

GET TO KNOW

Nature in the city



What to expect from this educational packet

This worksheet will teach you more about city-dwelling plants and animals, including their roles in our communities! Through this packet, you will:

- Learn about urban species
- Explore Indigenous cultural connections
- Do some fun activities including drawing, crosswords and word searches
- Reflect on what you've learned with our discussion questions

Introduction

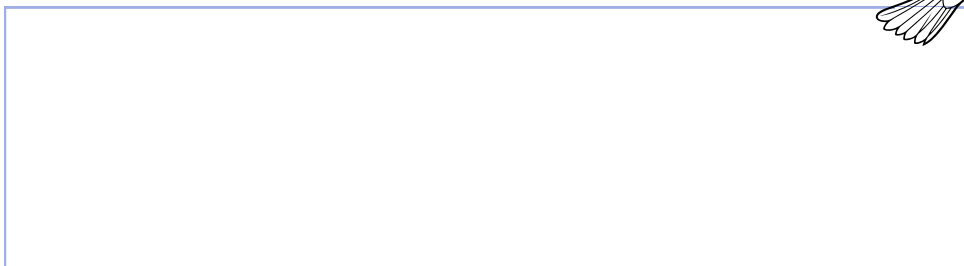
As we've seen, many different beings big and small make their homes in the city. These fellow community members help our urban areas and those living in them thrive.

Nature in the city is deeply interconnected with systems that provide people with food and clean water, and also help prevent overheating. For example, without animals such as bees and wasps, we would not have most fruits and veggies. Plants as small as moss and as large as trees help drain rain from storms so that our streets are not flooded. These large tree canopies also ensure our communities are shaded for those super sunny days. The incredible nature in our cities can protect people young and old from heat exhaustion.

There's also lots to learn from our non-human neighbours. For example, many of our cities and towns produce a lot of waste. So, what could we learn from plants about living more sustainably? For instance, like moss, our cities could start focusing on nutrient cycling, storing and purifying water, and creating communities that focus on sharing.

Who lives in your neighbourhood?

List out some of the plants and animals you've seen around town!



Who lives in the city?



Moss

Moss is an ancient life form that can be found within sidewalk cracks, between roof shillings, and in the least expected places. Moss' incredible gifts lie in its ability to take an area devoid of life and create areas for new plants to grow. Moss is one of the first plants to appear in many places. We have them to thank for building nutrients in the soil that now provides food for the tall trees in the forest today. Moss grows with the rain, it stores moisture, and purifies water. But moss does not exist alone, rather it is a working community that distributes water throughout their neighbourhood.



Frog Leaf/Plantain/Ribwort

Frog Leaf (also known as Plantain or Ribwort) can be found where the concrete cement meets a patch of grassy area. This plant is often thought of as a weed, but it's actually a medicinal and edible green. The leaves can be used in salads or ground up into a poultice that can be used to treat wounds and infections. One should be careful of foraging for them in urban areas though, as their leaves could be subject to the harmful effects of chemical pollution.



Oak tree

Oak trees are one of the most prominent street trees in North America and provide more gifts than just the absorption of carbon dioxide and production of oxygen. These trees bear tremendous medicinal and nutritious gifts. Depending on the species, the acorns can be boiled or made into flour. The bark of oak trees can be used as an antiseptic, or healing agent for inflammation. Garry Oaks are the only oak species native to the province and can be found on Southern Vancouver Island.



Humans

Humans could be considered the keystone species of urban areas — meaning we have a large influence on the health of city ecosystems. As we create new homes, condos and apartments we drive urban expansion, which often infringes on other species' habitats. Furthermore, other species rely on the political decisions humans make to support biodiversity. So, it is important to keep in mind that land stewardship extends beyond the mountains, forests, and rivers to your own community. We have a responsibility to care for all the life that we share our neighbourhoods with.



Raccoons

Raccoons are nocturnal, opportunistic omnivores. They often gather food at night, and since they are omnivores, they can be found eating a variety of plants and animals in both trash cans and trees. Despite their reputation as “trash pandas”, given the option, raccoons prefer to wash their food before eating it. In urban centers, raccoons may build their dens in small crawl spaces, chimneys and attics. Raccoons can be found in much of Southern B.C. from Vancouver Island to the Interior.



Birds

From crows to gulls to hummingbirds, urban areas are filled with many bird species. Some birds, like crows, make their homes in urban areas due to the amount of food waste that humans leave behind. Others will gather for warmth in nearby trees, making them well-adapted to forested urban areas. You may also spot hummingbirds incentivized by feeders and planted flowers in people’s backyards. Hummingbirds are a key pollinator species for urban plants.

Exploring Indigenous cultural connections

When we discuss "nature in the city," it's important to learn from people who have lived on these lands for countless generations. Indigenous stewardship has adapted in many ways with the urbanization of landscapes. Sierra Club BC aims to honour Indigenous voices and to ensure that unique Nations and worldviews are respectfully acknowledged.

While we've shared some publicly available resources below as a starting point, it's best to engage with your *local* Indigenous community. Each Indigenous Nation has distinct perspectives, cultures and governance systems. This means that different communities will have different relationships with "nature in the city". To begin, many Nations have websites with a wealth of publicly shared knowledge that you can check out, or you could attend a public event hosted by the community. If you don't know whose territory you live on, you can visit Native-Land.ca to learn more.



This next section includes website links for deeper learning. To explore these resources, please visit sierraclub.bc.ca/nature-in-the-city-resource



Musqueam stream restoration

We invite you to read more about Musqueam's work to protect streams in urban environments with the link above.

"Before colonization on these lands, people would work with the flow of rivers, understood the tidal patterns, and avoided building permanent structures in areas that were known to flood. Since urbanization, municipalities have tried to manage and direct the flow of water through stormwater systems in order to protect against flooding. However, these urban structures have had a profoundly negative impact on the surrounding environment."

Kwantlen art and stories

For younger readers interested in local cultural connections with birds, we highly recommend this Kwantlen book *The Girl Who Loved Birds* by Joseph A. Dandurand and illustrated by Elinor Atkins. You can find this book using the link above.

"Accompanied by beautiful watercolour illustrations by Kwantlen artist Elinor Atkins, this tender children's story follows a young Kwantlen girl who shares her life with the birds of the island she calls home. Collecting piles of sticks and moss for the builders of nests, sharing meals with the eagles and owls, the girl forms a lifelong bond with her feathered friends, and soon they begin to return her kindness."

Activities

Reimagine nature in your backyard and city!

With this activity we encourage you to take a seat, take a deep breath, and draw what you see outside in the space below. Once you've drawn the outdoors add in new elements that you think would make this a **greener** city. Some examples: people on bikes, transit, more plants, more animals or animal corridors.

Nature in the city

WORD SEARCH

H	Z	G	B	J	B	K	U	Y	N	O	H	E	K	L	F	I	F
U	S	A	Q	I	D	B	S	I	D	E	W	A	L	K	E	Z	X
M	T	R	S	B	O	X	H	U	M	A	N	S	R	L	R	E	S
M	O	R	N	P	C	D	R	A	C	C	O	O	N	U	N	Y	B
I	R	Y	I	U	E	S	I	C	R	O	W	S	Q	X	S	I	A
N	M	O	Y	B	U	C	F	V	S	E	A	G	U	L	L	S	C
G	W	A	G	N	W	M	I	J	E	W	H	W	R	P	U	Q	K
B	A	K	B	T	A	O	O	E	N	R	R	O	H	Y	C	M	Y
I	T	A	E	V	L	A	R	S	S	V	S	T	Y	D	T	S	A
R	E	K	X	L	M	T	L	T	S	U	W	I	Z	D	C	J	R
D	R	Z	T	W	R	K	Z	G	W	O	B	Q	T	J	E	N	D
S	K	E	Y	S	T	O	N	E	T	E	K	Z	R	Y	T	U	S

Moss: Plants which purify rainwater and grow in unexpected places

Raccoon: Nocturnal omnivores that can be found foraging in trash cans and trees

Biodiversity: The variety of life forms on Earth

Stormwater: Heavy rain or snowmelt in urban areas

Sidewalk: An area in urban cities that you walk on made of concrete

Ribwort: A plant found where concrete meets grassy fields

Garry oak: A tree species native to the southernmost part of Vancouver Island

Humans: There's about 8 billion of these on Earth

Species: A category of living things more specific than genus

Crows: Common bird in urban areas, not to be mistaken for ravens

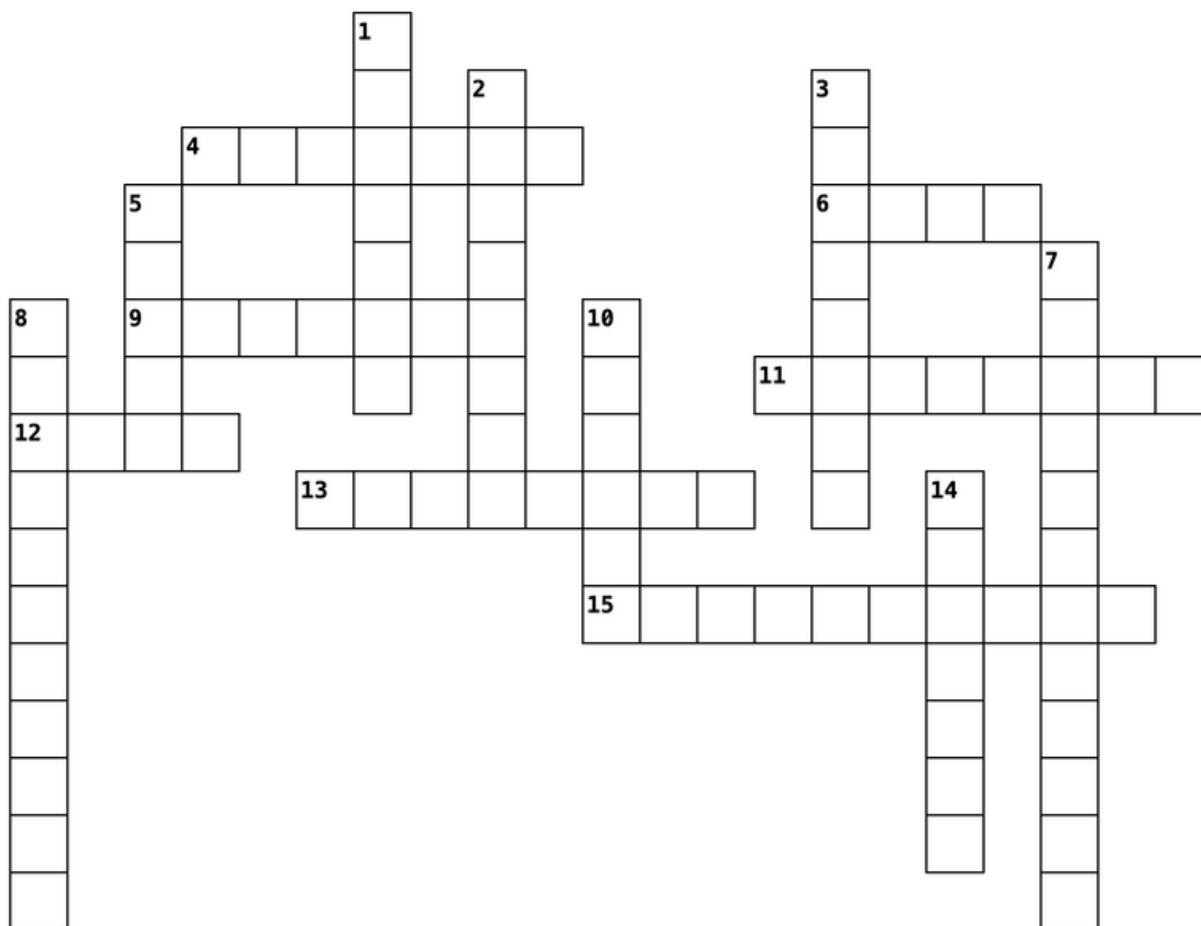
Seagulls: If you're by the water, these birds may try to eat your food

Hummingbirds: These pollinators beat their wings very fast to hover next to flowers

Keystone: A word meaning vital or important, usually used before species to indicate a very important species to an ecosystem

Nature in the city

CROSSWORD PUZZLE



Across

- 4. A category of living things more specific than genus
- 6. Common bird living in urban areas, not to be confused with ravens
- 9. A plant where concrete meets grassy fields
- 11. A tree species native to the southernmost part of Vancouver Island
- 12. Plants which purify rainwater and grow in unexpected places
- 13. An area in urban cities that you walk on made of concrete
- 15. Heavy rain or snowmelt in urban areas

Down

- 1. Nocturnal omnivores which can be found in trees and scavenging in trash cans
- 2. A word meaning vital or important, usually used before species to indicate importance to the ecosystem
- 3. The grassy area behind your house
- 5. A plant species without seeds or flowers but rather reproduces via spores
- 7. Word meaning variety of life forms on Earth
- 8. These bird-pollinators beat their wings very fast to hover next to flowers
- 10. There's about 8 billion of these on Earth
- 14. If you're by the water these birds may try to eat your food

Answers: 1. Raccoon, 2. Keystone, 3. Backyard, 4. Species, 5. Ferns, 6. Crow, 7. Biodiversity, 8. Hummingbird, 9. Ribwort, 10. Human, 11. Garry oak, 12. Moss, 13. Seagull, 14. Seagull, 15. Stormwater

Discussion questions

Write down your thoughts and reflections to the questions below.

- We are all connected. How are you connected to other animals and plants in your community?
- Many plants and animals are being lost from our cities because of habitat destruction. What are the repercussions if a species becomes locally extinct? How can we fix this?
- What is our responsibility in taking care of our cities?
- Every being in the city matters. What being in your backyard can provide you with new lessons?
- What is a belief or worldview that is dissolving in you to make room for a caring future?
- What messages do you receive about our responsibility to the city?
- Who do you think is taking care of the city? What makes you feel this way?

Keep learning with us!

We want to express our sincere gratitude to all those who helped breathe life into this work.

To explore our resource list and additional learning materials, we invite you to visit sierraclub.bc.ca/nature-in-the-city-resource

