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Citizen Science

As you can easily tell by the number of stores these days that carry feeders, seed and other related items, backyard bird feeding is a popular activity. This is not surprising. It is a simple way for anyone to enjoy birds up-close from the warmth of home. Even for those who are not necessarily interested in taking up birding as a full-fledged hobby, simply noting the different species and watching their antics at the feeder is great entertainment.

It is now possible to turn these backyard bird observations into research for bird conservation through a program sponsored by Bird Studies Canada known as Project FeederWatch (PFW). It has become one of North America's most popular volunteer-based bird monitoring programs and is a chance for people of all ages and backgrounds to become citizen scientists and participate in important research. Participants become no less than eyes and ears for professional ornithologists.

Simply put, Project FeederWatch is an annual survey of birds that visit backyard feeders over the course of the winter. As a joint venture between the general public and bird experts, it has already provided a great deal of valuable information, helping to increase our scientific understanding of feeder-bird populations.

Project FeederWatch is an outgrowth of an activity begun at the Long Point Bird Observatory on Lake Erie by Dr. Erica Dunn in 1976. She established the Ontario Feeder Bird Survey to test whether changes in the numbers and kinds of birds visiting feeders reflected changes in population levels in general. By the second year alone, more than 500 observers took part. More importantly, initial data corresponded well with results from Ontario Christmas Bird Counts, thereby proving the value of using feeder data to monitor winter bird populations.

Encouraged by 10 years of success in Ontario, the Long Point team decided that a continental survey would more accurately monitor the large-scale movements of winter birds. This led to a partnership with the world-famous Cornell Lab of Ornithology in New York State, and, in 1987, Project FeederWatch was launched. In this way, participation was extended to thousands of birders already associated with the Cornell Lab across North America.

Now, thanks to online data entry, the data are immediately accessible to thousands of FeederWatch participants across the continent. Well over half of Canadian FeederWatchers submitted their data online in 2006.

The data are used by a number of bird research and conservation organizations. The program is now a proven tool for keeping track of the distribution and abundance of bird populations. PFW data can detect and explain even modest changes in the wintering ranges of many species, track the movements of birds like finches that "irrupt" - turn up in abnormally large numbers - some winters, determine the kinds of foods and environmental factors that attract birds to feeders, and even monitor the spread of illnesses in bird populations.

For example, conjunctivitis, an eye disease that has been especially hard on house finches, was first noticed by a FeederWatcher in 1994. Soon after, a special survey was developed to allow FeederWatchers to track the disease across the house finch's range. Since then, participants have also enabled scientists to track localized declines in blue jays and chickadee populations, most probably as a result of West Nile Virus.

PFW results were recently used to detect a decrease in house sparrow numbers and may

eventually help to understand just why this species is declining so rapidly over much of the continent. The data have even been used to examine the incidence of bird strikes on household windows and evaluate how this source of bird mortality compares to other causes such as cats and habitat loss.

Without a program such as PFW, our knowledge about bird populations and their movements would be strictly anecdotal. For example, many birders feel that increasing numbers of birds remain in our area through the winter. However, we need to be careful with this kind of conclusion. These are the observations of individual birders, they are limited in number, and they tend to focus on the less common, more exotic, species. On the other hand, the systematic data collection of Project Feederwatch, which draws on thousands of observers, responds much better to this kind of question.

On a more personal note, when the expected birds don't show up at your feeders, you can be left feeling a bit perplexed. You may wonder if you're not providing the right food, not watching closely enough, or if the species is suffering a decline? By combining your observations with other FeederWatchers, it's possible to see what the absent birds were actually up to, be it visiting other local food sources, visiting entirely different parts of the continent or truly suffering a population decrease. PFW data allow us to distinguish between absences that reflect widespread declines in numbers - evening grosbeak, for example - and absences that are simply the result of unpredicatable migratory movements. Pine siskins are notorious for their erratic roaming of nearly the entire continent.

There's still time to sign up for the FeederWatch program this year. First of all, you'll need to become a member of Bird Studies Canada by going to http://www.bsc-eoc.org/ and following the ProjectFeeder Watch links or by calling 1-888-448-2473. For an annual $35 membership fee, participants receive the FeederWatch instruction booklet, resource manual, data forms, a calendar, a poster of common feeder birds, and BSC's quarterly publication, BirdWatch Canada, covering the latest FeederWatch results and much more.

Next, pick out a count site - a convenient place for you to observe and count birds, such as outside your kitchen window. PFW is interested in birds that are attracted to food you have provided, whether it's placed in feeders or comes from trees, shrubs, or other plantings.

Then, choose your count days. The PFW season runs from November to April. Count periods are two consecutive days, during which you count the birds at your site. You may count every week (e.g. Saturday and Sunday) or less frequently.

Finally, tally the birds. Birds at feeders, suet cages, bird baths, and at plantings should all be counted. Count the highest number of each species that you see at one time. Do not count birds that fly over your site or birds that you observe on non-count days. At the end of your two count days, transfer the data you recorded on your tally sheet to the online form. If you do not have a computer, paper data forms are also available.

Just last month, Project FeederWatch received some high-profile promotion by being featured on the Martha Stewart Show. Martha's guest, the Project FeederWatch coordinator in the U.S., talked about the benefits of counting birds at your feeders and encouraged children and adults alike to join the efforts of scientists in tracking bird migration patterns this winter. You can see the segment by going to Martha Stewart's website and clicking on the October 17th episode.

It will be interesting to see the Project FeederWatch data for pine grosbeak and bohemian waxwing observations this winter. Both of these species have begun to turn up in Peterborough

County in the last two weeks, with many birds coming to crabapple trees right in the city. The Edmison Heights area is a favourite haunt of both these species.

One final word. Although those people who have many birds visiting their yard may have the most fun, even those who record relatively few birds still contribute to our knowledge. The absence of birds can be as telling and significant as their presence.

The Top 10 Most Common Feeder Birds for the 2005-06 Season in Ontario, according to Project FeederWatch

1. Black-capped Chickadee
2. Blue Jay
3. American Goldfinch
4. Mourning Dove
5. Downy Woodpecker

6. Dark-eyed Junco
7. White-breasted Nuthatch
8. Northern Cardinal
9. European Starling
10. Hairy Woodpecker

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