



# EcoSpark Caterpillars Count Projects Spring-Summer 2021

## INTRO

### What is Caterpillars Count?

Caterpillars Count is a citizen science project that tracks arthropod populations' abundance and seasonal changes in forest habitats. Arthropods are invertebrates that have an exoskeleton, joined legs, and a body made up of segments. These include insects, arachnids, myriapods, and crustaceans (BBC, 2020).

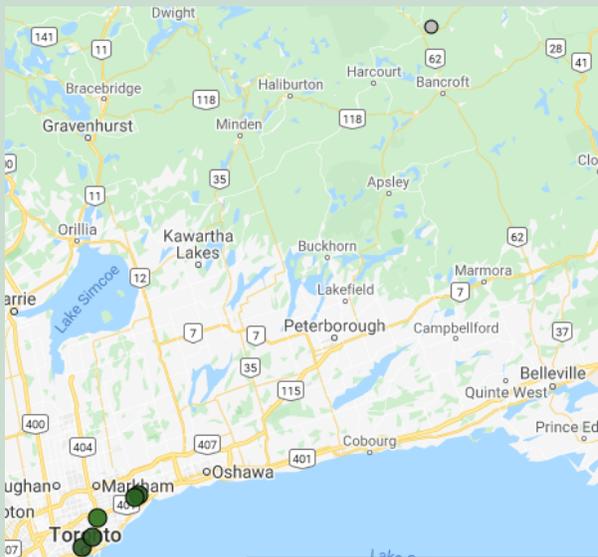
### Why Study Arthropods?

- They are a key food resource for many forest animals
- They are important for feeding young birds and may influence bird migrations
- They provide ecosystem services such as pollination and decomposition
- They can be indicators of climate change if populations fluctuate

(Caterpillars Count, 2020)

## SURVEY SITES

- Brookbanks Park
- Maynooth (Trial Site)
- Middle Mill
- Robert C. McDonnell Campgrounds, Maryland, USA
- Trinity College



## VOLUNTEER SURVEYS

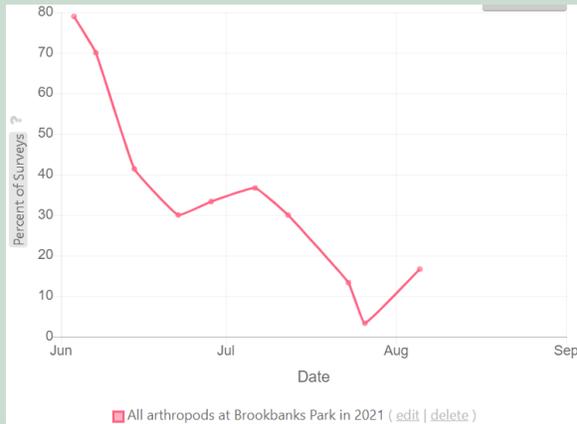
Total # surveys across all sites: 751



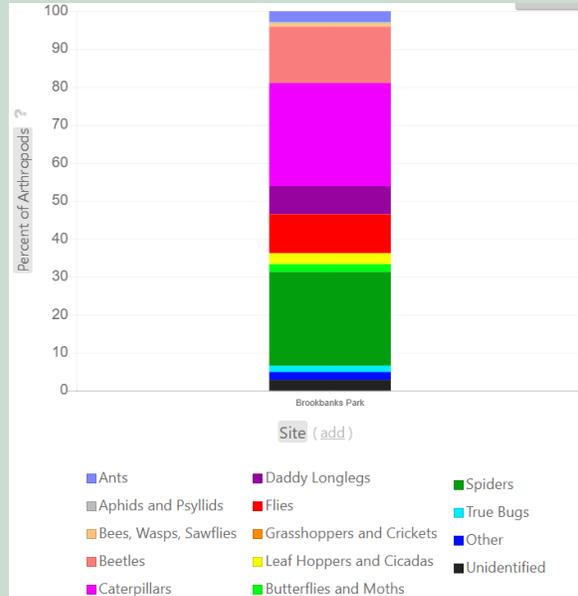
Amanda, an EcoSpark intern, at Brookbanks Park



### DATA: BROOKBANKS PARK



PHENOLOGY

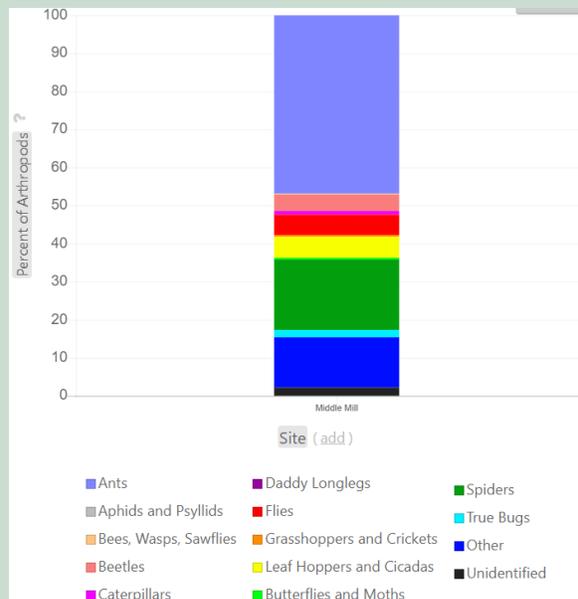


COMPOSITION

### DATA: MIDDLE MILL



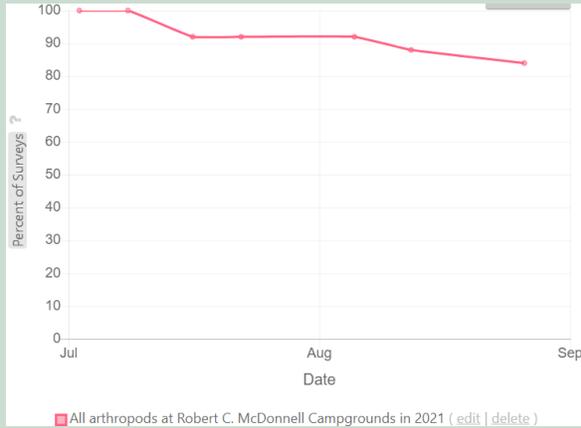
PHENOLOGY



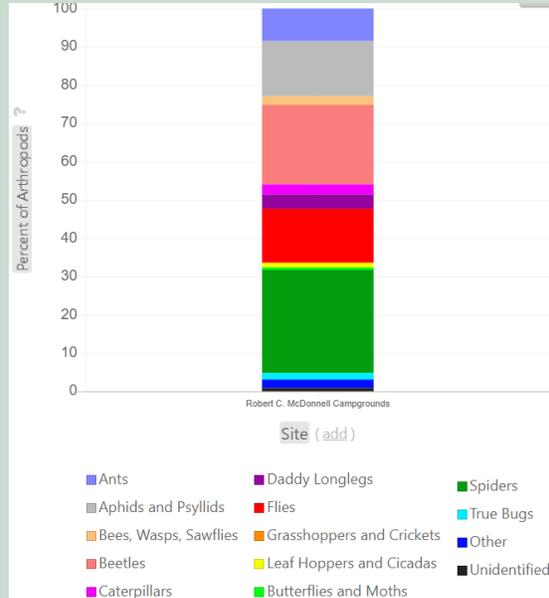
COMPOSITION



### DATA: ROBERT C. MCDONNELL CAMPGROUNDS

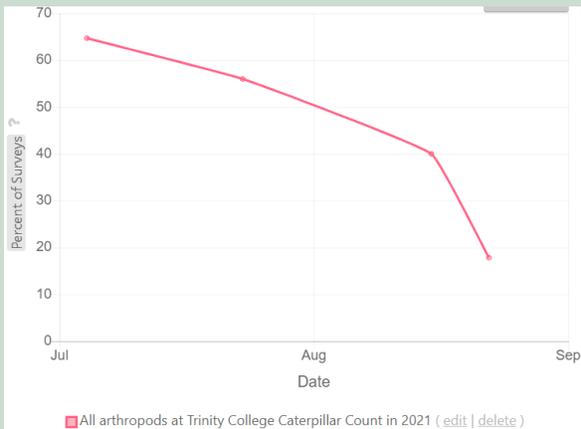


PHENOLOGY

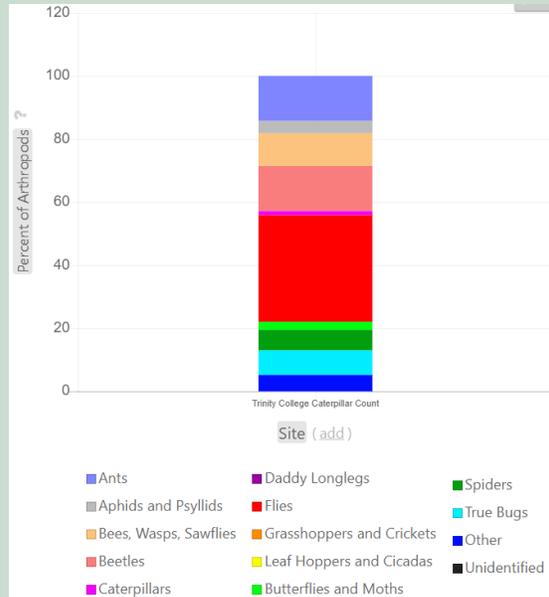


COMPOSITION

### DATA: TRINITY COLLEGE



PHENOLOGY



COMPOSITION



## DISCUSSION

We're gathering preliminary data and stay tuned as the project continues to grow each year! Already it's interesting to see monthly changes in arthropods and the differences in dominant arthropods from site to site. One participant noted that they found fewer arthropods at warmer times of day and through the season's warmer periods, whereas overcast days increased arthropod abundance (A.Ladd).

We encourage further exploration of data contributed by EcoSpark volunteers and others to this project by visiting this [resource](#) as well as this [website](#) on phenology research. A peer reviewed paper outlining the trends we're exploring with Caterpillars Count can be found [here](#).



## GET INVOLVED

Interested in taking part in a Caterpillars Count survey in the Greater Toronto Area? EcoSpark staff can work with your adult or secondary school group to set up a Caterpillars Count study at your site. If you have 10 trees we can get started! Contact [dana@ecospark.ca](mailto:dana@ecospark.ca) to learn more about this hands-on citizen science training opportunity, or visit our [website](#) and [StoryMap](#) for more information.

## PARTICIPANT SKILL BUILDING

Caterpillars Count can easily be used as an educational tool for students with a hands-on approach to learning.

Students will learn:

- Topics in **biology** by identifying arthropods and understanding their role in the forest food chain
- Topics in **data collection, understanding, and interpretation** of the data students gather themselves
- Topics in **following scientific protocols** and conducting surveys
- How data from local greenery contributes to **studying larger biological systems** such as phenology, migration, and climate change



Butterflies and Moths (Order Lepidoptera)

## THANK YOU

Thank you to Caterpillars Count UNC, EcoSpark's volunteers, donors, and funders TD Friends of the Environment Foundation and The Chawkers Foundation.