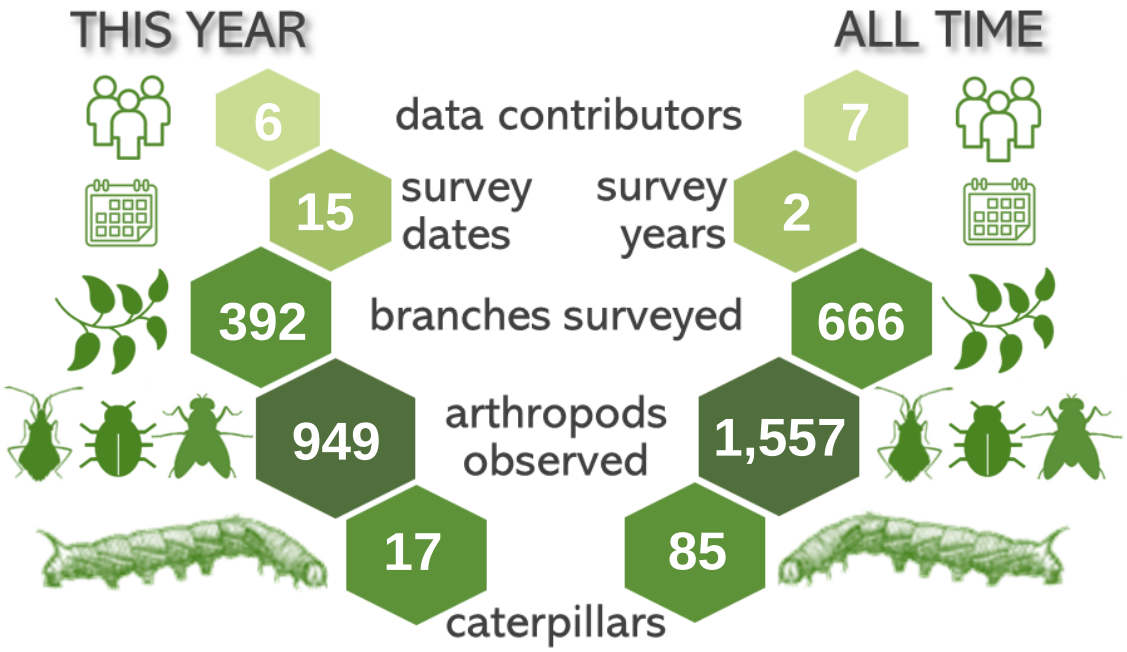
Belle Isle State Park, Lancaster, VA, 2022 Summary



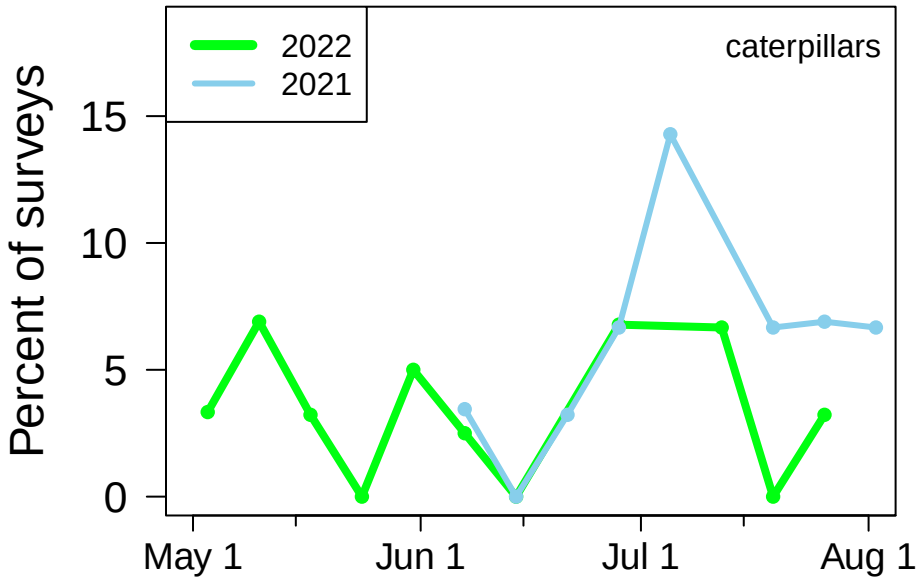
The **392** total surveys conducted at **Belle Isle State Park, Lancaster, VA** this year ranks **12nd** out of the **70** sites that participated in 2022.

Top Participants of 2022

User	Surveys	Arthropods	Caterpillars	% Caterpillars
A Clewell	31	190	2	6.45
K Moffitt	149	397	10	5.37
A Vaughn	60	53	2	3.33
L Fellows	60	93	2	3.33
A Parker	31	156	1	3.23
C Grabb	61	60	0	0.00

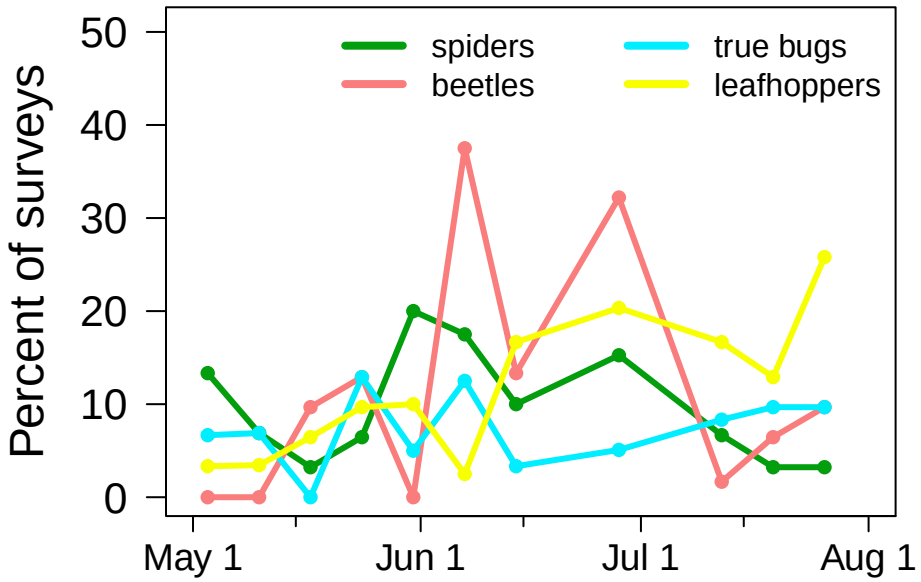
Caterpillar Phenology

As a major source of food for nestlings of migratory birds, we are especially interested in the timing of caterpillar availability. At **Belle Isle State Park, Lancaster, VA** in **2022**, caterpillar occurrence peaked at **6.9%** of surveys on **10 May**. Do you see other peaks as well? How does the pattern compare to the previous year?



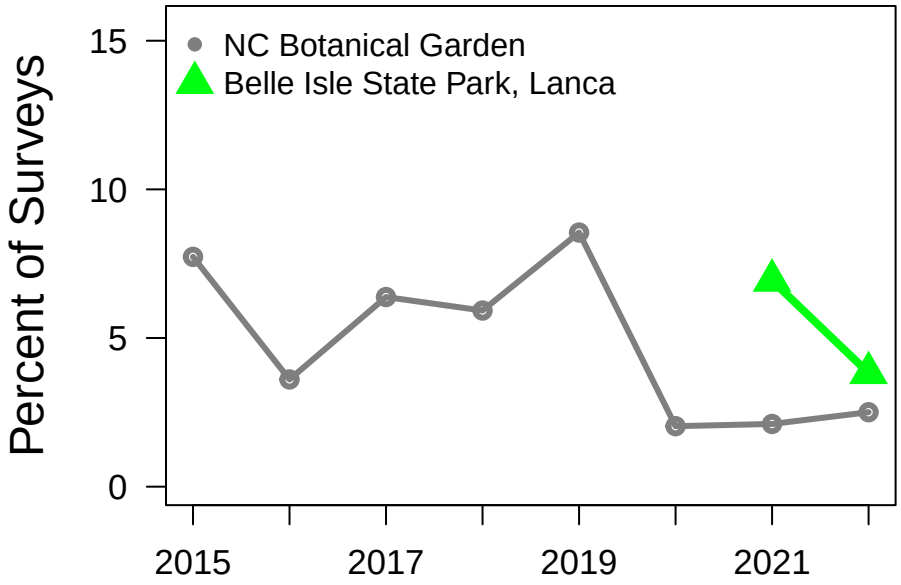
Other Arthropod Phenology

While caterpillars tend to have pronounced seasonal peaks, other groups are more variable. What patterns do you see below for **2022**? You can explore the phenology of other groups on the ***Caterpillars Count!*** **website**.



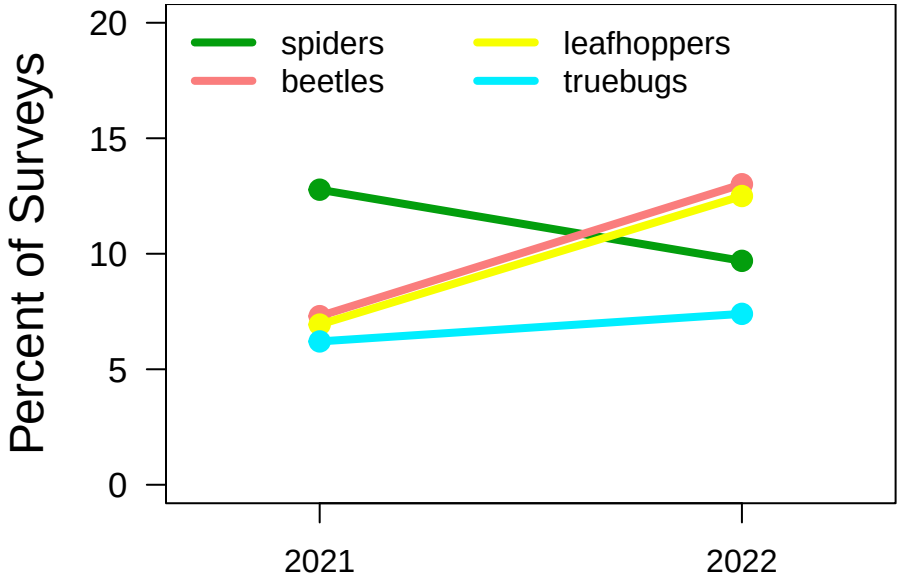
Arthropod Trends

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?

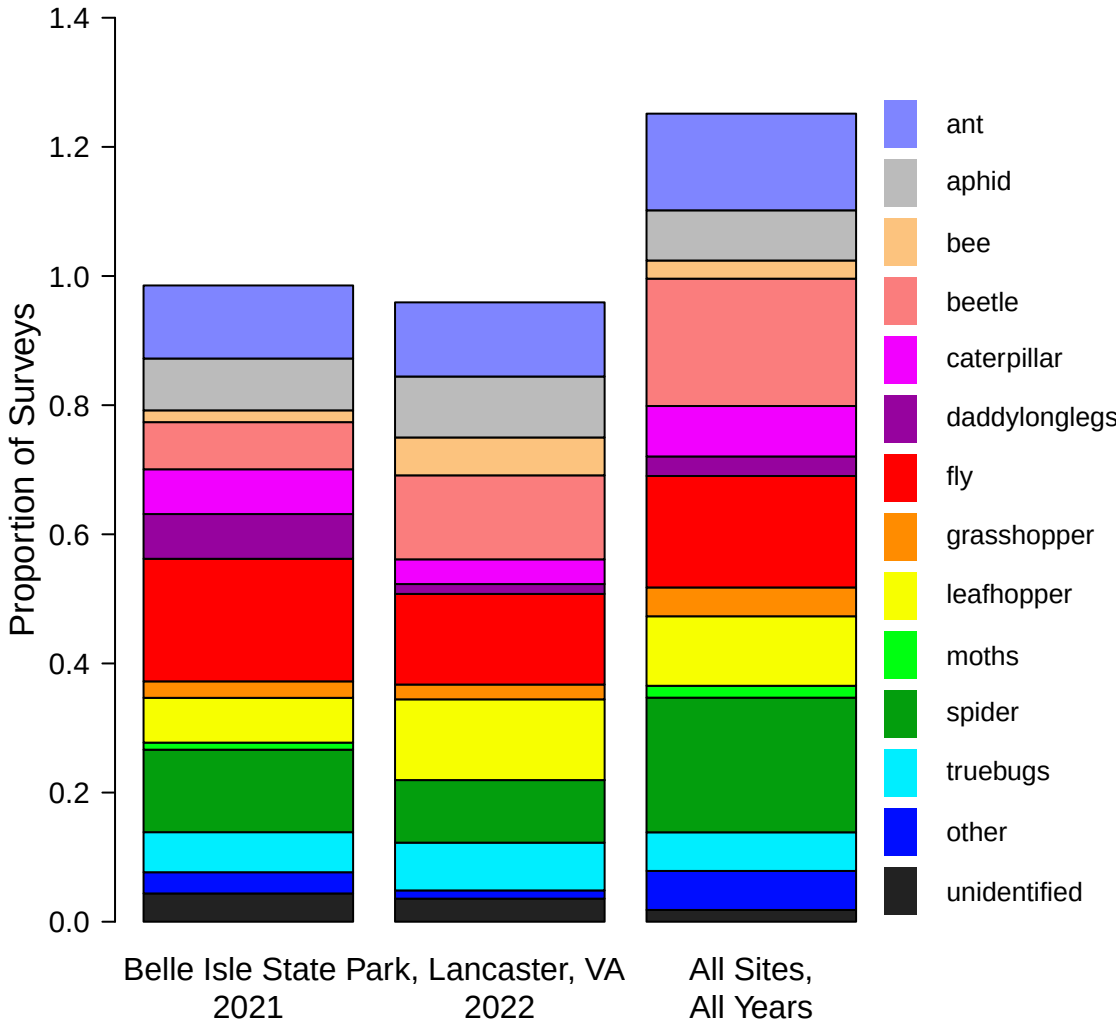


You can explore trends for more arthropod groups, and compare trends at different sites, on your site's Trends Page. See also our November 2021 newsletter for more on how to interpret these trends.

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*).

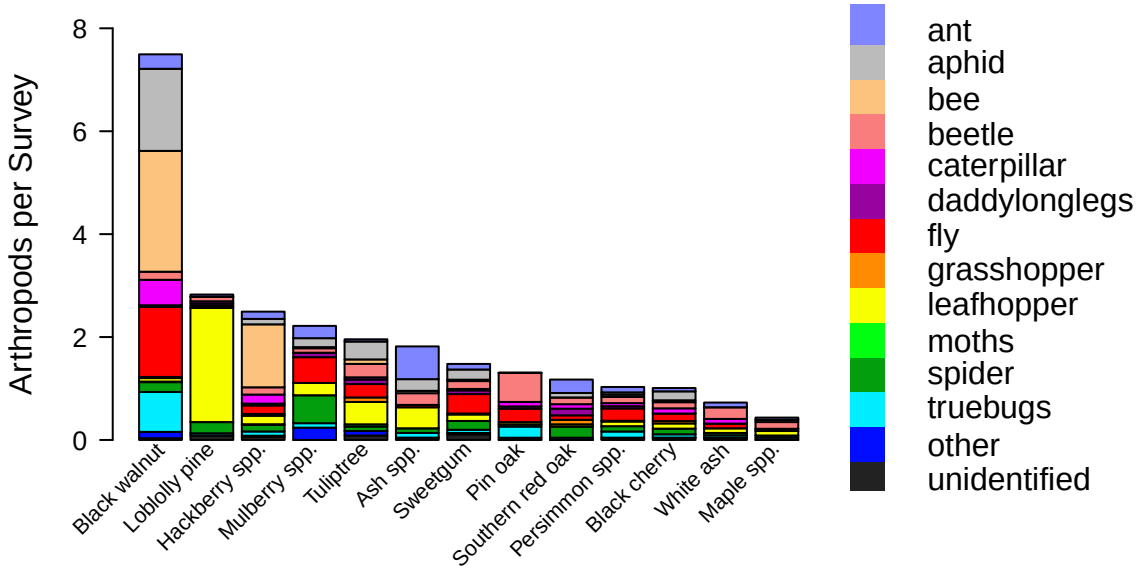
- What are the most common arthropod groups found at your site?
- Has that varied by year?
- Is anything noticeably different about **Belle Isle State Park, Lancaster, VA** compared to all other participating sites?
- If arthropod photos were submitted as part of your site's surveys, check the last section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

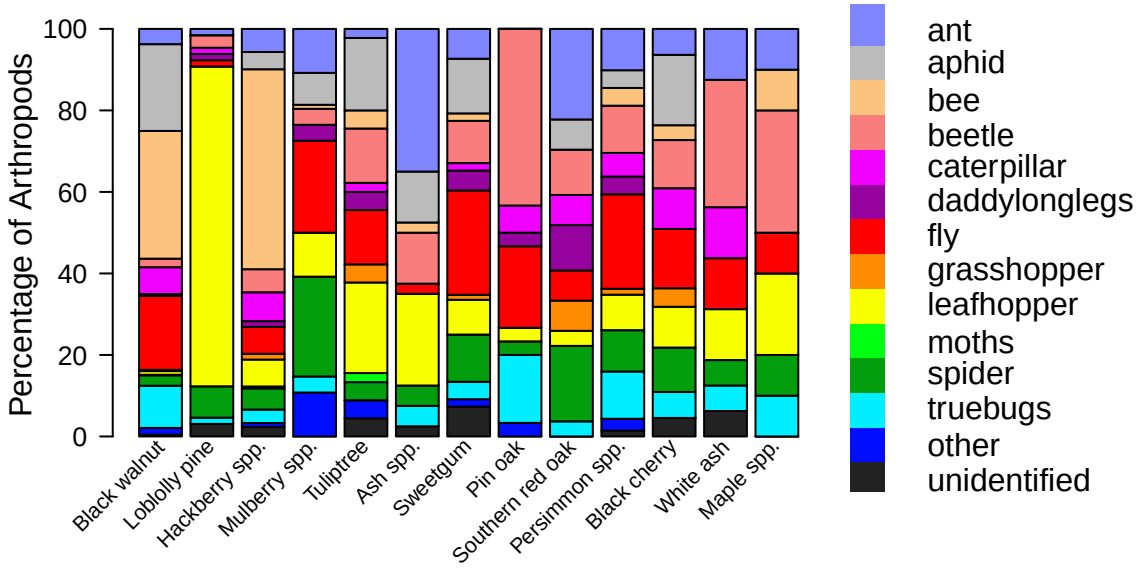


Arthropod Composition by Plant Species

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?

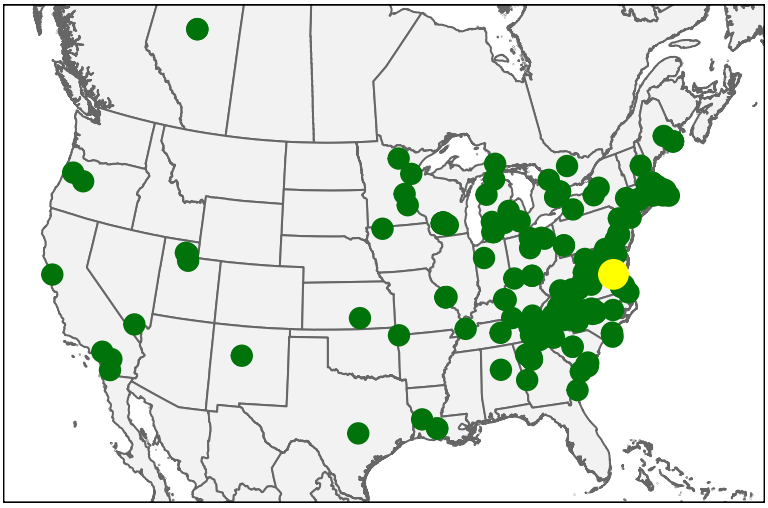




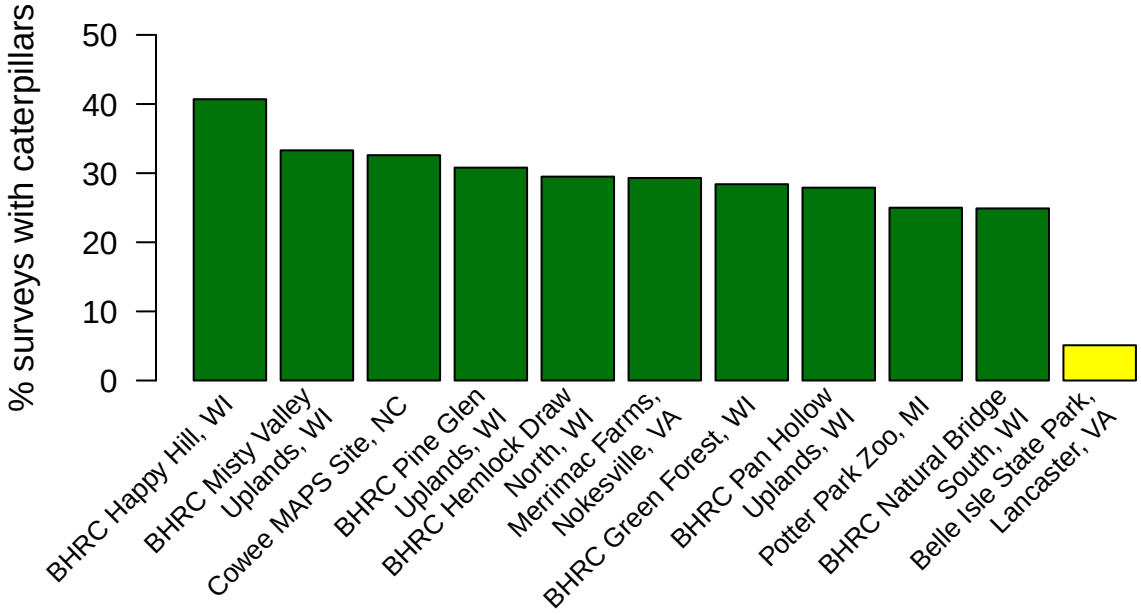
This bottom panel shows, of the arthropods found on a given plant species, what proportion were from each taxonomic group. At most, only the top 25 plant species are shown.

Broader Patterns

Thanks to participants like yourself, ***Caterpillars Count!*** observers have now submitted a total of **220,722** arthropod observations–including **16,838 caterpillars**–from **185** different sites.



Across all surveys ever done at **Belle Isle State Park, Lancaster, VA**, caterpillars have been found **5.1%** of the time, which ranks **78th** 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

434 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 **34** unique species. Taxa seen for the first time this year are marked with a *.

Caterpillars

Apatelodidae
- Apatelodes torrefacta

Erebidae
- Halysidota tessellaris
- Hyphantria cunea*

Geometridae

Limacodidae
- Adoneta spinuloides

Noctuidae
- Acronicta afflicta
- Acronicta rubricoma

Nymphalidae
- Asterocampa sp.
- Polygonia sp.

Papilionidae
- Papilio glaucus*

Sphingidae*

Moths, Butterflies

Erebidae
- Halysidota tessellaris

Noctuidae
- Alypia octomaculata

Spiders

Araneidae
- Araneus guttulatus*
- Neoscona arabesca*

Salticidae
- Colonus sp.

Thomisidae

Grasshoppers, Crickets

Tettigoniidae*

True Bugs

Coreidae
- Leptoglossus oppositus*

Pentatomidae
- Brochymena sp.*
- Chinavia sp.
- Euschistus sp.*

Reduviidae
- Arilus cristatus

Leafhoppers, Cicadas

Acanaloniidae
- Acanalonia conica

Cicadellidae
- Paraphlepsius sp.
- Graphocephala coccinea
- Graphocephala versuta
- Oncometopia orbona
- Sibovia occatoria*

Issidae
- Thionia sp.

Beetles

Buprestidae
- Anthaxia quercata*

Cantharidae
- Chauliognathus marginatus*

Cerambycidae*

Chrysomelidae

Coccinellidae
- Harmonia axyridis*

Curculionidae
- Ochyromera ligustri

Elateridae
- Conoderus lividus

Lampyridae
- Photinus pyralis
- Photuris sp.

Melyridae*

Mordellidae
- Mordellistena liturata*

Scarabaeidae
- Macrodactylus subspinosus
- Euphoria sepulcralis*
- Popillia japonica

Ants

Formicidae
- Colobopsis sp.*
- Camponotus castaneus*
- Camponotus nearcticus*
- Camponotus pennsylvanicus*
- Camponotus subbarbatus*

Flies

Dolichopodidae
- Condylostylus sp.

Platystomatidae
- Rivellia sp.

Syrphidae
- Toxomerus marginatus*
- Toxomerus politus

Other observations

Neuroptera
- Chrysopini*

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!