

HOW TO SURVEY BIRDS ON YOUR FARM TO HELP MONITOR BIODIVERSITY

BIRD FACTS



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American robin

There are 451 bird species across Canada¹ and BC is home to 320 bird species²

Populations of insect-eating birds, like swallows, have declined by 59% since 1970³

In Canada, 1 in 8 birds are threatened with extinction³

Banning the insecticide DDT in Canada in the 1980s has helped increase bird of prey populations by 110%³

Importance of Farmland for Birds

Birds, with their colourful feathers and varied songs, are a beautiful addition to your farm's wildlife diversity. On-farm habitats like hedgerows and field margins, can support migrating and resident bird populations, bringing benefits to your farm and helping to increase bird diversity.

Healthy bird populations can also indicate healthy ecosystems, since birds are impacted by habitat loss, pollution, climate change, invasive species and insect declines.

Birds on farms can be beneficial when they eat pests, but also harmful when they damage crops. Many bird species can also switch roles – being beneficial at one point in the season and more of a pest in another. Ways to attract beneficial birds include adding nest boxes or perches for

specific beneficial species, placing buffers between crops and habitat, adjusting planting times, or blocking access to farm buildings by pest birds.

Impacts of Birds on Farmland

Positive:

↓ Decreased rodent populations



↓ Reduced number of fruit-eating birds (due to birds of prey)

↓ Lower insect pest populations



↑ Increased pollination services (through nectar feeding)



Negative:

↑ Potential crop damage



↑ Potential risk of avian flu transmission

How to Survey for Birds



Rufous hummingbird



With a partner decide on a central location on your farm to observe birds. Try to stay away from buildings and roads. Next, assign roles — one person will record data while the other identifies and counts birds.



Walk to the agreed-upon location on your farm. Make sure that winds are light and it isn't raining. Birds are also usually most active in the early morning. Wait quietly for 5 minutes to start your survey in case birds were startled when you arrived. Fill in the top part of the provided data sheet.



Record the number of individuals of each type of bird seen and heard for 15 minutes. Try not to double-count individual birds!



If you can't identify a bird, jot down a description and use a field guide or a smartphone app like Merlin (see below) to help identify the bird. Once your survey is done, submit the data to a participatory monitoring initiative like eBird.

Bird Identification and Participatory Monitoring Resources

Participatory monitoring occurs when local residents measure and monitor natural resources or biodiversity. There are a wide variety of initiatives and associated apps and websites that can help users identify birds and collect bird diversity data for use in scientific research and land use planning initiatives, including:

- **Merlin** (merlin.allaboutbirds.org): A smartphone app for bird species identification
- **iNaturalist** (inaturalist.org): Users can use their smartphone to observe biodiversity (pictures, sounds), share with other naturalists, and collectively identify species
- **eBird** (ebird.org/canada): Allows bird watchers to track, store and share their bird observations
- **Great Backyard Bird Count** (birdcount.org): Occurs over a span of four days every February
- **Christmas Bird Count** (audubon.org/christmas-bird-count): Held since 1900, this annual bird count occurs from December 14 to January 5
- **Birds Canada Participatory Monitoring Map** (birdscanada.org)

Photo credits: Wolf Read

1. Canadian Wildlife Federation. (n.d.). *Wild about birds*. Retrieved March 23, 2023, from <https://cwf-fcf.org/en/explore/wild-about-birds/>

2. BC Breeding Bird Atlas. (n.d.). Retrieved March 23, 2023, from <https://www.birdatlas.bc.ca/>

3. Environment and Climate Change Canada. (2023, January 26). *Trends in Canada's bird populations*. <https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/trends-bird-populations.html>

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