

Kaleidoscopes Monarch Project



Research question: What are the main migration routes of Monarch Butterflies in Ontario?

Migrating thousands of kilometres south to Mexico requires a lot of energy, so Monarchs feed on nectar along their route. Ensuring Monarchs have access to abundant nectaring resources on their migration route is critical, but with limited conservation resources, it's useful to know where those conservation resources are best used. We would like to determine the main migratory routes in Ontario to help direct conservation actions. To do this we would like to collect as many **point counts** across southern Ontario as we can.

Point counts take a short time to complete and can be done anywhere in southern Ontario, so we encourage you to complete a point count whenever you want. Waiting for the bus, a quick stop on a lunchtime walk, any time and any place (within the study period and area). Although it's nice to be able to count a Monarch, try to not complete a point count because you first observed a Monarch. Point counts with no Monarchs observed are just as important.



Monarch feeding on fall asters

Collecting Data

WHEN: End of August through end of September during daylight hours.

WHERE: Anywhere in southern Ontario.

HOW: Simply stay stationary for a minimum of five minutes and watch for Monarchs. Try to complete point counts at locations where there are no visual obstructions (e.g. trees, buildings, etc.) to your view closer than 50 metres for at least 50 per cent of your view. Binoculars can help, especially when trying to distinguish between look-alike species such as Viceroy butterflies, but are not necessary.

1. Enter the point count on our survey form using Survey123 (<https://arcg.is/1q5q5O0>)

Survey123 will prompt which information to collect.

WHAT: If you would like to do point counts but don't want to use Survey123, you can collect and send us the following information (spreadsheet preferred, but any format will be accepted):

- Location (latitude and longitude) of the point count.

- Date and time of the point count.
- Estimated portion of view that is not obstructed for 100 metres. For example, if you are standing next to a building overlooking a field, it's likely that 50 per cent of your view is obstructed.
- Record each Monarch observed, and optionally, if the Monarch is actively migrating, record the direction (degrees from north; for example E = 90, S = 180) in which the Monarch is travelling. A compass or compass app is required to record the direction.

Using Survey 1-2-3 to submit a point count

STEP 1: Install ArcGIS Survey123 on your device.

- iPhone: <https://apps.apple.com/us/app/arcgis-survey123/id993015031>
- Android: <https://play.google.com/store/apps/details?id=com.esri.survey123>
- It's also possible to submit survey forms from a web browser using the link in Step 2

STEP 2: Follow the link below to access the survey on your device:

- <https://arcg.is/1q5q5OQ>
- The link will prompt whether to open the survey in the browser or in the app. It is preferred that the survey is filled out using the app, but that is not strictly necessary. If you already installed the app, select the "Open the survey" button .

STEP 3: Survey123 will open and it will prompt you to log in.

- Select "Continue without signing in". You will be able to fill out the survey.
- The next time you open Survey123 select "Continue without signing in" and the survey will be ready to use on your device.

STEP 4: Fill out the survey while you do a Monarch point count.

- Submit using the checkmark at the bottom right of the screen.

Questions? E-mail rownetwork@cwf-fcf.org

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