



Community Science

Urban Wildlife

Lesson 8: Urban Wildlife Walk

Duration: 60+ minutes **Location:** Outdoor

Overview

In this lesson students will conduct an urban wildlife field study in their schoolyard/community looking for and recording the local animal species. Students should have completed the in-classroom lessons, specifically, 'What is Citizen Science'.

Learning objectives

By the end of the session, students will be able to:

- Identify various urban wildlife species and their role in the local ecosystem;
- Reflect on the scientific process of collecting and analysing data;
- Understand one or more environmental conditions that threaten urban wildlife; and
- Understand one or more actions they can take to help local wildlife populations.

Curriculum links

Grade: 7

Science, Interactions & Ecosystems

- Analyse personal and public decisions that involve consideration of environmental impacts, and identify needs for scientific knowledge that can inform those decisions
- Identify intended and unintended consequences of human activities within local and global environments



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Equipment required

- Tablets/iPads
- Observation sheet or Nature journal
- Writing utensil
- Clipboard (optional)
- Binoculars (optional)
- Appropriate outdoor clothing
- ID guide or pamphlet
- Laminated wildlife images

Additional information

Students will need to know how to use a guide book and have a basic knowledge of how to use Merlin Bird ID app and binoculars. A basic understanding of climate change and hypotheses is required as well.

Lesson plan

Time	Activity	Equipment Needed
5 minutes	Identify the area that you will be taking students for the field study. For instance, this can be a stationary observation in the schoolyard or a traveling walk through the community. To ensure that student see animals, you have the option of placing laminated wildlife images in your study area for students to observe (from 5+m away), identify and record.	<ul style="list-style-type: none">• Paper or white board• Writing utensil• Laminated wildlife images



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	<p>Prior to starting your walk, have students great a hypothesis based on their personal experience in their schoolyard/community. The hypothesis should be about how many wild species they believe live in their local community. Have students write down their personal hypothesis to revisit after the field study.</p> <p>Introduce that the class will be conducting primary research to either prove or disprove their hypothesis. Frame the day as a field study where they will be attempting to identify/see as many animals as possible. It is important to note that urban wildlife do not include domestic animals and for this specific study will not include wild urban plant life, which can also be classified as urban wildlife.</p>	<ul style="list-style-type: none">• Clothespins
10 minutes	<p>Create smaller groups of 2-5 students. Within each group, designate and describe the following roles.</p> <ul style="list-style-type: none">• Observer: will be using the binoculars (optional) and/or their naked eye to look for local species.• Recorder: will be using the observation sheet or nature journal, clipboard (optional), writing utensil and be drawing or writing down the birds their group observes.• Identifier: will be using the ID guide and/or tablet/iPad with Merlin Bird ID to help the group identify any species observed. <p>Students can periodically (every 10 minutes for instance) switch roles so everyone has an opportunity to experience each role and equipment.</p> <p>There can be two or more students in each role, depending on group size. Hand out the following equipment:</p> <ul style="list-style-type: none">• Binoculars (optional)	<ul style="list-style-type: none">• Tablets/iPads• Observation sheet or nature journal• Writing utensil• Clipboard (optional)• Binoculars (optional)• Appropriate outdoor clothing• ID guide or pamphlet



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	<ul style="list-style-type: none">• Writing utensils• Observation sheets or nature journals• ID guides or pamphlets• Tablets/iPads <p>Before leaving, have the group review field study behaviour best practices. For example,</p> <ul style="list-style-type: none">• move slowly,• move as a group,• do not make loud sounds, and• create a 'stop, look and listen' hand signal.	<ul style="list-style-type: none">• Laminated wildlife images• Clothespins
15+ minutes	<p>Starting the field study.</p> <p>If you have selected a travelling field study, then ensure that you have one adult in the front and back. Ideally you will have one adult per small group to assist with observation, identification and recording.</p> <p>If you have selected a stationary field study, then ensure that individuals or groups are sitting together but spaced throughout the study area to reduce chatter and increase wildlife observation. Travelling between stationary groups and providing prompting questions and tips is important to keep group focus.</p>	<ul style="list-style-type: none">• Tablets/iPads• Observation sheet or nature journal• Writing utensil• Clipboard (optional)• Binoculars (optional)• Appropriate outdoor clothing• ID guide or pamphlet• Laminated wildlife images



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5 minutes	<p>During the field study, have students individually, in their groups, or as a class, identify threats to animal survival in their community. Write ideas down in their observation sheets or nature journals. Revisit this brainstorm list after the field study.</p> <p>This mini-activity can be done as a break activity or facilitated as an on-going 'scavenger hunt' during the field study.</p>	<ul style="list-style-type: none">• Clothespins• Observation sheet or nature journal• Writing utensil
10 minutes	<p>Review sightings together as a big group. Curate a class list of animals seen (make sure they have been seen by at least two individuals and each agrees with the identification).</p> <p>Log onto iNaturalist on a tablet/iPad (outside, Wi-Fi permitting) or in the classroom (on the smartboard) and submit wildlife sightings together as a group.</p>	<ul style="list-style-type: none">• Tablet/iPad• Smartboard• Computer
10 minutes	<p>Revisit the hypotheses made. Using the curated list of species seen either prove or disprove their hypotheses. Some suggested follow-up questions are below.</p> <ul style="list-style-type: none">• We didn't see as many animals as we hypothesized, why do you think that is?<ul style="list-style-type: none">○ How could we invite more animals to our schoolyard/community?• We saw more animals than we hypothesized, why do you think that is?<ul style="list-style-type: none">○ Do you think these animals live here all year long, why or why not? <p>Revisit the list of threats and obstacles the students wrote down that animals have in your field study area (<i>outdoor cats, no food, no shelter, not enough trees/bushes, cars, the heat/cold, etc.</i>) Create a group list on the board.</p> <p>Brainstorm ideas on how the students and others can help change those threats/obstacles and help urban wildlife. Some suggested follow-up questions are below.</p>	<ul style="list-style-type: none">• Observation sheet or nature journal• Writing utensil



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	<ul style="list-style-type: none">• Do you think these threats/obstacles are only in our study area, or are they common around the world? <i>(many of these problems, like habitat loss and climate changes are happening all around the world and impacting all bird species.)</i>• How can we as students help urban wildlife overcome these obstacles? How can we as students remove some of the threats? <i>(Keep doing citizen science, Teach other people what we have learned. Make a birding or eco-club. Raise money for or donate to conservation organizations, like eBird. Reduces our climate impacts. Plant more flowers/bushes/trees in our yard and schoolyard. Protect or reclaim natural spaces. Build or buy bird feeders and bird baths. Keep our cats indoors only.)</i>	
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