

Urban Pollinator Research: Call for Citizen Scientists

Hello! My name is Lydia Wong, and I am a PhD student from the University of Ottawa working with Dr. Jessica Forrest (U of Ottawa Department of Biology), and Dr. Ilona Naujokaitis-Lewis (Environment & Climate Change Canada). My research explores the impacts of a warming and drying climate on pollinator populations. Urban areas can make for particularly interesting places for studying this. With paved roads, parking lots, and concrete buildings, cities often experience higher temperatures compared to surrounding rural areas. At the same time, we now know that cities are also home to hundreds of bee species. (There are over 350 bee species recorded in Toronto alone!). How does living in a hot urban environment affect these city bees?

I am hoping to launch a project to investigate this, but I will need some help! I'm looking for volunteers who are willing to offer up their gardens for my study and help me collect some data. Specifically, volunteers would need to:

1. Have a garden in Toronto (preferably one with lots of flowering plants that attract pollinators!)
2. Be willing to have 2 artificial nesting structures ('bee/wasp hotels') set up in their garden. (*Note: Bee hotels do not necessarily "attract" bees and wasps, so setting one up would likely **not** result in there being significantly more of these insects on your property. They are perfectly safe to have around! On top of that, the bees and wasps most commonly inhabiting bee hotels (cavity-nesters) are rarely aggressive.* See additional details about the hotels at the end of this document).
3. Be able to periodically monitor bee/wasp hotels from May to September possibly for up to 2 years. Data collection will likely involve taking photos of baby insects (i.e. larvae) in their nests every 3 – 4 days and uploading them online. Volunteers would be trained before the start of the project. Again, data collection will be done in a perfectly safe manner.

This summer (2020) will be trial year and I will likely only be starting the project with 2 – 3 volunteers with the hopes of expanding this to at least 10 volunteer gardens for the summers of 2021 and 2022.

If you are interested in participating in this study, please fill out the following form:

<https://forms.gle/xkp613dsV3He6ZUy6>

Feel free to contact me at lwong014@uottawa.ca if you have any questions or would like to know more about the study.

Sincerely,
Lydia Wong

Additional notes:

- Check out the [google photos link](https://photos.app.goo.gl/VA5nwzSz78knhz6H9) to see photos and videos of the customized bee hotels:
<https://photos.app.goo.gl/VA5nwzSz78knhz6H9>
- Hotels consist of a six-inch length of 2 X 8" wood with sliding doors, a roof, and a base
- Each hotel can host a maximum of 16 bees/wasp nests (although it is highly unlikely that there will 16 actively nesting insects all at the same time; most of the time there will likely only be 2-3 insects working at a time)
- Hotels will likely be mounted on stakes that will be driven into the soil OR they may be screwed into fences (if possible)
- Again, observations can be made in a perfectly safe manner because:
 - a) Cavity-nesting wasps and bees almost **never** sting (they only sting if they are handled)
 - b) Participants will photograph bees through a plexi-glass pane (see video in google photos link)
- Cavity-nesting bees do NOT produce honey. Sorry! 😊