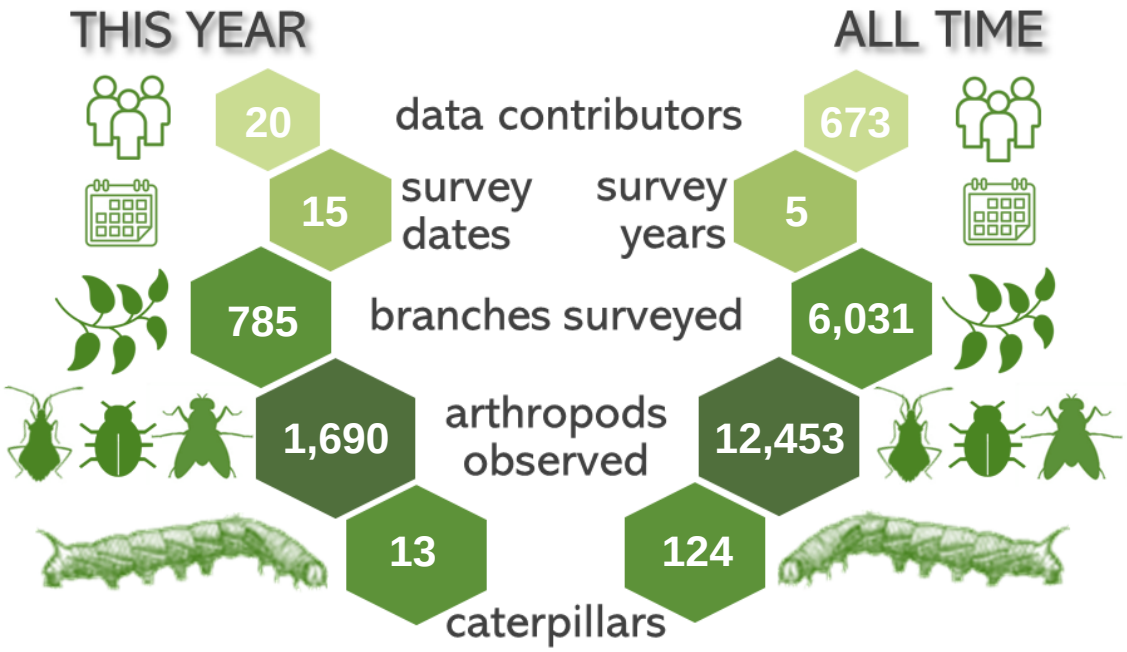
UNC Chapel Hill Campus, 2023 Summary



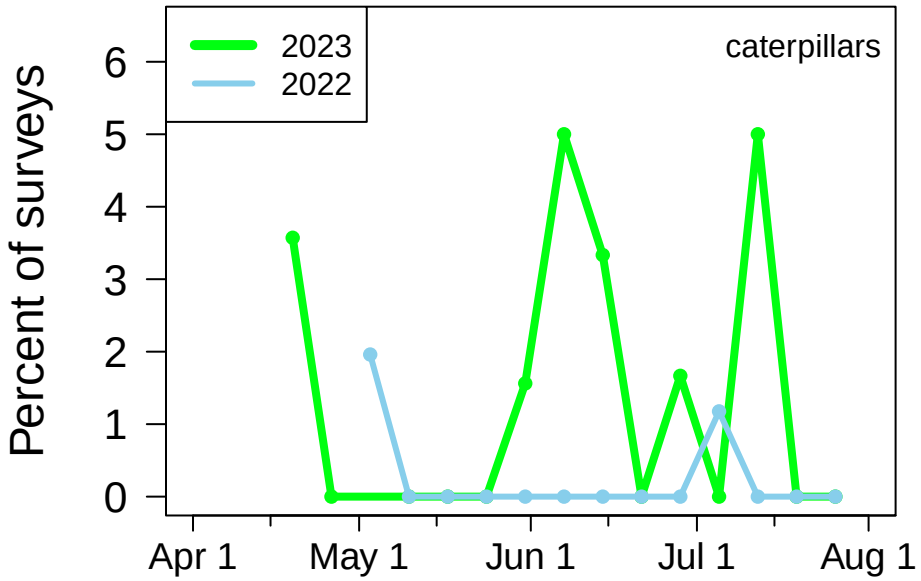
The **785** total surveys conducted at **UNC Chapel Hill Campus** this year ranks **3rd** out of the **79** sites that participated in 2023.

Top Participants of 2023

User	Surveys	Arthropods	Caterpillars	% Caterpillars
W Craig	9	9	1	11.11
S Easley	17	14	1	5.88
T Montgomery	306	552	8	2.29
E Howie	264	688	3	1.14
A Hurlbert	1	3	0	0.00
A Mbumba	5	7	0	0.00
A Tessema	5	2	0	0.00
B Harris	2	1	0	0.00

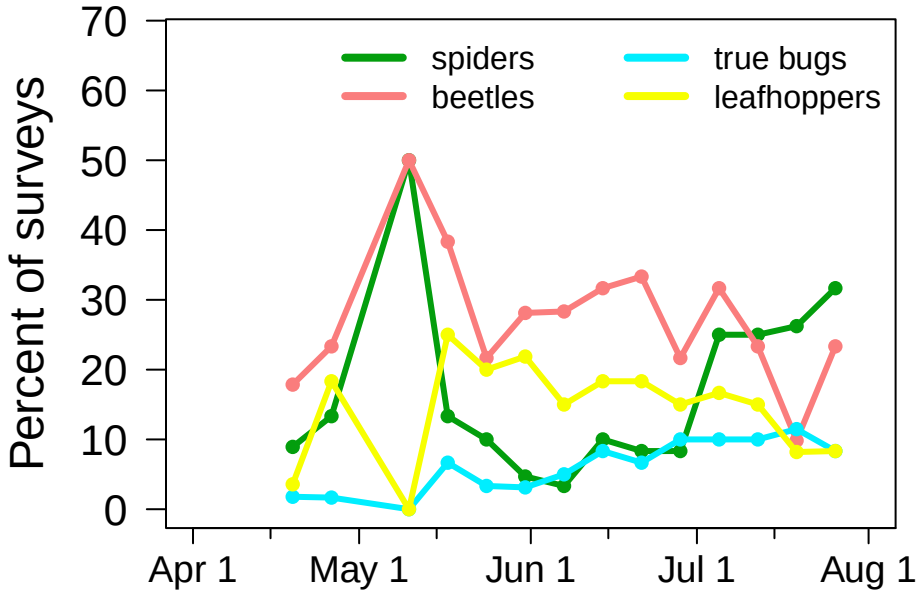
Caterpillar Phenology

As a major source of food for nestlings of migratory birds, we are especially interested in the timing of caterpillar availability. At **UNC Chapel Hill Campus** in **2023**, caterpillar occurrence peaked at **5%** of surveys on **7 June**. Do you see other peaks as well? How does the pattern compare to the previous year?



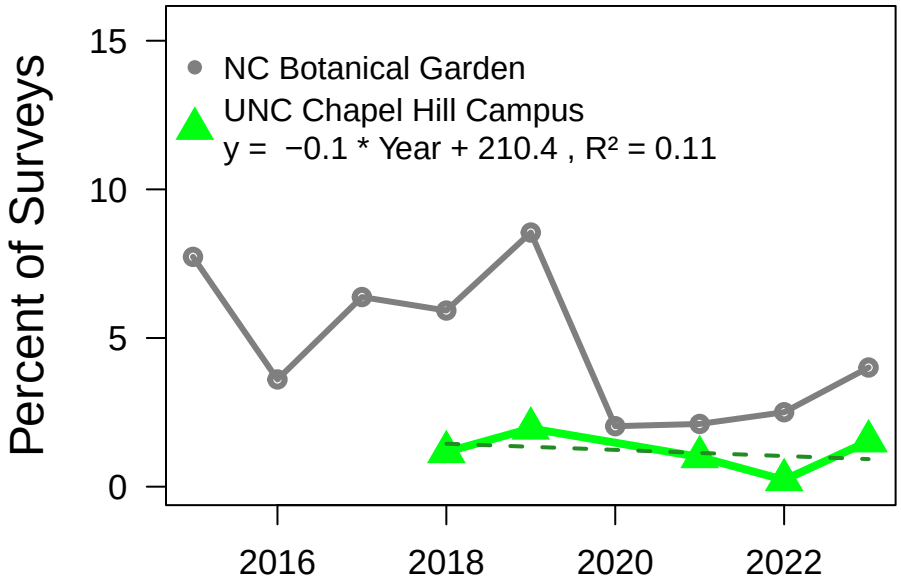
Other Arthropod Phenology

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**.



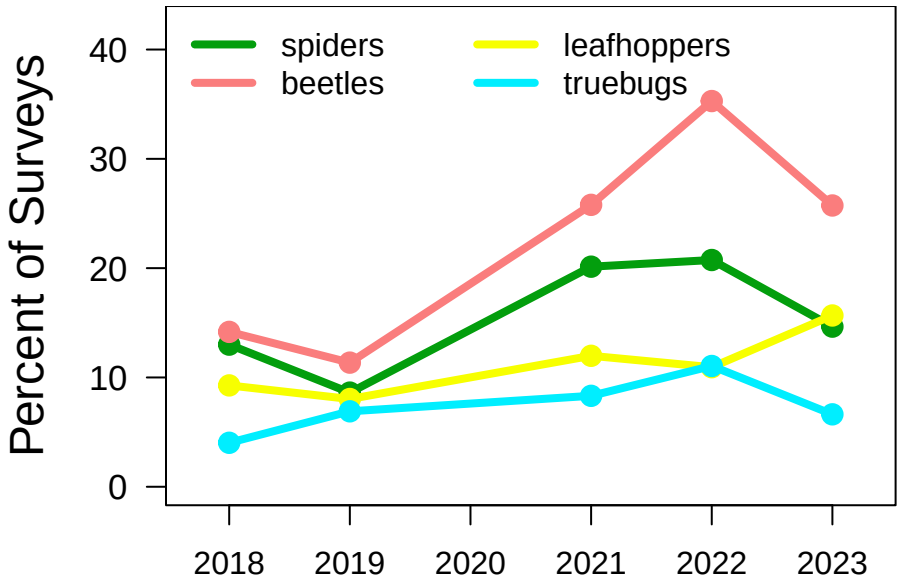
Arthropod Trends

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?

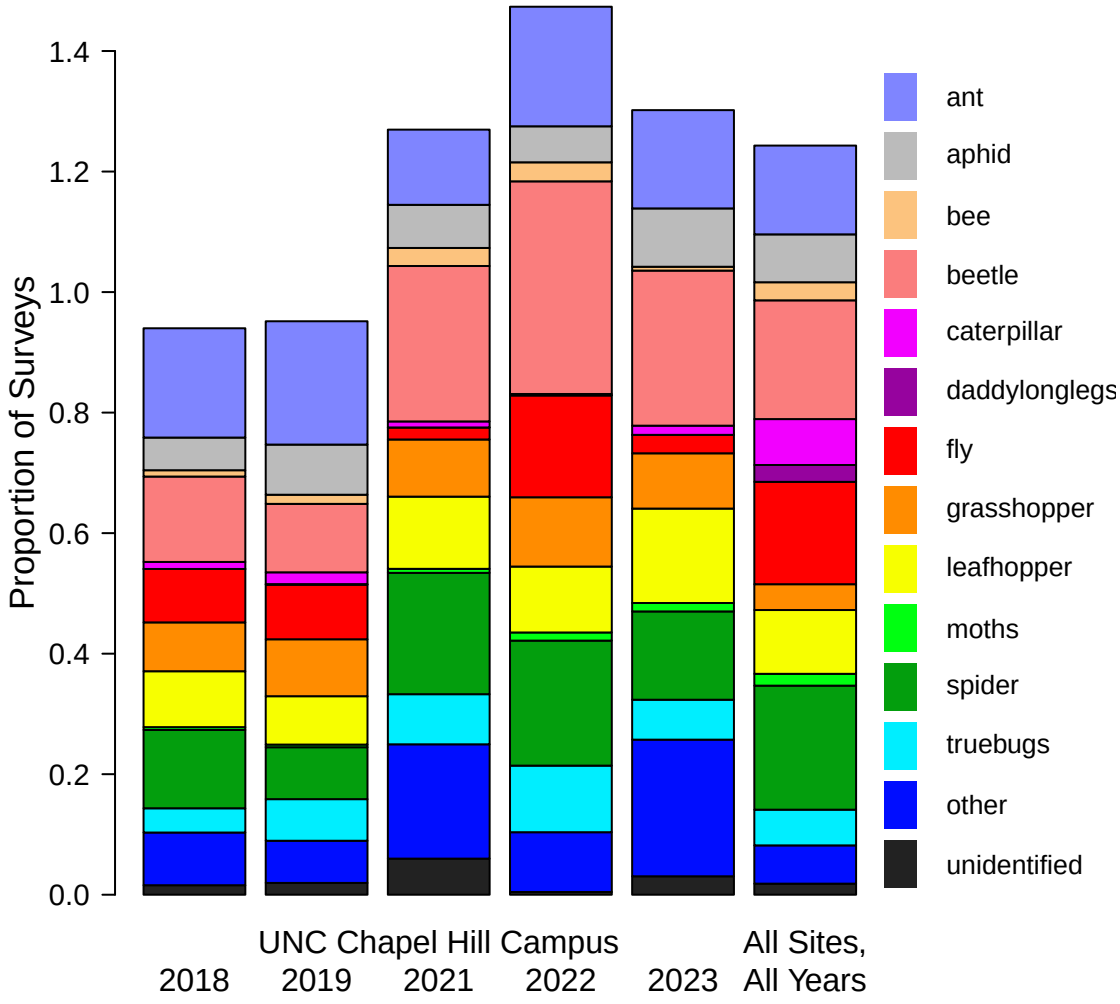


You can explore trends for more arthropod groups, and compare trends at different sites, on your site's Trends Page. See also our November 2021 newsletter for more on how to interpret these trends.

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*).

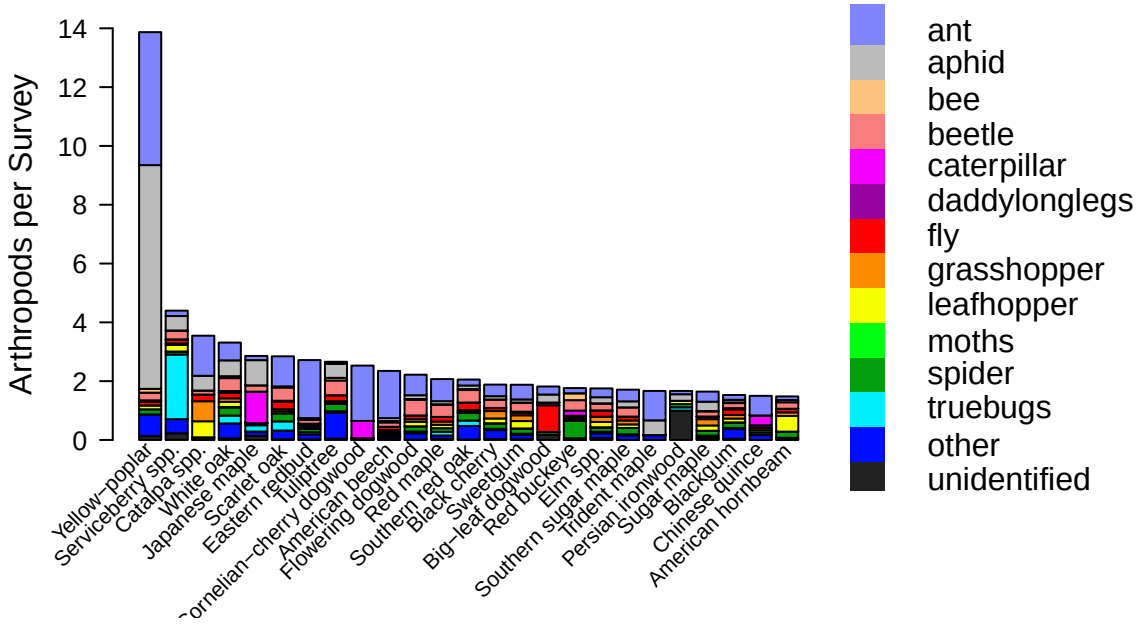
- What are the most common arthropod groups found at your site?
- Has that varied by year?
- Is anything noticeably different about **UNC Chapel Hill Campus** compared to all other participating sites?
- If arthropod photos were submitted as part of your site's surveys, check the last section of this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

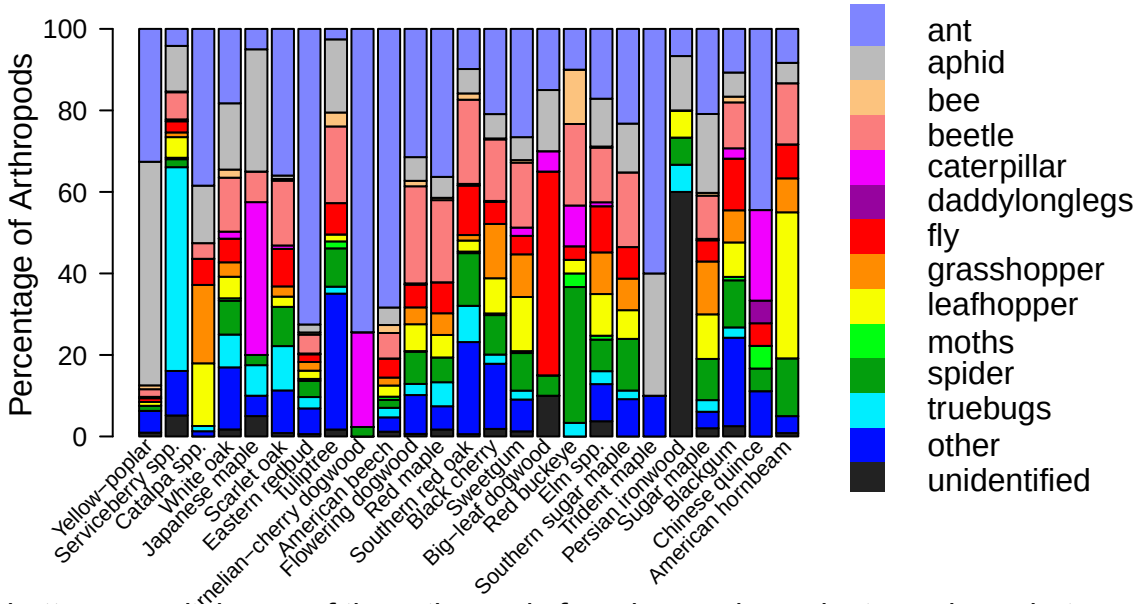


Arthropod Composition by Plant Species

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?

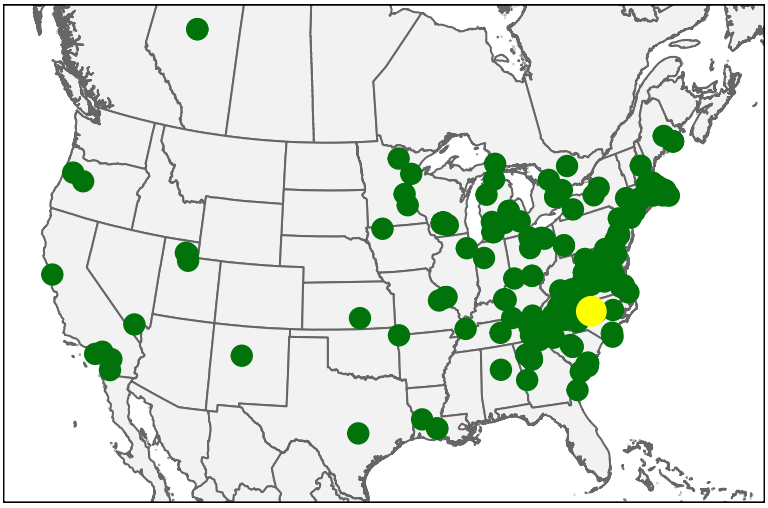




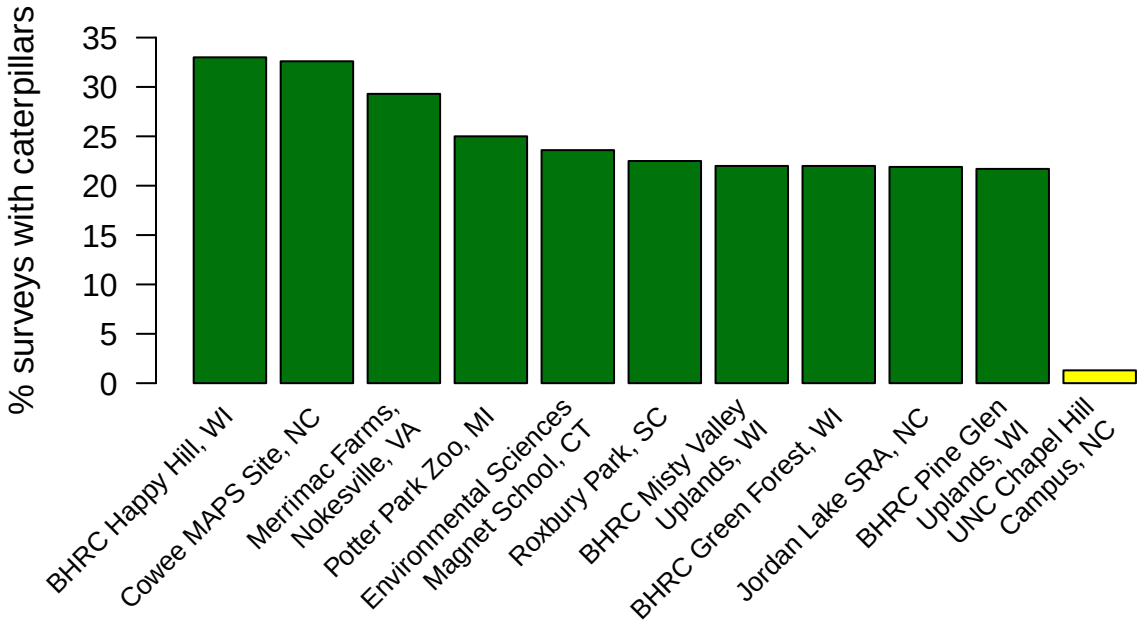
This bottom panel shows, of the arthropods found on a given plant species, what proportion were from each taxonomic group. At most, only the top 25 plant species are shown.

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 **UNC Chapel Hill Campus**, caterpillars have been found **1.3%** of the time, which ranks **137th** 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

1044 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 **67** unique species. Taxa seen for the first time this year are marked with a *.

Caterpillars

Erebidae
- Orgyia leucostigma*

Geometridae
- Hypagyrtis unipunctata

Noctuidae
- Acronicta impleta
- Charadra deridens
- Morrisonia confusa

Notodontidae
- Lochmaeus sp.

Spiders

Anyphaenidae
- Anyphaena sp.
- Hibana gracilis*
- Wulfila sp.*

Araneidae
- Araneus sp.
- Eustala sp.
- Micrathena sagittata

Philodromidae
- Philodromus sp.

Salticidae
- Hentzia mitrata
- Hentzia palmarum
- Tutelina sp.
- Lyssomanes viridis
- Phidippus otiosus*

Tetragnathidae
- Leucauge venusta

Theridiidae
- Theridula sp.

Thomisidae
- Tmarus sp.
- Misumessus oblongus

Stenotrachelidae*

Grasshoppers, Crickets

Gryllidae
- Hapithus sp.*

Mogoplistidae
- Cycloptilum sp.*

Oecanthidae
- Oecanthus sp.*

Tettigoniidae
- Microcentrum retinerve

Trigonidiidae
- Cyrtoxipha sp.*

True Bugs

Berytidae

Coreidae
- Acanthocephala sp.
- Leptoglossus oppositus*

Miridae
- Ceratocapsus sp.
- Hyaliodes harti

Pentatomidae
- Halyomorpha halys

Reduviidae
- Empicoris sp.
- Sinea sp.
- Zelus luridus

Tingidae
- Corythucha associata

Leafhoppers, Cicadas

Acanaloniidae
- Acanalonia bivittata
- Acanalonia conica
- Acanalonia servillei

Cicadellidae
- Graphocephala coccinea*
- Graphocephala versuta*
- Jikradia olitoria*
- Oncometopia orbona*
- Rugosana querci

Derbidae
- Cedusa sp.

Flatidae
- Flatormenis proxima
- Metcalfa pruinosa
- Ormenoides venusta

Issidae
- Thionia bullata
- Thionia quinquata*
- Aplos simplex*

Membracidae
- Atymna querci*
- Cyrtolobus maculifrontis*
- Cyrtolobus tuberosus
- Cyrtolobus vau*
- Ophiderma evelyna*
- Stictocephala militaris*

Aphids, Scales

Aphididae*

Beetles

Cerambycidae

Chrysomelidae

Coccinellidae
- Coccinella septempunctata*
- Coleomegilla maculata*
- Harmonia axyridis
- Psyllobora vigintimaculata*

Curculionidae
- Anthonomus sp.
- Cyrtepistomus castaneus*
- Lechriops oculatus
- Ochyromera ligustri
- Odontopus calceatus
- Pantomorus cervinus
- Pseudoedophrys hilleri

Elateridae

Lampyridae

- Photinus pyralis
- Mordellidae
  - Falsomordellistena pubescens*
- Ptinidae*
- Scarabaeidae
  - Popillia japonica
- Tenebrionidae
  - Isomira sp.*

Bees, Wasps

- Apidae
  - Nomada sp.
- Braconidae*
- Encyrtidae*
- Ichneumonidae*

Ants

- Formicidae
  - Formica fusca
  - Formica pallidefulva
  - Formica subsericea
  - Camponotus americanus
  - Camponotus castaneus
  - Camponotus chromaiodes
  - Camponotus pennsylvanicus
  - Camponotus snellingi*
  - Camponotus subbarbatus*
  - Colobopsis sp.
  - Nylanderia sp.*
  - Monomorium minimum*
  - Prenolepis imparis*
  - Tapinoma sessile

Flies

- Bibionidae
- Cecidomyiidae*
- Chironomidae
- Rhagionidae
- Syrphidae

Other observations

- Isopoda
  - Armadillidium nasatum*
  - Porcellio scaber
- Neuroptera
  - Chrysoperla
  - Chrysopidae
  - Hemerobiidae*
- Psocodea
  - Graphopsocus
  - Graphopsocus cruciatus

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!