



BIRD Feathers



An Activity Guide About the Songbirds of British Columbia



Teacher's
Guide



Homeless Part I: Songbirds Need Habitat



Dee Byrd's
Guide
to Who's Who

GRADES: 4-7

SUBJECTS: Science, Social Studies, Language Arts, Art



Where's that
Bird you
Heard?

OBJECTIVE: Students will learn:

- how human-induced habitat loss has led to the decline of some species of songbirds while others have thrived because of their ability to adapt to areas of human land use; and
- how habitat loss is one of the most critical problems facing wildlife today.



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METHOD: Students research the challenges that certain songbirds face in our province due to human-induced habitat loss from farming, forestry, urban expansion, pollution and introduction of non-native species. They also research how certain songbirds have adapted to live with humans.

BACKGROUND

Songbirds face many challenges in today's world. Not only do they have to look out for hazards such as cats, windows and automobiles (see *Activity: Household Hazards*), they are also faced with declining and deteriorating habitat. Humans, like any animal, need food, water and shelter to survive. We also need space to live and a certain amount of resources from various habitats. As the human population grows and expands, we need more land to meet our needs. Although we are lucky in British Columbia to have a considerable amount of pristine habitat left, there are still extensive areas of forests that are being cut down, grasslands that are being converted to farmlands, and cities and towns that are expanding and swallowing up the surrounding wilderness.



Every time land gets paved over for a shopping centre or ploughed over to grow a crop, songbirds lose their homes and often their sources of food and water. The removal of dead or dying trees (wildlife trees) that are often the only source of habitation for cavity-nesting birds is another significant contributor to the problem (see *Activity: Singing Wildlife Trees*).



Habitat loss has resulted in population decline for the following songbirds in British Columbia:

**Draining Marshes
Wetlands**

Marsh Wren
Common Yellowthroat
Black-and-white Warbler
Savannah Sparrow
Song Sparrow
Yellow-headed Blackbird
Red-winged Blackbird

**Clearing of Forests
Thickets**

Olive-sided Flycatcher
Yellow-bellied Flycatcher
Willow Flycatcher
Hammond's Flycatcher
Pacific-slope Flycatcher
Red-eyed Vireo
Gray Jay
Brown Creeper
Varied Thrush
Gray Catbird
Blackpoll Warbler
Rose-breasted Grosbeak
Red Crossbill

**Conversion of Prairies
Fields to Farmland**

Le Conte's Sparrow
Sage Thrasher
Vesper Sparrow
Lark Sparrow
Grasshopper Sparrow
Bobolink

Besides habitat loss, human activity often causes degradation of some of the remaining habitat, especially near urban centres. Use of pesticides has reduced the number of insects available for food, and contaminated other food sources and nesting material. Pollution of air and water, which particularly affects those songbirds that live around areas of human habitation, is another widespread problem. For example, the American Dipper, which lives close to streams, has declined in number in areas where streams have become polluted.

Another problem is our introduction of non-native species such as the European Starling and the House Sparrow. These species compete for nesting sites with native species such as Violet-green Swallows, Western Bluebirds, Purple Martins and Purple Finches. Starlings and House Sparrows have had devastating effects on the Western Bluebird populations, aggressively taking over nest cavities.

Often the most successful species are those that have adapted to living with humans. Some, such as the Barn Swallow, Say's Phoebe, Western Kingbird, Bewick's Wren, House Wren and the House Sparrow use artificial structures such as buildings, bridges, and even telephone poles for nesting sites. Others, such as the Warbling Vireo and Horned Lark, thrive on land that has been overgrazed and abused by humans. Then there are species such as the American and Northwestern Crows, American Robin, European Starling, Chipping Sparrow, Tree Swallow and Black-capped Chickadee that frequently visit urban areas.

The major purpose of this activity is for students to recognize how habitat loss has affected songbirds in our province, and realize that this is a global problem that is affecting all wildlife.

MATERIALS

Access to "Dee Byrd's Guide to Who's Who " as well as other sources of research material on songbirds
Poster paper



PROCEDURE

1. Discuss the background information with students, emphasizing how severe a problem habitat loss is globally. Make a list of local birds (from the list that is provided in the background information) that fit into each of the following categories:

Vulnerable to Habitat Loss Adapted to Life with Humans



To help decide which of the birds are local, look at the distribution maps in "Dee Byrd's Guide to Who's Who " or the map in "Where's that Bird You Heard? "



2. Have each student choose a different songbird from the list and research the following questions:

What type of food does this songbird eat?

What type of habitat is this songbird found in?

Where does this songbird build its nest?

What type(s) of land use or other activity is this songbird vulnerable to? Why? OR How has this songbird adapted to life with humans?

3. Have the students compose a short oral presentation that links these questions together and explains how the lifestyle of their songbird either makes them vulnerable or not susceptible to habitat loss. You can ask them to make posters of their bird with the facts listed on it to help them with their presentation. After their presentation, they can hang the posters up in two different groups based on which of the above category the bird fits into.



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