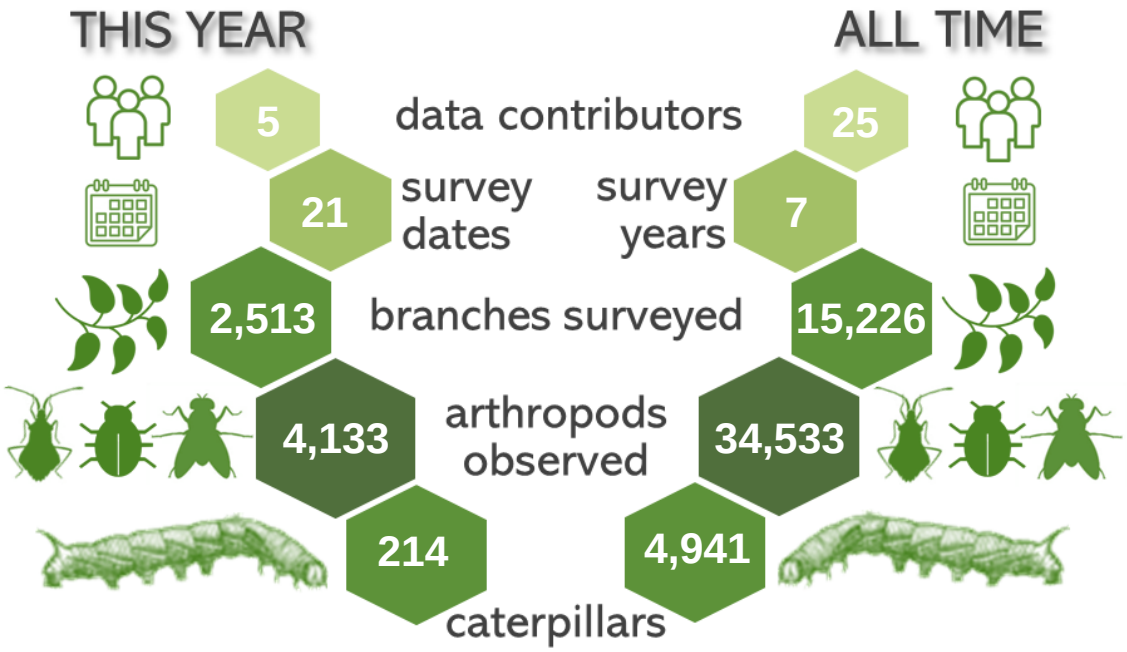
Prairie Ridge Ecostation, 2021 Summary



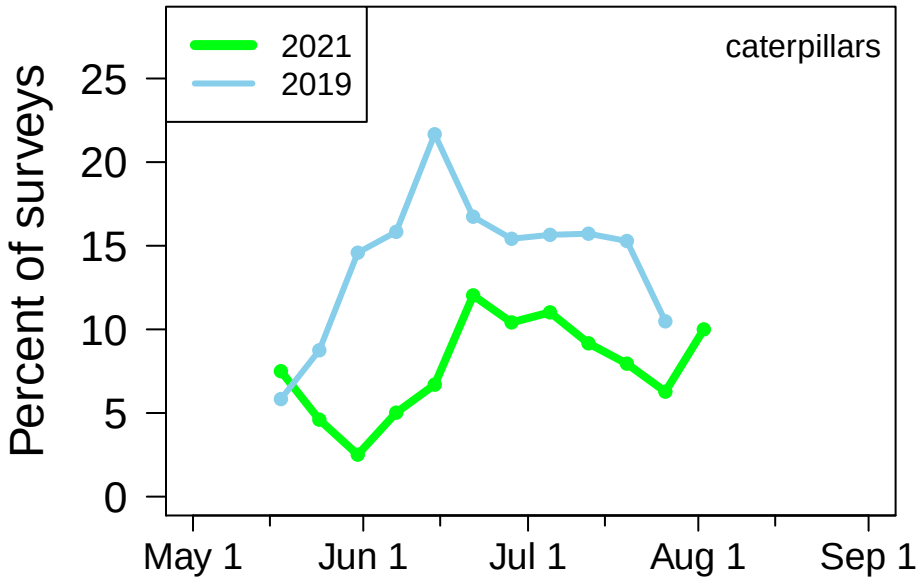
The **2,513** total surveys conducted at **Prairie Ridge Ecostation** this year ranks **1st** out of the **52** sites that participated in 2021.

Top Participants of 2021

User	Surveys	Arthropods	Caterpillars	% Caterpillars
A Hurlbert	503	905	69	11.93
C Whitener	443	894	47	9.93
G Di Cecco	932	1500	65	6.22
C Youngflesh	20	67	1	5.00
I Edwards	615	767	32	4.23

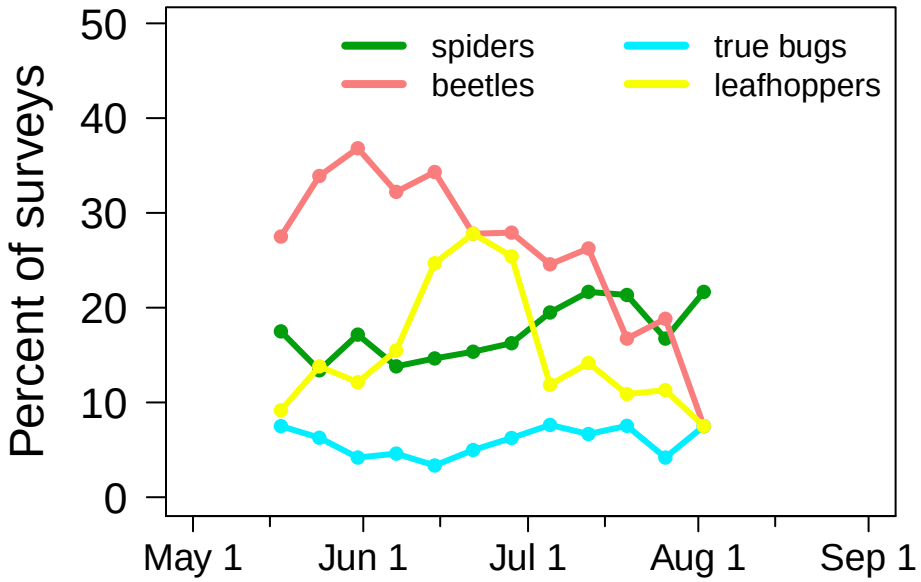
Caterpillar Phenology

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 **2021**, caterpillar occurrence peaked at **12%** of surveys on **21 June**. Do you see other peaks as well? How does the pattern compare to the previous year?



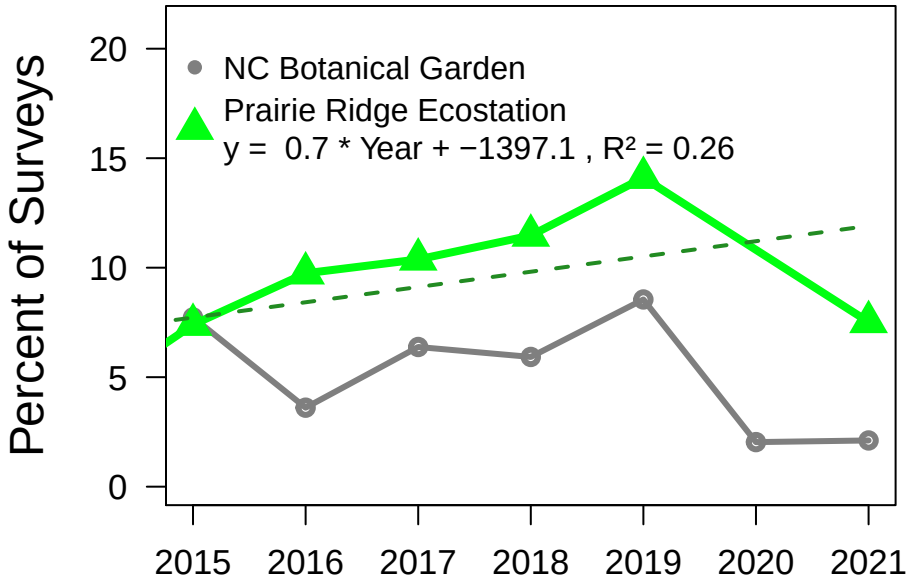
Other Arthropod Phenology

While caterpillars tend to have pronounced seasonal peaks, other groups are more variable. What patterns do you see below for **2021**? You can explore the phenology of other groups on the ***Caterpillars Count!*** **website**.



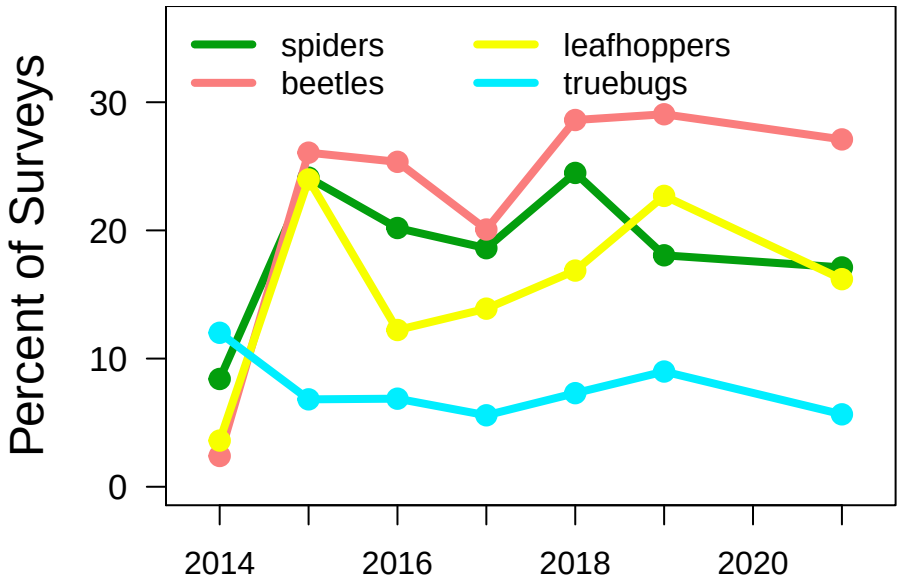
Arthropod Trends

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?

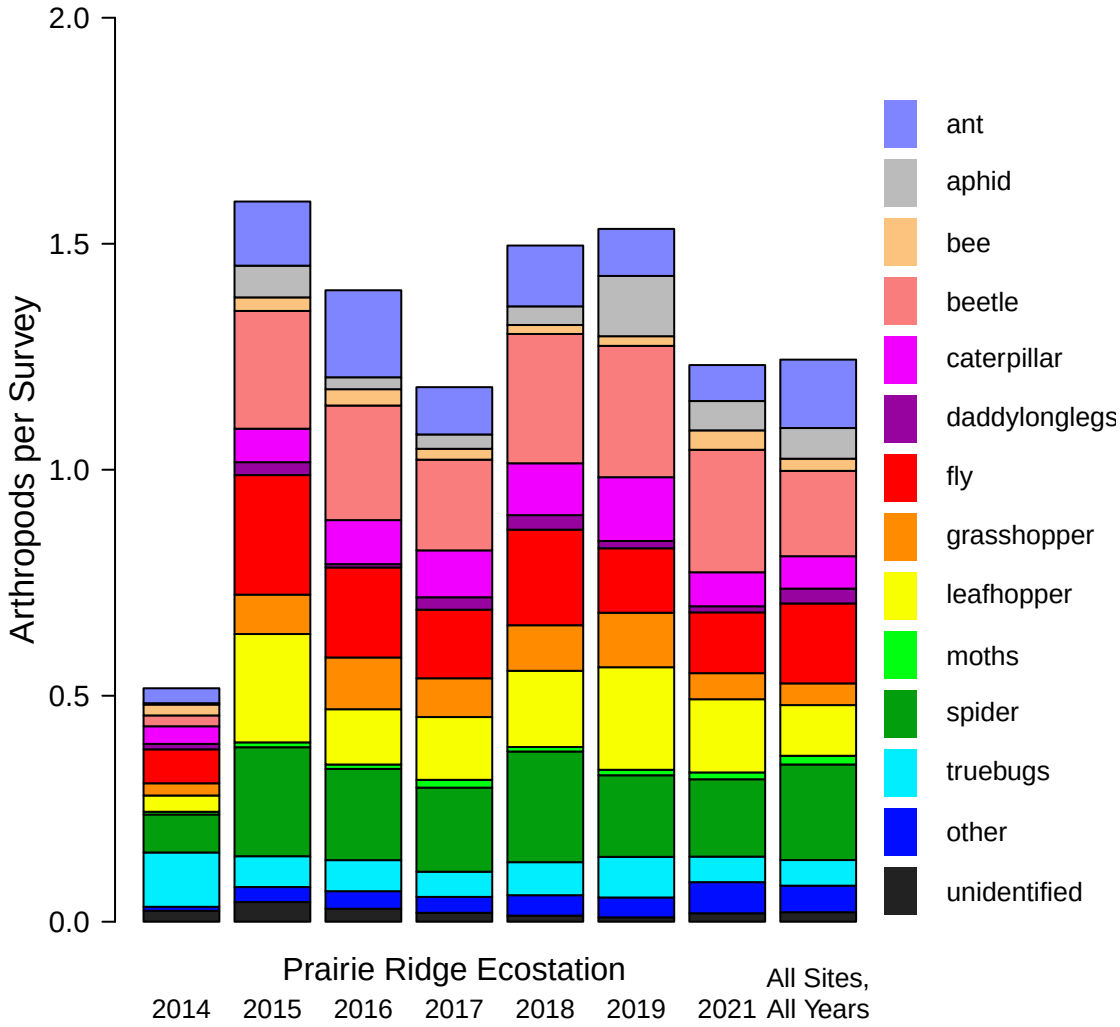


You can explore trends for more arthropod groups, and compare trends at different sites, on your site's Trends Page. See also our November 2021 newsletter for more on how to interpret these trends.

Site Arthropod Composition

Some arthropods are more commonly encountered than others. The graph below portrays the density (arthropods per survey) of all arthropods groups 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*).

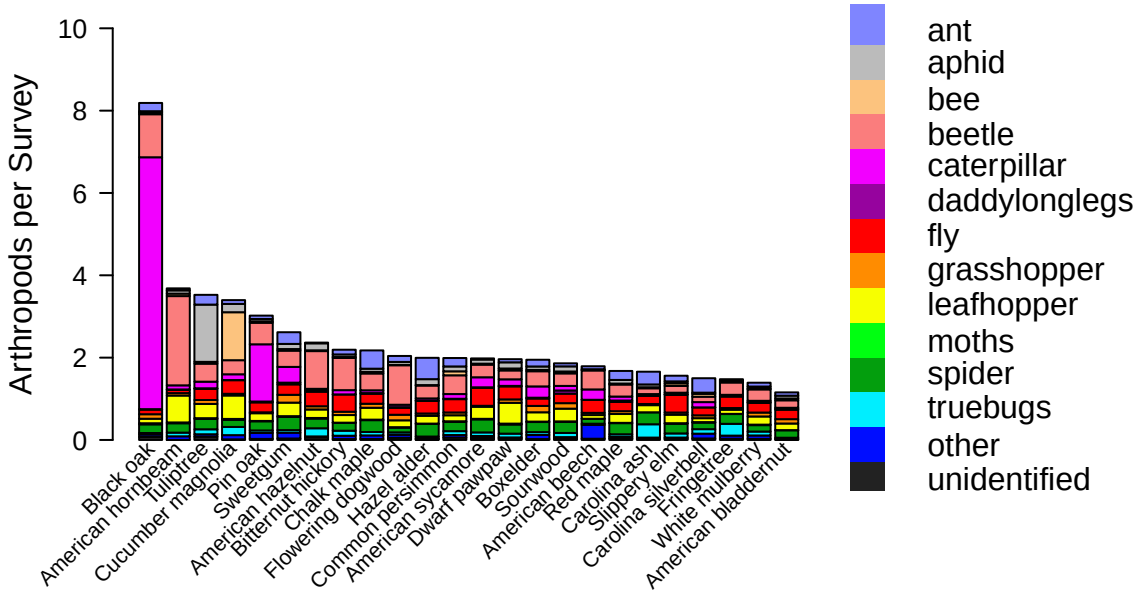
- What are the most common arthropod groups found at your site?
- Has that varied by year?
- Is anything noticeably different about **Prairie Ridge Ecostation** compared to all other participating sites?
- If arthropod photos were submitted as part of your site's surveys, check the last section of this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

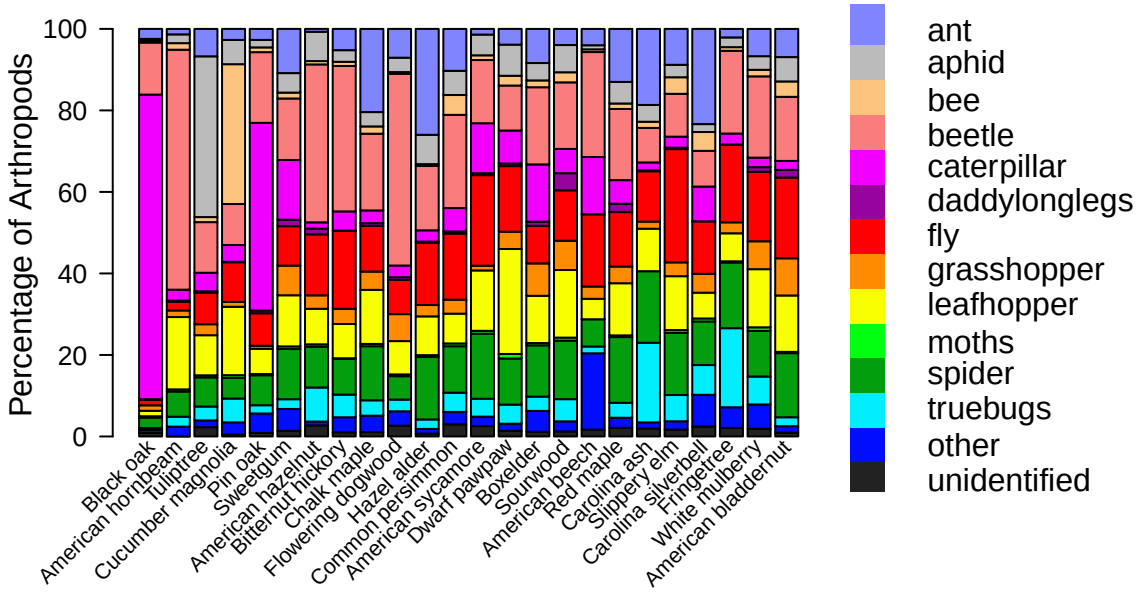


Arthropod Composition by Plant Species

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?

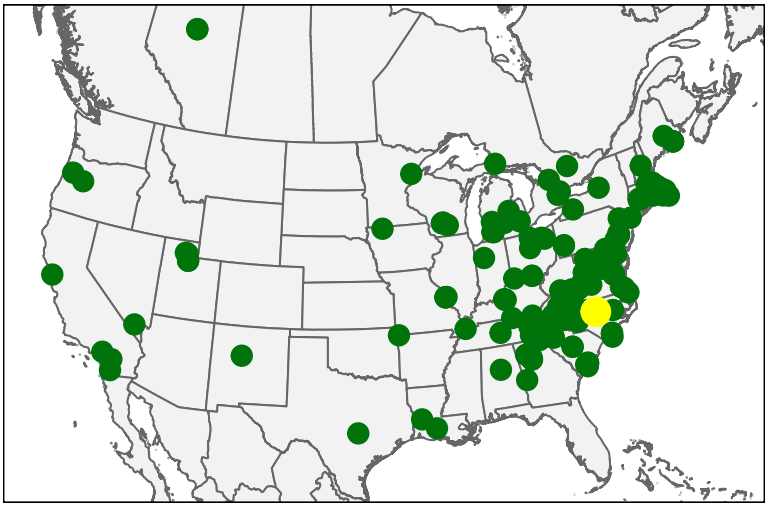




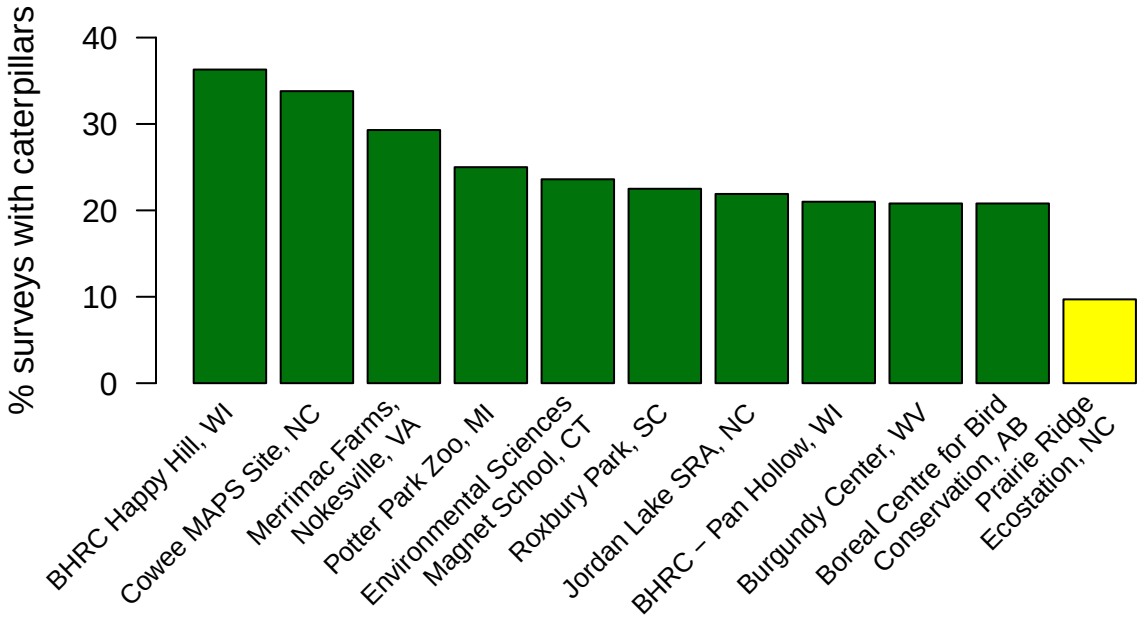
This bottom panel shows, of the arthropods found on a given plant species, what proportion were from each taxonomic group. At most, only the top 25 plant species are shown.

Broader Patterns

Thanks to participants like yourself, ***Caterpillars Count!*** observers have now submitted a total of **163,022** arthropod observations–including **11,354 caterpillars**–from **152** different sites.



Across all surveys ever done at **Prairie Ridge Ecostation**, caterpillars have been found **9.7%** of the time, which ranks **33rd** 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

1512 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. Taxonomic groups seen for the first time this year are marked with a *.

Caterpillars

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

Euteliidae
- Paectes sp.

Geometridae
- Epimecis hortaria
- Hypagyrtis unipunctata*
- Macaria bisignata

Limacodidae
- Lithacodes fasciola
- Natada nasoni

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

Notodontidae
- Datana sp.*
- Schizura ipomaeae
- Schizura unicornis
- Heterocampa biundata*
- Misogada unicolor
- Nadata gibbosa*
- Oligocentria lignicolor

Pyralidae
- Pococera sp.

Saturniidae
- Anisota sp.
- Actias luna

Sphingidae

Moths, Butterflies

Geometridae
- Eulithis sp.
- Eutrapela clemataria

Hesperiidae
- Lon zabulon

Saturniidae
- Anisota sp.

Tortricidae
- Coelostathma discopunctana*

Spiders

Anyphaenidae
- Wulfila sp.

Araneidae
- Eustala sp.
- Neoscona sp.
- Larinioides cornutus*
- Mecynogea lemniscata
- Metepeira labyrinthea
- Verrucosa arenata

Clubionidae
- Castianeira longipalpa*

Philodromidae
- Philodromus sp.

Salticidae
- Colonus sylvanus
- Lyssomanes viridis
- Paraphidippus aurantius

Tetragnathidae
- Leucauge sp.*

Theridiidae
- Theridula sp.
- Rhomphaea fictilium

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

Grasshoppers, Crickets

Gryllidae
- Cyrtoxipha columbiana

Mogoplistidae
- Cycloptilum sp.

Oecanthidae
- Oecanthus sp.

Podoscirtidae
- Orocharis sp.

Tettigoniidae
- Scudderia sp.

Trigonidiidae
- Cyrtoxipha sp.
- Phyllopalpus pulchellus

True Bugs

Berytidae

Coreidae*

Miridae
- Hyaliodes sp.*
- Lopidea sp.

Pentatomidae
- Euschistus sp.
- Brochymena quadripustulata
- Chinavia hilaris

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

Rhopalidae
- Boisea trivittata

Tingidae
- Corythucha sp.*

Leafhoppers, Cicadas

Acanaloniidae

- Acanalonia bivittata*
- Acanalonia conica

Cercopidae
- Prosapia bicincta*

Cicadellidae
- Bandara sp.*
- Osbornellus sp.*
- Paraphlepsius sp.
- Graphocephala coccinea*
- Graphocephala versuta
- Japananus hyalinus
- Jikradia olitoria
- Oncometopia orbona
- Rugosana querci*

Derbidae
- Cedusa sp.

Flatidae
- Flatormenis proxima
- Metcalfa pruinosa
- Ormenoides venusta

Issidae
- Thionia bullata
- Thionia quinquata
- Aplos simplex*

Membracidae
- Platycotis vittata
- Stictocephala militaris*
- Stictocephala taurina*

Tropiduchidae
- Pelitropis rotulata*

Thraupidae
- Stictocephala sp.

Aphids, Scales

Aphididae

Pseudococcidae

Bees, Wasps

Eupelmidae*

Choreutidae

Ants

Formicidae
- Crematogaster sp.
- Camponotus castaneus
- Camponotus pennsylvanicus*
- Camponotus subbarbatus*
- Formica subsericea*

Flies

Asilidae
- Cerotainia sp.

Chironomidae

Chloropidae

Dolichopodidae*

Keroplatidae
- Macrocera sp.*

Lauxaniidae
- Homoneura sp.

Rhagionidae
- Chrysopilus thoracicus

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!

Saddled prominent, *Heterocampa guttivitta*. Photo by Lauren Whitenack.

Allen Hurlbert
Director
Caterpillars Count!