

Introducing...

BIOBLITZ

www.osgf.org



What is it?

On July 9th and 10th the Oak Spring Garden Foundation (OSGF) and Virginia Outdoors Foundation (VOF) hosted a Bioblitz across the 700-acre OSGF Upperville, Virginia property. The Bioblitz aimed to identify and record as many individual species as possible through observation and collection within an approximately 24-hour period.



Where did the data go?

A collection project was created in iNaturalist (an application that uses AI to determine species) to compile all observations captured by photograph on OSGF property. The OSGF iNaturalist project can be found online at inaturalist.org/projects/oak-spring-garden-foundation

A total of 451 species were documented

The Bioblitz comprised a series of targeted surveys by subject experts, expert-led observational walks, and the general documentation of plant, animal, and fungal life over the course of 24-hours

Actinopterygii Found



Bluegill size: 7.5 inches

BLUEGILL

Left - Photo on Flickr by Elizabeth Nicodemus

Scientific Name - *Lepomis macrochirus*

- In the sunfish family, is a freshwater fish found in lakes, ponds, rivers, and streams.
- Swim in schools of up to 10 or 20
- It's growth depends on how much food it eats, their small mouth allows them to eat small and microscopic creatures.

LONGNOSE DACE

Right - Photo on Flickr by NYS DEC

Scientific Name - *Rhinichthys cataractae*

- Is a streamlined minnow that can be found in streams, lakes, and clear river pools.
- They prey on immature blackflies, midges, mayflies, as well as insects and fish eggs.
- Prefer water cooler than 23 degrees Celsius.



Longnose Dace size: about 6 inches

RIVER CHUB

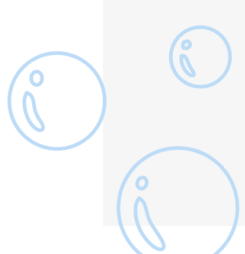
Bottom Left - Photo on Flickr by NYS DEC

Scientific Name - *Cyprinidae*

- Also in the minnow family, can be found in rivers, streams, and lakes.
- They prey on aquatic invertebrates, filamentous algae, crustaceans, mollusks, arachnids, and some fish.
- Their average litter size is between 500-1000.
- Has a life span of 5 years.



River Chub size: 5.5-13 inches (Males are larger than females)



Actinopterygii Found

CREEK CHUB

Scientific Name - *Semotilus atromaculatus*



- A part of the minnow family, can be found in flowing water for spawning, headwater creeks, small streams, and agricultural ditches.
- The male creek chubs grow at a faster rate than females, reaching sexual maturity at the age of 3 years.
- They are diurnal, feeding during the day after the water temperature has increased.
- They eat aquatic insect larvae, smaller fish, crayfish, and mollusks.

Below - Photo on Flickr by NYS DEC



Creek Chub size: (Female - 7-8 inches) (Male - 10-12 inches)

REDBREAST SUNFISH

Left - Photo on Flickr by Brian Gratwicke

Scientific Name - *Lepomis auritus*

- Can be found in slow-moving water such as backwaters of streams, rivers, and upstream reach of reservoirs.
- They feed predominantly on aquatic and terrestrial insects, crayfish, mollusks, and other fish.
- They can build nests in groups of more than 80.
- The males construct large saucer-shaped nests in shallow waters on sand or gravel substrates.



Redbreast Sunfish size: 2-9 inches

NORTHERN HOG SUCKER

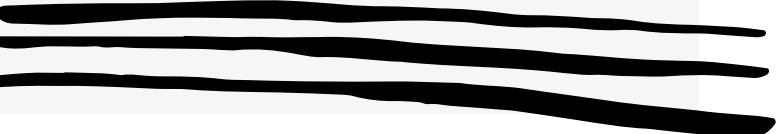
Right - Photo on Flickr by Brian Gratwicke

Scientific Name - *Hypentelium nigricans*

- Can be found in streams with moderate to swift current, clear water. They camouflage to their environment.
- They overturn rocks and stir up the bottom as they forage for immature aquatic insects with their fleshy, sucking lips.
- They can live up to 11 years.



Northern Hogsucker size: 8-15 inches



Amphibia and Crustacea Found



American Toad size: 2-3.5 inches

CAMBARID CRAYFISH

Right - Photo on iNaturalist by Craig Newsom

Scientific Name - *Cambaridae*

- Can be found in rivers, streams, lakes, ponds, springs, creeks, ditches, bayous.
- There are over 350 species of the cambaridae, many of them are rare or protected.
- They eat aquatic worms, dead or alive plants, snails, aquatic insects, small fish and carrion.



Cambarid Crayfish size: 1-5 cm

VIRILE CRAYFISH

Bottom Right - Photo on Flickr by Smithsonian Environmental Research Center

Scientific Name - *Faxonius virilis*

- Can be found in streams with moderate flow, abundant cover, muddy, sandy, or rocky substrate with stable water levels.
- They do not burrow, but may tunnel.
- Their mating occurs in two periods; August to October and April to May, eggs are laid in the spring.



Virile Crayfish size: up to 5 inches

Arachnida Found



American Dog Tick size: 5-15 mm

AMERICAN DOG TICK

Left - Photo on Flickr by Tom Murray

Scientific Name - *Dermacentor variabilis*

- Can be found along forest edges and in areas with little to no tree cover, such as grassy fields and scrubland.
- They are 3-host ticks (use 3 different hosts in their lifecycle). They can survive up to two years with no host.
- They feed on humans and animals ranging from rodents to livestock.
- Can transmit Rocky Mountain Spotted Fever and the germ causing Tularemia.

LONE STAR TICK

Right - Photo on Flickr by Judy Gallagher

Scientific Name - *Amblyomma americanum*

- Found in wooded areas and fields, near bodies of water.
- Feed on humans and mammalian hosts such as deer, racoons and opossums.
- They are very aggressive and travel to their host whereas other species wait for the host to come to them.
- Can transmit Tularemia and Southern Tick-Associated Rash Illness.



Lone Star Tick size: 4-6 mm up to 16mm fed

YELLOW GARDEN SPIDER

Left - Photo on Flickr by Jeff Flinn

Scientific Name - *Argiope aurantia*

- They spin their webs in sunny areas with plants on which they can anchor the web.
- They produce venom that's harmless to humans, but helps immobilize their prey, which include, flies, bees, and other flying insects.
- Males die after mating, females can live for several years with the right temperature.



Yellow Garden Spider Size: 19-28 mm

Mammalia Found



WHITE-TAILED DEER

Left - Photo on Flickr by Hal Trachtenberg

Scientific Name - *Odocoileus virginianus*

- Can be found in wooded areas or habitats shared with humans.
- They feed in early morning hours, eating green plants, corn, acorn, buds, twigs, and other nuts.
- Their stomach has four chambers for digesting food.
- Lives 2-3 years, rarely past 10 years and can run speeds up to 30 mph.



EASTERN COTTONTAIL

Bottom Left- Photo on Flickr by Tom Murray

Scientific Name - *Sylvilagus floridanus*

- Can be found in areas that are between woody areas and open land and/or bushy areas, fields, swamps and thickets.
- They eat a variety of plants including, grasses, clover, fruits and vegetables.
- They are very territorial and mostly nocturnal.
- Can leap distances of between 10-15 feet.

Mollusca Found



Left- Photo on Flickr by Bjorn S



Right - Photo on Flickr by Tom Murray

ASIAN CLAM

Scientific Name - *Corbicula fluminea*

- Found in fresh water, lakes, rivers, ponds and streams.
- They burrow into the bottom sediments of the streams and lakes, having the ability to feed from both the water column and substrate.
- They use their siphon to filter feed suspended



ACUTE BLADDER SNAIL

Scientific Name - *Physella acuta*

- Occupying a wide variety of freshwater habitats, from rivers to lakes and ponds.
- They have a lung and breathe the air, often found near the water surface.
- They feed on detritus as well as algae.

Aves Found



RED-TAILED HAWK

Left - Photo on Flickr by Jerry Mcfarland

Scientific Name - *Buteo jamaicensis*

- The red-tailed hawk is one of the largest birds you'll see in North America.
- They can be found in a wide range of habitats and altitudes from deserts, grasslands, forests, agricultural fields and urban areas.
- They eat small mammals; rodents and rabbits. They also eat birds, reptiles, fish and insects.
- Females are 25% heavier and larger than males.

GRASSHOPPER SPARROW

Right - Photo on Flickr by Tom Benson

Scientific Name - *Ammodramus savannarum*

- These birds prefer to run or walk rather than fly.
- They can be found in open grasslands, prairies, hayfields, and pastures with some bare ground.
- 12 subspecies have been identified.



NORTHERN FLICKER

Bottom Left - Photo on Flickr by Jerry Mcfarland

Scientific Name - *Colaptes auratus*

- You can find them in open woodlands and they eat insects,
- Most woodpeckers hunt in the air, these birds prefer to find food on the ground.
- They are one of the few woodpeckers that are strongly migratory.



Aves Found



TURKEY VULTURE

Left- Photo on Flickr by Michael Klotz

Scientific Name - *Cathartes aura*

- Can be found in farmlands, rangelands, forests, and low-elevation mountains.
- They have an average wing span of 6 feet.
- They can travel up to 200 miles in a day and rarely eat during their migration period.
- They are the only scavenger birds that can't kill their prey which includes carrion, human garbage, young or sick birds and mammals.



YELLOW-BILLED CUCKOO

Right - Photo on Flickr by Ashley Wahlberg

Scientific Name - *Coccyzus americanus*

- Can be found in coastal scrub, second-growth forests and woodlands, hedgerows, and forest edges.
- They feed on caterpillars, cicadas, katydids, other insects, and frogs or lizards.
- They prefer to nest on a horizontal branch of a willow tree.
- Both bird parents incubate the eggs, build the nest, and brood the nestlings.



EASTERN WOOD PEWEE

Bottom Left- Photo on Flickr by Andy Reago & Chrissy Mccarren

Scientific Name - *Contopus virens*

- Can be found in deciduous forest and woodland, any woodlot or treed area.
- They are sit-and-wait predators, they often perch high in trees.
- Feeds on various insects, small numbers of berries.
- Usually lay 2-3 eggs, very rarely 4.

Aves Found



RED-WINGED BLACK BIRD

Left- Photo on Flickr by Michael Klotz

Scientific Name - *Agelaius phoeniceus*

- Can be found in marshes, brushy swamps, fields, and pastures.
- Forages mostly on the ground, looking for insects including beetles, caterpillars, grasshoppers, spiders, and snails.
- Their eggs are a pale blue-green color.
- Adults are very aggressive in nesting territory and often attack larger birds that approach.

INDIGO BUNTING

Right - Photo on Flickr by Joan Piazza

Scientific Name - *Passerina cyanea*

- Can be found in weedy, brushy areas, especially where fields meet forests.
- Males are blue all over whereas females are mostly brown with a touch of blue on their wings.
- They migrate at night, using the stars for guidance.
- They feed on twigs, bugs, and leaves of trees. They also eat small seeds and berries.



PURPLE MARTIN

Bottom Left- Photo on Flickr by Matt Tillet

Scientific Name - *Progne subis*

- They are colonial with dozens of martins nesting in the same spot. They can be found in boxes and martin houses.
- They feed in midair, catching aerial insects, such as dragonflies.
- The largest roosting colony of the purple martins ever found was estimated to have over 700,000 birds at one time.



Aves Continued

The Oak Spring Garden Foundation has an extensive list of bird species found on site the rest of list is on the right.

Something our gardeners do to conserve these species is to plant for the birds.

“We’ve lost half of our birds in our lifetime, and a lot of that’s about habitat,” said Tom Wood, a professor of conservation studies at George Mason University, during a birding trip to Oak Spring. “We don’t know all the problems, but the close interaction between animals and their habitat is certainly an important part of it.”

Planting trees, grasses, and flowers that support diverse insect populations, produce ample fruit and nuts, and provide shelter and nesting materials at different times of the year is a great way to support local bird populations.



Common Name	Scientific Name
• Coopers Hawk	• <i>Accipiter cooperii</i>
• Wood Duck	• <i>Aix sponsa</i>
• Tufted Titmouse	• <i>Baeolophus bicolor</i>
• Canada Goose	• <i>Branta canadensis</i>
• Red-shouldered hawk	• <i>Buteo lineatus</i>
• Green Heron	• <i>Butorides virescens</i>
• Northern Cardinal	• <i>Cardinalis cardinalis</i>
• Chimney Swift	• <i>Chaetura pelagica</i>
• Feral Rock Pigeon	• <i>Columba domestica</i>
• Black Vulture	• <i>Coragyps atratus</i>
• American Crow	• <i>Corvus brachyrhynchos</i>
• Common Raven	• <i>Corvus corax</i>
• Fish Crow	• <i>Corvus ossifragus</i>
• Blue Jay	• <i>Cyanocitta cristata</i>
• Downy Woodpecker	• <i>Dryobates pubescens</i>
• Pileated Woodpecker	• <i>Dryocopus pileatus</i>
• Gray Catbird	• <i>Dumetella carolinensis</i>
• Acadian Flycatcher	• <i>Empidonax virescens</i>
• American Kestrel	• <i>Falco sparverius</i>
• Domestic Chicken	• <i>Gallus gallus domesticus</i>
• Common Yellowthroat	• <i>Geothlypis trichas</i>
• Bald Eagle	• <i>Haliaeetus leucocephalus</i>
• Barn Swallow	• <i>Hirundo rustica</i>
• Wood Thrush	• <i>Hylocichla mustelina</i>
• Orchard Oriole	• <i>Icterus spurius</i>
• Belted Kingfisher	• <i>Megaceryle alcyon</i>
• Red-bellied Woodpecker	• <i>Melanerpes carolinus</i>
• Red-headed woodpecker	• <i>Melanerpes erythrocephalus</i>
• Song Sparrow	• <i>Melospiza melodia</i>
• Northern Mockingbird	• <i>Mimus polyglottos</i>
• Brown-headed Cowbird	• <i>Molothrus ater</i>
• Great Crested Flycatcher	• <i>Myiarchus crinitus</i>
• House Sparrow	• <i>Passer domesticus</i>
• Savannah Sparrow	• <i>Passerculus sandwichensis</i>
• Blue Grosbeak	• <i>Passerina caerulea</i>
• Eastern Towhee	• <i>Pipilo erythrophthalmus</i>
• Blue-gray Gnatcatcher	• <i>Polioptila caerulea</i>
• Common Grackle	• <i>Quiscalus quiscula</i>
• Eastern Pheobe	• <i>Sayornis phoebe</i>
• Yellow Warbler	• <i>Setophaga petechia</i>
• Eastern Bluebird	• <i>Sialia sialis</i>
• American Goldfinch	• <i>Spinus tristis</i>
• Chipping Sparrow	• <i>Spizella passerina</i>
• Field Sparrow	• <i>Spizella pusilla</i>
• Eastern Meadowlark	• <i>Sturnella magna</i>
• European Starling	• <i>Sturnus vulgaris</i>
• Carolina Wren	• <i>Thryothorus ludovicianus</i>
• Brown Thrasher	• <i>Toxostoma rufum</i>
• House Wren	• <i>Troglodytes aedon</i>
• American Robin	• <i>Turdus migratorius</i>
• Eastern Kingbird	• <i>Tyrannus tyrannus</i>
• Yellowthroated Vireo	• <i>Vireo flavifrons</i>
• Warbling Vireo	• <i>Vireo gilvus</i>
• Red-eyed Vireo	• <i>Vireo olivaceus</i>
• Bobolink	• <i>Dolichonyx oryzivorus</i>
• Mourning Dove	• <i>Zenaidura macroura</i>

Fungi & Lichen Found



AMERICAN FLOURY AMANITA

Left- Photo on iNaturalist by Noah Siegel

Scientific Name - *Amanita farinosa*

- An uncommon mushroom found in coniferous or deciduous woodlands.
- It is poisonous, one of the most deadly mushrooms.
- Its cap is 2.5-7 cm in diameter with white gills. The gills are either attached to the stem or free.
- It can measure up to be 6.7 cm in height.
- The smell can be strong and that of mink.

EAR FUNGUS

Right- Photo on Flickr by Dushan Hanuska

Scientific Name - *Auricularia cornea*

- It is very common, a tough rubbery fungus that grows on any dead wood.
- It is 20-80mm in diameter.
- Is edible and has been commercially cultivated for food in China and East Asia

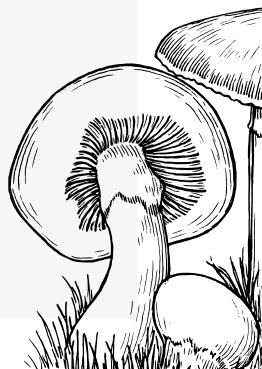


CANDLEFLAME LICHEN

Bottom Left- Photo on Flickr by Ryan Hodnett

Scientific Name - *Candelaria concolor*

- Can be found on bark, often in the branch axils and rain tracks of tree trunks. The bark is also nutrient rich and well-lit. Sometimes found on wooden fences and nutrient enriched rocks and walls.
- Common throughout the US.
- Minute lobes are up to 1 mm long with toothed edges.



Fungi & Lichen Found



COMMON GOLDSPECK

Left - Photo on Flickr by Richard Droker

Scientific Name - *Candelariella vitellina*

- Grows on rock, wood, and bark all over the world.
- Can be found in nutrient rich areas such as bird perches, silica-rich rocks, calcareous rock, and brick.
- Very common



CARBON ANTLERS

Right - Photo on Flickr by Hedera Baltica

Scientific Name - *Xylaria hypocylon*

- Grow on dead wood, such as rotting logs and stumps.
- Produces forked, antler-shaped fruiting bodies that grow 4-8cm tall on a thick stalk.
- Contains both anti-viral properties and compounds.

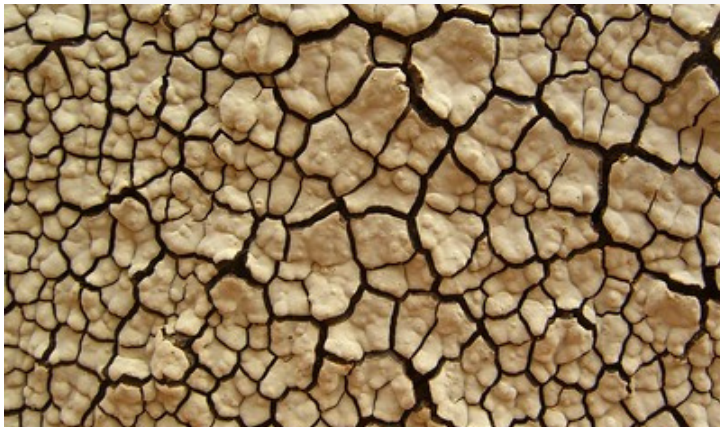


CERAMIC PARCHMENT

Left- Photo on Flickr by Jason Hollinger

Scientific Name - *Xylobolus frustulatus*

- Found on hardwood logs, particularly oak.
- Has individual fruitbodies .3-2 cm wide.
- Lives in colonies.
- Not edible.



LIPSTICK POWDERHORN

Right- Photo on Flickr by J.Maugn

Scientific Name - *Cladonia macilenta*

- A widespread and very common lichen, found all over the world except Antarctica.
- Grows on dead wood often on bases of trees.



Fungi & Lichen Found



GREY REINDEER LICHEN

Left- Photo on Flickr by Ruth Hartnup



Scientific Name - *Cladonia rangiferina*

- A fruticose lichen found in great abundance in Arctic lands serving as pasture for reindeer, moose, and caribou.
- Found in hot and cold environments, extremely cold-hardy.
- Can grow up to 8cm high
- Very slow growing 3-11mm per year.

COMMON SPLIT-GILL

Right- Photo on Flickr by Jason Hollinger

Scientific Name - *Schizophyllum commune*

- Grows in clusters on dead branches of deciduous trees. Very common.
- Shrivels up in dry conditions and then revives in wet ones.
- Not edible.



CORAL-PINK MERULIUS


Left- Photo on Flickr by Katja Schulz

Scientific Name - *Phlebia incarnata*

- Its bright color fades with age.
- Produces spores on edges as well as in between them.
- Grows on dead logs and stumps of deciduous trees.
- Can either grow singly or in layers.



REST OF FUNGI & LICHEN FOUND



“Bioblitzes provide biotic snapshots of the landscape and these snapshots can help land managers better understand the habitat that they are responsible for, and can help educators gain a fuller portrait of what natural wonders are present within an area, and what “stories” still need to be interpreted,” – Joe Villari, manager of Bull Run Mountains Natural Area Preserve.

Common Name

- Golden Moonglow Lichen
- False Turkey-Tail
- Firm Russula
- Common Script Lichen
- Grainy Shadow-Crust Lichen
- Smooth Shadow-Crust Lichen
- Mealy Rim-Lichen
- Zoned Dust Lichen
- Mile-white Toothed Polypore
- Mossy Maze Polypore
- Multicolor Gill Polypore
- Mortar Rim Lichen
- Shield Lichen
- Powdered Ruffle Lichen
- Black Sheet Lichen
- Mealy Shadow Lichen
- Orange-cored Shadow Lichen
- Wrinkly stinkhorn
- Willow Bracket
- Rosette Lichen
- Sulphur Dust Lichen
- Mealy Speckled Shield Lichen
- Rough Speckled Shield Lichen
- Reddish-brown Crust
- Smooth Chanterelle
- Stubby Brittle-gill
- Witch's butter
- Turkey-tail
- Violet Toothed polypore
- Bare-bottom Sunburst Lichen
- Cumberland Rock Shield

Scientific Name

- *Dimelaena oreina*
- *False Turkey-tail*
- *Firm Russula*
- *Graphis scripta*
- *Hyperphyscia adglutinata*
- *Hyperphyscia syncolla*
- *Lecanora strobilina*
- *Lepraria neglecta*
- *Milk-white Toothed Polypore*
- *Mossy Maze Polypore*
- *Multicolor Gill Polypore*
- *Myriolecis dispersa*
- *Parmelia sulcata*
- *Parmotrema hypotropum*
- *Parmotrema reticulatum*
- *Phaeophyscia orbicularis*
- *Phaeophyscia rubropulchra*
- *Phallus rugulosus*
- *Phellinus igniarius*
- *Physcia millegrana*
- *Psilolechia lucida*
- *Punctelia missouriensis*
- *Punctelia rudecta*
- *Reddish-brown Crust*
- *Smooth Chanterelle*
- *Stubby Brittle-gill*
- *Tremella mesenterica*
- *Turkey-tail*
- *Violet toothed Polypore*
- *Xanthomendoza weberi*
- *Xanthoparmelia cumberlandia*



Insecta Found

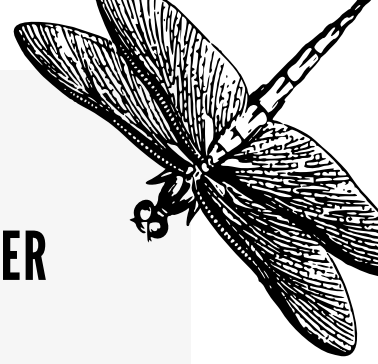


COMMON GREEN DARNER

Left- Photo on Flickr by Lisa Brown

Scientific Name - *Anax junius*

- Has a size of 68-80 mm
- Can be found anywhere, more commonly found by still marshy waters, fresh and slightly brackish.
- Both adults and naiads are predaceous.
- Eggs are laid beneath the water surface and are the only Darner to lay eggs in tandem.



POWDERED DANCER

Right- Photo on Flickr by Judy Gallagher

Scientific Name - *Argia moesta*

- Varying from 1.5-1.7 inches
- Can be found by rocky rivers and lakes with rocky shores.
- Males are blue, whereas females are brown



FAWN DARNER

Left- Photo on Flickr by Vicki DeLoach

Scientific Name - *Boyeria vinosa*

- Can be found by streams and rivers.
- They tend to stay away from open sunny areas, hiding in shady underbrush.
- Feed on spiders, damselflies, and other small prey.



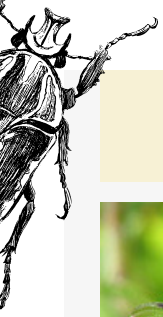
HALLOWEEN PENNANT

Right- Photo on Flickr by Vicki DeLoach

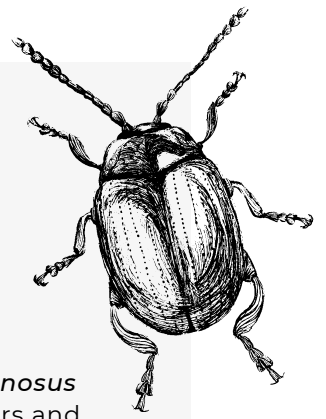
Scientific Name - *Celithemis eponina*

- Size ranges from 1.5-1.65 inches.
- The male and female do not separate until all the female's eggs are deposited.
- Can be found around freshwater habitats.
- Feed on smaller insects captured in flight.
- Can fly in rain and strong wind.





Insecta Found



EMERALD ASH BORER

Right- Photo on Flickr by Tom Murray

Scientific Name - *Agrilus planipennis*

- Adults feed on ash foliage, while larvae feed on the inner bark of ash tree.
- Adults are about .5 inches long.
- Most likely came from Asia in wood packing material.



BLACK-SHOULDERED SPINYLEG

Left- Photo on Flickr by Vicki DeLoach

Scientific Name - *Dromogomphus spinosus*

- Can be found in rocky, shallow rivers and streams.
- Have large leg spines for holding prey.
- Juveniles are bright yellow and turn pale olive with age.
- Approximately 2 inches long.



VETCH LOOPER MOTH

Left- Photo on Flickr by Mike Chapman

Scientific Name - *Caenurgia chloropa*

- Has a wingspan of 2.7-3.6 cm
- Feed on vetch and other legumes.
- Can be found anywhere in the grass.
- Mostly lives on the middle to the east coast of North America.

FIERY SEARCHER BEETLE

Right- Photo on Flickr by Judy Gallagher

Scientific Name - *Calosoma scrutator*

- One of the continent's largest beetles. 25-35 mm long.
- Found primarily in fields, gardens, deciduous forests hiding under logs and rocks.
- Prefers to hunt at night and feeds primarily on caterpillars.



Insecta Found

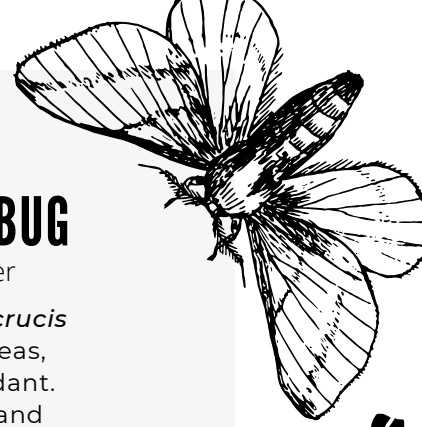


WHITE-CROSSED SEED BUG

Left- Photo on Flickr by Judy Gallagher

Scientific Name - *Neacoryphus bicrucis*

- Can be found in open grassy areas, where its food plants are abundant.
- Feeds primarily on groundsels and ragworts.
- Can range from 7-10 mm in size.



PUSTULATED CARRION BEETLE

Right- Photo on Flickr by Smithsonian Environmental Research Center.

Scientific Name - *Nicrophorus pustulatus*

- Feeds typically on dead animals, larvae has been found to parasitize snake eggs.
- Size ranges between 14-22 mm.
- Can be found in semi rural areas, attracted to light.



HORNED PASSALUS BEETLE

Left- Photo on Flickr by Katja Schulz

Scientific Name - *Odontotaenius disjunctus*

- Decomposes wood, feeds, on oak or elm trees.
- Can be found in high moisture levels
- Adults create auditory signals using an adapted abdomen and wing structure.



BASSWOOD LEAFROLLER MOTH

Right- Photo on Flickr by Kent McFarland

Scientific Name - *Pantographa limata*

- Larvae rolls in leaves, using silk to help do so, providing itself protection.
- Ranges up to 25-38 mm
- Feeds on basswood, oak, and rock elm.
- Can be found in deciduous forests.



INSECTA CONTINUED

Common Name	Scientific Name	Common Name	Scientific Name
• Stream Bluet	• <i>Enallagma exulans</i>	• North American Tarnished Plant Bug	• <i>Lygus lineolaris</i>
• Dragonhunter	• <i>Hagenius brevistylus</i>	• LD Moth	• <i>Lymantria dispar</i>
• Widow Skimmer	• <i>Libellula luctuosa</i>	• American Rose Chafer	• <i>Macroductylus subspinosus</i>
• Spot-winged Glider	• <i>Pantala hymenaea</i>	• Black-bordered Lemon Moth	• <i>Marimatha nigrofimbria</i>
• Common Whitetail	• <i>Plathemis lydia</i>	• Sculptured Resin Bee	• <i>Megachile sculpturalis</i>
• Black Saddlebags	• <i>Tramea lacerata</i>	• Elf Shoe Stink Bug	• <i>Meneclis insertus</i>
• Greater Oak Dagger	• <i>Acronicta lobeliae</i>	• Long-necked Seed Bug	• <i>Myodocha serripes</i>
• Common Gray	• <i>Anavitrinella pampinaria</i>	• White-crossed Seed Bug	• <i>Neacoryphus bicrucis</i>
• Least Skipper	• <i>Ancyloxypha numitor</i>	• Pustulated Carrion Beetle	• <i>Nicrophorus pustulatus</i>
• Western Honey Bee	• <i>Apis mellifera</i>	• Horned Passalus Beetle	• <i>Odontotaenius disjunctus</i>
• Wheel Bug	• <i>Arilus cristatus</i>	• Basswood Leafroller Moth	• <i>Pantographa limata</i>
• Tawny Emperor	• <i>Asterocampa clyton</i>	• Easterb tiger swallowtail	• <i>Papilio glaucus</i>
• Sachem	• <i>Atalopedes campestris</i>	• Grapevine Beetle	• <i>Pelidnota punctata</i>
• Meadow Fritillary	• <i>Boloria bellona</i>	• Eastern Amberwing	• <i>Perithemis tenera</i>
• Brown-belted Bumble Bee	• <i>Bombus griseocollis</i>	• Meadow spittlebug	• <i>Philaenus spumarius</i>
• Common Eastern Bumble Bee	• <i>Bombus impatiens</i>	• Common Eastern Firefly	• <i>Photinus pyralis</i>
• Brown Scoopwing	• <i>Calledapteryx dryopterata</i>	• Pearl Crescent	• <i>Phyciodes tharos</i>
• Ebony Jewelwing	• <i>Calopteryx maculata</i>	• Cabbage white	• <i>Pieris rapae</i>
• Chestnut Carpenter Ant	• <i>Camponotus castaneus</i>	• Common Whitetail	• <i>Plathemis lydia</i>
• Woody Underwing	• <i>Catocala grynea</i>	• Japanese Beetle	• <i>Popillia japonica</i>
• Tufted Bird-dropping Moth	• <i>Cerma cerintha</i>	• Milkweed Stem Weevil	• <i>Rhyssomatus lineaticollis</i>
• Margined Leatherwing Beetle	• <i>Chauliognathus marginatus</i>	• Banded Hairstreak	• <i>Satyrrium calanus</i>
• Green-striped Grasshopper	• <i>Chortophaga viridifasciata</i>	• Big-headed Ground Beetle	• <i>Scarites subterraneus</i>
• Dogbane Leaf Beetle	• <i>Chrysochus auratus</i>	• Dimorphic Sitochroa Moth	• <i>Sitochroa chortalis</i>
• Yellow-collared Scape Moth	• <i>Ciseps fulvicollis</i>	• Six-spotted Gray	• <i>Spargaloma sexpunctata</i>
• Seven-spotted Lady Beetle	• <i>Coccinella septempunctata</i>	• Sparganothis Fruitworm Moth	• <i>Sparganothis sulfureana</i>
• Clouded Sulphur	• <i>Colias philodice</i>	• Virginian Tiger Moth	• <i>Spilosoma virginica</i>
• Eastern Dobsonfly	• <i>Corydalus cornutus</i>	• Admirable Grasshopper	• <i>Syrbula admirabilis</i>
• Twice-stabbed Stink Bug	• <i>Cosmopepla lintneriana</i>	• Chinese Mantis	• <i>Tenodera sinensis</i>
• Common Green June Beetle	• <i>Cotinis nitida</i>	• Red Milkweed Beetle	• <i>Tetraopes tetrophthalmus</i>
• Eastern Tailed-Blue	• <i>Cupido comyntas</i>	• Banded Longhorn Beetle	• <i>Typocerus velutinus</i>
• Southern Masked Chafer	• <i>Cyclocephala lurida</i>	• Red Admiral	• <i>Vanessa atalanta</i>
• Monarch	• <i>Danaus plexippus</i>	• European Hornet	• <i>Vespa crabro</i>
• Rosy Maple Moth	• <i>Dryocampa rubicunda</i>		
• Eastern Hercules Beetle	• <i>Dynastes tityus</i>		
• Potato Leafhopper	• <i>Empoasca fabae</i>		
• Stream Bluet	• <i>Enallagma exulans</i>		
• Slender Bluet	• <i>Enallagma traviatum</i>		
• Salt Marsh Moth	• <i>Estigmene acrea</i>		
• Milkweed Tussock Moth	• <i>Euchaetes egle</i>		
• Variegated Fritillary	• <i>Euptoieta claudia</i>		
• Zebra Swallowtail	• <i>Eurytides marcellus</i>		
• Oriental Beetle	• <i>Exomala orientalis</i>		
• European Earwig	• <i>Forficula auricularia</i>		
• Chickweed Geometer Moth	• <i>Haematopis grataria</i>		
• Brown Marmorated Stink Bug	• <i>Halyomorpha halys</i>		
• Clymene Moth	• <i>Haploa clymene</i>		
• Asian Lady Beetle	• <i>Harmonia axyridis</i>		
• Pennsylvania Dingy Ground Beetle	• <i>Harpalus pensylvanicus</i>		
• Snowberry Clearwing	• <i>Hemaris diffinis</i>		
• Cecropia Moth	• <i>Hyalophora cecropia</i>		
• Green Cloverworm Moth	• <i>Hypena scabra</i>		
• Giant Leopard Moth	• <i>Hypercompe scribonia</i>		
• Scalloped Sack-bearer Moth	• <i>Lacosoma chiridota</i>		

Gardens are made up of so much more than plants. A healthy garden thrives with a wide variety of organisms, and some of its most significant residents are insects – the creepy-crawly critters that pollinate plants, eat and are eaten by other creatures, and generally help keep things up and running.



Plantae Found



BUTTONBUSH

Left- Photo on Flickr by Dennis Church

Scientific Name - *Cephalanthus occidentalis*

- A multi-stemmed shrub that grows up to 6-12 feet tall.
- Suited to wet soils, a honey plant producing nectar to attract pollinators.
- Has poisonous foliage and spreads easily.
- Requires partly shaded areas.



MUSK THISTLE

Right- Photo on Flickr by F.D Richards

Scientific Name - *Carduus nutans*

- They are an invasive species.
- Colonizes in pastures, roadside ditches, ditch banks, and hayfields.
- A biennial herbaceous plant, between 1-7 feet tall.
- Has a fibrous taproot.



AUTUMN OLIVE

Left- Photo on Flickr by Scott Zona

Scientific Name - *Elaeagnus umbellata*

- A deciduous shrub native to Asia and invasive to North America.
- Spreads rapidly across forest edges, roadsides, meadows, and grasslands.
- Can grow up to 20 ft tall and 30 ft wide.
- Produce red berries that are edible.

CALLERY PEAR

Right- Photo on Flickr by Thomas Cizauskas

Scientific Name - *Pyrus calleryana*

- A tree that has invasive traits causing it to spread aggressively.
- Can grow up to 50 ft tall and 35 ft wide.
- Requires direct sunlight.
- Prefers moist soil.



Plantae Found



NODDING SPURGE

Left- Photo on Flickr by Melissa McMasters

Scientific Name - *Euphorbia nutans*

- A summer annual plant
- Can be found in dry upland areas of prairies, thickets, and pastures.
- Prefers full sunlight, poor soil, and dry conditions.
- Hairless stems.

AMERICAN POKEWEED

Right- Photo on Flickr by Dandelion Salad

Scientific Name - *Phytolacca americana*

- Can grow up to 6-10 ft tall.
- Can be found at forest edges, pastures, forest openings.
- The entire plant is poisonous, especially its berries.
- Mockingbirds and cardinals feed on berries.



RIBWORT PLANTAIN

Left- Photo on Flickr by hedera.baltica

Scientific Name - *Plantago lanceolata*

- Edible.
- Can be found in fields, meadows, roadsides, parks, and even sand dunes.
- Hardy plant.
- Can be used as an antihistamine, antioxidant, and dealing with nettle stings or bug bites.

LONG-LEAVED GROUNDCHERRY

Right- Photo on Flickr by Matthew Beziat

Scientific Name - *Physalis longifolia*

- Perennial forb that grows up to 1-3 ft tall.
- Can be found in dry areas including prairies, woods, and disturbed soils.
- Prefers full sun.
- Invasive species.
- Fruit is edible.



Plantae Found



MEADOW SALSIFY

Left- Photo on Flickr by Dan Mullen

Scientific Name - *Tragopogon pratensis*

- Invasive plant, native to Eurasia.
- Can be found in grasslands, near forests, old farm fields.
- Can grow up to 60 cm tall.
- Flowers open in morning and close early afternoon.
- Can be used as a medicinal plant.

SQUARROSE SEDGE

Right- Photo on Flickr by Kerry Wixted

Scientific Name - *Carex squarrosa*

- Can be found in wet areas of bottomland, prairie swales, swamps.
- Prefers partial sun and shade and wet to moist conditions.
- Many insects are adapted to feed on them.



FORGET-ME-NOTS

Left- Photo on Flickr by John Munt

Scientific Name - *Myosotis*

- Can be found in moist mountainous areas on wooded slopes and grassy meadows.
- Has invasive tendencies.
- About 1 ft tall.

RUSH SKELETONWEED

Right- Photo on Flickr by Peter Stevens


Scientific Name - *Chondrilla juncea*

- Can grow up to 1-5 ft tall. Taproot can grow up to 7 ft deep.
- Can be found in pastures, rangeland, cropland, roadsides.
- Mature plants produce between 1,500-20,000 seeds.
- Noxious weed.



PLANTAE CONTINUED

Common Name	Scientific Name	Common Name	Scientific Name
• White clover	• <i>Trifolium repens</i>	• Wild cherry	• <i>Prunus avium</i>
• Common dandelion	• <i>Taraxacum officinale</i>	• White oak	• <i>Quercus alba</i>
• Spotted spurge	• <i>Euphorbia maculata</i>	• White ash	• <i>Fraxinus americana</i>
• Hairy crabgrass	• <i>Digitaria sanguinalis</i>	• Eastern cottonwood	• <i>Populus deltoides</i>
• Timothy grass	• <i>Phleum pratense</i>	• Tree-of-heaven	• <i>Ailanthus altissima</i>
• Carolina horsenettle	• <i>Solanum carolinense</i>	• Downy rattlesnake plantain	• <i>Goodyera pubescens</i>
• Chicory	• <i>Cichorium intybus</i>	• Winged euonymus	• <i>Euonymus alatus</i>
• Great mullein	• <i>Verbascum thapsus</i>	• Northern maidenhair fern	• <i>Adiantum pedatum</i>
• Common milkweed	• <i>Asclepias syriaca</i>	• Wineberry	• <i>Rubus phoenicolasius</i>
• Wild bergamot	• <i>Monarda fistulosa</i>	• White campion	• <i>Silene latifolia</i>
• American germander	• <i>Teucrium canadense</i>	• Catnip	• <i>Nepeta cataria</i>
• Wild teasel	• <i>Dipsacus fullonum</i>	• Virginia creeper	• <i>Parthenocissus quinquefolia</i>
• Broomsedge bluestem	• <i>Andropogon virginicus</i>	• Dwarf cinquefoil	• <i>Potentilla canadensis</i>
• Broad-winged thistle	• <i>Carduus acanthoides</i>	• Orange mullein	• <i>Verbascum phlomoides</i>
• Hop trefoil	• <i>Trifolium campestre</i>	• Eastern redcedar	• <i>Juniperus virginiana</i>
• Swamp milkweed	• <i>Asclepias incarnata</i>	• Common wrinkle-leaved goldenrod	• <i>Solidago rugosa</i>
• American persimmon	• <i>Diospyros virginiana</i>	• Grey-headed coneflower	• <i>Ratibida pinnata</i>
• Blue mistflower	• <i>Conoclinium coelestinum</i>	• White mulberry	• <i>Morus alba</i>
• Sweet vernal grass	• <i>Anthoxanthum odoratum</i>	• Yellow salsify	• <i>Tragopogon dubius</i>
• Red clover	• <i>Trifolium pratense</i>	• Yellow nutsedge	• <i>Cyperus esculentus</i>
• Scarlet pimpernel	• <i>Lysimachia arvensis</i>		
• Beefsteak plant	• <i>Perilla frutescens</i>		
• Common yarrow	• <i>Achillea millefolium</i>		
• Common jewelweed	• <i>Impatiens capensis</i>		
• Hemp dogbane	• <i>Apocynum cannabinum</i>		
• Common st. John's-wort	• <i>Hypericum perforatum</i>		
• Japanese honeysuckle	• <i>Lonicera japonica</i>		
• Moth mullein	• <i>Verbascum blattaria</i>		
• Deptford pink	• <i>Dianthus armeria</i>		
• Swamp agrimony	• <i>Agrimonia parviflora</i>		
• Honey locust	• <i>Gleditsia triacanthos</i>		
• Oxeye daisy	• <i>Leucanthemum vulgare</i>		
• American sycamore	• <i>Platanus occidentalis</i>		
• Black-eyed susan	• <i>Rudbeckia hirta</i>		
• Wild carrot	• <i>Daucus carota</i>		
• Blackhaw	• <i>Viburnum prunifolium</i>		
• Common selfheal	• <i>Prunella vulgaris</i>		
• Sassafras	• <i>Sassafras albidum</i>		
• Flowering dogwood	• <i>Cornus florida</i>		
• Spotted st. John's wort	• <i>Hypericum punctatum</i>		
• Asiatic dayflower	• <i>Commelina communis</i>		
• Green comet milkweed	• <i>Asclepias viridiflora</i>		
• Butterfly milkweed	• <i>Asclepias tuberosa</i>		
• Stringy stonecrop	• <i>Sedum sarmentosum</i>		
• Roundleaf greenbrier	• <i>Smilax rotundifolia</i>		
• Mile-a-minute weed	• <i>Persicaria perfoliata</i>		
• Common mugwort	• <i>Artemisia vulgaris</i>		
• Ghost pipes	• <i>Monotropa uniflora</i>		
• Curled dock	• <i>Rumex crispus</i>		
• Poison ivy	• <i>Toxicodendron radicans</i>		
• Bay forget-me-not	• <i>Myosotis laxa</i>		
• Creeping thistle	• <i>Cirsium arvense</i>		
• Wild garlic	• <i>Allium vineale</i>		
• White avens	• <i>Geum canadense</i>		



Bunny Mellon once said, "Too much should not be explained about a garden. Its greatest reality is not reality, for a garden, hovering always in a state of becoming, sums its own past and its future. A garden, like a library, is a whole made up of separate interests and mysteries."