

WILD ABOUT BEES

Toronto is home to over 360 species of bees. Learn more about native bees and honey bees and what you can do to help.

Let's start by exploring the differences between wild, native bees and European honey bees—and why it matters.

The buzz on native bees

- Native bees are the most specialized and efficient pollinators. It is through pollination that plants produce seeds, fruits, and new plants.
- Some species of native bees are in drastic decline.
- When native bees disappear, they disappear forever.

The buzz on honey bees

- Honey bees are a non-native species, introduced from Europe, used in agriculture to pollinate crops and managed, as livestock, by beekeepers to produce honey.
- Honey bees are dying in large numbers but they are not an endangered species.
- When a honey bee colony dies, more honey bees can be purchased and new colonies started.



Native bees and honey bees are threatened by habitat loss, invasive species, diseases, pesticides, climate change, and extreme weather.

Native Bees	European Honey Bees
More than 360 species exist in Toronto, over 600 in Ontario, and over 800 across Canada	A single monoculture species, <i>Apis mellifera</i> , is commonly farmed in Canada
Once lost, they cannot be replaced	When a colony dies, bees can be purchased to start a new colony
Wild	Managed by humans
Some species are endangered	Not endangered
Primarily solitary	Social, live in colonies
Nest in the ground or in cavities	Live in hives
Do not produce honey as they are dormant in winter	Produce honey for overwintering
Wide range of colours, including green, blue, red and purple	Black and yellow
Most species don't sting	Sting
Have evolutionary, dependent relationships with native plants	Have no evolutionary, dependent relationships with native plants

Considering backyard bee keeping?

You've heard about the pollinator crisis, you've heard that bees are in trouble, you've heard about Colony Collapse Disorder, and you want to do something to help. Interest in backyard beekeeping is growing, but is it the right thing to do?

Here's what you need to know:

- Keeping European honey bees in your backyard does nothing to help native bees and may actually harm them.

“Keeping honey bees doesn't help to save wild bees, much like keeping backyard hens doesn't save wild birds.”

- Research suggests that honey bees may be a factor in the decline of some species of native bees; they can outcompete native bees for nectar and pollen, spread diseases and parasites, and negatively affect the reproductive health of native bees.
- Backyard beekeeping is a highly specialized hobby that requires time, skill, careful attention, and mentorship. If not done properly, it can have negative—and even dire—consequences for Ontario's beekeeping industry, small-scale hobbyists, and wild, native bees.
- The *Ontario Bees Act* requires all beekeepers to register their hives with the Ministry of Agriculture, Food and Rural Affairs. It also requires all hives to be at least 30 metres from a property line, which prohibits most Toronto homeowners from keeping honey bees in their backyards.

“A single honey bee hive can contain 50,000 honey bees, which can consume the amount of pollen needed to feed about 110,000 offspring of a single native bee.”

Did you know?

The Rusty-patched bumblebee—one of the most common native bees in southern Ontario just 50 years ago—hasn't been seen in the wild in Ontario since 2009.



Photo by
Johanna James-Heinz

Meet Toronto's Official Bee!

Look for this metallic green sweat bee—*Agapostemon virescens*—in gardens across the city.



What is the best way to help native pollinators?

The easiest and most effective way to help native pollinators is to plant native plants. By planting native plants, you will be providing much-needed habitat that native bees need to survive. Native plants provide pollen and nectar which they need to feed themselves and their larvae, as well as places to nest and overwinter.

You can create pollinator habitat in your yard, on your balcony, at your condo or apartment building, at your office, school, faith centre, community garden—everywhere!

Tips for creating a pollinator-friendly garden

- ✓ Plant native trees, shrubs, and perennials (in masses).
- ✓ Plant a variety of species that bloom from spring to fall to provide a continuous source of pollen and nectar.
- ✓ Provide a shallow dish of water for bees.
- ✓ Leave some bare ground for ground-nesting bees.
- ✓ Leave dead, hollow stems in the garden for cavity-nesting bees.
- ✓ Set your lawnmower blade at the highest level.
- ✓ In the spring, wait until temperatures are consistently above 10° Celsius before cleaning up your garden. Native bees overwinter in hollow stems.
- ✗ Don't use pesticides.



For a list of native plants for your garden, visit toronto.ca/pollinateTO

Links and Resources

PollinateTO Community Grants
toronto.ca/pollinateTO

City of Toronto Pollinator
Protection Strategy
toronto.ca/pollinators

North American Native
Plant Society
nanps.org

Ontario Nature
ontarionature.org

Wildlife Preservation Canada
wildlifepreservation.ca

Xerces Society
xerces.org

Pollination Guelph
pollinationguelph.ca

LEAF
yourleaf.org

Project Swallowtail
projectswallowtail.ca

Pollinator Partnership
pollinator.org

David Suzuki Foundation
david Suzuki.org