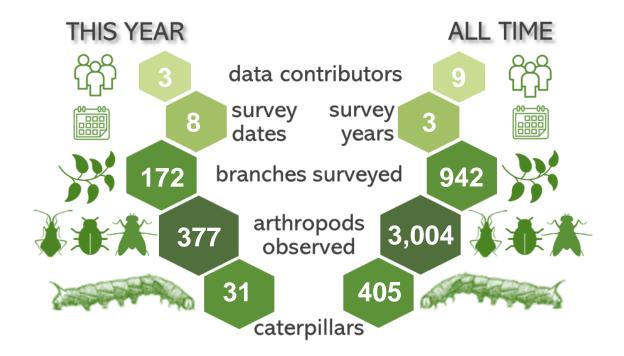


**BHRC - Hemlock Draw, 2023 Summary** 



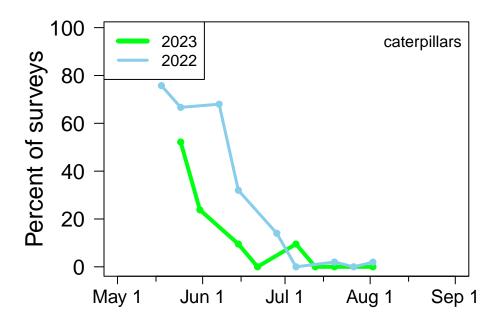
The **172** total surveys conducted at **BHRC - Hemlock Draw** this year ranks **39th** out of the **79** sites that participated in 2023.

## **Top Participants of 2023**

User	Surveys	Arthropods	Caterpillars	% Caterpillars
M Persche	23	72	22	52.17
A Shchur	102	166	7	6.86
S Gomez-Maier	47	139	2	4.26

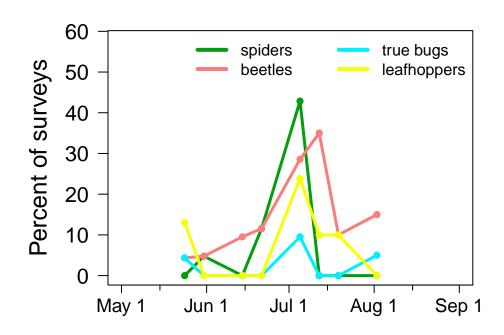
### **Caterpillar Phenology**

As a major source of food for nestlings of migratory birds, we are especially interested in the timing of caterpillar availability. At **BHRC - Hemlock Draw** in **2023**, caterpillar occurrence peaked at **52.2%** of surveys on **24 May**. Do you see other peaks as well? How does the pattern compare to the previous year?



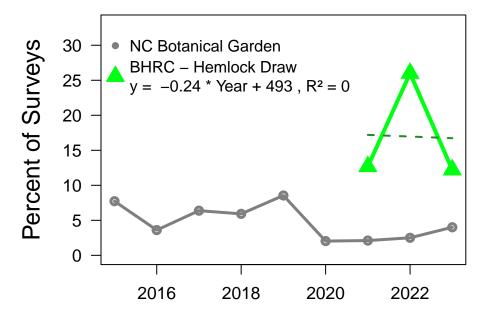
# **Other Arthropod Phenology**

While caterpillars tend to have pronounced seasonal peaks, other groups are more variable. What patterns do you see below for **2023**? You can explore the phenology of other groups on the *Caterpillars Count!* website.



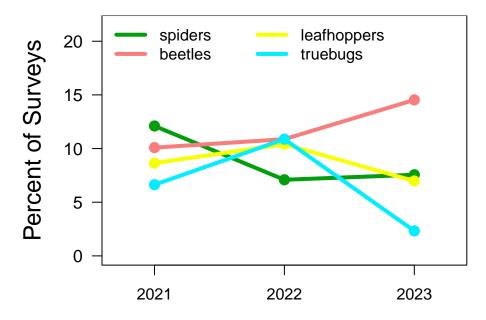
#### **Arthropod Trends**

Annual monitoring is critical for assessing the health of ecosystems and evaluating the impacts of environmental change that may be happening in your area. There have been worrying reports of insect declines around the world but there is much we don't know, so your efforts help to fill in pieces of the puzzle. Keep it up!



Above you can see how the proportion of surveys with caterpillars has varied over time at your site, with the trend for one of our flagship sites, **NC Botanical Garden**, for comparison. If you've surveyed for at least 3 years, then you will also see the average dashed trend line displayed.

Below are trends for some other common arthropod groups. Do the different groups go up and down in sync, or seem to vary independently?

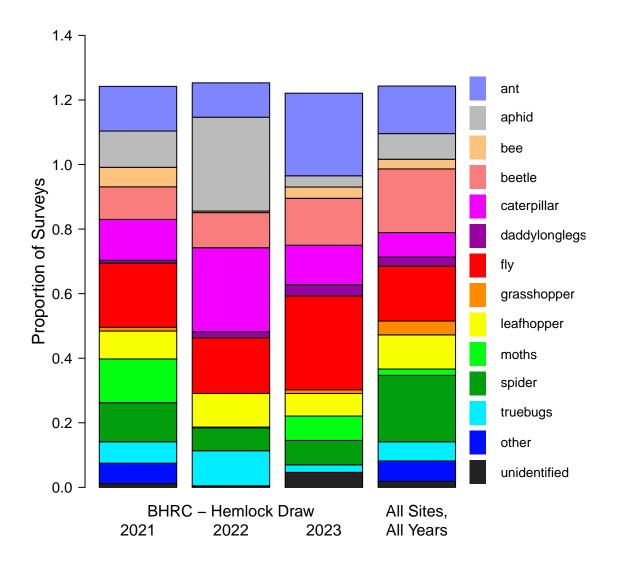


You can explore trends for more arthropod groups, and compare trends at different sites, on your site's Trends Page. See also our November 2021 newsletter for more on how to interpret these trends.

#### **Site Arthropod Composition**

Some arthropods are more commonly encountered than others. The graph below portrays the occurrence (proportion of surveys where a given group was found) for each arthropod group found at your site. See how what was found varies by year (if the site has been participating for multiple years), and how it compares to what has been found across all sites in the *Caterpillars Count!* network (*right bar*).

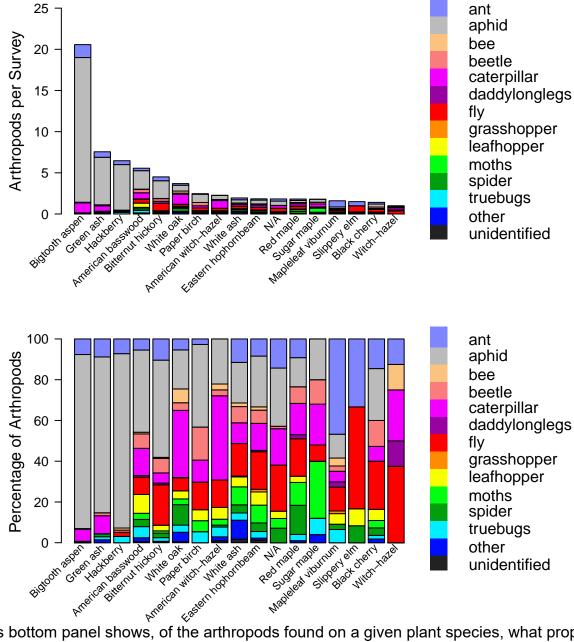
- What are the most common arthropod groups found at your site?
- · Has that varied by year?
- Is anything noticeably different about BHRC Hemlock Draw compared to all other participating sites?
- If arthropod photos were submitted as part of your site's surveys, check the last section of this report for a summary of any finer taxonomic id's that have been made.



#### **Arthropod Composition by Plant Species**

For some arthropods like spiders, trees and leaves are merely habitat—a place where they live, hide, and hunt. For others like caterpillars, the leaves are not just habitat, but also food.

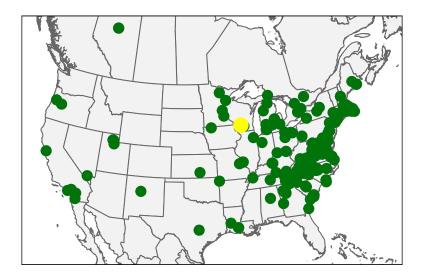
- Which plant species supports the most arthropods per survey?
- · Which plant species supports the most caterpillars?
- Are any plant species dominated by just one or two types of arthropods?
- Or do they support a diversity of arthropod types?



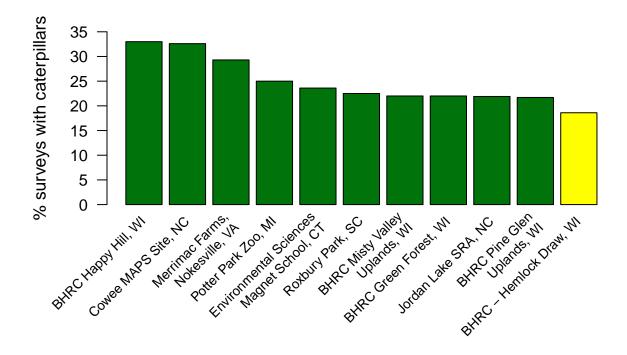
This bottom panel shows, of the arthropods found on a given plant species, what proportion were from each taxonomic group. At most, only the top 25 plant species are shown.

#### **Broader Patterns**

Thanks to participants like yourself, *Caterpillars Count!* observers have now submitted a total of **265,734** arthropod observations—including **18,521 caterpillars**—from **219** different sites.



Across all surveys ever done at **BHRC - Hemlock Draw**, caterpillars have been found **18.6%** of the time, which ranks **18th** across sites. The top 10 sites (with ≥20 surveys) are shown below.



Caterpillar occurrence and phenology vary as a function of climate, land cover, tree species, and other local factors, and **your data** are helping us understand this variation and what it might mean for birds. Thank you for participating in **Caterpillars Count!** 

#### **Expert Identifications**

**307** photo observations from *Caterpillars Count!* surveys have been submitted from your site. You can check them all out at the site's iNaturalist page. Based on these photo observations, experts on **iNaturalist** have identified the following taxa, including at least **21** unique species. Taxa seen for the first time this year are marked with a \*.

Caterpillars

Erebidae

Lymantria dispar

Geometridae Lasiocampidae

Malacosoma disstria

Lycaenidae Noctuidae

Orthosia sp.
Pyreferra sp.\*
Achatia distincta

Tortricidae

Moths, Butterflies

Psychidae\* Tortricidae

Choristoneura rosaceana

<u>Spiders</u>

Anyphaenidae Araneidae

Araniella displicata

Dictynidae

Philodromidae Philodromus sp.

Salticidae Hentzia sp.

Thomisidae

Mecaphesa sp.

Grasshoppers, Crickets

Acrididae

Dendrotettix quercus

Oecanthidae

Oecanthus sp.\*

True Bugs

Miridae

Neolygus sp. Hyaliodes harti Leafhoppers, Cicadas

Cicadellidae

Colladonus clitellarius

Derbidae

Cedusa sp. Otiocerus sp.

Patara vanduzei

Flatidae

Metcalfa pruinosa

Membracidae Cyrtolobus sp.

<u>Beetles</u>

Cantharidae

Podabrus brevicollis

Cerambycidae

Coccinellidae

Cycloneda munda Harmonia axyridis

Propylea quatuordecimpunctata\*

Curculionidae

Cyrtepistomus castaneus

Phyllobius oblongus

Elateridae

Lampyridae

Photinus sp.

Pyropyga sp.\*

Scarabaeidae

Popillia japonica\*

Bees, Wasps

Braconidae

Cynipidae

Philonix fulvicollis

Halictidae

Ichneumonidae

Pompilidae

<u>Ants</u>

Formicidae

Camponotus subbarbatus

Myrmica sp.

Lasius americanus\*

Prenolepis imparis

<u>Flies</u>

Dolichopodidae

Chrysotus sp.\*

Lauxaniidae

Homoneura sp.\*

Platystomatidae

Rivellia sp.

Thank you for participating in *Caterpillars Count!* For a more in-depth exploration of the data check out our Maps & Graphs page. The raw data from your site, or any site, can be downloaded here!

We can't wait to see what you find next year!



Sycamore tussock caterpillar, Halysidota harrisii, at Walker Nature Center, VA.

# Allen Hurlbert Director Caterpillars Count!