (may be out of print)
- 3) Anything by Jennifer Ackerman
- 4) Other field guides by Chris Earley

#### **To listen to bird songs:**

- 1) Xeno-canto [xeno-canto :: Sharing wildlife sounds from around the world](#)
- 2) Cornell [Cornell Lab of Ornithology—Home | Birds, Cornell Lab of Ornithology](#)

#### **Feeder cams:**

- 1) Algonquin Park Visitors Centre [Algonquin Park Live Webcam | Algonquin Provincial Park | The Friends of Algonquin Park](#)
- 2) Ontario Feeder Watch in Manitouwadge [Ontario FeederWatch Cam | Cornell Lab Bird Cams Cornell Lab Bird Cams \(allaboutbirds.org\)](#)
- 3) Cornell Lab, Ithaca NY [Cornell FeederWatch Cam | Cornell Lab Bird Cams Cornell Lab Bird Cams \(allaboutbirds.org\)](#)

The first two are fantastic for seeing boreal birds like Evening and Pine Grosbeaks, Common Redpolls, Purple Finch, Pine Siskin, and maybe even a Canada Jay.

#### **Helping to keep birds safe:**

- 1) Keeping cats indoors: [Cats and Birds | Cats and Birds](#)
- 2) Helping our birds: [Your Guide to Helping Canada's Birds - Birds Canada | Oiseaux Canada](#)
- 3) Cleaning and disinfecting your feeders: [Keeping Feeder Birds Healthy - Birds Canada | Oiseaux Canada](#)
- 4) Window Treatments to prevent bird collisions: [Feather Friendly](#)
- 5) Lights out to prevent bird collisions: Fatal Light Awareness Program (FLAP) [Home - FLAP Canada](#)

### Developing bird friendly gardens and yards:

- 1) Birds Canada [Home - Bird Gardens](#)
- 2) Audubon [How to Make Your Yard Bird-Friendly | Audubon](#)
- 3) See several separate documents on leaving the leaves

### Bird advocacy:

- 1) Burlington Hamilton Bird Friendly City: Email [birdfriendlycityhamburl@gmail.com](mailto:birdfriendlycityhamburl@gmail.com)  
Look for them on Facebook and Instagram. Their link page with many interesting links:  
[birdfriendly.hamburl](#) | [Instagram](#), [Facebook](#) | [Linktree](#)
- 2) Birdsong Hamilton: Look for us Twitter and Facebook. Also blog at [Birdsong Hamilton – About Us – The Experienced Intermediate Birder \(wordpress.com\)](#)

### Charitable organizations that would appreciate your support:

- 1) BurlingtonGreen Environmental Assoc. [Home - BurlingtonGreen](#)
- 2) Nature Canada [Nature Canada - Protecting Canadian Wildlife & Wilderness Since 1939](#)
- 3) Birds Canada [Home - Birds Canada | Oiseaux Canada](#)
- 4) The Owl Foundation [The Owl Foundation](#)
- 5) Hamilton Naturalists' Club [Home - Hamilton Naturalists' Club \(hamiltonnature.org\)](#)
- 6) Hobbitstee Wildlife Refuge [Hobbitstee Wildlife Refuge](#)

### Stores dedicated to birds:

- 1) Wild Birds Unlimited - 3350 Fairview St, Burlington (Dave Wood) [Wild Birds Unlimited - Nature Shop \(wbu.com\)](#)
- 2) Urban Nature – stores in St. Catharines, Etobicoke, Kingston, North York, Mississauga, Oshawa, Pickering, and Markham (Paul Oliver). Their website has a wealth of information [Wild Birding Store Canada, Backyard Birding Products & Supplies - Urban Nature Store](#)
- 3) The Backyard Birder – Sudbury [Backyard Birder | Home and Garden Gift Store – Backyard Birder Home & Garden | Gift Store](#)

### Keeping out pigeons and doves:

This is copied from a Wild Birds Unlimited website, and is their number one recommendation to avoid pigeons and doves: Feed Foods Without “Fillers”: Many bird seed blends from other stores include “filler” ingredients such as millet, cracked corn, red millet, canary seeds, milo, wheat and oats in large quantities. “Filler” ingredients such as wheat and oats are not eaten by any backyard birds except House Sparrows, Rock Pigeons (or just plain old Pigeons as most people know them) and Mourning Doves. Corn and millet are eaten by some birds but when used in large quantities to fill up a bag of seed to drive the cost down most of it ends up being wasted because feeder birds such as finches and chickadees throw it on the ground in search of sunflower seeds. Seeds dropped on the ground in great quantities can attract doves and pigeons. Bottom line good quality blends can help keep doves and pigeons away from your bird feeders

**Local clubs:**

The Hamilton Naturalists' Club (<http://hamiltonnature.org/>) has many very experienced members. They lead occasional birding field trips, and hold monthly meetings. Members contribute to online alert system for rare bird alerts.

The Pipits ([Ontario Birding | The Pipits](#)) is a nature group primarily focused on birds, run by a friend, Colleen Reilly. The Pipits hold weekly field trips and zoom meetings, and Colleen makes it not only informative and educational, but a lot of fun.

**Facebook:**

There are hundreds of birding and bird photography Facebook groups, but I have two favourites, both run by friends of mine. Birds, Blooms, Beasts, Bugs and Butterflies, or B5 for short, is run by Barb Canney. Like Colleen, Barb makes her group both fun and informative, and it is global in scope, so you'll see lots of fascinating posts from all over the world.

The other group, Ontario Bird Photography, is run by a great birding friend, Bill McDonald. This site is more focused on excellence in bird photography; you will see many National Geographic quality shots.

**Making your own hummingbird nectar:**

Do not buy coloured nectar. The food dye is not good for the birds. Boil water. When cooled make a solution of one cup of white sugar with four cups of water. Stir and keep refrigerated. Clean and change the nectar frequently, even daily, when it is hot and humid.

**Favourite local birding spots:**

Burlington – LaSalle Marina Park, Paletta Mansion, Kerncliff, Joe Sams, Woodland Cemetery, Valley Inn, RBG properties

Oakville – Sedgewick Forest, Bronte Harbour, Bronte Bluffs, Bronte Provincial Park, Shell Park, Creek Path Woods

Hamilton – Hamilton beach, Bayfront Park, Dundas Valley Conservation Area, Desjardin Canal, Spencer Creek trails, Christie Lake Conservation Area

**If you have an injured bird:**

See three separate PDF files on this topic

**My contact info:**

I would be delighted to have you follow my book and birding activity, by sending a friend request to <https://www.facebook.com/TheBirderBob/>, or by following me on Twitter at @ThebirderBob, BlueSky at @thebirderbob.bsky.social, or Instagram at thebirderbob. If you have any questions or are looking for help with a bird ID, don't hesitate to email me at [robertcbell5@gmail.com](mailto:robertcbell5@gmail.com)

**Final word:**

No doubt I've forgotten to include a few things, so apologies to those charitable organizations, clubs, stores, etc. that I've left out!





**GARDEN**  
**FOR WILDLIFE™**

# Create a Bird-Friendly Habitat

Birding is enjoyed by more than 45 million across the United States<sup>1</sup>. You can go birding just outside your door by planting a bird-friendly garden.

It starts by planting native plants that offer natural bird foods such as seeds, berries, nuts and nectar, as well as the insects birds feed their babies. You can add some supplemental feeders, a birdbath and nesting boxes and birds from colorful songbirds to acrobatic hummingbirds will be ready to move in. Many bird species are declining and planting for birds can help bolster their populations.

Find plants native to your area at [nwf.org/NativePlantFinder](https://www.nwf.org/NativePlantFinder).

**DID YOU KNOW 96% OF SONGBIRDS DEPEND ON CATERpillARS AS A FOOD SOURCE TO SURVIVE? AND A PAIR OF CAROLINA CHICKADEES REQUIRES BETWEEN 6,000 AND 9,000 CATERpillARS TO SUCCESSFULLY RAISE JUST ONE BROOD OF YOUNG. IT'S IMPORTANT TO PLANT NATIVE TREES AND PLANTS TO SUPPORT OTHER BIRDS AND WILDLIFE. A NATIVE OAK TREE CAN SUPPORT THE CATERpillARS OF OVER 500 SPECIES OF BUTTERFLIES AND MOTHS.**

# Tips & Info

1. **Plant Natives.** Plant a variety of native plants – trees, shrubs and flowers – to offer food in the form of seeds, berries, nuts, and nectar. Learn more about plants native to your area at [nwf.org/nativeplants](https://nwf.org/nativeplants).
2. **Eliminate Insecticides.** Don't spray insecticides. Insects are the primary source of food for most bird species and are a critical source of protein and fats for their babies. Learn more about avoiding pesticides at [nwf.org/sustainability](https://nwf.org/sustainability).
3. **Provide Water.** A simple birdbath is a great start. Birds require clean water, so change it every 2-3 days, this also prevents mosquitoes. Use a heater in the winter. Place 10 feet from dense shrubs or other cover that predators may use.
4. **Build a Brush Pile.** Start with larger logs and top with smaller branches. Some birds will hunt, roost or even nest in brush piles.
5. **Remove Invasive Non-Native Plants.** Invasive plants out-compete native species and destroy bird habitat. To find a list of invasive plants in your region go to the USDA National Invasive Species Information Center [invasivespeciesinfo.gov/subject/lists](https://invasivespeciesinfo.gov/subject/lists).
6. **Keep Snags.** Standing dead trees called snags provide cavity-nesting birds with places to raise young, shelter from bad weather, and a source of insects for food. Learn more about snags at: [nwf.org/treesandsnags](https://nwf.org/treesandsnags).
7. **Add Birdhouses.** Install nesting boxes, also called "birdhouses," to offer cavity-nesting species a place to raise young. Boxes should have the right size entry hole and dimensions for the species you are trying to attract, as well as ventilation holes near the top and drainage holes below. Mount the box at the natural nesting height for the bird species.
8. **Prevent Window Strikes** - Many birds are killed when they fly into windows. Prevent bird strikes by marking or covering windows with bird tape, stickers, netting, or screens. Also, turn lights off at night, which disorient migrating birds.
9. **Keep Your Cat Indoors.** Free-roaming domesticated cats kill billions of wild birds every year. Bells placed around an outdoor cat's neck does not help.
10. **Go Up.** Take your bird-friendly habitat vertical by planting native trees. One tree can provide food, cover and places for birds and other wildlife and double the size of your habitat on the ground.
11. **Fill a Feeder.** Bird feeders can supplement natural food sources and create great bird viewing opportunities.

1. U.S. FISH AND WILDLIFE SERVICE AND U.S. CENSUS BUREAU, 2016 NATIONAL SURVEY OF FISHING, HUNTING, AND WILDLIFE-ASSOCIATED RECREATION.



**GARDEN  
FOR WILDLIFE™**

## Join the Garden for Wildlife Movement!

Join the growing movement of people making a difference for wildlife where they live, work, learn, worship, and play! Just go to [nwf.org/garden](https://nwf.org/garden).

**Photo Credits:** Page 1: Bluebird – Leslie Scopes Anderson; Grey Bird – Beth Diggs; 2 birds – Laura O'Toole; Hummingbird – Saija Lehtonen  
Page 2: Indigo Bunting – David Sloas



## At Home In The Cold: An Intro To The World Of Winter Birds

<https://abcbirds.org/blog21/winter-birds/> (Birdcalls)

**Joe Lowe** February 10, 2021

Sure, winter can be dark, cold, and barren in the northern U.S., but that doesn't mean it isn't a great time to see birds.

After all, winter heralds the arrival of Dark-eyed Juncos, the famous snowbirds, and other visitors such as **Snowy Owls** and **Evening Grosbeaks**. And they aren't alone. Plenty of other cold-adapted resident species — **Northern Cardinals** and **Blue Jays**, to name two — stay put during winter months.

Not only are birds active in winter — they can be much easier to spot, too. With no leaves on many trees, fewer people, less noise, and a monochrome landscape (if there's snow), winter birds often seem to pop into view without much effort by those seeking them.

Even if you are unwilling or unable to venture out in the cold, winter birds aren't off-limits. Snow can draw birds to backyard feeders *en masse*, making them easy to observe from the warmth of our homes.

But, as anyone who has spent time observing winter birds knows, just seeing these birds does little to explain their presence. It raises some tough questions: How can birds that weigh less than an ounce survive sub-zero temperatures night after night? What do they eat? Where do they sleep?

Luckily, we've got the answers to these questions and others below. Take a look and tell us what your favorite winter birds are in the comment section below.



Evening Grosbeak.

Photo by FotoRequest/Shutterstock

Which birds are commonly seen in the winter?

Given the size of the U.S., there is no one-size-fits-all answer; however, there are common winter birds that are observed widely. These include the **Northern Cardinal**, **Dark-eyed Junco**, **Mourning Dove**, **Downy Woodpecker**, **Black-capped Chickadee**, **White-breasted Nuthatch**, **American Goldfinch**, House Finch, House Sparrow, and **Blue** and Steller's Jays.

In addition, regional food shortages sometimes send “irruptive” waves of birds southward to the lower 48 states during winter months. These sporadic visitors include **Snowy Owls**, **Evening Grosbeaks**, Pine Grosbeaks, Red and White-winged Crossbills, and Common Redpolls.



Common Redpoll. Photo by FotoRequest/Shutterstock

How do winter birds stay warm?

Unlike humans, who rely on heated structures and heavy layers to stay warm, birds do fine by themselves — even in extreme circumstances. Take, for example, **Black-capped Chickadees**. These small birds, which weigh less than half an ounce, maintain body temperatures at 100 degrees Fahrenheit even when temperatures dip well below freezing. How do they do it? Birds rely on a few key strategies and tools to defy the odds:



- **Insulation:** Most winter birds utilize a set of super-warm downy feathers to keep the cold at bay. These feathers, which are usually hidden, trap pockets of warm air next to birds' bodies. Fluffing their feathers helps birds maximize this advantage, while also giving them a plump appearance.

- **Eating:** During the winter, birds stay busy looking for high-fat and high-protein foods during the day. This builds up fat reserves they burn during the night to stay warm. Being successful at the “fat reserves” game requires significant food consumption: Chickadees are known to eat more than 35 percent of their body weight every day.

- **Shivering:** Birds have extremely high metabolic rates and shivering helps them generate even more warmth during periods of colder weather.

- **Countercurrent heat exchange:** Birds' legs, which in many species are devoid of feathers, are exposed to intense cold. Rather than circulate the blood in their legs throughout their bodies, waterfowl isolate blood within their legs, minimizing its cooling effect on internal organs. Even so, it's still common to see these birds standing on one leg to conserve heat.

- **Communal roosts:** By huddling together, birds can share heat and help each other stay warm. This tactic is used frequently by smaller birds like finches, nuthatches, wrens, bluebirds, and others.



Northern Cardinals. Photo by Steve Byland/Shutterstock

Where do birds sleep in the winter?

On frigid nights, effective roosting sites can mean the difference between life and death for birds. Not surprisingly, these sites are carefully chosen. Birds have evolved a variety of strategies to avoid the elements. For example, **Blue Jays** and **Northern Cardinals** take refuge in dense evergreen foliage; finches roost together on coniferous trees, but will sometimes burrow and create sleeping hollows in snow; woodpeckers, titmice, and nuthatches prefer to roost in tree cavities. Roosting in protected areas has the added benefit of providing security from predators like owls and foxes.



Dark-eyed

Junco. Photo by Steve Byland/Shutterstock

Do birds freeze to death?

Despite their wonderful natural defenses, birds remain vulnerable to freezing weather. The impacts of intense cold are complex, but there is no question that birds do indeed succumb to frigid temperatures. Mortality rates depend upon the intensity of the freeze, how long it lasts, and the birds' condition. Death isn't the only danger cold poses to birds: Frost bite can also take a toll: There are well-known instances of **Mourning Doves** losing tips of their toes, for example. In addition, sudden early cold spells may also interrupt the first feather molt in young birds hatched in late summer.



Black-capped Chickadee. Photo by FotoRequest/Shutterstock

What do birds eat in winter?

At first glance, a wintry landscape may appear devoid of nutrition. But birds are extremely resourceful when it comes to finding food.

- Sapsuckers tap into the sweet sap flowing under tree bark, leaving sap wells for other birds to feed from.
- Chickadees, nuthatches, and other birds are able to locate and eat dormant and larval insects by carefully inspecting crevices and cracks in tree bark.

- Blue Jays, waxwings, **Hermit Thrushes**, **Yellow-rumped Warblers**, and **American Robins** feed on the berries of junipers, honeysuckle, holly, and other plants.

- Jays, titmice, finches, and other birds feast upon fallen acorns and pine nuts.

Seeds, grain, carrion, and small mammals provide additional cold-weather food sources for a variety of bird species.



Blue Jay. Photo by

Steven Russell Smith Photos/Shutterstock

Where can I find birds in the winter?

Because birds are so well adapted to the cold, they can be found in many of the same places you might look during other seasons. Backyards, local parks, and wildlife refuges are good places to search. Unfrozen ponds, lakes, and rivers often attract waterfowl, sometimes in large flocks. If still in doubt, **eBird** is a great way to find out where other birders are having luck.



White-

breasted Nuthatch. Photo by Michael Stubblefield

What dangers do birds face in the winter?

Apart from the cold, in winter, birds face many of the same dangers they do during the rest of the year. This includes **outdoor cats**, which kill approximately 2.4 billion birds each year in the U.S., and **collisions with glass**, which claim up to 1 billion birds each year in the U.S. In addition, **habitat loss** continues to devastate bird populations.

The combined effect of these threats and others is staggering. In total, it's estimated that **3 billion North American birds have been lost since 1970**.

Another winter danger, but one that benefits birds: Feeders indirectly attract raptors such as the **Cooper's Hawk** – birds that feed on the birds at the feeder. Although some viewers find a hawk attack disturbing, a positive spin is that feeders also help raptors weather winters.



Eastern

Bluebirds. Photo by FotoRequest/Shutterstock

How can I help birds in the winter?

Birds can survive winter without human assistance, but when the snow piles high or the temperatures drop, our help can make a difference. There are several easy things you can do for birds in winter.

- **Stock birdfeeders with suet, peanuts, and black oil sunflower seeds.** These high-energy and protein-filled foods help birds survive cold nights.
- **Scatter seeds in sheltered areas.** Not all birds come to feeders. For those that don't, like Dark-eyed Juncos, consider sprinkling seed under bushes and in thickets.
- **Plant native trees and shrubs that bear fruit or provide seeds in winter.** Native plants benefit many wildlife species and can also provide shelter for birds.
- **Provide roosting boxes or leave dead trees standing.** If a dead tree poses no danger to humans, it can offer much-needed food (in the form of insects, spiders, and other arthropods) and shelter to birds and other wildlife.



- **Make water available.** Birds need to stay hydrated year-round. A heated birdbath can be useful, but make sure to add rocks or other objects during winter so that birds can drink without getting wet, which could be fatal.

- **Report what you see.** By uploading backyard bird observations to **Project FeederWatch**, you can help monitor changes in species abundance and winter range over time. Your data helps researchers better understand bird biology, potentially aiding in future conservation efforts.



Snowy Owl.

Photo by Jim Cumming/Shutterstock

How can I learn more about helping birds?

Visit ABC's **Bird-friendly Life page** for tips on ways to keep birds safe by reducing glass collisions, keeping cats indoors, creating bird-friendly gardens, and much more.



# Leave The Leaves!

[Leave the Leaves! | Xerces Society](#)

By Justin Wheeler on 6. October 2017

One of the most valuable things you can do to support pollinators and other invertebrates is to provide them with the winter cover they need.

Besides [providing the right plants](#), and [protecting your garden from pesticides](#), one of the next most valuable things you can do to support pollinators and other invertebrates is to provide them with the winter cover they need in the form of fall leaves and standing dead plant material. Frequently however, this is the hardest pill for gardeners to swallow.

It may be habitual, a matter of social conditioning, or a holdover of outdated gardening practices from yesteryear—but for whatever reason, we just can't seem to help ourselves from wanting to tidy up the garden at the end of the season—raking, mowing, and blowing away a bit of nature that is essential to the survival of moths, butterflies, snails, spiders, and dozens of arthropods.

That's why this year—and every year—we are making the case for leaving the leaves and offering input on what to do with them. Read on!



## Must Love Leaves

While monarch migration is a well-known phenomenon, it's not the norm when it comes to butterflies. In fact, the vast majority of butterflies and moths overwinter in the landscape as an egg, caterpillar, chrysalis, or adult. In all but the warmest climates, these butterflies use leaf litter for winter cover. Great spangled fritillary and woolly bear caterpillars tuck themselves into a pile of leaves for protection from cold weather and predators. Red-banded hairstreaks lay their eggs on fallen oak leaves, which become the first food of the caterpillars when they emerge. Luna moths and swallowtail butterflies disguise their cocoons and chrysalises as dried leaves, blending in with the "real" leaves. There are many such examples.



The red-banded hairstreak is one of many butterflies that depend upon leaf litter as part of their life cycle. (Photo: [John Flannery / Flickr](#))

Beyond butterflies, bumble bees also rely on leaf litter for protection. At the end of summer, mated queen bumble bees burrow only an inch or two into the earth to hibernate for winter. An extra thick layer of leaves is welcome protection from the elements. There are so many animals that live in leaves: spiders, snails, worms, beetles, millipedes, mites, and more—that support the chipmunks, turtles, birds, and amphibians that rely on these insects for food.

It's easy to see how important leaves really are to sustaining the natural web of life.

## Leaves and Lawn

According to a [2005 NASA estimate](#), there are around 40 million acres of lawn in the continental United States – making turf grass the single largest “crop” we grow. This disproportionate ratio of lawn to garden is the main reason we rake, mow, and blow. To mimic the natural ecosystem an animal needs, a layer of leaves needs to be at least a couple of inches thick. While this would be too much of a good thing for turf grass to handle—research has shown that lawns actually benefit from a thin layer of leaves, and the rest can be piled up around ornamental trees, shrubs, and perennials [to no ill effect](#).

If you must keep your lawn clear of leaves—try opting for raking or using a leaf vacuum to capture whole leaves, rather than shredding them with a mower and make a leaf pile in a corner of your yard. More on that below.

Better still would be to [reduce your overall lawn footprint](#), replacing it instead with [wildlife-supporting plantings](#) that can be future repositories for fall leaves.



This suburban landscape features perennials and ground cover that support wildlife and require no mowing or raking. (Photo: Xerces Society / Matthew Shepherd)

## To Shred or Not to Shred

Many organic gardeners opt for shredding their fall leaves for use in compost piles. While this is certainly a more environmentally friendly practice than bagging leaves and sending them to the landfill—shredded leaves will not provide the same cover as leaving them whole, and you may be destroying eggs, caterpillars, and chrysalis along with the leaves. We suggest that leaves in garden beds and lawn edges be left whole. Where space allows, consider creating a leaf pile and allowing it to break down naturally, or add the leaves gradually to your compost pile over time. Such efforts will keep critters safe and allow you to benefit from the rich garden gift that falls from the trees above.

## Free Mulch!

Another reason to leave the leaves is for the many benefits they provide to your landscape. Leaves provide valuable organic matter and build up healthy soil. Fallen leaves have the same weed suppression and moisture retention properties of shredded wood mulch—and they're free! Where mulch is desired as a decorative element, what could be more seasonally appropriate than a pile of brightly-colored fall leaves?





Fallen

leaves have all the properties and benefits of expensive wood mulch—and they’re free! (Photo: Xerces Society / Justin Wheeler)

## The Bottom Line

You gave them flowers and a place to nest. You tended your garden and avoided pesticides. Don’t carry all of that hard work out to the curb. Simply put, when we treat leaves like trash—we’re tossing out the beautiful moths and butterflies that we’ll surely miss and work so very hard to attract.

While the idea is to “leave the leaves” permanently—for all of the benefits mentioned above—if you do decide you need to cleanup the garden and remove the leaves in spring, make sure you [wait until late in the season](#) so as not to destroy all the life you’ve worked to protect.

In the past gardeners may have worried that fall leaves, matted down by snow or rain, would have a negative impact on their perennials. In reality, a thick layer of leaves provides additional insulation against bitter cold weather, and can protect newly planted perennials when frost-heave may expose tender roots. Anyone who has spotted fragile spring ephemerals popping up in the woods knows that all but the frailest of plants will burst through the leaf litter in spring without trouble.



## Further Reading

Read a more recent blog about [Leave the Leaves to Benefit Wildlife](#)

Learn more about [Nesting & Overwintering Habitat](#) for pollinators and other beneficial insects

Wondering what to do in spring? [Don't spring into garden cleanup too soon!](#)

## Spread the Word!

We've created these graphics to help spread the word—leave the leaves, the animals need them. Feel free to share these on social media with the hashtag #leavetheleaves!



At the end of summer, bumble bee queens  
burrow just below the soil to wait out winter.  
Give them the extra protection they need.

# LEAVE THE LEAVES



xerces.org

Photo by Rich Hartfield



Caterpillars of fritillary butterflies  
overwinter in fall leaves - so please

# LEAVE THE LEAVES



xerces.org

Photo by John Flannery / Flickr

Though dressed for winter - woolly bear caterpillars burrow beneath fallen leaves for extra protection. Don't blow away their cover!

# LEAVE THE LEAVES


 xerces.org

Photo by Candace Fallon



Many butterflies and moths overwinter as chrysalis or cocoons disguised as dried leaves. Don't blow away their cover!

# LEAVE THE LEAVES

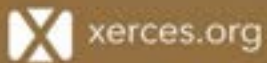


Photo by Megan McCarty / Wikimedia Commons



The beautiful luna moth overwinters as a cocoon in fall leaves. Don't toss out this treasure!

# LEAVE THE LEAVES




 xerces.org

Photo by woodleywonderworks / Flickr

The red-banded hairstreak lays its eggs on fallen oak leaves - which become the first food for hungry caterpillars when they hatch.

# LEAVE THE LEAVES



Photo by John Flannery / Flickr



## Further Reading

[Learn more about where and how bees and other invertebrates overwinter.](#)

[Sign the Pollinator Protection Pledge!](#)

[Learn more about the Xerces Society's Pollinator Conservation Program.](#)

## Authors

Justin Wheeler



### Xerces Contributor

Justin was formerly the Xerces Society's Web and Communications Coordinator, managing the website, blogs, and social media. As a Penn State Extension Master Gardener, Justin provides education and outreach to his community on a range of gardening-related subjects such as sustainable and pollinator-friendly gardening practices. He lives in State College, Pennsylvania.



[Leave the Leaves, But Why? Look to the Research – Edgings Garden Research and Design](#)

## [Edgings Garden Research and Design](#)

# Leave the Leaves, But Why? Look to the Research

Posted by [Edgings](#) June 26, 2022 Posted in [Research](#) Tags: [Garden Cleanup](#), [Garden Research](#), [Gardening](#), [Leaf Litter](#), [Leave the Leaves](#), [Mulch](#), [Overwintering Insects](#), [Pollinators](#)



Leave the leaves! It's an exhortation to gardeners to stop raking and blowing tree, shrub, and perennial leaves that drop in autumn, keeping the leaves in the garden as a natural mulch. This approach stands in contrast to the more common practice of bringing in shredded hardwood or another variety of mulch every spring, after scraping the garden clean in preparation.



If you think about how a forest functions, leaving the leaves makes sense. The annual forest leaf drop resupplies existing soil with nutrients, creates new soil, and serves as habitat for overwintering insects. But most residential gardens aren't the size or complexity of forests. Will leaving the leaves in these spaces really help?

Looking over the current gardening and conservation literature, the answer appears to be yes. Fallen leaves insulate the soil, helping burrowing insects withstand potentially lethal fluctuating temperatures, and the leaves provide winter mulch for perennials susceptible to frost heave and other effects of cold weather. But the leaves must be left whole rather than shredded, to protect insect eggs laid on leaf surfaces and chrysalises formed from or hidden among the leaves.

What's exciting about these recommendations is that they're being studied as research questions, at places such as the University of Maryland's [Burghardt Lab](#). Descriptions of the studies and findings to date are summarized in blog posts ("[My Year Playing With Litter](#)" and "[Suburban Lawn Study Launched](#)") and videos ("[Preliminary Results: Initial findings from insect collection](#)").

The final results should provide evidence to help answer questions a gardener may have about leaving the leaves, questions such as:

- Which species of insects, and in particular butterflies, moths, and bees, are reduced when leaves are removed?
- Must the leaves be left in place for a full 12 months (essentially, forever)? If leaves can be removed, when is the optimal time?
- Are there any negative effects of moving leaves around a property, such as distributing leaves across garden beds instead of leaving them where they fall and clearing leaves away from the crowns of perennials?
- If leaves are removed from a garden after winter and mulch is applied, are there any benefits to applying commercial leaf litter/leaf mold rather than shredded hardwood mulch?

Traditional annual garden leaf cleanup has been described as a kind of unintentional bait and switch, where pollinators and other insects are encouraged to spend most of the year thriving on a garden's nectar and pollen, only to be swept away in the fall. Generations and life cycles are interrupted. The garden's usefulness as an ecosystem is reduced. Research on leaving the leaves has the potential to change this longstanding gardening practice.

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### **If you'd like to read more . . .**

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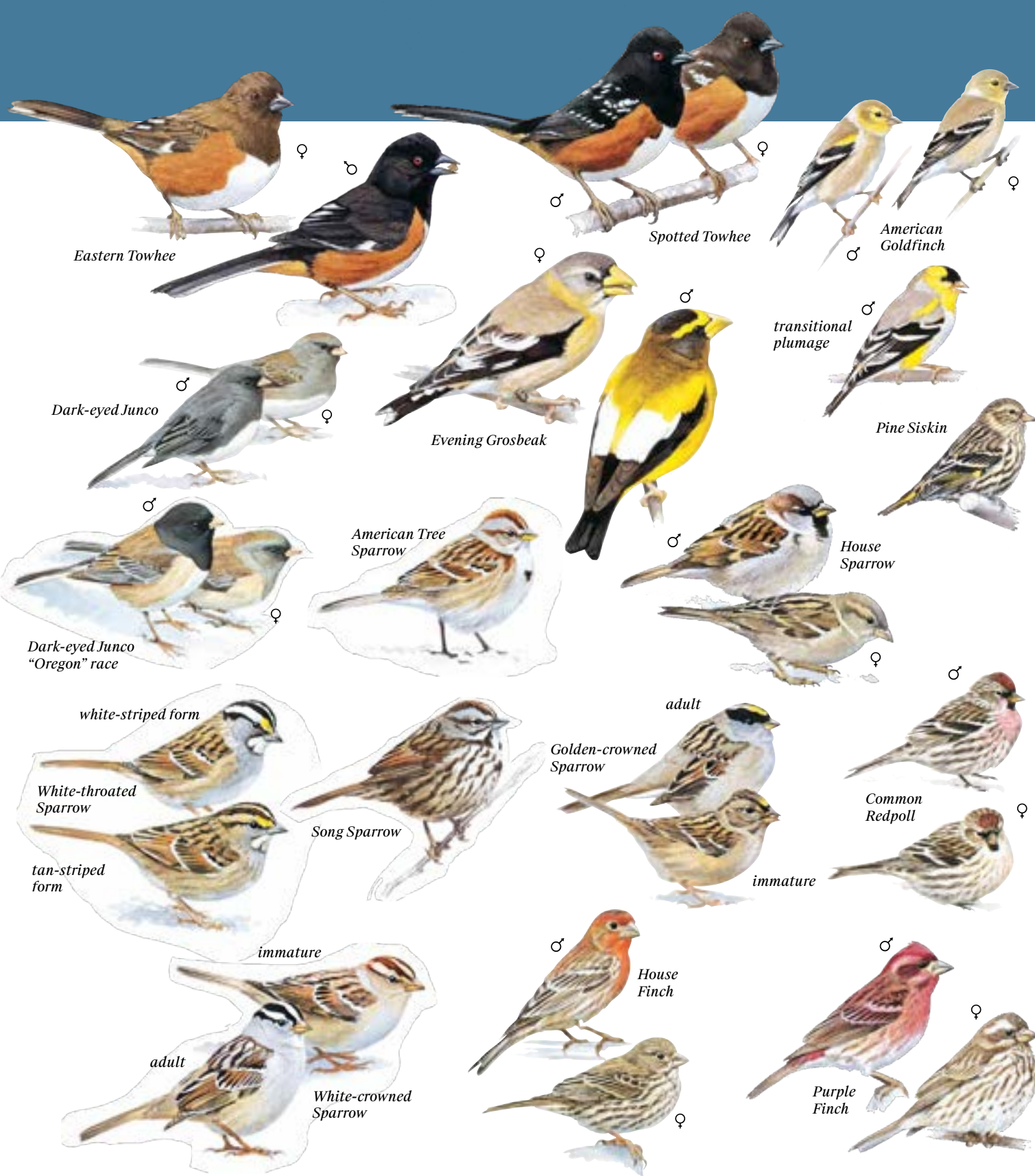
Dawson, Cathy. "Delay Garden Cleanup to Benefit Overwintering Insects." August 17, 2020. PennState Extension. Accessed June 26, 2022. <https://extension.psu.edu/delay-garden-cleanup-to-benefit-overwintering-insects>

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Roach, Margaret. "A Smarter Fall Cleanup." September 30, 2020. *The New York Times*. Accessed June 26, 2022. <https://www.nytimes.com/2020/09/30/realestate/fall-garden-cleanup.html>

Truss-Williams, Anaya. "Want to help the environment? Some local residents suggest keeping leaves on yards." October 28, 2021. *The Diamondback*. Accessed June 26, 2022. <https://dbknews.com/2021/10/28/prince-georges-county-environment-leaves-yards/>

## Common Feeder Birds





## Join Project FeederWatch

and learn about the birds in your own backyard while helping scientists study bird populations.

FeederWatching is as easy as...

1. Choosing an area to watch birds
2. Counting the birds that visit
3. Submitting your counts through our website or mobile app

[www.feederwatch.org](http://www.feederwatch.org)

New participants receive

- Tools to track your birds over time
- Project instructions and information about birds and bird feeding
- Double-sided 17" x 22" poster of common feeder birds (optional)
- FeederWatch calendar (optional)
- *Winter Bird Highlights*, our annual summary
- Access to the digital version of the Cornell Lab's *Living Bird* magazine (U.S.) or Birds Canada's eNews (Canada)



**Sign up today!**

Participation fee is \$18 in the U.S. or a donation of any amount in Canada.



Northern Cardinal



Mountain Chickadee

Steller's Jay



Black-capped Chickadee



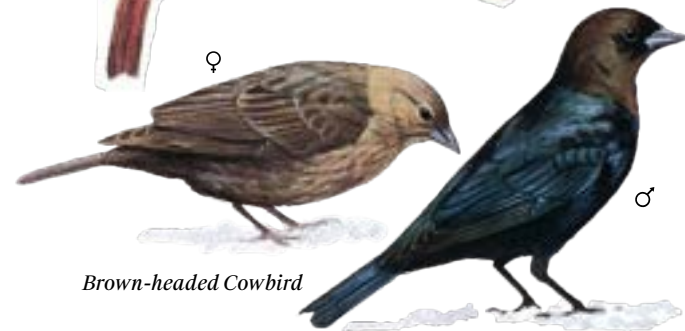
Carolina Chickadee



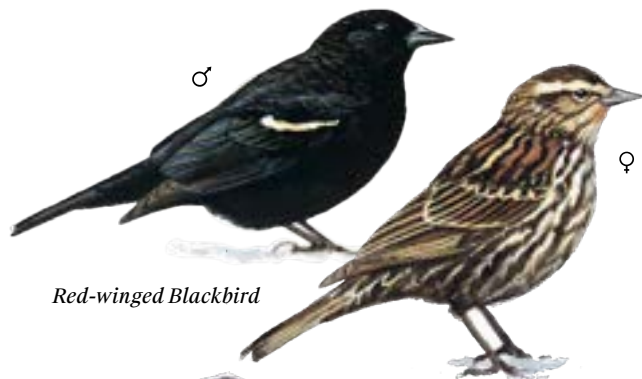
Tufted Titmouse



Blue Jay



Brown-headed Cowbird



Red-winged Blackbird



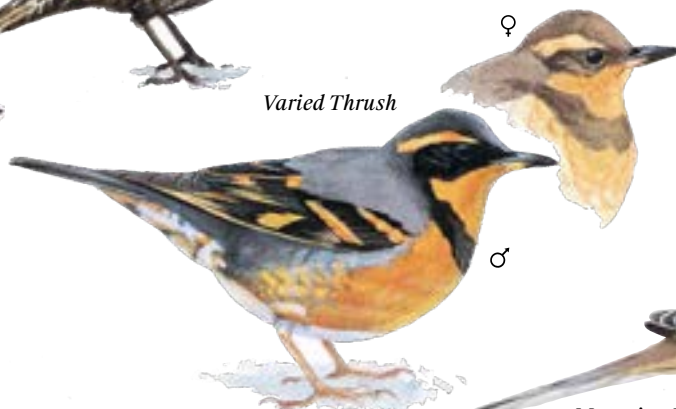
Chestnut-backed Chickadee



Carolina Wren



European Starling



Varied Thrush



American Robin



Mourning Dove

## List of Licensed/Authorized Wildlife Rehabilitators in Ontario

### Key to Authorized Species Categories

<b>RVS</b>	Rabies vector species (species that can carry and transmit rabies), including bat, fox, skunks, raccoon
<b>BIR</b>	Birds, excluding raptors
<b>RAP</b>	Raptors, including hawk, falcon, osprey, owl
<b>HER</b>	Herpetofauna (reptiles and amphibians), including turtle, lizard, frog, toad, snake, salamander
<b>SMM</b>	Small mammals, including squirrel, chipmunk, rabbit, hare (excludes RVS)
<b>BEA</b>	Black bears
<b>LCA</b>	Large carnivore (meat-eating) animals, including wolf, bobcat, coyote, lynx, badger, fisher, opossum (excludes RVS and black bear)
<b>SCA</b>	Small carnivore (meat-eating) animals, including marten, mink, weasel, shrew (excludes RVS)
<b>UNG</b>	Ungulates (hoofed animals), including moose, deer, elk
<b>SAM</b>	Semi-aquatic mammals, including beaver, otter, muskrat

Authorization Holder	Facility	Phone	Location	Species
Easton, William	N/A	519-935-2829 or 1-800-543-0176	Allenford	BIR, RAP, HER, SMM, LCA, SCA, UNG, SAM
Phillips, Nancy	Wings Avian Rehab Centre	519-736-8172	Amherstburg	RVS, BIR, RAP, SMM, LCA, SCA, UNG, SAM
Zeyen, Wendy	N/A	519-632-9315	Ayr	BIR, SMM, UNG
Quinn, Bette Anne	N/A	613-633-9451	Barry's Bay	RVS, SMM

Spilar, Debra	Procyon Wildlife Veterinary and Rehabilitation	905-729-0033	Beeton	RVS, BIR, HER, SMM, LCA, SCA, UNG, SAM
Korver, Wendy	Bowmanville Vet Clinic	905-623-1309	Bowmanville	BIR, SMM
Gage, Shona	N/A	647-858-3194	Brampton	HER
Crombie, Dr. Christopher	Windrush Veterinary Services	519-449-5080	Brantford	RVS, BIR, RAP, HER, SMM, LCA, SCA, UNG, SAM
Siddall, Joanne	Flying Friends	519-354-7114	Chatham	RVS, BIR, RAP
Pedersen, Krista	Nightwings Bat Rehabilitation	905-823-6957	Claremont	RVS
Karvonen, Nathalie	Toronto Wildlife Centre	416-631-0662	Downsview	RVS, BIR, RAP, HER, SMM, BEA, UNG, SAM
Smith, Ted	Gypsy Family Farm	705-282-6255	Evansville	BIR, RAP, HER, SMM, SCA, UNG, SAM
Peterson, Lisa	N/A	613-398-7781	Frankford	RVS, SMM, SCA
Selinger, Gary	N/A	807-876-1109	Greenstone (Longlac)	RAP
Redgrift, Amanda	N/A	807-329-1102	Greenstone (Nakina)	RVS, BIR, RAP, HER, SMM, BEA, LCA, SCA, UNG
Contardi, Cara	Urban Wildlife Care	905-945-7217	Grimsby	RVS, SMM
Cox, Sherri		416-795-5334	Guelph	RVS, BIR, RAP, HER, LCA, SCA, SAM

Smith, Dr. Dale Alison	Ontario Veterinary College	519-824-4120 x54622	Guelph	RVS, BIR, RAP, HER, SMM, SCA, UNG, SAM
Griffin, Shirley	Wayward Paws	519-485-1976	Ingersoll	RVS, BIR, HER, SMM, SCA, SAM
Nevin, Pete and Kerrigan, Christine	Solitudes Wildlife Rehabilitation Centre	705-636-0309	Kearney	BIR, RAP, HER, SMM, SCA, UNG, SAM
Gignac, Colleen	Nature's Promise	519-734-8165	LaSalle	RVS
Jouppi, Dr. Rod	Wild at Heart	705-692-4446	Lively	RVS, BIR, RAP, HER, SMM, BEA, LCA, SCA, UNG, SAM
Lefebvre, Deborah	N/A	519-434-0763	London	RVS, BIR, SMM, SCA
Ascott, Dave	N/A	613-473-5039	Madoc	RAP
Riddick, Dina	Hatha Wildlife Centre	519-986-1397	Markdale	BIR, RAP, HER
Ritchie, Suzan	N/A	519-689-4931	Merlin	RVS, SMM, UNG
Knuff, Judy	Hickory Farms	905-877-8446	Milton	SMM
Melichar, Monika	Woodlands Wildlife Sanctuary	705-286-1133	Minden	RVS, BIR, SMM, SCA, UNG
Fieldwick, Brian and Leta	Possum Junction	519-674-3000	Morpeth	SMM
Salt, Brian	Salt Haven	519-264-2440	Mt. Brydges	RVS, BIR, RAP, HER, SMM, SCA, UNG, SAM
Engel, Louise	N/A	905-562-1949	N/A	RAP



Huggins, Joy	N/A	519-590-3676	N/A	BIR, SMM
Kalbfeish, Darlene	N/A	519-888-0154	N/A	BIR
Mills-Mammoliti, Danielle	Stormhaven Garden Wildlife Rehabilitation	519-400-3108	N/A	SMM
Morrison, Shelly	N/A	705-326-7266	N/A	HER, SMM
Meech, Susan	Sandy Pines Wildlife Centre	613-354-0264	Napanee	RVS, BIR, RAP, HER, SMM, BEA, LCA, SCA, UNG
Cowell, Liz	Wabi River Wildlife	705-647-4076 (H) 705-648-3419 (mobile)	New Liskeard	RVS, DIR, RAP, HER, SMM, SCA, SAM
Laurus, Linda	Rideau Valley Wildlife Sanctuary	613-258-9480	North Gower	RVS, HER, SMM, LCA, SCA, UNG, SAM
Jenkins, Peggy	N/A	519-466-6636	Oil Springs	RVS, HER, SMM, LCA, SCA, SAM
Polsinelli, Kelli	Wild Earth Refuge	289-356-2826	Oshawa	BIR, HER, SMM, LCA
Hass, Deborah	Ottawa Valley Wild Bird Care Centre	613-828-2849	Ottawa	BIR, RAP
Lenters, Gail	Shades of Hope Wildlife Refuge	705-437-4654	Pefferlaw	RVS, BIR, RAP, SMM, UNG
Carstairs, Dr. Sue	Kawartha Turtle Trauma Centre	705-741-5000	Peterborough	HER
Boniface, Denise	Bryden's Den Wildlife Centre	519-429-3585	Port Ryerse, Norfolk County	RVS, BIR, SMM, SCA
Precious, Carol	N/A	519-651-2160	Puslinch	RAP, LCA, UNG

Kingshott, Janalene	Aspen Valley Wildlife Sanctuary	705-732-6368	Rosseau	RVS, SMM, BEA, LCA, SCA, UNG, SAM
Solman, Sondra	Wyld for Life	705-492-1722	Rutherglen	RVS, BIR, RAP, SMM, SCA
Craig, Scott	Northland Animal Hospital	705-759-9000	Sault Ste Marie	RAP
Saunders, Mathew Brett	Bat Check	613-387-2475	Seeley's Bay	RVS
McIntosh, Michael	Bear With Us, Inc	705-685-7830	Sprucedale	BEA
Clarke, Carol	N/A	519-868-1937	St. Thomas	RVS, BIR, SMM, SCA, UNG, SAM
Babeckas, Diane	Shortcut to Serenity Wildlife	705-428-6116 (H) 705-444-4623(mobile)	Stayner	RVS, SMM
Ker, Dr. Alistair	Thorold Vet Hospital	905-227-7644	Thorold	BIR, HER, SMM, SCA
Attridge, Donna	Coon Comforts Foster Home	519 842-6749	Tillsonburg	RVS, SMM
Beechey, Laurel Ann	Skunk Haven	519-842-9416	Tillsonburg	RVS, SMM
Newberry, Dee	N/A	613-394-6667	Trenton	RVS, BIR, HER, SMM, SCA
Enright, Janice	A Wing and a Prayer	705-385-1488	Utterson	RVS, BIR, RAP, SMM
Gionet, Annick	Owl Foundation	905-562-5986	Vineland	RAP
Cowan, James	Canadian Raptor Conservancy Inc	519-428-2637	Vittoria	RAP
Kuruziak, Mary Catharine	Niagara Wildlife Haven	905-735-9556	Welland	RVS, BIR, RAP, HER, SMM,

				LCA, SCA, UNG, SAM
Dupuis, Bonnie	Erie Wildlife Rescue	519-969-3919	Windsor	RVS, BIR, RAP, HER, SMM, SCA, UNG, SAM
Eves, Lynn	Bluewater Centre for Raptors	519-899-2443	Wyoming	BIR, RAP
Drake, Judi	Songbirds Only Avian Rehabilitation	519-656-4500		BIR
Ricciuto, Carol	N/A	905-643-1391		RAP
Theijin, Chantal		519-587-2980		RVS, BIR, HER, SMM, SCA, UNG, SAM

**BOB'S  
BACKYARD  
BIRDS**

**WELCOME!**

**SCARLET TANAGER**





# QUESTIONS SUBMITTED ONLINE

**How to attract birds?  
Planting/landscaping  
suggestions?**




# QUESTIONS SUBMITTED ONLINE

## SCREENSHOT FROM BIRDS CANADA WEBSITE

**How to attract birds?  
Planting/landscaping  
suggestions?**


- Handout will include links to great websites by Birds Canada and Audubon
- Leave the leaves!

### HOW TO USE THIS SITE TO BE A BIRD-FRIENDLY GARDENER




STEP 1

Look at our tips for how to plan your garden



STEP 2

Find your Bird Garden Zone



STEP 3

Use our Plant Selector search tool to develop a customized list of plants that are well suited to your



# QUESTIONS SUBMITTED ONLINE

## How to attract birds to your feeders?

- Provide cover with nearby shrubs or trees
- Water, food variety
- Timing of putting them out to capture “flyovers”
- Orioles/Rose-breasted Grosbeaks – May 3
- Hummingbirds – May 7





# QUESTIONS SUBMITTED ONLINE

## Several asked about squirrel proofing

- Baffle
- Ten feet from trees
- Squirrel du Soleil

## Favourite feeders

- In this photo – suet, platform, seed cylinder, nyjer tube





Platform/tray  
feeder with  
Evening Grosbeaks



Chipping Sparrow  
on landing arm





Seed cylinder with  
Red-breasted  
Nuthatch



Clingers-only  
feeder with Pine  
Siskin





Nyjer feeder with  
molting American  
Goldfinch



Peanut tray/roof  
with Carolina  
Wren





Suet feeder with  
Red-bellied  
Woodpecker



Upside down suet  
feeder with a  
female Red-bellied  
Woodpecker





Speciality feeder  
for orioles:  
Baltimore Orioles  
love grape jelly and  
oranges



## Speciality feeders: Ruby-throated hummingbirds

- Don't buy coloured nectar
- Don't buy too large a feeder
- Make your own, four parts water to one part sugar





# QUESTIONS SUBMITTED ONLINE

**Should I offer water in the winter?**

- Yes! Birds need to drink and bathe even in the coldest weather
- I have a heater that keeps mine more or less ice-free

European Starlings having a drink a couple of weeks ago



# QUESTIONS SUBMITTED ONLINE

**Best protocol for keeping bird baths and feeders clean? Am I selfish to have feeders given risk of avian flu?**

- Regularly scrub feeders and bird bath with soap and water; if moldy use a 10% bleach solution. Hummingbird feeders in particular need cleaning every 2 or 3 days or even daily if really hot and humid
- Avian flu primarily affects communal birds living in close proximity to each other – domestic poultry, waterfowl. Has not had a big impact on songbirds as far as I know
- Watch for eye disease (conjunctivitis) in house finch. It is noticeable if they have it. Stop feeding for awhile so birds disperse and not congregate, and clean feeders with bleach solution



# QUESTIONS SUBMITTED ONLINE

**I have a full station of feeders. This winter I have very few birds. Normally, I fill my feeders daily. Do you have an idea why this is happening?**

- I experienced the same. I think it was because of the very mild start to winter, there was no snow cover to prevent birds from foraging for natural food. Even regular feeder birds don't obtain more than 50% of their diet from feeders

# QUESTIONS SUBMITTED ONLINE

**Last year we had four pairs of cardinals, but haven't seen them this year. Is there something else we can offer at the feeders to draw other birds?**

- Safflower seeds, black oil sunflower seeds, and white milo are among a Northern Cardinal's favorites
- This chart will be emailed as part of the handout
- In Burlington, go in to Wild Birds Unlimited on Fairview – the staff is very knowledgeable. Likewise Urban Nature across GTA, the Backyard Birder in Sudbury

# Feed Your Flock!



# QUESTIONS SUBMITTED ONLINE

**What causes Blue Jays to "swarm" one area? A few years ago we had over 50 Blue Jays on our lawn at one time**

- Though the questioner didn't mention what time of year this was, I suspect it was during migration. Most songbirds migrate at night, but Blue Jays do so during the day in very large flocks
- One fall when I was living in Oakville I had about 25 swirling in constant motion around my yard for a few hours

**Can Canada Geese be hunted in Canada?**

- Yes

# QUESTIONS SUBMITTED ONLINE

## Concern about how expensive seed has become

- Inflation has greatly impacted the price of everything, including seed. The war in Ukraine certainly impacted the supply chain
- When buying seed, you are paying by the pound. Wild Birds has “No mess” seed (already shelled), such that 100% is consumed. It is more expensive, but is it really, when you see the mounds of sunflower shells under your feeders? A big mess, and you paid for those uneaten shells!
- Caution about buying seed in bulk. Must be stored in airtight containers or seed, especially if shelled, as it could either become desiccated or moldy
- You might get moths in your seed. Don't hurt the birds, just extra protein, but you don't want them in your house!



# QUESTIONS SUBMITTED ONLINE

**There were several questions about droppings attracting rats and squirrels**

- When you offer mixed seed, you essentially have two feeders going at the same time. Some birds, like Blue Jays, love to sort through seed for their favourites and can make a big mess down below
- You want to minimize this “search activity” and reduce flicking and tossing:
  - Use large tray feeder, less likely to have spillage over sides
  - Use a specific feeder for each type of seed you offer; birds not interested in that seed won't go to it
  - Use “No-mess” chipped sunflower seeds
  - Put catch trays under your feeders
- Clean under your feeders frequently
- Get some Wild Turkeys!



# QUESTIONS SUBMITTED ONLINE

## **If you have a rat problem:**

- Be very careful of unintended consequences if you are considering using bait boxes to poison them:
  - Chipmunks or squirrels getting into them
  - Raptors eating a poisoned critter
- Strongly suggest you go in to Wild Birds Unlimited in Burlington to seek advice

# QUESTIONS SUBMITTED ONLINE

**What to do with pigeons (and doves) at your feeders:**

- Pigeon guards
- Cages around feeders that smaller birds can fly through

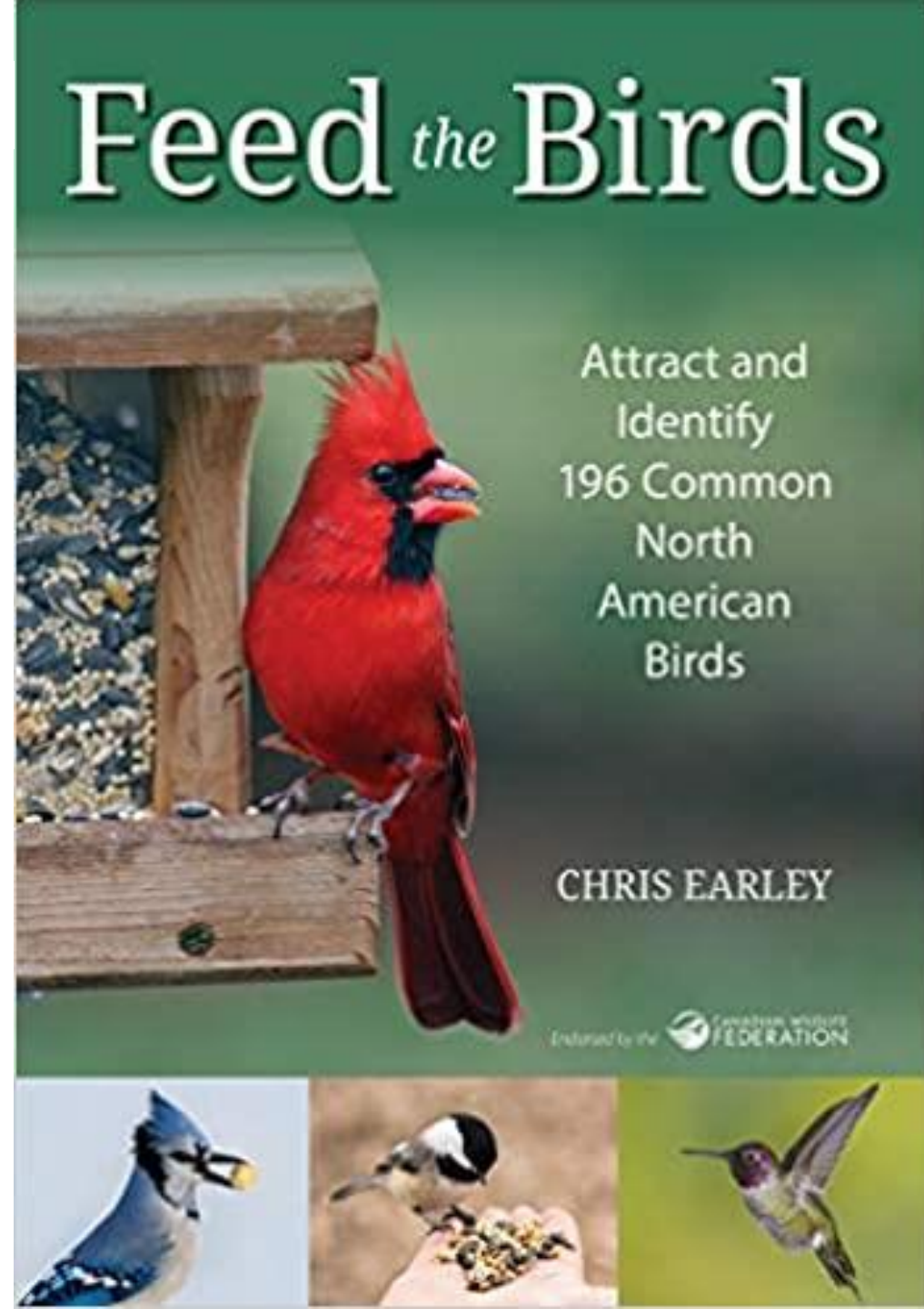




# QUESTIONS SUBMITTED ONLINE

**Favourite bird ID book and or tips for ID when you only have a brief sighting?**

- Chris Earley works at the University of Guelph's Arboretum - he wrote a blurb for my book

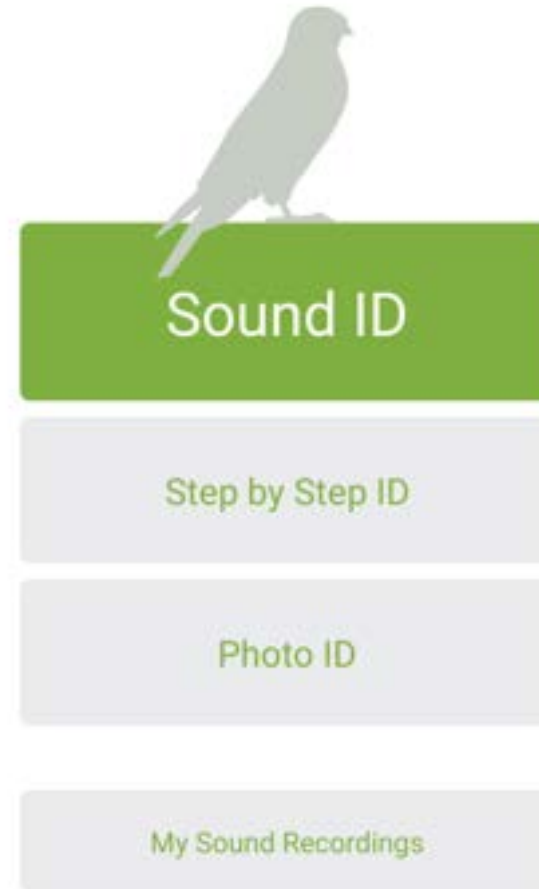


# QUESTIONS SUBMITTED ONLINE

**Favourite bird ID book and or tips for ID when you only have a brief sighting?**

- Cornell Lab of Ornithology's free Merlin app – 3 different ways to ID a bird
- iBird Pro is a full field guide on your phone

The Cornell Lab  
**Merlin**



# WINDOW COLLISIONS

**Though no one asked about this, it is important to address:**

- Bird/building collisions, primarily with glass, kill about one billion birds in North America annually
- Vast majority occur in daylight and under 3 storeys or so
- Window treatments that make birds realize the window is an obstacle are very important. I recommend Feather Friendly, with treatment patterns maximum of 2 inches by 2 inches
- If you don't have window treatments, best to have your feeders closer to the house, to give less space for birds to get up to high speed if startled by a raptor



# WINDOW COLLISIONS

Far more collisions occur than you might be aware of:

- You might not be home to hear it
- It has been shown that even with a rigorous program of inspecting buildings for collision victims, only about 30% are found. Why?
  - Wounded birds often fly away only to perish later
  - Carcasses often get scavenged quickly

# ROAMING AND FERAL CATS

- Pet and feral cats in North America kill more birds every year than buildings, power lines, and wind turbines combined - about 2.4 billion birds in the USA every year, and another 196 million in Canada
- This time of year lots of ground-feeding sparrows such as juncos are highly vulnerable
- Both Hamilton and Burlington have by-laws that cats may not roam off your property, but don't seem to be enforced
- Indoor cats average lifespan is 14 years, outdoors 2 to 5 years
- US study showed that 20% of urban coyote's diets consist of cat



# BIRDING IS HEALING

- Upon retirement, I quickly discovered the therapeutic benefits of birding as a wonderful coping mechanism for dealing with my chronic pain
- I wrote a book about my journey from Lyme patient to avid birder titled “*Out of the Lyme Light and into the Sunlight: Birding as Therapy for the Chronically Ill*”
  - Locally my book is available at Wild Birds Unlimited, A Different Drummer Books, and King W. Books (pictured)
  - 8 Urban Nature stores across the GTA
  - Online from Hancock, Amazon, or Indigo
  - Algonquin Park Visitor’s Centre and Point Pelee gift shops





# APARTMENT BIRDING

- There are feeders that attach to windows
- Since you don't have to worry about squirrels, if you have a balcony you could put a tray feeder on a table
- Provide some greenery with potted plants





## APARTMENT BIRDING

- Some apartment buildings may not allow putting out seed
- Try a hummingbird feeder



## PURPLE FINCH

Straight upper bill

Distinctive facial pattern

Reddish wings and back

Little to no brown streaking

## HOUSE FINCH

Curved upper bill

Plain facial pattern

Grayish-brown wings and back

Dense brown streaks



## DOWNY VS HAIRY WOODPECKER

- Females, Downy on left
- Differences:
  - Size
  - Bill
  - Tail spots





# COOPER'S VS SHARP-SHINNED HAWK

**CAPPED**

**BIG HEAD RELATIVE TO BODY**

**14-20" LONG,  
SIZE OF A  
CROW**

**THICKER,  
SHORTER LEGS**

**TIP OF TAIL IS  
ROUNDED**

**HOODED**

**SMALL HEAD RELATIVE  
TO BODY**

**10-14" LONG,  
SIZE OF A JAY  
OR DOVE**

**THINNER,  
LONGER LEGS**

**SQUARED OFF TAIL**



## ONE LAST THING ABOUT BIRDS

- Birding is a hobby that makes you feel good to be alive, in the moment, and sharing your time and planet with these amazing creatures
- It gets your mind off your worries
- Birding is the gateway drug to environmental awareness
- It teaches us to value and care about birds
- When you care about birds, you care about their habitats, the environment, and climate change



**SCARLET TANAGER**



## CARING ABOUT BIRDS - BIRD ADVOCACY

- Bird Friendly City Hamilton Burlington – a Nature Canada initiative
- I was a member, charged with public outreach and education
- A process was run to name a city bird for each – Trumpeter Swan and Peregrine Falcon
- Nature Canada certified both cities as bird friendly but the work continues and more remains to be done
- I am now co-chair of a new, independent bird advocacy group focused solely on Hamilton, called Birdsong Hamilton. We work with local council to promote bird friendly measures
- Dealing with issues such as lights out during migration, window treatments, bird friendly building standards, roaming cats
- Some of these issues will be touched on briefly in the answers to submitted questions which follows shortly

### TOP 6 WAYS YOU CAN HELP BIRDS



Learn  
About Birds



Buy  
Bird-Friendly



Support  
Conservation



Keep Cats  
Indoors



Welcome  
Birds Home



Prevent  
Collisions

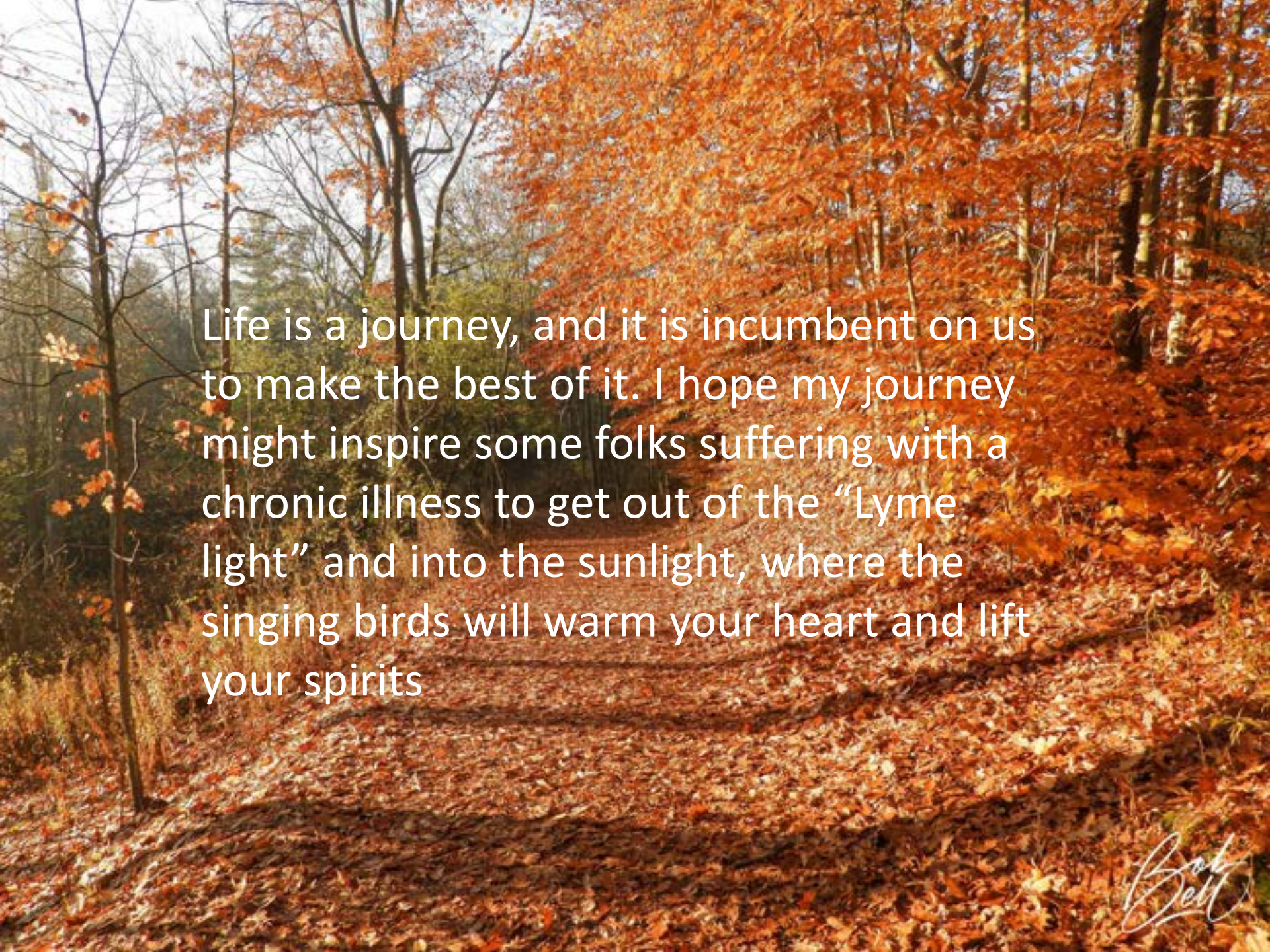


Birding helps to  
cope with  
chronic pain and  
illness

Here's to good  
birding, and to  
good health!

These are the  
final sentences  
in my book

Thank you!



Life is a journey, and it is incumbent on us  
to make the best of it. I hope my journey  
might inspire some folks suffering with a  
chronic illness to get out of the “Lyme  
light” and into the sunlight, where the  
singing birds will warm your heart and lift  
your spirits

*Bob  
Bell*



# ATTRACTING HUMMINGBIRDS



♂ RUBY-THROATED HUMMINGBIRD

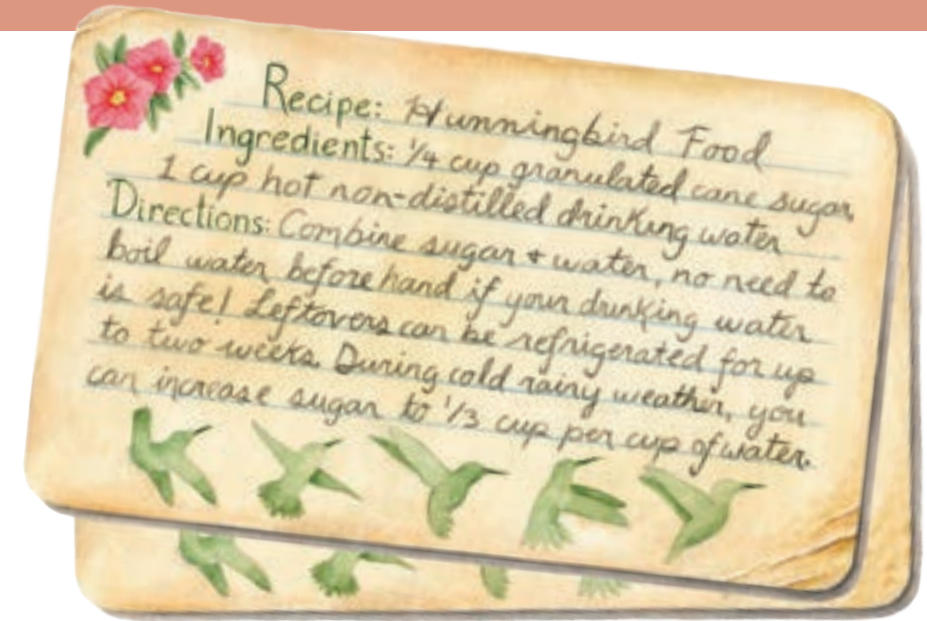
The tiniest birds in the world are also among the most fascinating and the easiest to watch, sometimes from inches away in your window feeders. Feeding hummingbirds is fun and rewarding and, when done properly, can also make life easier for hummingbirds. Hummingbirds get quick energy from sugar-water feeders, energy that fuels their search for the insects and flowers which provide most of their nourishment.

## SELECTING FEEDERS

The most important feature of a good hummingbird feeder is that it be easy to open and to clean. If you can't easily reach every bit of inside surface with a bottle brush, the feeder will soon foster bacteria, fungi, and other harmful organisms.

Feeders should have red parts. Flowers pollinated by hummingbirds are often red, and hummingbirds are attracted to that color. Hamster water bottles and similar items are much more likely to attract hummingbirds if part of the glass is painted with red nail polish or something red is placed on them.

Some feeders come with bee guards—plastic screens that fit over the feeding ports. When these are yellow, they may actually attract yellow jacket wasps. Those feeders that come with bee guards tend to be rather drippy, and if solution drips onto the bee guard, it will attract wasps rather than discourage them. In basin feeders, the sugar water is often too far within for wasps to reach, though humming-



Recipe for success: There's no need to add red food color to sugar water, or to use red-colored commercial mixes. Flower nectar is clear and red food coloring may be harmful to hummingbirds.

bird tongues have no trouble, so these feeders are often the best choice for discouraging flying insects.

Some feeders have ant moats. Fill these with water to discourage ants while helping small birds that sometimes take drinks from the moats. If crawling insects are a problem, try a dab of petroleum jelly on the hanging wire, making sure a bird's feathers will not brush against it.

Hummingbirds are exceptionally territorial and often fight with one another. You will attract more hummingbirds that can feed with fewer disruptions if you place several small feeders around your yard rather than just one large feeder. Hummingbird sugar solutions should be changed fairly often, so unless you have a great many hummingbirds, smaller feeders are also less wasteful.



Hummingbirds prefer feeders near trees and shrubs, where they can perch to rest and observe their surroundings, and can feed on nearby natural food between visits.



## FILLING THE FEEDERS

It's easy to make your own hummingbird solution. Use granulated cane sugar and unsoftened, non-distilled drinking water. Heat if needed to dissolve. The ideal ratio is usually 1/4 cup of sugar per cup of water; your mixture should never be stronger than that during hot, dry weather.

During cold, rainy weather, you can make it stronger, using up to 1/3 cup of sugar per cup of water. If you're having problems with insects, a solution of 1/5 cup of sugar per cup of water may discourage the insects without losing the hummingbirds' interest. The concentration of sugars in natural flower nectar varies within this range.

Many people boil sugar water before using. This isn't necessary if your drinking water is safe for you as long as you change the solution every few days. Hummingbird bills and tongues quickly introduce microorganisms that cause spoilage anyway. Leftover solution can be refrigerated for up to two weeks.

Honey fosters bacterial and fungal growth and ferments faster than sugar water, so it should never be used in hummingbird feeders. Don't add red food coloring; it's unnecessary and its effect on birds is unknown. Commercial mixtures with added vitamins and minerals (and often food coloring) are a needless expense, and mixtures formulated for captive hummingbirds spoil within hours. Hummingbirds that frequent feeders get a balanced diet by also eating many natural foods, including nectar and plenty of insects.

## PLACING THE FEEDERS

Hummingbirds prefer feeders near trees and shrubs, where they can perch to rest and observe their surroundings, and can feed on nearby natural food between visits. Plants with red, tube-shaped blooms,

such as bee-balm, trumpet vine, and jewelweed, are very attractive to hummingbirds, as are trees with sap wells drilled by sapsuckers.

Set feeders in the coolest areas of your yard and where there is some protection from wind. Hummingbirds are unusually fearless and come readily to window feeders. You can use hooks in your window framing or use feeders that attach directly on glass with suction cups.

If bees or wasps discover your feeder, you may confuse them, at least for a while, by moving the feeders to new places, often just a few feet away.

## MAINTAINING THE FEEDERS

Bacteria and fungi grow more rapidly as the temperature rises. When the thermometer reaches 80 degrees Fahrenheit, scrub your feeders with a clean bottle brush and very hot water and refill every 3 days. When it's over 90 degrees, sugar water may be spoiled in 2 days or less. Even when temperatures are cool it's best to clean feeders and change the solution fairly often. If you see any sign of cloudy water or black mold, discard the solution and clean the feeder immediately.

Hummingbirds may use color and location cues to remember where they found a good supply of nectar.


Always rinse feeders in hot or boiling water before adding fresh solution. At least once a month, and immediately if black mold is detected, soak emptied feeders for one hour in a weak vinegar solution and then scrub with a clean bottle brush. Rinse well with running water before refilling.

## HELPING HUMMINGBIRDS

Native plants attractive to hummingbirds will provide an abundance of natural food for them and give you more opportunities to view these charismatic creatures at close range. Learn about the best plant choices from local conservation organizations.

Hummingbirds are often drawn to sapsucker drill holes for insects and running sap, so try not to discourage these interesting woodpeckers.





Watch hummingbirds on the  
Cornell Lab of Ornithology  
**HUMMINGBIRD CAM!**  
[cams.allaboutbirds.org](http://cams.allaboutbirds.org)

Setting out banana peels near hummingbird feeders will attract fruit flies and other nutritious soft-bodied insects which hummingbirds eat. It's exciting to watch hummingbirds darting about chasing down these tiny flying insects.

Hummingbirds are very sensitive to pesticides and herbicides, so try to keep the area around your feeders as bird-friendly as possible. Hummingbirds construct their nests with spi-

der silk. Fostering spiders will both encourage hummingbirds to nest near you and control many insect pests naturally.

Make sure all feeders and resting perches are safe from cats and other predators.

### LEARN MORE!

[www.birds.cornell.edu/AllAboutBirds](http://www.birds.cornell.edu/AllAboutBirds)

[www.hummingbirds.net](http://www.hummingbirds.net)

[www.sabo.org/hummers.htm](http://www.sabo.org/hummers.htm)

There is no evidence to support the claim that keeping feeders up in the fall will cause hummingbirds to delay their migration. Migration is tied to the amount of daylight. Feeders may help birds get the energy they need for the long journey.



♀  
RUFOUS  
HUMMINGBIRD

The illustrations in this issue were created by Liz Clayton Fuller, a Bartels Science Illustration Intern.  
[birds.cornell.edu/artinterns](http://birds.cornell.edu/artinterns)

To learn more about  
hummingbirds and  
other topics, visit

[Academy.AllAboutBirds.org](http://Academy.AllAboutBirds.org)

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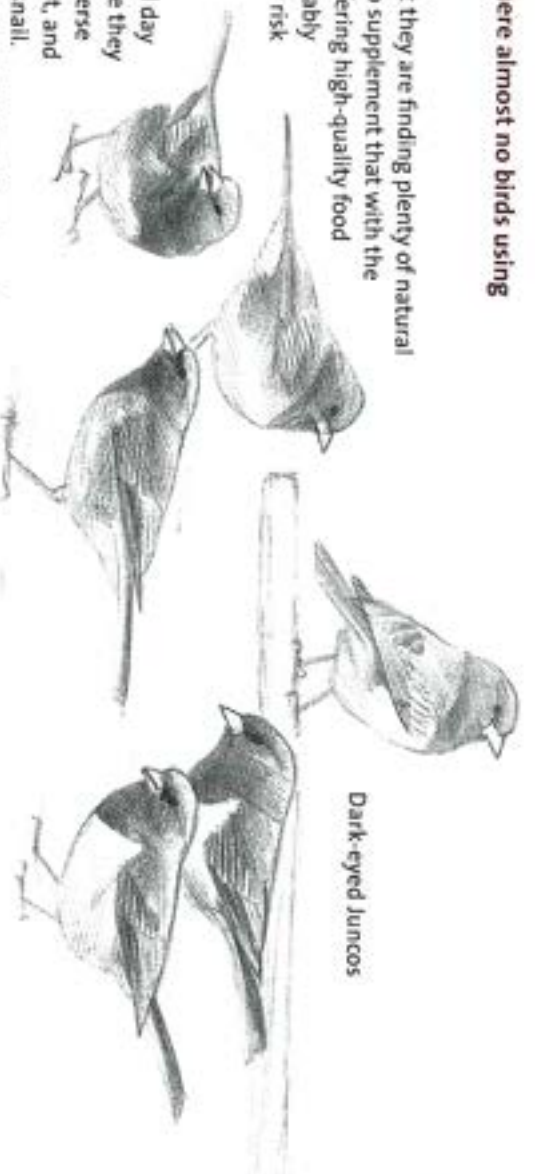
## It's December—why are there almost no birds using my feeder?

The most likely answer is that they are finding plenty of natural food and simply don't need to supplement that with the bird feeder. Even if you are offering high-quality food in unlimited amounts, it probably requires some compromise or risk to reach it, like traveling across open areas (see p. 115 top). The birds may be more comfortable foraging all day in dense weedy thickets where they can stay hidden and find a diverse array of natural seeds and fruit, and even the occasional insect or snail.

Once the winter weather closes in, and natural food supplies dwindle, bird feeders become the best option for many birds, and you should see a normal number of birds making the trek to your feeder.

## Is a bird feeder just providing easy pickings for predators?

No. Studies show that predation at feeders is lower than in more natural settings. This is presumably because there are more birds watching for danger and sounding the alarm for any nearby threat. Feeders do pose a threat by indirectly increasing local predation in the summer. Populations of crows, grackles, cowbirds, chipmunks, and others increase when they have access to feeders in the winter, and those species then go after nests in the spring. Some studies have found that species like cardinals and robins raise almost no young in neighborhoods with feeders.



Dark-eyed Juncos

## Is my bird feeder making birds lazy?

No. Studies show that even birds that have lived with feeders for generations still get at least half of their food from the wild and use the artificial food only as a supplement. They suffer no ill effects when the feeders are removed. Feeders help them get through extreme winter weather when natural food is hard to find (such as an ice storm) but otherwise have little impact on survival.

## Will feeding birds keep them from migrating?

No. The decision to migrate is based on many different factors, including date, weather, and the bird's body condition and fat reserves. If anything, it's possible that feeders might prompt birds to leave sooner, by making it easier to "fill the tank" before a long flight.

■ Most songbirds spend the summer as a pair on a territory, raising one or two broods of young, then go their separate ways, migrating to the wintering grounds. In the case of juncos, females tend to migrate farther than males, and first winter birds farther than older birds. At the southern edge of the winter range you would see a higher percentage of immature females, and closer to the breeding grounds more adult males. Many other species of songbirds do