



UNIVERSITY OF
CALGARY

FACULTY OF SCIENCE / Department of Biological Sciences

Photographing Pollinators Guide

Bee a Citizen Scientist

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In partnership with the Office of Sustainability & Knowledge Engagement

<https://biodiversity.ucalgary.ca/>

INTRODUCTION

We want to better understand *how many* and *how many kinds* of pollinators different flowering plants in Calgary support. Alberta, including the City of Calgary, is home to hundreds of different pollinators – more than 330 kinds of bees, as well as flies, beetles, wasps, and other insects! Still we do not know very much about which pollinators visit which flowers.

Last summer, we started a project to identify what kinds of plants which pollinators visit, but we could not capture all of the connections - even with 90+ students and faculty! We need your help to learn about all the pollinators and the plants they visit!

If you are out for a walk, in your backyard, or after a timed pollinator count, please take and share photographs of pollinators on [iNaturalist](#). iNaturalist is a community of people from all over the world uploading photos of living things and helping one another identify them. iNaturalist has many [video tutorials](#) for using the site, and a great [Getting Started Guide](#). Our **Photographing Pollinators Guide** explains how to share your iNaturalist observations of pollinators with our project. Adding photos of pollinators to iNaturalist helps us learn more about the kinds of insect pollinators in our city.

MATERIALS

- Camera or smart phone camera
- iNaturalist [mobile app](#) or site on your [computer](#)

STEPS

Step 1: Create an iNaturalist account (<https://inaturalist.ca/>).

When joining the app, select *iNaturalist Canada* as your network in the settings. If you would like to allow the study team and other scientists use your photos in reports and presentations, set your copyright to one of the Creative-Commons options.

Step 2: Watch for pollinators when you are outside

Any insect (bees, flies, wasps, beetles, butterflies, etc.) that touches a flower is a pollinator. You have the best chance of seeing pollinators on warm sunny days (>20°C) with little wind.

Step 3: Take a photo of the insect on the plant

Take photos of as many angles as possible (ideally a top-down view, side view, and face view). Also, take a photo that includes the insect and the entire plant (to allow plant identification). See this [iNaturalist Photo Guide](#) for getting great photos that can be identified.

In general, you will find more insects during the day. But insects move more slowly and are easier to photograph early in the morning or later in the evening when it is cooler.

Step 4: Upload your photos to iNaturalist

Include information on the location, date, and time. See [iNaturalist Getting Started Guide](#).

For the identification, you can select “insect” or a more specific identification (e.g., “bumble bee”). Only identify what you feel confident of. Most insects can only be identified to family without magnification, and identifying a species typically takes years of practice! There are experts on iNaturalist who will help with your identifications.

If you take a photograph of a plant in a natural and non-cultivated setting (NOT in a backyard, lawn, or landscaped area), you can also upload your plant photograph as a separate iNaturalist observation. Check the box for “Was it captive / cultivated?” for all cultivated or non-wild plants uploaded to iNaturalist. These observations remain at “casual” grade.

Step 5: Include the plant association

In the **Observation** field type “Interaction->Visited flower of” and then select the plant the insect was visiting. Use [Seek by iNaturalist](#) to help with plant identifications or the [Alberta Native Plant Council’s identification keys](#) for native plants.

If you have uploaded a separate observation for your plant, you can provide an additional Observation field in your pollinator observation. Type into the Observation field “[Associated observation](#)” and then copy/paste the URL for the plant observation.

Add a **Tag/Note** of “pollinator” and any other information you would like to share about your observation.

Step 6: Add your observation to our iNaturalist project - [Calgary Pollinators](#).

To have your observations be added, they must:

- be identified as “Insect” or a more specific group (e.g. bumble bee, butterfly)
- have the location (latitude and longitude)
- have the date
- have the Observation Field “Interaction->Visited flower of”

You can add any earlier observations that meet these criteria to our project!