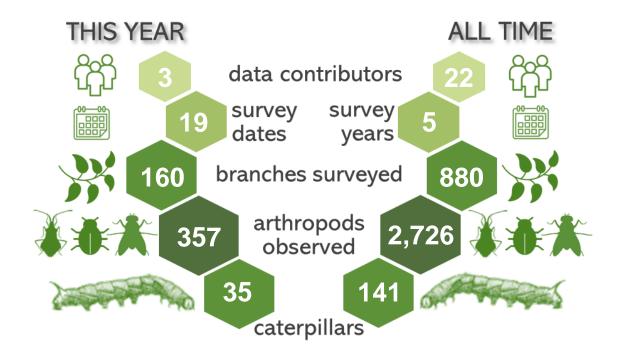


EwA at Fresh Pond, 2023 Summary



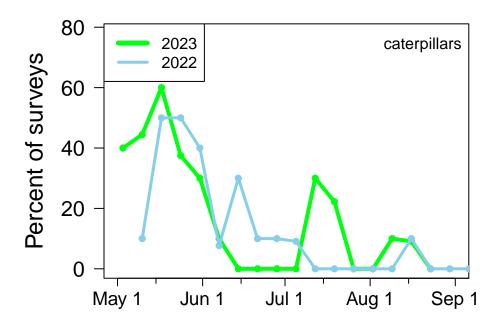
The **160** total surveys conducted at **EwA at Fresh Pond** this year ranks **41st** out of the **79** sites that participated in 2023.

Top Participants of 2023

User	Surveys	Arthropods	Caterpillars	% Caterpillars
C O'NEILL	85	224	22	18.82
K Estrop	50	109	12	18.00
S Gardner	25	24	1	4.00

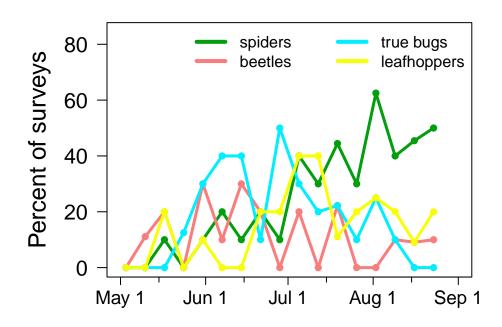
Caterpillar Phenology

As a major source of food for nestlings of migratory birds, we are especially interested in the timing of caterpillar availability. At **EwA at Fresh Pond** in **2023**, caterpillar occurrence peaked at **60%** of surveys on **17 May**. Do you see other peaks as well? How does the pattern compare to the previous year?



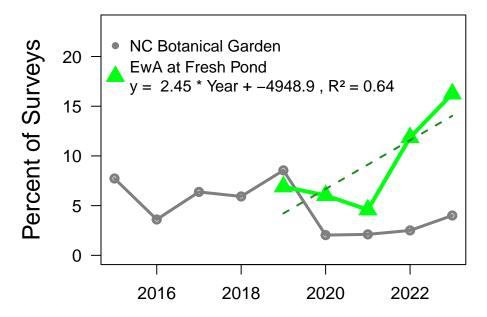
Other Arthropod Phenology

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.



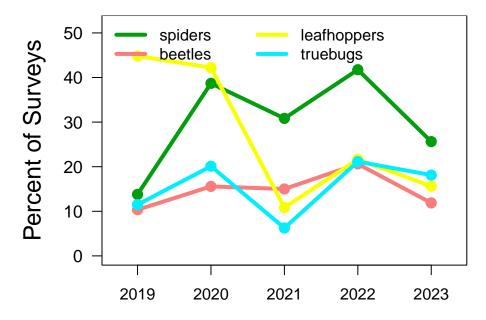
Arthropod Trends

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?

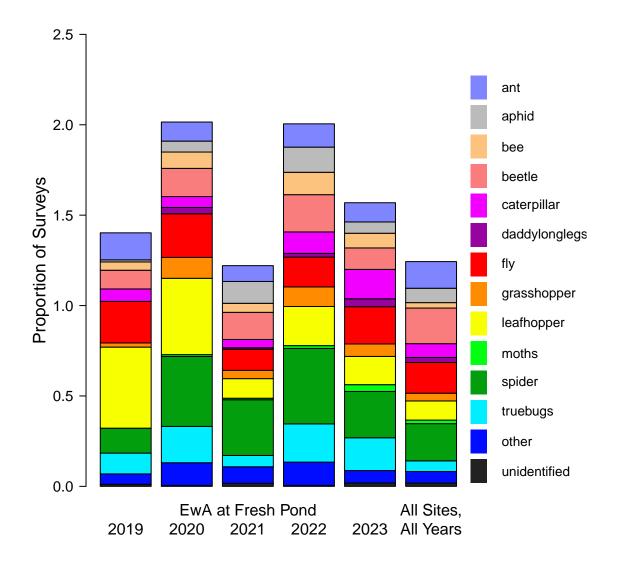


You can explore trends for more arthropod groups, and compare trends at different sites, on your site's Trends Page. See also our November 2021 newsletter for more on how to interpret these trends.

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*).

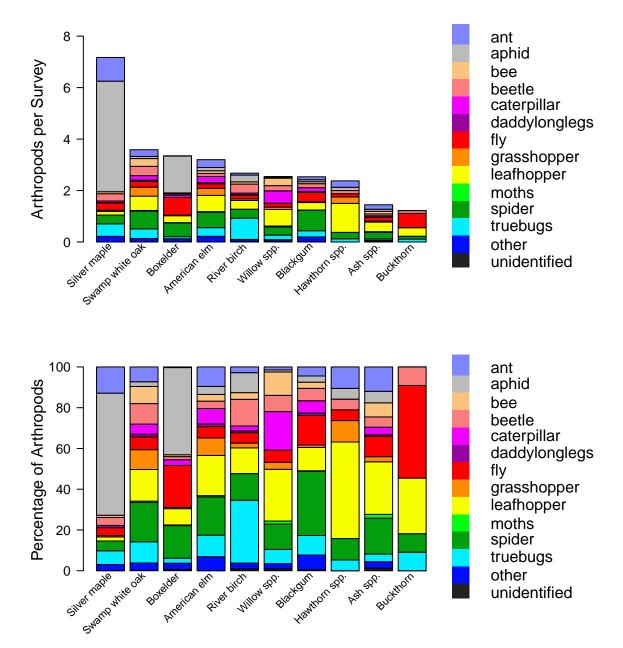
- What are the most common arthropod groups found at your site?
- · Has that varied by year?
- Is anything noticeably different about EwA at Fresh Pond compared to all other participating sites?
- If arthropod photos were submitted as part of your site's surveys, check the last section of this report 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.

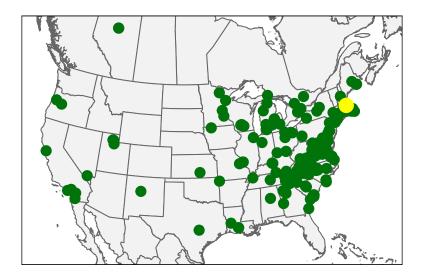
- Which plant species supports the most arthropods per survey?
- Which plant species supports the most caterpillars?
- Are any plant species dominated by just one or two types of arthropods?
- Or do they support a diversity of arthropod types?



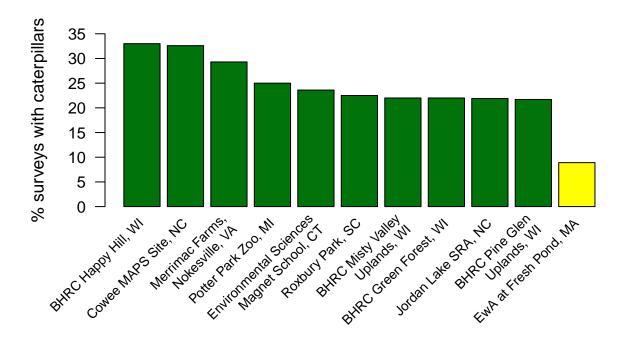
This bottom panel shows, of the arthropods found on a given plant species, what proportion were from each taxonomic group. At most, only the top 25 plant species are shown.

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 **EwA at Fresh Pond**, caterpillars have been found **8.9%** of the time, which ranks **50th** 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

1368 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 **75** unique species. Taxa seen for the first time this year are marked with a *.

Caterpillars

Bucculatricidae
Bucculatrix sp.
Depressariidae

Machimia tentoriferella*

Erebidae

Dasychira sp.

Halysidota tessellaris

Gelechiidae Noctuidae

> Acronicta americana Amphipyra pyramidoides*

Morrisonia confusa*

Notodontidae

Nerice bidentata

Sphingidae

Paonias excaecata*

Moths, Butterflies

Argyresthiidae

Argyresthia oreasella

Gracillariidae Caloptilia sp.* Hesperiidae Tortricidae

Hedya nubiferana

<u>Spiders</u>

Anyphaenidae

Anyphaena sp.

Araneidae Eustala sp.

Araniella displicata

Neoscona crucifera

Philodromus rufus*

Clubionidae Clubiona sp. Dictynidae Philodromidae Salticidae

Eris sp.

Hentzia mitrata Synemosyna formica Maevia inclemens Tetragnathidae Tetragnatha sp.

Theridiidae
Theridion sp.

Theridula emertoni

Leucauge venusta

Thomisidae

Misumena vatia Misumessus oblongus

Uloboridae

Hyptiotes cavatus

Grasshoppers, Crickets

Gryllidae

Hapithus saltator
Oecanthus fultoni

Oecanthidae

Oecanthus niveus Neoxabea bipunctata

Tettigoniidae

Meconema thalassinum

Trigonidiidae Anaxipha sp.

Phyllopalpus pulchellus

True Bugs

Coreidae Lygaeidae

> Kleidocerys sp. Lygaeus turcicus

Miridae

Hyaliodes harti Neurocolpus sp. Plagiognathus sp. Nabidae

Lasiomerus annulatus

Pentatomidae Phymatidae Phymata sp.* Reduviidae Tingidae

Stephanitis takeyai*

Leafhoppers, Cicadas

Acanaloniidae Acanalonia conica Aphrophoridae

Philaenus spumarius

Cicadellidae Agallia sp.

Alebra sp. Eratoneura sp. Idiocerus sp. Jikradia olitoria

Macropsis sp.
Oncopsis sp.
Populicerus sp.
Scaphoideus sp.
Colladonus clitellarius

Graphocephala coccinea Graphocephala fennahi Graphocephala versuta

Orientus ishidae

Derbidae Cedusa sp. Omolicna uhleri

Flatidae

Flatormenis proxima Metcalfa pruinosa Ormenoides venusta

Issidae Membracidae Cyrtolobus sp. Entylia carinata Microcentrus perditus

Aphids, Scales

Aphididae

Beetles

Anobiidae Ptilinus sp. Chrysomelidae

> Acalymma vittatum Helocassis clavata

Coccinellidae

Harmonia axyridis Hyperaspis sp.

Brachiacantha decempustulata

Brachiacantha ursina

Cryptolaemus montrouzieri

Propylea quatuordecimpunctata

Psyllobora vigintimaculata

Curculionidae

Conotrachelus anaglypticus Cyrtepistomus castaneus Polydrusus formosus

Elateridae Erirhinidae

Dorytomus sp.

Erotylidae
Triplax sp.
Lampyridae
Ellychnia sp.

Lycidae

Calopteron reticulatum

Mordellidae

Falsomordellistena bihamata*

Mordellina pustulata

Pyrochroidae Pedilus sp. Scirtidae Scirtes orbiculatus

Bees, Wasps

Crabronidae
Cynipidae
Encyrtidae
Gasteruptiidae
Gasteruption sp.

Halictidae Torymidae Vespidae

Vespula flavopilosa

<u>Ants</u>

Formicidae

Temnothorax schaumii*
Temnothorax curvispinosus
Camponotus nearcticus
Camponotus pennsylvanicus

Myrmica rubra*
Lasius americanus
Nylanderia flavipes
Tapinoma sessile

Tetramorium immigrans

<u>Flies</u>

Asilidae

Ommatius sp.* Chironomidae Cricotopus sp.* Chloropidae

Culicidae Dolichopodidae

Condylostylus comatus

Lauxaniidae Homoneura sp. Micropezidae

Compsobata univitta

Mycetophilidae

Otitidae

Delphinia picta Syrphidae Allograpta sp.

Other observations
Blattodea

Ectobius pallidus

Ectobius
Ephemeroptera
Hexagenia*
Neuroptera

europtera Chrysopidae Chrysopini Coniopterygidae

Micromus

Psocodea

Graphopsocus cruciatus

Trichoptera Leptoceridae Mystacides

Mystacides sepulchralis

Triaenodes Trombidiformes Anystis 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!