

What role do birds play in our ecosystem?



Birds play a very important role in our ecosystem. They help maintain the health of forests, help control populations of both insects and small mammals/reptiles, help pollinate flowers, spread and carry seeds and they brighten our day with their bird song.



In this lesson

Students will explore the role birds play, learn about migration, their habitat, impacts of climate change on populations, where to go bird watching in BC, and how to help support birds throughout the seasons.

Living things have life cycles adapted to and can sense their environment



Contribute to care for self, others and community through personal or collaborative approaches

Daily and seasonal changes affect all living things

SPEC School Gardens



Did you know?

- BC is located over the Pacific Flyaway Zone and is a migratory path for birds such as the lesser snow geese that arrive from the arctic circle each November.
- BC's official bird is the stellar jay
- Due to the changing climate many birds have lost their homes, migrating earlier and or declining in population.

SPEC School Gardens



Where do birds choose to live?

buildings like pigeons and swallows.

- Birds have a many different places they call home based on where they can find a mate and sources of abundant food.
- Some birds live up high inside tree cavities or branches, such as woodpeckers, finches, herons and sparrows. Other birds live in the undergrowth of woodlands, making their nests in shrubby branches or farmland like the spotted towhee, dark eyed junco and killdeer. Other birds use urban spaces and

What material do birds use to make their nests?

In winter, many of the nests are empty, however as spring approaches and the weather warms, many birds seek out a mate and females are skilled builders creating a nest to raise their young.

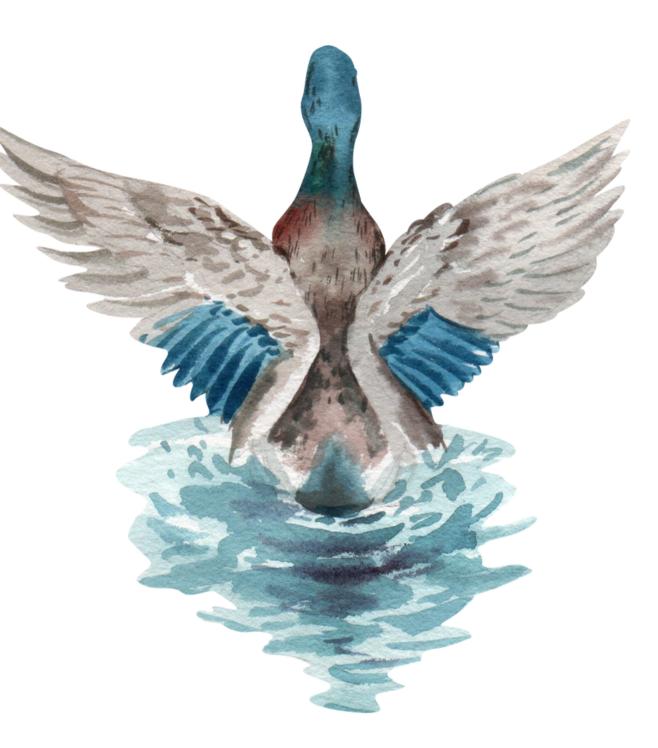
Nests are made of different materials such as lichen, moss, plant fluff from cattails and cottonwood, spider silk, twigs, dried leaves and grasses, bark, pine needles, animal fur and feathers.

SPEC School Gardens

How many different bird species live in our neighbourhood?







What is migration?

that are best suited to their needs.



In British Columbia, we are situated over the Pacific Flyaway Zone, which is a migratory route for many species. Consider the Pacific Flyaway like an air traffic zone for birds similar to traveling in an airplane from one destination to the other. Birds use their internal compass and knowledge to fly over this pathway which guides them to different climates and habitats

Why do birds migrate?

when weather patterns begin to shift. Some birds begin to locate a larger supply of food as winter approaches when food sources are not as abundant.



- Many birds migrate, which means they travel great distances
- migrating in late summer or early fall for many reasons such as
- warmer weather, breeding (to find a partner to mate with) and





SPEC School Gardens

Do all birds migrate?

snow geese, bufflehead and green winged teal

- Not all birds migrate, many birds stay all year long such as the Anna's hummingbird, American Robin, and Canada Goose.
- While many birds leave BC, there are several species of birds that arrive in our region during the late fall, such as the lesser



SPEC School Gardens

Where do birds seek shelter during a snow storm?

BC has experienced harsher weather with more snow, heavy rains and winds during our winter season which has an impact on our feathered friends. As inclement weather approaches, birds can sense the change in air pressure and will seek shelter in a dense protection of shrubs, inside tree cavities, under large evergreen trees. Many birds will feed a great deal to keep themselves a bit warmer when the temperature drops. The feathers also help keep their bodies warm - think a warm insulated jacket.



How can I welcome/help backyard birds?

Food can be scarce. Birds like the northern flickers, blackcapped chickadees, hummingbirds, dark-eyed juncos, song sparrows, house and purple finches are common visitors to neighbourhoods. Make your yard or space bird friendly by: • Avoiding the use or spraying pesticides or herbicides. • Leave bird seed or hanging home made bird feeders in your backyard or balcony patio (far away from windows) and

- keep it well supplied.
- Pick up any garbage you come across.

• Regularly clean the feeders and seed to prevent disease.



How can I welcome/help backyard birds?

- When tidying your garden, leave a small brush pile of twigs, branches, fallen logs in the corner of your yard.
 Prevent injury to birds from striking your glass windows by
- Prevent injury to birds from striking your glass windows using bird strike tape, close blinds/curtains or minimize bright lighting.
- Create habitat for birds.Consider planting native plants or shrubs that produce berries and a source of food and shelter.
- Participate in <u>bird counts</u> or document the birds you see in your neighbourhood using apps like iNaturalist or BC Bird Trail.

Where are some great places to bird watch?

Visit the <u>BC Bird Trail website</u> for recommendations all over British Columbia for some great viewing locations.

For migratory birds Terra Nova Rural Park, Iona Beach Regional Park (in Richmond) and George C Reifel Migratory Bird Sanctuary (in Delta) are great places to start!





SPEC School Gardens

Activities

Winterize your garden for birds Participate in a bird count (February) Pine cone Bird Feeder (K - 5) Make Suet for birds Spring - Offering birds nesting material (K-7) Make sugar nectar for hummingbird feeders (K - 5) Backyard Birds Identification (Grades 1 - 6) Go Backyard Birding using an mobile app Explore the BC Bird Trail Go Bird Watching in your neighbourhood or local park



Books

Nature All Around: Birds by Pamela Hickman My First Book of Canadian Birds by Andrea Miller Backyard Birds: An Introduction by Robert Bateman Pocket Birds of Canada 2nd Edition by DK and David Bird Pocket Guides Sibley's - Backyard Birds of PNW, Ontario & Quebec, Atlantic Canada Audubon Birding Adventures for Kids: Activities and Ideas for Watching, Feeding and Housing our Feathered Friends. Peterson Field Guides for Young Naturalists - Backyard Birds https://naturecanada.ca/discover-nature/about-our-birds/birde-books/

Resources

Ebird Canada - Birds in your Region BC Bird Trail -Backyard Birding 101 **BC Bird Trail - BC Bird Species** Vandusen Botanical Garden - Common Birds in the Garden **Birds Stop Eating Just Before Migration** https://www.audubon.org/how-do-birds-cope-cold-winter https://www.richmond.ca/parks/parks/naturepark/urbanwildlife/snowgoose.htm https://cwf-fcf.org/en/resources/encyclopedias/fauna/birds/black-capped-chickadee.html https://www.natureconservancy.ca/en/blog/winter-chickadees.html https://pacificbirds.org/birds-migration/the-birds



