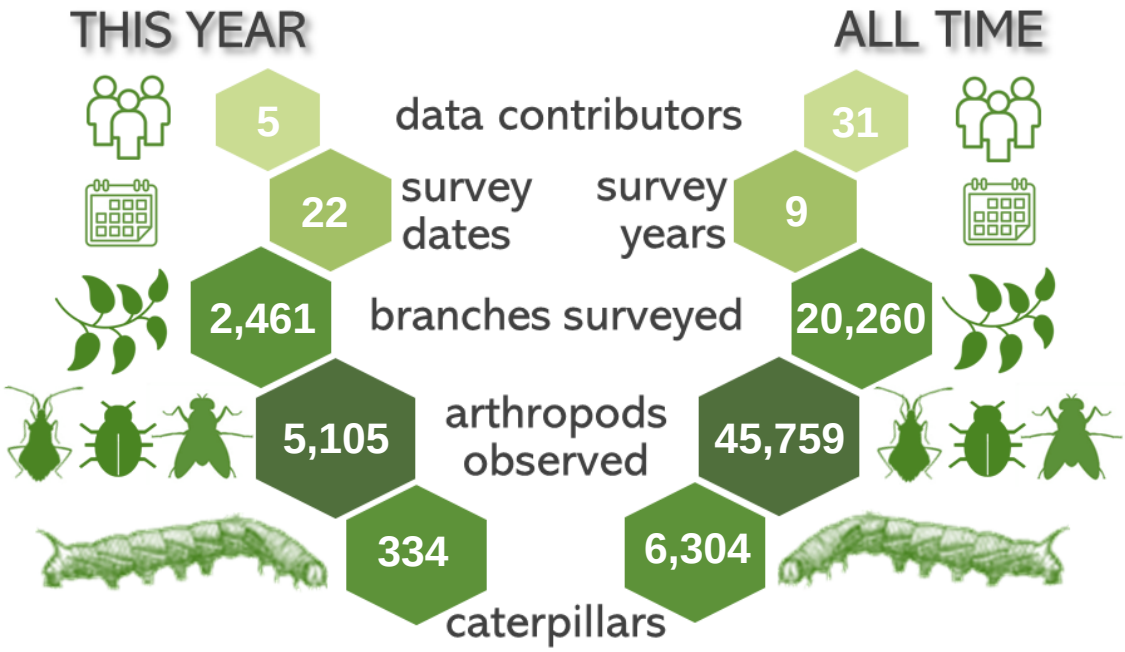
Prairie Ridge Ecostation, 2023 Summary



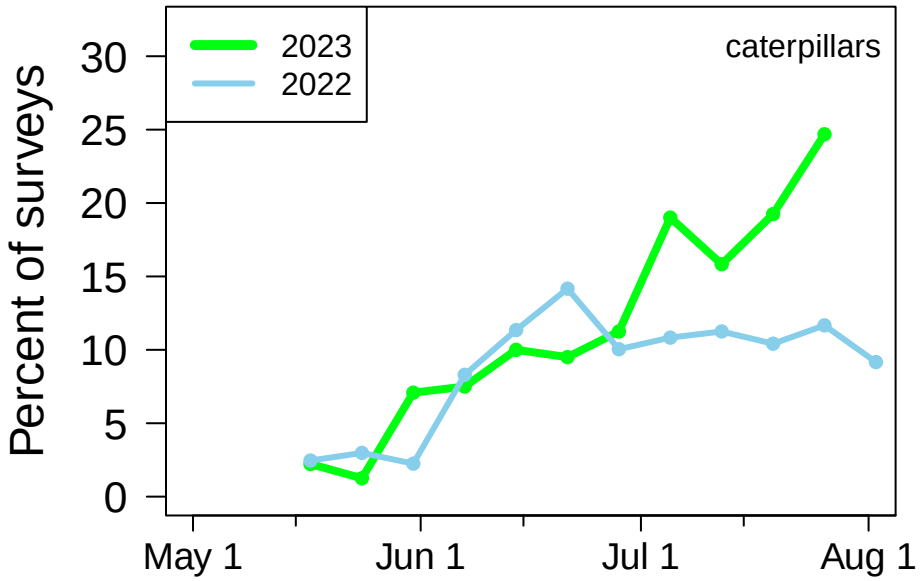
The **2,461** total surveys conducted at **Prairie Ridge Ecostation** this year ranks **1st** out of the **79** sites that participated in 2023.

Top Participants of 2023

User	Surveys	Arthropods	Caterpillars	% Caterpillars
I Goulden	152	321	30	15.13
E Howie	578	1202	93	13.15
T Montgomery	569	822	81	13.01
A Hurlbert	465	951	52	9.46
I Edwards	697	1809	78	9.33

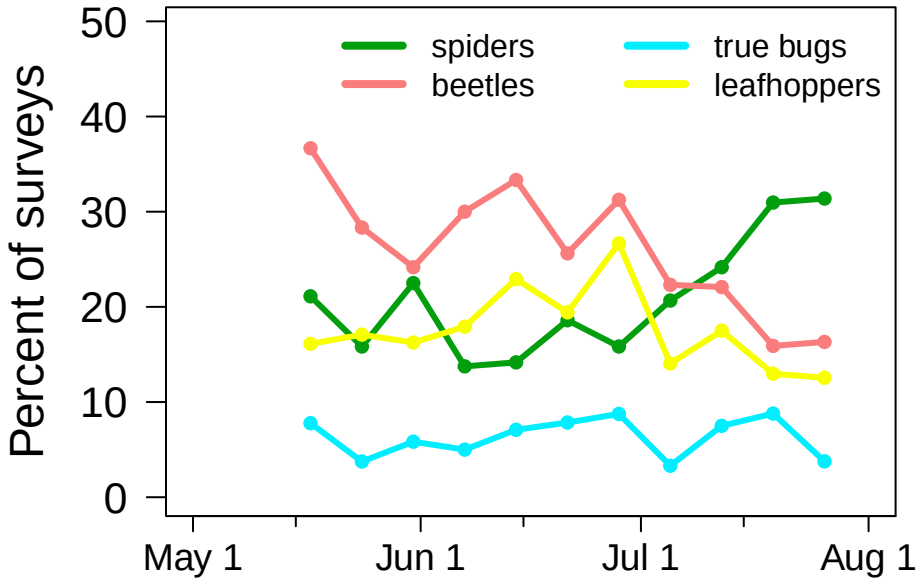
Caterpillar Phenology

As a major source of food for nestlings of migratory birds, we are especially interested in the timing of caterpillar availability. At **Prairie Ridge Ecostation** in **2023**, caterpillar occurrence peaked at **24.7%** of surveys on **26 July**. Do you see other peaks as well? How does the pattern compare to the previous year?



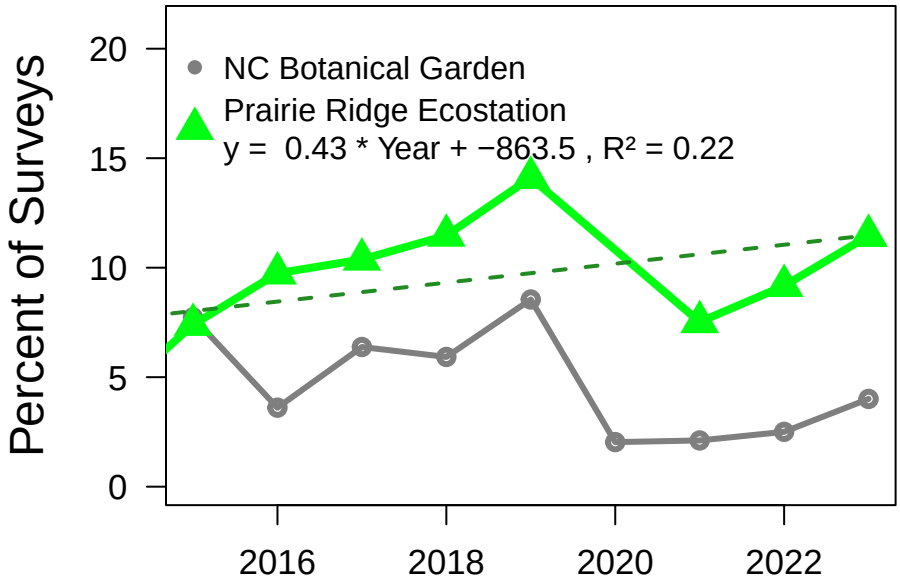
Other Arthropod Phenology

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**.



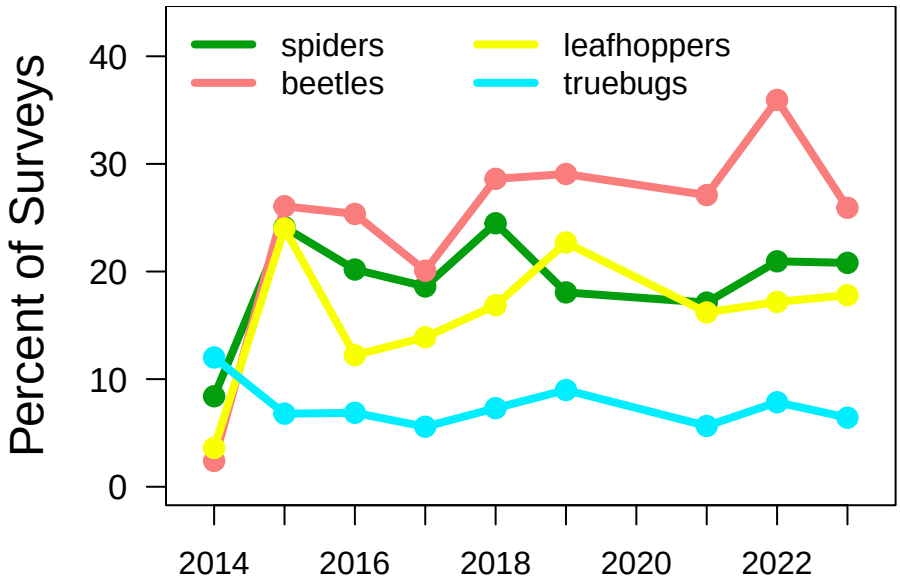
Arthropod Trends

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?

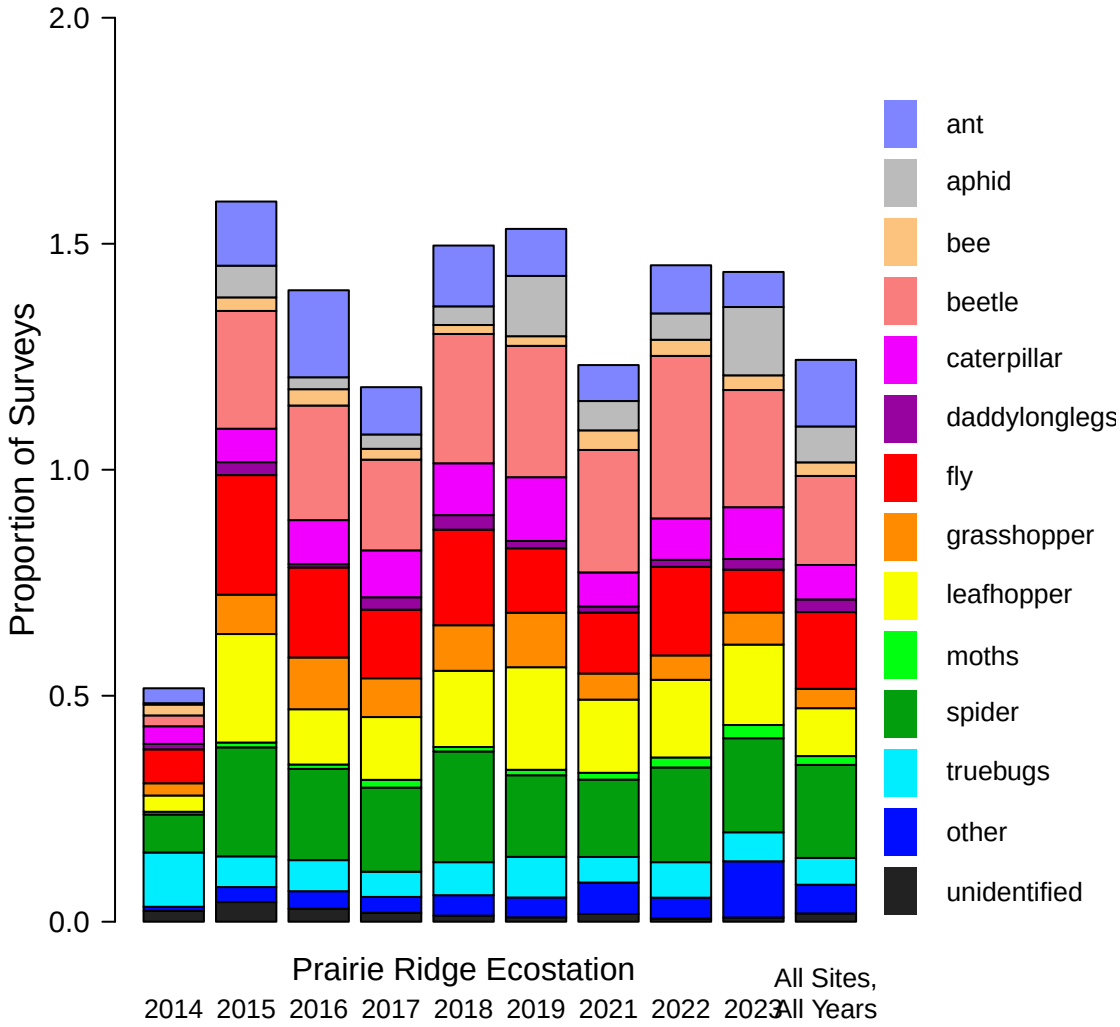


You can explore trends for more arthropod groups, and compare trends at different sites, on your site's Trends Page. See also our November 2021 newsletter for more on how to interpret these trends.

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*).

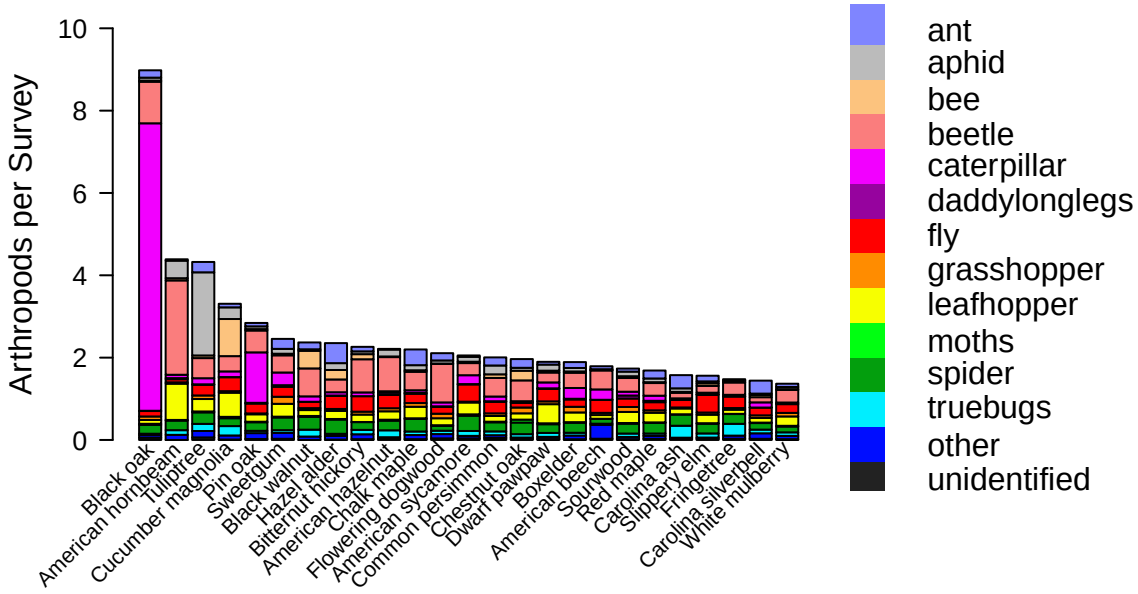
- What are the most common arthropod groups found at your site?
- Has that varied by year?
- Is anything noticeably different about **Prairie Ridge Ecostation** compared to all other participating sites?
- If arthropod photos were submitted as part of your site's surveys, check the last section of this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

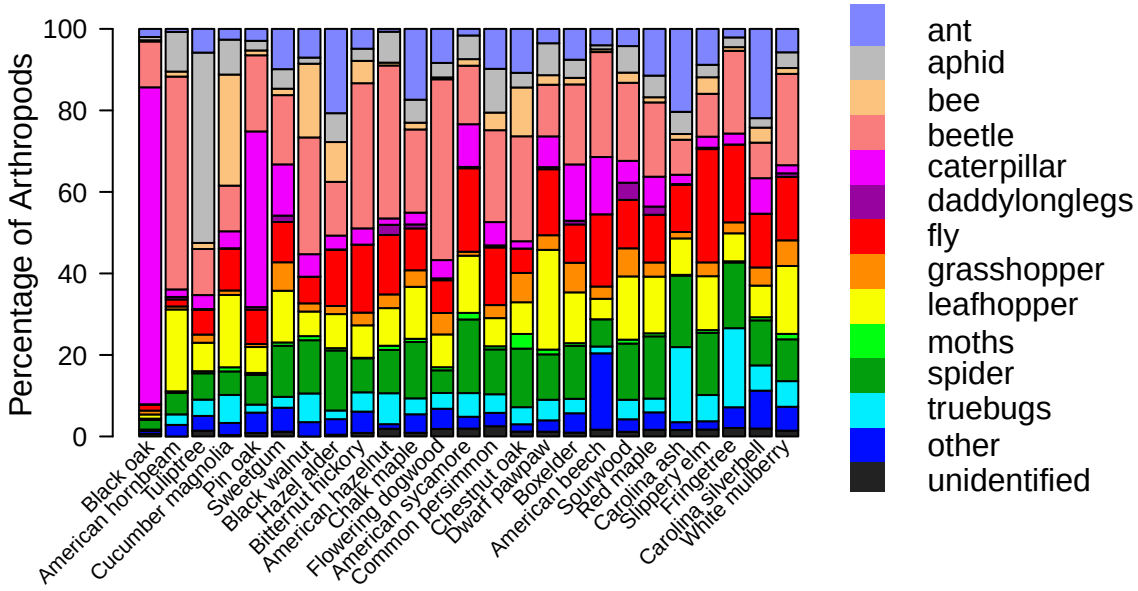


Arthropod Composition by Plant Species

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?

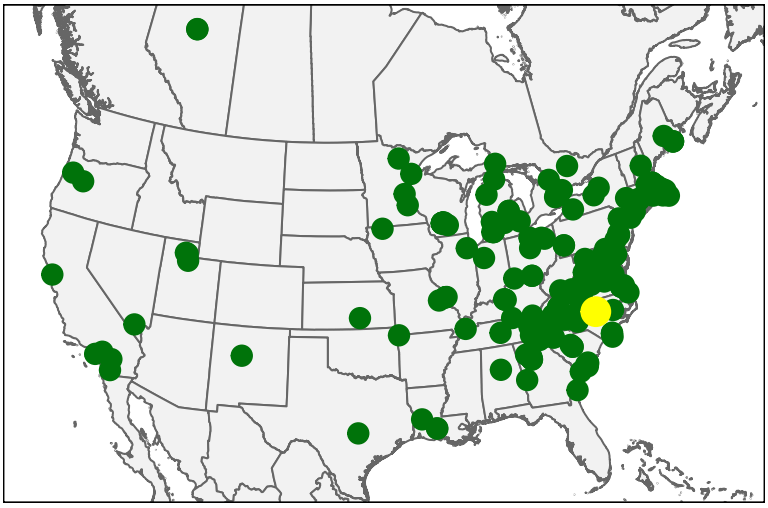




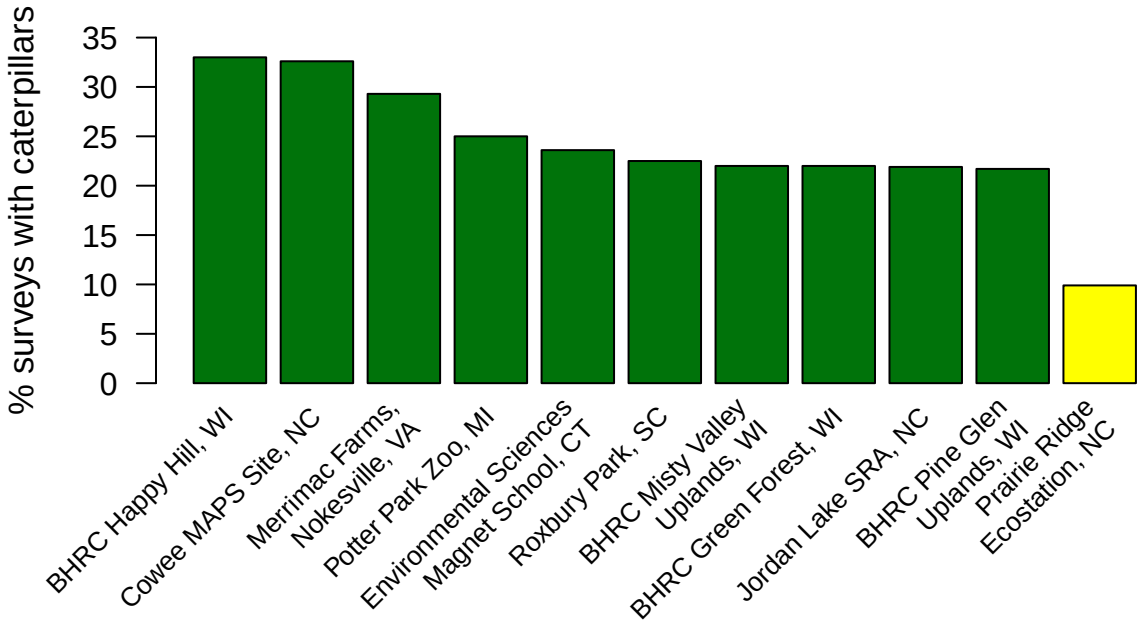
This bottom panel shows, of the arthropods found on a given plant species, what proportion were from each taxonomic group. At most, only the top 25 plant species are shown.

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 **Prairie Ridge Ecostation**, caterpillars have been found **9.9%** of the time, which ranks **44th** 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

4296 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 **164** unique species. Taxa seen for the first time this year are marked with a *.

Caterpillars

Erebidae
- Orgyia leucostigma
- Panopoda sp.
- Halysidota harrisii
- Halysidota tessellaris
- Hypercompe scribonia*
- Hyphantria cunea
- Hypsoropha hormos
- Parallelia bistriaris
- Pyrrharctia isabella
- Spilosoma virginica

Euteliidae
- Paectes abrostoloides*

Geometridae
- Epimecis hortaria
- Hypagyrtis unipunctata
- Macaria bisignata

Gracillariidae*

Limacodidae
- Euclea delphinii*
- Lithacodes fasciola
- Natada nasoni
- Phobetron pithecium

Noctuidae
- Acronicta americana
- Acronicta retardata
- Harrisimemna trisignata
- Morrisonia confusa

Notodontidae
- Datana sp.
- Schizura ipomaeae
- Cecrita biundata
- Cecrita guttivitta
- Coelodasys unicornis
- Macrurocampa marthesia*
- Misogada unicolor
- Nadata gibbosa

Pyralidae
- Pococera sp.

Saturniidae
- Anisota sp.
- Actias luna

Sphingidae

Tortricidae
- Ancylis platanana*

Moths, Butterflies

Acrolophidae
- Acrolophus sp.

Argyresthiidae
- Argyresthia oreasella*

Erebidae
- Spilosoma sp.
- Hypsoropha hormos

Geometridae
- Eulithis sp.
- Hypagyrtis sp.
- Dyspteris abortivaria*
- Eutrapela clemataria
- Ilexia intractata*

Hesperiidae
- Lon zabulon

Saturniidae
- Anisota sp.

Tortricidae
- Coelostathma discopunctana

Spiders

Anyphaenidae
- Anyphaena sp.*
- Wulfila albens

Araneidae
- Araneus alboventris*
- Araneus marmoreus*
- Eustala sp.
- Metepeira labyrinthea
- Neoscona arabesca*
- Larinioides cornutus
- Mecynogea lemniscata
- Micrathena gracilis
- Verrucosa arenata

Clubionidae
- Castianeira longipalpa

Corinnidae
- Trachelas sp.

Linyphiidae

Mimetidae
- Mimetus sp.*

Philodromidae
- Philodromus sp.

Salticidae
- Colonus sylvanus
- Hentzia sp.
- Phidippus sp.
- Lyssomanes viridis
- Paraphidippus aurantius

Tetragnathidae
- Tetragnatha sp.
- Leucauge venusta

Theridiidae
- Theridion sp.
- Theridula sp.
- Phylloneta pictipes*
- Rhomphaea fictilium

Thomisidae
- Mecaphesa sp.
- Tmarus sp.
- Xysticus sp.
- Misumessus oblongus
- Synema parvulum

Uloboridae
- Uloborus glomosus*

Stenotrachelidae*

Grasshoppers, Crickets

Gryllidae
- Hapithus sp.*
- Cyrtoxipha columbiana

Mogoplistidae
- Cycloptilum sp.

Oecanthidae
- Oecanthus niveus

Podoscirtidae
- Orocharis sp.

Tettigoniidae
- Scudderia sp.

Trigonidiidae
- Cyrtoxipha sp.
- Phyllopalpus pulchellus

True Bugs

Berytidae
- Jalysus sp.

Coreidae
- Acanthocephala declivis
- Acanthocephala terminalis
- Leptoglossus oppositus

Miridae
- Ceratocapsus sp.
- Hyaliodes harti
- Hyaliodes vitripennis
- Lopidea sp.
- Paraxenetus guttulatus
- Texocoris nigrellus

Nabidae
- Lasiomerus sp.

Pentatomidae
- Banasa euchlora
- Brochymena quadripustulata
- Euschistus servus
- Podisus sp.
- Chinavia hilaris
- Halyomorpha halys*

Reduviidae
- Empicoris sp.
- Pselliopus barberi
- Pselliopus cinctus
- Sinea spinipes*
- Zelus luridus
- Arilus cristatus

Rhopalidae
- Boisea trivittata

Tingidae
- Corythucha sp.

Leafhoppers, Cicadas

Acanaloniidae
- Acanalonia bivittata
- Acanalonia conica
- Acanalonia servillei*

Aphrophoridae
- Lepyronia quadrangularis*

Cercopidae
- Prosapia bicincta

Cicadellidae
- Bandara sp.
- Osbornellus sp.
- Paraphlepsius sp.
- Scaphoideus sp.
- Agalliopsis ancistra
- Graphocephala coccinea
- Graphocephala versuta
- Japananus hyalinus
- Jikradia olitoria
- Oncometopia orbona
- Orientus ishidae*
- Ponana pectoralis*
- Rugosana querci

Cixiidae
- Haplaxius sp.
- Bothriocera cognita

Derbidae
- Cedusa sp.

Flatidae
- Flatormenis proxima
- Metcalfa pruinosa
- Ormenoides venusta

Issidae
- Thionia bullata
- Thionia quinquata
- Aplos simplex

Membracidae
- Telamona sp.
- Platycotis vittata
- Stictocephala militaris
- Stictocephala taurina

Tropiduchidae
- Pelitropis rotulata

Thraupidae
- Stictocephala sp.

Aphids, Scales

Aphididae

Pseudococcidae

Beetles

Anthribidae
- Ormiscus sp.
- Toxonotus cornutus

Attelabidae
- Eugnamptus sp.

Buprestidae*

Cantharidae
- Chauliognathus marginatus
- Podabrus rugosulus

Carabidae
- Lebia fuscata

Cerambycidae
- Anelaphus sp.

Chelonariidae
- Chelonarium lecontei*

Chrysomelidae

- Bassareus detritus*
- Cryptocephalus mutabilis
- Paria sp.
- Demotina modesta

Coccinellidae
- Cycloneda munda
- Harmonia axyridis
- Psyllobora vigintimaculata

Cupedidae
- Cupes capitatus
- Tenomerga cinerea

Curculionidae
- Brachystylus sayi
- Cyrtepistomus castaneus
- Lechriops oculatus
- Ochyromera ligustri
- Pseudocneorhinus bifasciatus
- Pseudoedophrys hilleri

Dermestidae*

Elateridae
- Glyphonyx sp.
- Melanotus sp.
- Conoderus lividus

Lampyridae
- Photinus pyralis
- Photuris sp.
- Lucidota atra*

Melandryidae
- Microtonus sericans

Mordellidae
- Falsomordellistena bihamata*
- Falsomordellistena hebraica
- Paramordellaria triloba
- Mordellistena trifasciata

Scarabaeidae
- Macrodactylus subspinosus
- Popillia japonica

Bees, Wasps

Eupelmidae

Ichneumonidae*

Tenthredinidae

Vespidae
- Vespula maculifrons

Choreutidae

Ants

Formicidae
- Formica fusca
- Formica subsericea
- Aphaenogaster sp.*
- Camponotus castaneus
- Camponotus pennsylvanicus
- Camponotus snellingi
- Camponotus subbarbatus
- Colobopsis sp.*
- Crematogaster sp.
- Monomorium minimum
- Brachyponera chinensis
- Pseudomyrmex ejectus
- Tapinoma sessile*

Flies

Asilidae
- Cerotainia sp.

Bombyliidae
- Anthrax argyropygus

Chironomidae

Chloropidae

Culicidae*

Dolichopodidae
- Condylostylus caudatus*
- Condylostylus comatus*
- Condylostylus sipho
- Condylostylus patibulatus

Keroplatidae
- Macrocera sp.

Lauxaniidae
- Homoneura sp.

Limoniidae*

Lonchaeidae
- Lonchaea sp.*

Pleciidae
- Plecia americana*

Rhagionidae
- Chrysopilus thoracicus

Sarcophagidae*

Sciomyzidae

Syrphidae
- Allograpta sp.*

Tipulidae*

Rhaphidophoridae*

Other observations

Anura
- Hyla cinerea

Blattodea
- Cariblatta
- Reticulitermes hageni

Collembola
- Tomocerinae

Dermaptera
- Forficula auricularia

Entomobryomorpha
- Homidia socia

Mantodea
- Mantidae*
- Tenodera sinensis*

Neuroptera
- Chrysopa nigricornis
- Chrysoperla
- Chrysopidae
- Chrysopini*
- Leucochrysa insularis
- Leucochrysa pavida
- Hemerobiidae*

- Hemerobius
- Micromus
- Micromus posticus

Odonata
- Calopteryx maculata

Opiliones
- Leiobunum*
- Leiobunum vittatum*

Polydesmida
- Oxidus gracilis

Psocodea
- Cerastipsocus venosus
- Graphopsocus
- Graphopsocus cruciatus*

Psocoptera
- Aaroniella*

Spirobolida
- Narceus americanus

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!