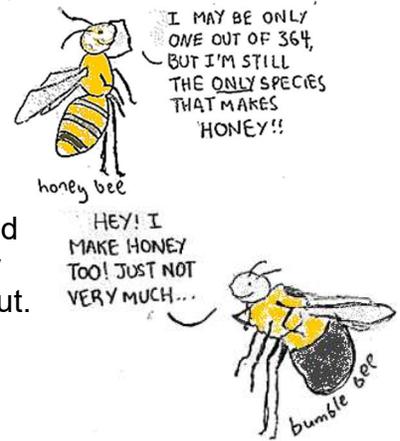


Bee Project Musing #1

July 13, 2018

Did you know that Toronto is home to 364 bee species? That's almost enough species for each day of the year! Our familiar friend, the European honey bee is only one of these 364 species but there are so many other native wild bees that share this city with us. All of them lead absolutely fascinating lives that we still have yet to learn so much about.

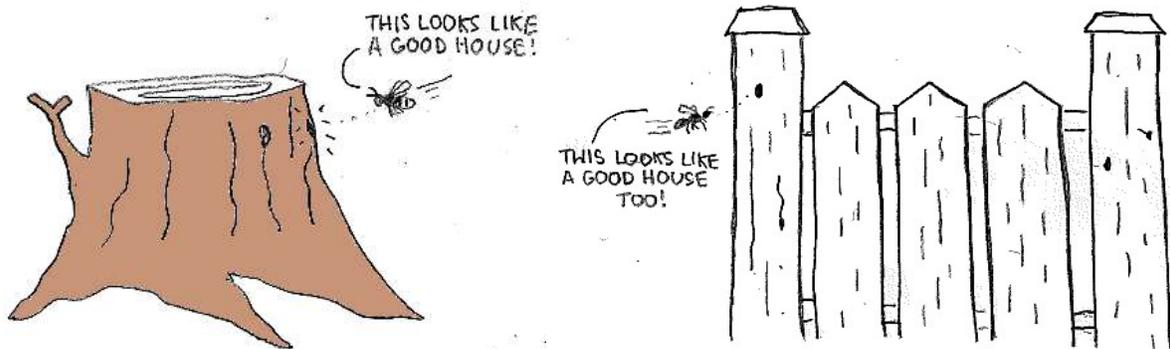


This week, I'd like to tell you about my good friend the Leafcutter Bee!



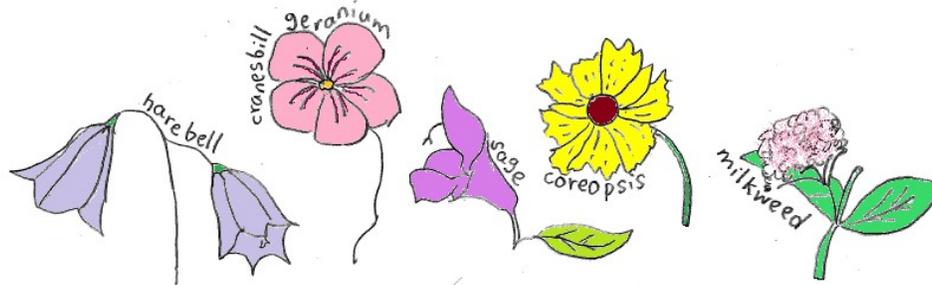
A few leafcutter bees from your gardens! Unlike other bees that carry pollen on their legs, most leafcutter bees transport pollen on the underside of their bellies (abdomens). You can see the yellow on the abdomens of the bees in the second and third photos above.

There are 17 different species of Leafcutter Bees in Toronto, and most live in cavities found in stumps and tree trunks. Here in the city, an old nail hole in a wooden fence is just as good for nesting (as I was lucky to witness in one of the gardens – see video link from Margaret's previous email)

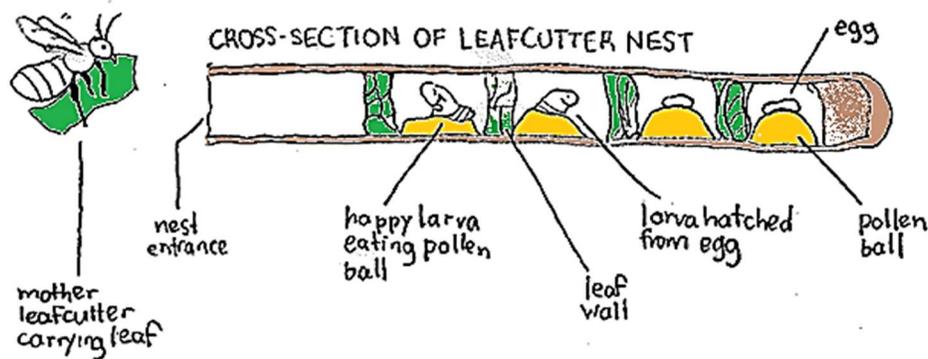


In the nest, the mother leafcutter bee builds a series of "cells". I like to call these cells "bedrooms" because each contains a ball of pollen and nectar upon which a single egg is laid. Mother leafcutter has to make numerous trips collecting pollen and nectar from flowers to form each ball. That's where the lovely flowers in all of your gardens come into play! Some Leafcutter Bees are "pollen specialists" and only visit very specific plants, while others are "pollen generalists" and visit many different plants.

From observing the Leafcutter Bees in your gardens this summer, plants from the Harebell, Geranium, Sage, Coreopsis, and Milkweed families seem to be favourites.



When the larvae (a.k.a. baby bees) hatch from the eggs, they can begin eating the pollen ball immediately. It's akin to raising a baby on a crib made of food! Each bedroom is usually separated by a wall. Some bees use a mixture of mud and pebbles to build these walls, but Leafcutter bees are special because they build walls out of leaves. Mother bees cut circular pieces of leaves with their jaws (called mandibles) and carry them back to their nests to use as walls.



From my experience with these fascinating creatures, Leafcutters love using rose leaves as wall material so if you ever see perfectly circular holes in your rosebush leaves you'll know the culprit! (I've already seen Leafcutter holes in many of your rose bushes)



This leafcutter has her jaws extended!

Leafcutter bees can range from several millimeters to 2 centimeters in size, but almost all Leafcutter species have both enormous and very very strong jaws. In fact, the scientific name for Leafcutters "*Megachile*" (Mega-kye-lee) actually means "large lipped". I've experienced the power of Leafcutter jaws first hand this summer: On a number of occasions I watched in awe as a Leafcutter bee chewed its way through the mesh of my insect net!

Anyways, that's all for this week! I hope to tell you more in the coming weeks.

Lydia