





Cranefly Orchid Found in Lowe-Volk Park!

Last autumn, three Cranefly Orchid (Tipularia discolor) leaves were discovered amidst the fallen leaves on the forest floor at Lowe-Volk Park. These shiny, fresh leaves seemed out of place in November, as most plants are typically entering a period of dormancy for the winter. Cranefly Orchid is unusual in that it does most of its photosynthesizing during winter months when the canopy of the deciduous forest is open, allowing an abundance of sunlight to reach the orchid leaves. When trees leaf out in spring, the Cranefly Orchid's leaf senesces, or dies back, and a new one won't grow until late autumn. This was an exciting find, since there are no historical records of Cranefly Orchid being found in Crawford County. Though the species is common in the more heavily forested southern and northeastern areas of the state, it seems to be rare around here, and ours is the northwestern-most record in Ohio.

A Cranefly Orchid must be at least four years old to flower and can only produce a flower stalk if it has stored enough energy in its underground corm. Therefore, we were ecstatic to find one of the three individuals blooming in early August! Though Cranefly Orchid won't be winning any floral beauty pageants, its unique flower structure and pollination method are something to be admired. The sugary reward in its extra-long nectar spur can only be accessed by Noctuid moths with correspondingly long proboscises, or tongues. A close inspection of one of these flowers



Cranefly Orchid has an understated beauty. It blooms in early August, nearly four months after its solitary leaf has withered away.

reveals a strange asymmetry: all of the flower's parts are either to the right or to the left of its nectar spur. This is not an accident—when the moth is probing deeply for nectar, its eye is forced against a pollinium, or sticky sac of pollen, which becomes glued to the moth's eye. Pollination of the orchid then occurs if this pollinium becomes detached on the female flower part when the moth is drinking from a different flower. (continued on next page)

Oddly enough, the Armyworm Moth, a common agricultural pest, is one of the main pollinators of Cranefly Orchid. Nine out of twenty-five flowers on our single inflorescence were successfully pollinated and are currently fruiting. In addition to seed dispersal, this orchid can reproduce vegetatively via corms. Either way, we are hopeful that our Cranefly Orchid population continues to grow!





Moths, including this Common Looper, are the sole pollinators of Cranefly Orchid.



A close-up of one individual flower reveals its super long nectar spur. Any moth feeding deeply from this flower would have its right eye forced against a pollinium, or pollen sac, thus aiding in the orchid's pollination.

Three Cranefly Orchid leaves were discovered in early November. They take advantage of the greater amount of sunlight reaching the forest floor by photosynthesizing all winter. In person, the foliage has a plasticky appearance, with plum-colored undersides.

Silhouette Hike Continues!

September-October Sunrise-Sunset All parks

This fall, continue to be on the lookout for "animals" along the trails at all six of our parks. Snap a picture when you find each animal silhouette and send them to the CPD by email _____

(webmaster@crawfordparkdistrict.org) or messenger. Once you let us know you found all six animals, you'll receive a button of your favorite animal silhouette. You will also be entered into a drawing for a prize basket that includes a coupon for early camp registration/no wait for registration for your immediate family! Each month the animals will make a move to a new spot in the park, giving you the opportunity to have your name entered into the drawing three times! There is an additional large silhouette that will be lurking about the different parks. If you capture a picture of this "big" animal, you will receive an additional button! Silhouettes can be found at Lowe-Volk Park, Sandusky Headwaters Preserve, Unger Park, Heckert Nature Preserve, Sears Woods, and Daughmer Savannah.



All programs are free of charge, unless otherwise noted. For more information or questions about programs, call 419-683-9000, or visit www.crawfordparkdistrict.org

<u>September</u>

Homeschool in Nature: Trees

Thurs, Sept. 1 10am & 2pm Lowe-Volk Park

Starting our school year off, we will investigate the different trees in the park. We will look at the different characteristics of each tree's leaves to identify it on our chart. Call the Park District at 419-683-9000 to register your 5–12-year-old.

Monarch Tagging

Wednesday, September 7 5pm Unger Park

Learn about the life cycle of the Monarch butterfly, its need for milkweed plants, and their amazing migration to Mexico. You will have an opportunity to help Kansas University with Monarch migration and population research by attempting to capture, tag, and release Monarch butterflies. All ages welcome. Nets will be provided.

Caterpillar Hunt Friday, September 9 8pm Lowe-Volk Park

Late summer is peak time for finding caterpillars, and many of them glow under ultraviolet light at night! Join Naturalist Chelsea to learn about the fascinating world of caterpillars. When darkness falls, we will use UV lights and flashlights to search for caterpillars and



other nocturnally active creatures in our park. We'll also have a mothing sheet up to see which magnificent moths are flying. Fun for all ages!

Mysterious Galls Saturday, September 10 2pm Unger Park

Plant galls come in all shapes, sizes, and colors—you may even have some growing on your trees or flowers! Join gall expert Timothy Frey for a hike through Unger's prairie and along the woods to search for galls. We'll learn about the fascinating life cycles of the insects and other organisms that cause them to form as well as some basic gall identification. Tim has a PhD in plant pathology from the Ohio State University,

where he studied gall-forming nematodes. Galls are his passion, and he travels around the state documenting their presence and abundance. Tim is also an administrator for a great new gall resource, gallformers.org, where he and his colleagues are working to compile a comprehensive database and identification tool for gall-forming organisms in the United States and Canada. For more information about galls, see the article in this newsletter on page 10.

Little Explorers: Bugs Monday, September 12 5pm Lowe-Volk Park

Little **Explorers** an interactive program for young children, ages 0-5. Activities focus on stimulating infants' senses and engaging toddlers' fine motor skills. This month we'll explore insects and other invertebrates at different stages of their life cycles! Please dress for the weather.



Marvelous Milkweed

Wednesday, September 14 5pm Lowe-Volk Park

Though milkweed contains compounds that are toxic to most herbivores, several insects (including the endangered Monarch) only eat milkweed, shunning other plants. Join Naturalist Chelsea for an interactive



program to learn about these milkweed Seeds specialists. several species, including Butterfly Weed Purple Milkweed, will be available to take home for planting. We will also help Kansas University with Monarch research by attempting to capture, tag, and release Monarch butterflies!





September

Fall Migration Bird Banding Fri, Sept. 16 8am-12pm Sandusky Headwaters

Bander Bob Placier will bring his mist nets to see which birds might be passing through Sandusky Headwaters Preserve on their journey southward. Join Bob and CPD staff for a fun morning learning about our migratory birds. Stop by for a little bit or stay for the duration of the program. A bird in the hand is better than two in the bush!

Birding: Fall Migration Saturday, September 17 8am Lowe-Volk Park

Autumn is gearing up and fall migration is in full swing! Join Land Manager and Naturalist Kyle Bailey for an interactive, family-friendly program suitable for all ages. This program will focus



on birding basics such as learning how to identify common Ohio species, when and where to bird, how to bird, what to look for, and much more! Species we are likely to encounter include warblers, vireos, thrushes, flycatchers, sparrows, and more! Some binoculars will be available first come, first served.

Stewardship: Woody Invasive Species Saturday, Sept. 17 11am Sandusky Headwaters

Do you enjoy getting your hands dirty while contributing to preserving our native habitats? Then come out and assist Land Manager Kyle Bailey with removing unwanted woody species. We will begin with a brief introduction about stewardship and our target species before heading out into the field. Closed-



toe shoes are required; long sleeves and pants are suggested. There is a possibility of contact with Poison Ivy. Dress for the weather. Some gloves and loppers will be available.

Spectacular Spiders

Saturday, September 17 2pm Lowe-Volk Park

Spiders are beneficial garden predators that help keep pest insect numbers down. Often misunderstood and underappreciated, this program aims to dispel common myths about spiders. We'll also



explore the diversity in size, shape, color, and overall appearance of these amazing creatures. Join Land Manager and Naturalist Kyle Bailey as we explore Lowe-Volk Park in search of our eight-legged friends. Photography is welcome and encouraged.

Seed Collection Sunday, September 18 1pm Unger Park

Come out to Unger Park for our second annual Prairie Seed Collection event. Seed collection aids the CPD in creating new prairies or bolstering plant populations in established prairies. Land Manager Kyle Bailey will assist you with plant and seed identification. Paper bags to collect seeds, hand pruners, and some gloves will be provided. Participants will get to take some seeds home to establish their own native prairie garden.

Prairie Wildflowers Sunday, September 18 3pm Salem Prairie

The tall-grass prairies of Ohio are renowned for their late summer displays of wildflowers. The Salem Prairie is a restoration project that is in its 15th year, and it is now one of the best prairies in northern Ohio. Meet Warren Uxley at Salem Cemetery on Lower Leesville Road, just east of Parcher Road.

Archery

Monday, September 19 5-7pm Lowe-Volk Park

Whether for sport, food, or fun, archery is a great outdoor activity that gets us away from the gadgets of life, allowing us to focus on one thing: hitting the target. Join us for an archery shoot that will include an introduction to archery safety and shooting basics. All equipment will be provided. Please call the Park District at 419-683-9000 to register.





September/October

Monarch Tagging Wednesday, September 21 5pm **Buckeve Central Outdoor Learning Lab**

Learn about the life cycle of the Monarch butterfly, its need for milkweed plants, and their amazing migration to Mexico. You will have an opportunity to help Kansas University with Monarch



migration and population research by attempting to capture, tag, and release Monarch butterflies. All ages welcome. Nets will be provided.

Sandusky River Clean Sweep Sat, Sept. 24 9am-12pm Sandusky Headwaters

Volunteer to help remove trash from the Sandusky River. All volunteers are welcome, but if you register prior to the event, you'll receive a free T-shirt and snack bag! Please dress to be in the stream with closed -toe footwear; sunscreen and bug spray suggested. Trash bags and gloves will be provided. See flier on page 12 for registration details.

Feeding Day

Sunday, September 25 1pm Lowe-Volk Park

The animals that reside in the Nature Center get a variety of food. Some prefer worms or mice while others gobble up leafy greens and vegetables. Stop by to help Lisa feed some of our animal ambassadors.

Pickin' Pawpaws

Monday, September 26 5pm Sears Woods

"Pickin' up pawpaws, puttin' em in her pocket!" Come on a hike with CPD Staff to learn about and search for our largest native fruit... the pawpaw! If the pickins are ripe and ready, we will have a tasty snack!

Canoeing

Wednesday, September 28 5-7pm Neff Reservoir

Stop out for an evening paddle around Neff Reservoir. After a lesson on canoeing basics and safety, we will send you out on the water! Please wear shoes that can get wet. No registration required, but it will be first come, first served.

Fireside with Johnny Appleseed Thusday, September 29 7:30pm Unger Park

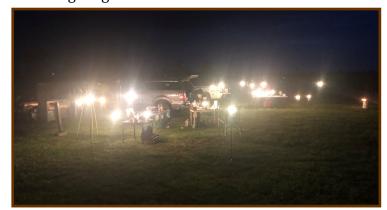
Enjoy a peaceful evening around a campfire while listening to John Chapman tell his tale. Better known as Johnny Appleseed, Chapman traveled from Massachusetts to Indiana, spreading "the good news", all the while making sure early pioneers had a valuable resource: apples. Bring your family and lawn chairs.





Coleman Lanterns: Sunshine of the Night Saturday, October 1 7pm Lowe-Volk Park

Gas pressure appliances have been around for over 100 years, and Coleman continues to produce lanterns today. A Coleman lantern is synonymous with the outdoors, with millions of lanterns produced over the years. Join Josh and other Coleman collectors to learn about the history of Coleman lanterns, how lanterns work, and most importantly, how to fix them. After the presentation, stay for a glorious light up. Bring your old lantern, and let's see if we can make it the Sunshine of the Night again!



Homeschool in Nature: Invertebrates Thursday, Oct. 6 10am & 2pm Lowe-Volk Park

While there are more than one million species of invertebrates worldwide, thousands of them can be found in Ohio. This month we will explore the park looking for, learning about, and holding some of these animals. Call the Park District at 419-683-9000 to register your 5-12-year-old.





October

Annual Big Sit Saturday, October 8 7am Lowe-Volk Park

Join Land Manager and Naturalist Kyle Bailey for the second annual Crawford Park District Big Sit. A "Big Sit" is a 24-hour non-competitive international birding event that aims at identifying as many birds as possible from within a 17-foot diameter circle. This event will be held at Lowe-Volk Nature Center beginning at dawn and running until dusk. Come enjoy donuts and cider and help us find some birds!

Canoeing Sunday, October 9 1-3pm Neff Reservoir



Stop out for an afternoon paddle around Neff Reservoir. After a lesson on canoeing basics and safety, we will send you out on the water! Please wear shoes that can get wet.

No registration required, but it will be first come, first served.

Halloween Family Fun Night Saturday, October 15 6-9pm Lowe Volk Park

Come to Lowe-Volk Park and celebrate with a night filled with fall fun! Dress in your Halloween costume or just come to enjoy the activities. There will be a bonfire, face painting, nature art, wagon rides, and a treat bag for kids. Bring a flashlight and go on a guided night hike through the haunted woods or go on a self-guided clue hike around the grass mounds. Fun for the whole family!

Seed Collection Sunday, October 16 2pm Salem Prairie

Grass seed will be collected from areas of Salem that have abundant prairie grasses and then spread to those zones that are dominated by less desirable plant species. Meet Warren Uxley at Salem Cemetery on Lower Leesville Road, just east of Parcher Road.

Little Explorers: Pumpkins Monday, October 17 5pm Lowe-Volk Park

Little Explorers is an interactive program for young children, ages 0-5. Activities focus on stimulating infants' senses and engaging toddlers' fine motor skills. This month we'll explore pumpkins of various colors, shapes, and textures—both



inside and out! Please dress for the weather.

Archery Pumpkin Shoot Wednesday, October 19 5-7pm Unger Park

Finishing out our archery programming this year, we will have our annual pumpkin shoot! Join Lisa and Josh for a fun evening of shooting pumpkins with arrows. We are going to test your archery skills with smaller targets. All equipment and pumpkins will be provided. Please call the Park District at 419-683-9000 to register.

Birding: Fall Migration Saturday, Oct. 22 8am Heckert Nature Preserve



Autumn is here, and fall migration is nearly over. Join Land Manager and Naturalist Kvle **Bailey** for an interactive, familyfriendly program suitable for all ages. This program

will focus on birding basics such as learning how to identify common Ohio species, when and where to bird, how to bird, what to look for, and much more! Species we are likely to encounter include late warblers, vireos, thrushes, kinglets, and more! Some binoculars will be available on a first-come, first-served basis.



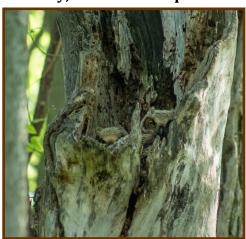


October/November

Stewardship: Woody Invasive Species Saturday, October 22 11am Sears Woods

Do you enjoy getting your hands dirty while contributing to preserving our native habitats? Then come on out and assist Land Manager Kyle Bailey with removing unwanted woody species. We will begin with a brief introduction about stewardship and our target species before heading out into the field. Closed -toe shoes are required; long sleeves and pants are suggested. There is a possibility of contact with Poison Ivy. Dress for the weather. Some gloves and loppers will be available.

Owl Prowl Saturday, October 22 7pm Lowe-Volk Park



Did vou know that Ohio home to eight species of owls, with only four species being full -time residents? Come out to learn about these amazing avian predators of the night. We will meet in the

Nature Center to discuss the natural history of owls before heading out onto the property to listen and look for owls.

Feeding Day Monday, October 24 5pm Lowe-Volk Park

Our animal ambassadors get a variety of foods. Some prefer worms or mice while others gobble up leafy greens and vegetables. Stop by and help prepare some of the animals' meals to feed to them.

Homeschool in Nature: Habitracks Thursday, Nov. 3 10am & 2pm Lowe-Volk Park

This month is a mix of learning about an animal's needs in its habitat and reading a map! Dress for the weather. Call the Park District at 419-683-9000 to register your 5–12-year-old.

Saw-Whet Owls Friday, November 4 6pm Lowe-Volk Park



Secretive and nocturnal, Saw-whets are Ohio's smallest owl. With a handful of nesting records in Ohio, Saw-whets breed mostly in northern boreal forests, with some venturing south in the fall and winter months. Bird bander Bob Placier will bring his mist

nets back to Lowe-Volk to gather data on these diminutive owls. A PowerPoint presentation will be followed by checks of the mist nets in the hopes of catching a few of these nocturnal flyers. Between net checks, there will be a campfire to enjoy the fall evening. Dress for the weather and bring a flashlight! Fun for the whole family!

Fall Bird Banding

Saturday, Nov. 5 8am-12pm Lowe-Volk Park

Fall bird banding gives us insight into bird populations that remain in or come to Crawford County for the winter. Bob Placier will have his nets open to see who is hanging around this time of year. Fun for all ages!

Nature Hike

Sunday, November 6 3pm Daughmer Savannah

The russet colors of the grassland habitat at Daughmer make a pleasing display in November. And, the bird activity at this time is radically different from what is experienced during the summer months. Join Warren Uxley for an autumn hike through the savannah.

Little Explorers: Leaves Monday, November 7 5pm Lowe-Volk Park

Little **Explorers** an program interactive for voung children, ages 0-5. Activities focus on stimulating infants' senses and engaging toddlers' fine motor skills. This month we'll explore beautiful fall foliage! Dress for the weather.







November

Birding: Winter Birds Saturday, Nov. 12 8am Sandusky Headwaters

Autumn is ending, and fall migration is almost complete as shore birds and forest dwellers have left Ohio for their winter grounds. Waterfowl



migration is the main attraction of November as numbers ramp up in the latter half of the month. Join Land Manager and Naturalist Kyle Bailey for an interactive, family-friendly program suitable for all ages. This program will focus on birding basics such as learning how to identify common Ohio species, when and where to bird, how to bird, what to look for, and much more! Species we are likely to encounter include kinglets, sparrows, creepers, juncos, and more! Please bring binoculars or cameras to better view the birds, but some binoculars will be available.

Looking at Nature's Micro World Saturday, November 12 10am Lowe-Volk Park

Come and explore the small things in nature by learning how to use a variety of magnifying lenses, microscopes, stereo microscopes, digital microscopes, binoculars, and even a camera to make the small things in nature appear large and close-up. You will have hands-on opportunities to use the magnifiers to explore the small things in our natural world. This class is especially designed for ages 5-12. Call the Park District at 419-683-9000 to register, but walk-ins are welcome.

Stewardship: Woody Invasive Species Saturday, November 12 11am Lowe-Volk Park

Do you enjoy getting your hands dirty while contributing to preserving our native habitats? Then come on out and assist Land Manager Kyle Bailey with removing unwanted woody species. We will begin with a brief introduction about stewardship and our target species before heading out into the

field. Closed-toe shoes are required; long sleeves and pants are suggested. There is a possibility of contact with Poison Ivy. Dress for the weather. Some gloves and loppers will be available.

Owl Prowl

Saturday, November 12 7pm Lowe-Volk Park

Did you know that Ohio is home to eight species of owls, with only four species being full-time residents? Come out to learn about these amazing avian predators of the night. We will meet in the Nature Center to discuss the natural history of owls before heading out onto the property to listen and look for owls.

Feeding Day Sunday, November 13 1pm Lowe-Volk Park

Join Lisa to help feed some of the animals that reside in the Nature Center. Help prepare food for the box turtles, or dangle a worm for the snapping turtles to grab. Don't forget the snakes would love a mouse too!



Nature Hike

Sunday, November 27 2pm Sears Woods

The last flowering plants and insects of the year can be seen along the trail at Sears Woods. Everything from dragonflies to migrating warblers is possible during this time of seasonal transition. Join Warren Uxley for a late autumn hike through this mature forest.



The Joys of Nature Camp!

















A specialist of Bur Oak, this *Acraspis villosa* gall was discovered at Daughmer Savannah.

What are Those Balls? Galls!

Perhaps you have noticed weird, ball-like plant growths while hiking through a park or even in your own backyard. These abnormalities growing on trees or other plants, called galls, are commonly formed by insects but are also caused by viruses, bacteria, fungi, or mites. Insect galls are typically species-specific as well as tissue-specific, meaning the insect only lays its eggs on one species of plant (e.g., Pin Oak) and in one part of the plant (e.g., a leaf bud). Unless it's from a previous year, when you see a gall there is likely a tiny insect larva within it. The gall serves as the larva's mini habitat, providing

both food and shelter as it grows and pupates.

One of the most interesting and conspicuous gall formers are cynipid

wasps. These minuscule wasps cannot sting and are likely to be mistaken as gnats, if you even notice them at all. There are over 700 species in North America alone, most of which are oak specialists. Female cynipid wasps must time their ovipositing, or egg laying, during spring when cells within oak buds are rapidly dividing. Along with the egg, plant growth regulators are injected, resulting in the abnormal growth of plant tissue that forms the gall. As the leaf or twig grows, so does the gall. The wasp larva eats, grows, and pupates inside, typically waiting until the following spring to emerge as an adult wasp. However, some species of cynipid wasps have alternating generations, with a generation of wasps quite different in appearance (both galls and adults) than the "normal" generation. This first generation emerges in late June and consists of only parthenogenetic females—that is, females who can lay eggs without mating. The larvae from these eggs then develop within "normal" galls, with both male and female adults emerging the following spring.

While it may seem as if these galls are ready-made fortresses—most of them are very hard and some are even covered in spikes—they are, in fact, popular snacks for other animals. Larger predators include songbirds, woodpeckers, and squirrels. However, the succulent wasp larva tucked within a gall is more likely to succumb to predation by a fellow arthropod. Most frequently other wasps, but also moths and beetles, either prey on cynipid wasps or co-opt their gall space to use as their own. Incredibly, one species of chalcid wasp, known ominously as the Crypt-keeper Wasp, can "mind control" its cynipid larval host. Upon hatching, the Crypt-keeper Wasp larva burrows into the cynipid wasp



Some galls, like this Oak Rough Bulletgall Wasp, secrete honeydew, a sugary liquid ants love to drink. The ants, in turn, provide protection from parasitoid wasps and other predators.

larva, somehow manipulating it to fast-forward its development. This results in early pupation of the host into an adult wasp. Now, rather than chewing an exit hole and emerging from the gall as the cynipid wasp normally would, its unwelcome

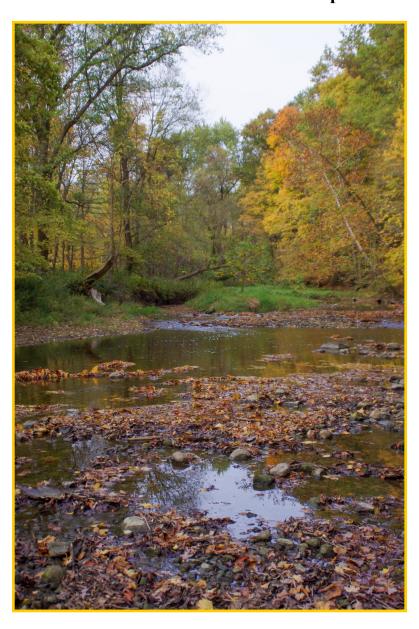


This Oak Gall Borer Moth is an exceptional wasp mimic. Its caterpillars bore into cynipid galls, feeding and growing on the oak tissue within.

inhabitant forces it to chew a hole too small for it to squeeze through. The cynipid wasp's head becomes stuck in the hole, where it remains while it is eaten alive by the Crypt-keeper Wasp larva. Upon its own pupation the following spring, this body usurper gnaws through the host wasp's head/plug, escaping to freedom.

Galls rarely cause enough damage to seriously harm a plant or a tree, especially in a forest setting. However, trees planted in a yard can be susceptible to hosting more galls than is typical in a natural setting. Please keep in mind that though the galls may be unsightly to you, they are vital to ecosystems, providing food and shelter for numerous other species. Attempting to remove galls from a tree can cause harm by exposing it to infection. Likewise, trying to spray them with insecticides will have little effect on the galler itself but will instead deter the galler's many natural predators from keeping its population in check. To learn more about galls, join CPD staff as we welcome gall expert Tim Frey, who will be leading a gall-centric hike through the prairie and along the woodland edge of Unger Park on Saturday, September 10 at 2pm. The scientific study of galls is known as cecidology, so it seems we can call Tim a cecidologist! See the description for this program on page 3.

A Forest Of Stories Philip H Cichanowicz (Phc)



Early one morning I decided to walk a well-worn and well-known path through a forest of the Park District. I certainly did not expect the hike to be different from the last hundred. But it was.

Inside the edge of the forest where the path began, the leaves turned the full sunlight into narrow beams of spotlights. I sensed the motion of reflected light. The white beam was reflected from a spiderweb. Not the entire web; just a section which moved in and out of the beam as the web floated on a wisp of air. There was another web immediately next door. And another. And more. Each with its own reflected patch of light. Not one web, but a symphony of webs moving in many sunbeams. Some were finished with their spokes and circles. Some were under construction with a spider moving away from the center, moving sideways, moving back to the center. Repeat. Like a mesmerizing symphony, I was drawn from player to player.

I took a side path toward the river, and I was about ten feet from the water when I heard it before I saw it. I knew that sound. A Great Blue Heron had taken flight from the shallow water where it had been standing. I swiveled. Those wide wings were flapping a few feet above the river following the centerline. With a sharp right turn at full speed, it disappeared into the trees.

This river was usually flowing and muddy-brown, but now the water was extremely low with barely a ripple. The water was surprisingly crystal clear; I could see pebbles and small rocks covering much of the bottom. I could see new patterns and colors in a river enticing me to look.

I walked along the bank until I reached a peaceful spot

not far from a sharp bend in the river. Across from me was a ravine that funneled a small stream into the river, and the ravine curved to the right, disappearing behind a small area of waist-high vivid green dense grass. Both riverbanks were completely lined with trees whose roots were half-in and half-out of the eroding dirt. Near this tight bend, though, the flow of the river had cleared all the trees, leaving this larger, sole patch of silt where the grass blanketed it.

I stared at the grass barely moving in the faint breeze. The grass rustled loudly, and the deer jumped straight up. It seemed to twist in midair as it angled itself away from me. It bounded. It stumbled and fumbled over things it could not see in the grass, disappearing behind the grass when it reached the ravine. And I watched the grass sway in the breeze.

Back on the main path, I saw it before it saw me. The raccoon was at the base of a tree that was not much wider than itself. It saw me, climbed about three feet up that tree, and moved itself to hide its body behind the trunk. Along the left edge I saw a nose, then eyes. It retreated. Along the right edge, a nose, then eyes. It retreated. I circled left; it moved right to stay out of sight. I moved right; it moved left. We played hide-n-seek awhile, but soon, it stopped hiding. We visited face to face. We had a simultaneous thought: Hanging there must be tiring. It backed down the tree. One final look. And scampered away.

The path reached the edge of the forest. I looked back into the woods. I thought about each event. The river. The critters. I was a nuisance to them. They were an inspiration to me. I disturbed their day. They added to mine. I apologized to them, and I thanked them. Instead of muddy water hiding everything below it, the serene clear water revealed details seldom seen. The forest, on this day, had revealed it's daily routine. And I am grateful.

Sandusky River Clean Sweep

Volunteer and make a difference in your community!

Volunteers Needed!!

Volunteer to help remove trash from the Sandusky River.
Volunteers must register prior to the event. Please dress to be in the stream with closed-toe footwear, sun screen, and bug spray suggested. Trash bags, gloves, water, and a light snack bag will be provided.

9:00 a.m. to 12 p.m.

Multiple Locations to Participate:

Tiffin - Junior Home Park

Crawford County – Sandusky Headwaters Preserve



Registration Information:

Registration now open!

and follow the registration link on our home page. If you register by Sept. 8th you will receive a free Clean Sweep t-shirt!

Contact Jakob Boehler with questions. 419-448-2054

Visit us at: www.sanduskyriver.org











The Astronomy Club will meet on the 4th and 5th Saturday of every month 30 minutes after sunset. Please dress for the weather. On rainy or cloudy nights, the meeting will be held in the Nature Center.

Cetus



In Greek Mythology, Cetus is the sea monster that was sent by Poseidon to destroy King Cepheus and Cassiopeia's land. In order to prevent that from happening,

they chained their daughter Andromeda to a rock as a sacrifice to Cetus, trying to appease Poseidon. Just before she was devoured, Perseus defeated Cetus and rescued his future wife.

Cetus, also known as the Whale Constellation, is the fourth largest constellation in the sky covering 1231 square degrees. It is one of the equatorial constellations, meaning it can be seen from both hemispheres. Cetus is located in the Water region of the sky with other constellations that have names relating to water or objects in the water.

Full Moons

September 10 (Harvest Moon)

October 9 (Hunter's Moon)

November 8 (Beaver Moon)

Meteor Showers

Draconids—October 6-10
(Peak October 7)
Orionids—Oct. 2-Nov. 7
(Peak October 21-22)
Taurids—Sept. 7-Dec. 10
(Peak November 4-5)
Leonids—November 6-30
(Peak Nov. 17-18)



Did you know:

The harvest moon is always the full moon occurring closest to the fall equinox, which falls on Sept.

Meeting Dates



September 24 8:00 pm October 22 7:00 pm October 29 7:00 pm November 26 5:30 pm

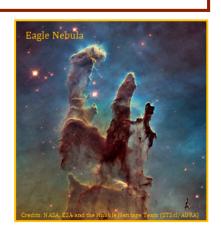


Targets for Fall

- Saturn is back in the night sky and is an amazing object to observe due to its distinct ring. Titan is the largest of its 82 moons and might be visible.
- Jupiter will be rising later, with opportunities to see four moons around this giant gas planet.
- Milky Way lots of objects in the central region of our galaxy.
- M4 globular cluster 5,500 light years away, found in Scorpius, and containing more than 100,000 stars.
- Lagoon Nebula (M8) is found in Sagittarius and is a giant cloud of gas and dust creating young stars.
- Fagle Nebula (M16) young open cluster 7000 light years away found in the constellation Serpens.
- Omega Nebula (M17) also known as Swan Nebula, Checkmark Nebula, Lobster Nebula, and the Horseshoe Nebula, is 6000 light years away, and is 15 light years in diameter.
- M22 near the galactic bulge, this elliptical globular cluster can be found 10,000 light years away and has some of the oldest known stars in the sky.

An additional opportunity to view the night sky!

October 15 during Halloween Family Fun Night from 6-9 pm



Thank you to the following who have donated to the Friends of the Crawford Park District:

May 5, 2022 through August 24, 2022



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(continued on next page)

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#GivingTuesday

Tuesday, November 29, 2022

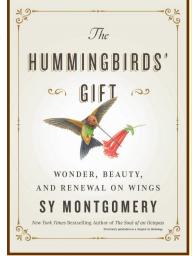
Last year, Friends of the Crawford Park District supporters donated \$10,267.65 for #Giving2sday, and the Community Foundation added \$1,832.96 for a total of \$12,100.61 added to the Friends of the CPD's endowment fund. For more information on how to donate, contact the Park office @ 419-683-9000.

Book Club

Calling all book lovers! The CPD Book Club is looking for new members to join. Each month we will read and discuss a book that relates to the flora and fauna of nature. Fiction, non-fiction, comedies, tragedies,

mysteries, classics, all types are welcomed and enjoyed. Come on out with a book of your choice, join in the discussion, and enjoy book of the month-themed snacks like trail mix, huckleberries, and even bear claws!

Meeting Dates: September 21, 6pm October 26, 6pm November 30, 6pm



Junior Naturalist Club

The Crawford Park District's Junior Naturalist Club is for 12-18-year-olds who are interested in nature. Meeting topics change each month. The goal of the club is "To foster and encourage excitement for nature and nature-related careers within a community of young adults, giving them tools they need to excel in the pursuit of their interests." For more information about the Junior Naturalist Club, or if you know an interested 12-18-year-old contact Naturalist Lisa Bogard by calling the park office at 419-683-9000; or you can send her an email: lbogard@crawfordpd.org.

Meeting Dates:

Saturday, September 10; time TBD
Saturday, October 15 Halloween Family Fun
Night (some earlier to help set up)
Friday, November 4; Saw-whet Owls
(meet one hour before program)
Meetings are held at the Lowe-Volk Nature Center.

Friends of the Crawford Park District 2401 State Route 598 Crestline, Ohio 44827 419-683-9000

Trustees:

Joshua Dyer Martha Kozik Dan Everly Kyle Hartman Barb Koschnick

Board of Park Commissioners:

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Park Staff:

Director — Joshua Dyer Secretary — Patti Schiefer Naturalists — Lisa Bogard, Chelsea Gottfried, Warren Uxley Land Managers — Mike Fruth, Kyle Bailey Program Asst. — Joy Etter-Link Receptionists — Kari Schenz, Patti Gervais NONPROFIT ORGANIZATION U.S. POSTAGE PAID ZIP CODE 44820 PERMIT NO. 10

Trails Newsletter

Crawford Park District Abbreviated Calendar

Park/Program Location Key:

LVP (Lowe-Volk Park); UP (Unger Park); HNP (Heckert Nature Preserve); UP (Unger Park);
SHP (Sandusky Headwaters Preserve); DS (Daughmer Savannah);
Neff (Neff Reservoir); BCOLL (Buckeye Central Outdoor Learning Lab); SP (Salem Prairie)



Date	Program/Event	Time	Park	Sun. Oct. 9	Canoeing	1pm-3pm	Neff
Thurs. Sept. 1	Homeschool: Trees	10am & 2pm	LVP	Sat. Oct. 15	Halloween Family Fun Night	6pm-9pm	LVP
Wed. Sept. 7	Monarch Tagging	5pm	UP	Sun. Oct. 16	Seed Collection	2pm	SP
Fri. Sept. 9	Caterpillar Hunt	8pm	LVP	Mon. Oct. 17	Lil' Explorers" Pumpkins	5pm	LVP
Sat. Sept. 10	Mysterious Galls	2pm	UP	Wed. Oct. 19	Archery Pumpkin Shoot	5pm-7pm	UP
Mon. Sept. 12	Lil' Exlplorers: Bugs	5pm	LVP	Sat. Oct. 22	Birding: Fall Migration	8am	HNP
Wed. Sept 14	Marvelous Milkweed	5pm	LVP	Sat. Oct. 22	Stewardship	11am	SW
Fri. Sept. 16	Fall Migration: Bird Banding	8am-12pm	SHP	Sat. Oct. 22	Owl Prowl	7pm	LVP
Sat. Sept. 17	Birding: Fall Migration	8am	LVP	Sat. Oct. 22	Viewing the Night Sky	7pm	LVP
Sat. Sept 17	Stewardship	11am	SHP	Mon. Oct. 24	Feeding Day	5pm	LVP
Sat. Sept. 17	Spectacular Spiders	2pm	LVP	Wed. Oct. 26	Book Club	6pm	LVP
Sun. Sept 18	Seed Collection	1pm	UP	Sat. Oct. 29	Viewing the Night Sky	7pm	LVP
Sun. Sept. 18	Prairie Wildflowers	3pm	SP	Thurs. Nov. 3	Homeschool: Habitracks	10am & 2pm	LVP
Mon. Sept. 19	Archery	5pm-7pm	LVP	Fri. Nov. 4	Saw-Whet Owls	6pm	LVP
Wed. Sept. 21	Monarch Tagging	5pm	BCOLL	Sat. Nov. 5	Fall Bird Banding	8am-12pm	LVP
Wed. Sept. 21	Book Club	6pm	LVP	Sun. Nov. 6	Nature Hike	3pm	DS
Sat. Sept. 24	Sandusky River Clean Sweep	9am-12pm	SHP	Mon. Nov. 7	Lil' Explorers: Leaves	5pm	LVP
Sat. Sept. 24	Viewing the Night Sky	8pm	LVP	Sat. Nov. 12	Birding: Winter virds	8am	SHP
Sun. Sept. 25	Feeding Day	1pm	LVP	Sat. Nov. 12	Nature's Micro World	10am	LVP
Mon. Sept. 26	Pickin' Pawpaws	5pm	SW	Sat. Nov. 12	Stewardship	11am	LVP
Wed. Sept. 28	Canoeing	5pm-7pm	Neff	Sat. Nov. 12	Owl Prowl	7pm	LVP
Thurs. Sept. 29	Fireside w/ Johnny Appleseed	7:30pm	UP	Sun. Nov. 13	Feeding Day	1pm	LVP
Sat. Oct. 1	Coleman Lanterns	7pm	LVP	Sat. Nov. 26	Viewing the Night Sky	5:30pm	LVP
Thurs. Oct. 6	Homeschool: Invertebrates	10am & 2pm	LVP	Sun. Nov. 27	Nature Hike	2pm	SW
Sat. Oct. 8	Annual Big Sit	7am	LVP	Wed. Nov. 30	Book Club	6pm	LVP