



Cleveland Metroparks®

EMERALD NECKLACE®

SPECIAL ISSUE
FIELD GUIDE DURING COVID-19

JUNE Special Edition 2020

**Discover
Fireflies**
Become a
firefly scientist

The Buzz on Bees
Amazing assortment of
native Ohio bees

**Ten to Explore:
Bike Trails**
Old and new trails
await your adventure

*Bike Trail at Royalview in
Mill Stream Run Reservation*

**TIME TO
EXPLORE**
Cleveland Metroparks



A LETTER FROM BRIAN ZIMMERMAN



Safe and Creative Community Engagement

Hello everyone,

I hope you and your families are staying safe and have taken time to enjoy Cleveland Metroparks and the many benefits nature can provide us. Summer is arriving and while there have been many difficult changes that our community has faced over the past few months, the change of seasons is always a welcome one to me. And while we yearn to safely get past COVID-19 and its challenges, perhaps the changing of the seasons has some hidden guidance to offer us in its slow, fluctuating, but ultimately inevitable arrival.

At the time I'm writing this letter, safety guidelines and best practices from health officials are still developing. I can assure you that we are doing everything we can to prepare for the opening of our facilities and activation our summer programming and events once it's safe for us to gather as a community. In the meantime, we're looking at creative ways to keep our community engaged and connected to nature such as through our Virtual Classroom and Online Nature Center experiences.

This special edition of the Emerald Necklace will again serve as a field guide to nature instead of an overview of our programs and events. Nature offers us so much to appreciate still even in these difficult times. I hope you're able to learn something new from this edition, from ten bike trails to explore, to a closer look at Ohio's state frog, tuliptrees and fireflies. Our naturalists offer a wealth of information here and perhaps their insights can offer knowledge and inspiration for you and your families.

While the impacts of COVID-19 have been widespread and ever-changing, our team has remained diligent in our mission to provide a service to the community. We have had so many visit us these past few months and we're grateful for the continued support. Thank you to everyone who has made it their mission to practice safe social distancing in the parks. And thank you for your patience with our restrictions in certain areas which helps us remain open and allow for proper space for all who visit. Our parks have been needed now more than ever and we're so happy to share them with you.

As summer takes hold in Cleveland Metroparks, and the sun hits at its hardest, life multiplies across our parks and our days are at their longest. Please take advantage of this time when you can. If you're in our Emerald Necklace, take in the lushness of the trees, look for migrant birds, listen for the sounds of bullfrogs across ponds and lagoons. Stay active and stay safe.

See you soon!

Brian Zimmerman
Cleveland Metroparks CEO

TIME TO EXPLORE

Cleveland Metroparks

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PLEASE HELP US TO KEEP OUR PARKS OPEN

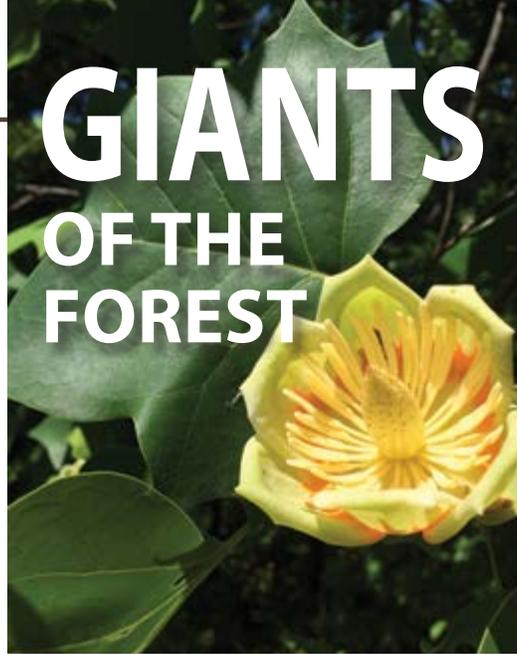


For updated closures and program cancellations
visit clevelandmetroparks.com/COVID-19

“ It is critically important that everyone practices social distancing at all times while in the parks. That includes providing other guests with proper space of at least six feet and please don't forget to share the trail and warn others as you pass. ”

— Brian Zimmerman

GIANTS OF THE FOREST



There are many incredible trees to be found in Cleveland Metroparks, but one species never ceases to amaze. **Tuliptrees** are not only incredible because of their massive size, but also because of their spectacular blooms and seemingly endless contributions to wildlife.

Towering Heights

Tuliptrees can grow to heights of 170 feet or more and can reach a trunk diameter over seven feet, making them one of the largest species of non-coniferous trees in the United States. While the largest specimen, the Sag branch tuliptree of North Carolina tops the chart in size, right here in Ohio is also a great place to see an example of these towering trees. Cleveland Metroparks boasts several trees that eclipse 150 feet tall. A two-mile hike through A.B. Williams Memorial Woods in North Chagrin Reservation will put you at the feet of these forest giants.

Full of Flowers

There are few flowers of the forest that rival the beauty of the tuliptree. Late May through early June, Cleveland's forests glow with the hues of yellow and orange. Their flowers are showy and smell phenomenal. Following gentle spring rains, their fragrance splashes to the forest floor, treating hikers with one of

the freshest aromas in nature. It can be challenging to view in a crowded forest canopy, but standalone trees like the giant tuliptree near the Old Birch Shelter parking lot in Garfield Park Reservation make for quick access.

Keystone Giants

Often referred to as a "keystone species," tuliptrees are considered an important link to survival for many animals in the forest. Their immense size provides shelter for owls, raccoons, and snakes, while their flowers and numerous seeds offering food for hummingbirds, squirrels, and any box turtle fortunate enough to cross a fallen bloom. They are a tree that brings life to the world around them, and one worthy of admiration.

Now is a great time to explore a new trail, visit a new reservation, and learn about new-to-you trees. With any luck, you may find a new favorite of your own.

*Jake Kudrna, Naturalist
CanalWay Center*

The Bullfrog *Ohio's Slimiest, Loudest State Symbol*



If you aren't sure that you've ever seen a bullfrog, you've most likely heard one if you've gone for a summertime walk around a pond. Their deep calls can be heard from up to a mile away, a booming *jug-o-rum* sung by the males to attract females.

The bullfrog is notable for more than just its resonating call — it is also Ohio's State Frog! Sharing the spotlight with the scarlet carnation, Ohio buckeye tree, and the Northern cardinal, the bullfrog became an official symbol of our state

in June 2010. It is one of the most abundant frogs throughout the state; they've been found in all 88 counties and in every state park. The bullfrog is also the largest frog in North America — a full-grown adult can reach six inches long. Even more remarkable are its tadpoles; they can be just as long as the adults and remain as tadpoles for one to three years before metamorphosing into a frog.

Frogs are incredibly important to many Ohio habitats. Bullfrogs and other amphibians play a key role as bioindicators — this means that their presence in an ecosystem can give us information about the health of the area. Bullfrogs, like all amphibians, have permeable skin, which means they can take in water through it and it also means that they can absorb any chemicals or toxins that are present

in water. If bullfrogs are common in a pond, we know that the water must be relatively healthy, otherwise they wouldn't be able to survive.

How can you spot these state symbols on your next hike? Think like a frog and head somewhere wet! Bullfrogs are found in ponds and wetlands, where they have plenty of room to catch food, mate, and lay their eggs. Look for large frogs in or near the water, usually brownish-green in color with a light-colored belly. The tympanum, or visible eardrum, on a male bullfrog is bigger than his eyes, while a female's is smaller or the same size as her eyes. And of course, don't forget to listen for their *jug-o-rum* call!

*Emily Staufer, Naturalist
Watershed Stewardship Center*

The Buzz on Bees



Have you ever seen a carpenter bee buzz in front of your face or had a small green sweat bee land on your arm? These are just two of the roughly 500 species of native bees found throughout Ohio. Native bees come in an amazing assortment of sizes and colors. They can range in size from metallic green sweat bees no bigger than a grain of rice to the paper clip-sized eastern carpenter bee. Most native bees live solitary lives, nesting in the soil, stems of plants, or even in snail shells! No matter their size, shape, or habits, all bees are great at pollinating plants.

Native Plants & Bees Team Up

Native bees have co-evolved with native plants, including trees, shrubs and wildflowers. Bees rely on the pollen and nectar of flowers to feed themselves and their young, while many plants rely solely on insects like bees to fertilize their flowers and make seeds. Many bees are generalists and will pollinate a variety of plants, but there are also specialists that can only survive if they have the right plants available.

Ground nesting bees make up about 70% of all native bees. The female digs 3 – 5 inches into loose soil or sand and creates a nursery for each egg. She will create “bee bread,” a mixture of pollen and nectar, for her babies to eat. Some ground nesting bees have adaptations that allow them to protect their larvae from hazards. Cellophane bees have a special organ in their abdomen that produces a plastic-like substance that is used to coat the egg cell. This substance is waterproof and protects the young bees from rainfall.

No Hives for Native Bees

Almost all native bees live a solitary life. Without a hive to protect, native bees are docile and rarely sting. Each female makes her own nest, lays eggs in individual holes provisioned with food, and dies at the end

of the season. The exceptions to this rule are the bumble bees. The roughly twelve species of bumble bee in Ohio are semi-social. There is one queen to a colony and each colony starts anew every spring. This is very different from a European honeybee hive where queens can live for four or more years and worker bees overwinter.

Hard Working Honey Bees

While all native bees collect and store pollen and nectar to feed themselves, only honey bees create enough honey for people to collect. Honey bees, originally brought to the United States from Europe, live in colonies of up to 80,000 individuals. They have to make lots of food to feed their large families. All summer, the bees fill wax cells with collected pollen and nectar, then cap it off with more wax. The honey does not spoil and will last into the cold seasons when no flowers are blooming. It takes about 40 pounds of honey to feed a hive through the winter and about two million visits to flowers to make a single pound of honey. If the bees make more than is needed, beekeepers can collect extra honey in spring and fall.

Honey Bee Hives at the Park

Although honey bees are not native, they make excellent educational tools for people to learn more about the importance of pollination. A few Cleveland Metroparks locations keep honey bee hives for this purpose and sometimes harvest small amounts of honey. To ensure the health and success of the hive, beekeepers must regularly open the hive to check on the bees, giving observers an amazing look at the inner workings and provide a better understanding of their hard work. Next time you stop to appreciate your favorite native wildflower, be sure to remember the busy bee that made it possible!

*Natalie Schroeder, Naturalist
Canalway Center*

Cellophane Bee



Sweat Bee



Ground Bumble Bee



Discover Fireflies



You can learn about fireflies by exploring them at home! Can you catch one? Look for its eyes, antenna, the hard shield that protects its head, and hard wing coverings. Does it glow? You might even be able to catch a day-flying firefly without a glow! Handle it gently and be sure you let it go so it can make even more fireflies.

We are lucky enough to live in a place where we don't need to travel far to see fireflies. Do you remember the fireflies you saw last summer? It's time for them to return!

Fun Facts about Fireflies:

- Fireflies and lightning bugs are the same thing.
- Fireflies are beetles: insects with a pair of hard outer wings.
- Fireflies live 1 – 2 years as wingless larvae (babies) in the soil and just a few weeks as adults with wings.
- Most fireflies in Ohio light up as adults and all of them **light up** as larvae.
- The **most common fireflies** we see flying above our lawns are called "big dippers."
- There are **so many different kinds** of fireflies in Ohio — scientists aren't even sure how many.
- Fireflies **don't hurt people or gardens**, but they are toxic to predators that try to eat them.
- The **only predators** that seem to eat fireflies are some other fireflies.

Look for them in a big field, in the forest or along the edge of a woods. Each different kind of firefly has its own blink pattern! Go for a hike or a drive on a summer evening. Do you notice a different pattern of blinks than the fireflies you see in your yard? You might see some that blink early in the evening or high up in the tops of trees. Can you spot one that blinks slowly or a bunch of times in a row? Some blinks could be greener or more orange; those are different kinds too! Be a firefly scientist and see how many different kinds you can find.

*Carly Martin, Naturalist
North Chagrin Nature Center*

A Walk Through the Night Sky

June brings some beautiful sights for stargazers. Let's take a walk through the night sky to see what we can expect this month.

Starting off with a helpful pointer, the Big Dipper should be high up in the northwestern sky. The Big Dipper is part of the constellation called Ursa Major, the mother bear. The mother bear always knows the whereabouts of her baby and can point you to Ursa Minor, commonly called the Little Dipper. Find the farthest stars of the Big Dipper's cup and draw an imaginary line through them pointing east. That line leads you to Polaris, the north star and the tip of the Little Dipper's handle.

If you go back to the Big Dipper and follow the pointer stars west, you'll find a cluster of stars that looks like a sickle. This star group forms the head of the celestial lion, Leo. At the tip of the sickle's handle is an especially bright cluster of stars that are sometimes called the heart of the lion, now named Alpha Leonis. Regulus is the brightest of this star complex. At over 75 light years away, this blue-white giant is nearly four times the size of our sun!

Moving on to planets, both Jupiter and Saturn will look spectacular in June. Early this month, both planets rise in

the southeast around midnight and set in the southwest at 9:30 a.m. Your view may be obstructed as they rise but they will be plainly visible to the south at 5 a.m. Both planets will rise earlier each night, and by the end of the month they will reach their peak around 3 a.m. Jupiter and Saturn will both look like large yellow stars, but Jupiter will be a bit bigger than Saturn.

I hope that you find the time to go on a stellar adventure this month. There's so much more to see and no better time to do it.

*Peter Frank, Naturalist
Watershed Stewardship Center*

Small Streams, Big Benefits

Cleveland Metroparks is known for its rivers — the wild stretches of the Chagrin on the east, the reborn Cuyahoga snaking through the industrial heart of Cleveland, and the scenic miles of the Rocky River on the west. Less familiar are the nearly 1,000 small streams, the vast majority of which are too tiny to be shown on maps or merit a name, that make up the watersheds which feed our rivers and their major tributaries.

Primary Headwaters

These small streams are known as primary headwaters and Cleveland Metroparks Natural Resources staff have mapped and surveyed every single one that flows through the Park District's nearly 24,000 acres. We use field survey methods that were developed by Ohio EPA specifically for small streams in the state, allowing us to evaluate the condition of each stream's physical habitat and biological community. Using this information, we can determine the health of each stream and identify areas in each watershed that may need additional protection or benefit from restoration efforts. These survey methods also help identify the locations of rare or uncommon macroinvertebrate species.

Although miniscule, primary headwaters are an extremely important part of watershed health. They provide habitat for a wide array of species that depend on small streams for their survival. One example is the two-lined salamander, a species that spends its first two years of life as gilled larva, meaning it must stay in flowing water year-round to survive. Primary headwaters also give these young two-lined salamanders an added layer of protection because they are too shallow for most fish, which might otherwise feed on the vulnerable larva. Two-lined salamanders are the most commonly found stream-dependent species in Cleveland Metroparks, showing up in nearly half of our streams.

Keeping Streams Healthy

While Cleveland Metroparks sits within an urbanized landscape, the protected land of its reservations safeguards the health of its small streams, and therefore the health of the Chagrin, Cuyahoga, and Rocky Rivers. Two-thirds of our small streams score as healthy using the Ohio EPA surveys, which means that the stream is physically, chemically, and biologically intact. Over 90% of our primary headwaters have natural stream channels, meaning they haven't been altered by human activities like culverting or straightening. Most small streams in Cleveland Metroparks have flowing water at least part of the year, and more than half have perennial flow, providing a place for aquatic invertebrates including crayfish, riffle beetles, and dragonfly nymphs to thrive.

Pollution-sensitive Insects

Speaking of aquatic invertebrates, we use a special group of aquatic insects, known as EPT taxa, as an important indicator of stream health. This group, which acts as a sort of "canary in the coal mine" for freshwater ecosystems, is made up of the three most pollution-sensitive families of aquatic insects — mayflies, stoneflies, and caddisflies. We find EPT taxa in over three-quarters of our small streams in Cleveland Metroparks — a testament to how healthy our primary headwaters are and how well we are conserving the land that makes up our Park District helps protect our watersheds.

The work to protect our small streams extends far beyond Cleveland Metroparks and can begin right in your backyard. Practicing good environmental stewardship — from planting with native species to installing a rain barrel or rain garden — can help protect the streams in your neighborhood and their larger watersheds.

Claire Weldon,
Aquatic Research Coordinator



Two-lined salamander



Small stream, Hinckley Reservation



Small stream waterfall, Hinckley Reservation



Surveying the stream, Hinckley Reservation



Letter from Dr. Chris Kuhar

Cleveland Metroparks Zoo is proud to be an accredited member of the Association of Zoos and Aquariums (AZA). As an AZA member, we have a number of standards to meet in terms of animal care and husbandry. Throughout the COVID-19 pandemic and during the zoo closure, our animal care team has been fantastic in caring for all of the animals at our zoo and exceeding those standards like we always do. You've probably even seen stories about some of the babies that were born over the past couple of months. The teams have been busy and we've done everything we can to keep the animals' lives as normal as possible. It appears they are thriving.

What has been different over the past couple of months is how we fund our operation. Like many business, the economic shutdown has impacted the zoo tremendously. We want to thank all of you who are members of Cleveland Zoological Society. Those memberships provide operating support for our Zoo and \$5 from each membership also supports the Zoo's wildlife conservation programs. These are critical funds in these trying times. If you haven't already renewed your membership, please consider going to www.clevelandzoosociety.org/membership and renew or buy a gift membership for someone who needs the magic of animals in their life.

We appreciate all of your expressions of concerns for our animals and our team throughout all of this. We really appreciate the support. I'm optimistic that we will come out of this stronger than ever. I hope to see you all at the Zoo very soon!

*Christopher W. Kuhar, Ph.D.
Executive Director, Cleveland Metroparks Zoo*

Zoo Crew: Inspiring the next generation of conservationists



Miranda Beran

When Cleveland Metroparks Zoo's teen program was first envisioned, the hope was it could serve as a steppingstone toward careers in science and conservation for area teens. More than 30 years later, the Zoo Crew program has proven to do just that. Over three decades, numerous teens who have participated in the program have gone on to pursue university studies and careers in the sciences. Zoo Crew members, ages 13 to 17, are provided opportunities to participate in conservation initiatives at the Zoo and interact with guests to help inspire participation in securing a Future for Wildlife. The program encourages teens to learn responsibility, develop job and career skills, and grow in their personal conservation ethic.



Dr. Nichole Nageotte



Rebecca Farmer

Through the years, we have had the privilege to work with many enthusiastic teens through the Zoo Crew program. From the initial meeting where we learn about each teen's goals and dream careers, through the various opportunities we provide them to explore and participate in conservation, to the time they leave our program to go out and positively impact the world; we are honored to be a part of their journey. Today you can find passionate Zoo Crew alumni working in a variety of conservation and science careers all over the world, including right here at Cleveland Metroparks.

Past Zoo Crew participants Rebecca Farmer and Miranda Beran work as animal keepers at the Zoo, Courtney Freyhauf is an Education Assistant with the Zoo's overnight programs, Dr. Nichole Nageotte serves as a researcher with Conservation Education, Erik Mullins works in Zoo Facilities, Dr. Debra Barbarits is a veterinarian at the Zoo, Gina Wilkolak is the Interactive Media Specialist with the Cleveland Zoological Society and Emma Strick works as a naturalist at Rocky River Reservation.

We are proud of all that our Zoo Crew alumni have accomplished and look forward to seeing them continue to inspire others and create positive changes in the world. We are also excited to welcome the next class of Zoo Crew teens and assisting them as they find their way to becoming the future generation of conservation heroes.

*D'Edra Thompson,
Education Specialist*

Your **IMPACT** on Cleveland Metroparks

Now, more than ever, Cleveland Metroparks holds an important place in our lives and community. While we are still living in uncertain times, we can prepare for our own future and the future of Cleveland Metroparks. By making a planned gift to Cleveland Metroparks, you will help to preserve and protect the Emerald Necklace.

Planned gifts are working to strengthen and grow Cleveland Metroparks every day. For example, a gift from the estate of a bridle trail user is helping to maintain the trails in South Chagrin Reservation that she enjoyed throughout her life. And a gift from another individual who was a nature enthusiast throughout his life is helping to create Cleveland Metroparks second Nature Preschool at North Chagrin Nature Center.

There are many simple ways to make a planned gift to Cleveland Metroparks. A bequest in your will is one of

the easiest ways to plan a gift because it may be added to an existing will or part of a new document. You can name a specific amount of your gift or a percentage of your estate to benefit the program or place in Cleveland Metroparks that is most meaningful to you.

Planned gifts offer a wide range of financial advantages to donors and their heirs. However, for many people the most important benefit is the sense of peace and comfort in knowing they will have an impact on Cleveland Metroparks.

For more information on planning your gift to Cleveland Metroparks, including sample bequest language, please contact Karen Kannenberg, Principal Giving Director, at 216-635-3217 or kjk@clevelandmetroparks.com. Information is also available at clevelandmetroparks.com/donate. All inquiries are confidential.

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Select rentals available this summer at **Hinckley Lake Boathouse & Store.**

Online reservations must be completed in advance to secure your rental and time slot. Visit clevelandmetroparks.com for more information.

Shop online at clevelandmetroparks.com/parks/shop

Paddlers... See and Be Seen on the Water



Water trails can provide paddlers unique views of their surroundings and wildlife experiences not available to the shore bound. Offering nearly continuous views of the city skyline, especially dazzling at sunrise, the Lake Erie Water Trail encompasses all of Cuyahoga County's Lake Erie shoreline, displaying miles of layered shale and sandstone cliffs. Created by an ancient sea, the cliff lines are periodically broken by rocky beaches.

Many others transit the Lake Erie Water Trail along with paddlers, including many types of power boats. In particular, mammoth shipping vessels, known as freighters, are a sight to see. Unless you're looking at the permanently

moored, 618 feet Steamship William G. Mather, freighters are best experienced from a great distance because of their powerful thrusters, which are an extreme danger to paddlers. While it is true paddlers often have the right of way (except for commercial traffic), paddlers are at a severe disadvantage because they are small, slow moving, and sit close to the surface of the water where they are easily obscured by waves and the sun's glare.

To increase visibility and awareness, paddlers should frequently scan for other boaters and make an effort to be seen by traveling in groups, wearing brightly colored clothing and mark equipment with reflective tape. Paddlers should carry additional visual or communication

equipment such as flares, white lights, a foghorn and a VHF marine radio. Paddlers can avoid other boater interactions by avoiding high traffic areas. Choose routes close to shore where other boaters cannot travel and cross channels quickly by paddling straight across.

Staying out of traffic's way will allow paddlers time to observe wildlife. Paddlers can become amateur birders by looking for common Lake Erie sights such as great blue herons, bald eagles, and belted kingfishers. Whether you're searching for views of urban industry, towering cliff lines, winged wildlife or just a workout, there are plenty of sights to be seen.

*Ashley Rossetti
Outdoor Recreation Specialist*

Organizing Your Camp Triangle

Sleeping in a tent under the stars can be one of the most relaxing and peaceful nights of sleep you ever have. However, you must be aware that there are other inhabitants of the natural world you should prepare for. Almost always these critters are more interested in your food than you. For this reason, it's very important to have a good campsite triangle.

A camp triangle is just like it sounds, a three-sided area that is comprised of a cooking area, food storage area, and of course where you sleep. Just like at home, we don't want to sleep in the kitchen. These three areas should be at least 100 yards apart from each other. It is also important to have your sleeping area upwind from your cooking and food storage areas. It is usually best to pick your sleeping area first because that's the spot you want to be the most comfortable, keeping in mind the best campsite

is found not made. Next, a kitchen area that has enough space to move around, and lastly a nice tall tree or provided container to store your food for the night.

The best part about having a backcountry kitchen is the opportunity to get creative. Enjoy this fun recipe at home or on your next camping trip.

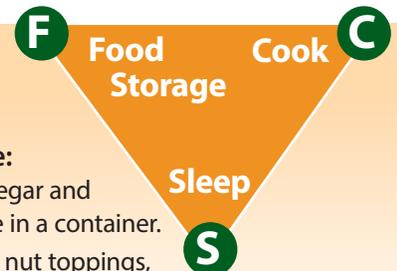
Peanut Butter Spaghetti Recipe

(serves 2 to 3)

- 2 packages ramen noodles or 8 oz. (2 cups) uncooked spaghetti noodles**
- 3 cups water**
- One broth cube**
- 2 Tbs. nut toppings or sunflower seeds**
- 3 Tbs. brown sugar**
- 1 tsp. garlic or 1 clove**
- 1/2 tsp. black pepper**
- 3 Tbs. vinegar**
- 3 Tbs. soy sauce**
- 3 Tbs. peanut butter**



Separate your cooking area from food storage and from sleep area.



At home:

Store vinegar and soy sauce in a container. Combine nut toppings, brown sugar, garlic, and black pepper in a sandwich bag.

At camp:

Break pasta in half and put into boiling water to which broth has been added. Cook until done. Most of the water should have boiled out. Stir in mixture from sandwich bag, vinegar, soy sauce and peanut butter.

*Zach Tolles
Outdoor Recreation Specialist*



Ten Bike Trails to Explore

Royalview Mountain Bike Trail

All Purpose Trail in Hinckley

Valley Parkway Connector Trail

Cleveland Metroparks Ten to Explore presented by Wayside Furniture inspires exploration across all areas of the Park District. Cleveland Metroparks invites you to explore ten bike trails across the Emerald Necklace. Mountain biking is not permitted within the park from one-half hour after sunset until one-half hour before sunrise or when the trail is closed due to muddy conditions. Check @CMPmtb.

Gorge Loop Trail, West Creek Reservation

If you're looking for an entirely new trail, the Gorge Loop Trail is West Creek Reservation's newest addition, providing a new natural surface trail for mountain bikers, runners and hikers. The trail was built entirely by hand and opened in fall 2019. The trail is a highlight on the 2020 Trail Challenge.

Valley Parkway Connector Trail, Brecksville Reservation

The Valley Parkway Connector Trail opened in 2018 and provided the "missing link" between Brecksville and Mill Stream Run Reservations. Enjoy scenic hills on a dedicated all purpose trail that runs parallel to Valley Parkway. A good route is from Brecksville Road to Stuhr Woods Picnic Area.

Paved Loop Trail, Acacia Reservation

While it's one of the easier bike rides on the list, that doesn't make it any less enjoyable. The Paved Loop Trail at Acacia Reservation offers a pleasant riding experience along former golf cart paths where you can observe nature's

restoration in progress. It is a great, mostly flat trail for families. Make sure you check this one off the 2020 Trail Challenge!

Royalview Mountain Bike Trail, Mill Stream Run Reservation

This challenging natural surface trail has plenty of elevation to keep your heart pumping. The trail consists of two loops totaling about ten miles that are great for both beginner and intermediate level mountain bikers.

Towpath Trail, Ohio & Erie Canal Reservation

The Towpath Trail offers amazing views of canals, bridges and aqueducts on a mostly flat trail with at least two substantial hills. Riders should keep their eyes open for bald eagles! Recommended trip is from Rockside Road to Harvard Avenue. This is another trail featured on the 2020 Trail Challenge!

Scenic Park Picnic Area to Bagley Road, Rocky River Reservation

Ride along this mostly flat trail and enjoy the sights and sounds of the Rocky River. The trail winds through the Rocky River valley's deep floodplain forests.

Bagley Road to Bennett Road, Mill Stream Run Reservation

This route offers another easy ride on a mostly flat trail. Make sure to stop and enjoy the views at Wallace Lake.

Nature Center to Whispering Woods, North Chagrin Reservation

Enjoy the forested woods on this relatively flat ride. Stop by the Owl Aviary before you head out!

Highland Picnic Area to Quarry Picnic Area, Euclid Creek Reservation

Discover the quiet beauty of Euclid Creek on this gentle ride. Enjoy sights of wooded hillsides where rare rock chestnut oak grows.

Spillway Swimming Area Loop, Hinckley Reservation

Experience the serenity of Hinckley Lake during this hilly ride. The all purpose trail portion is featured in the 2020 Trail Challenge.

Alerts & Closures: Cleveland Metroparks has implemented several park restrictions to encourage social distancing and help prevent the spread of COVID-19. All park visits should anticipate impacts that are necessary to help mitigate crowding. For updates on closures and cancellations visit: clevelandmetroparks.com/COVID-19

Special thanks to our Ten to Explore sponsor



Visit our website clevelandmetroparks.com/tentoexplore to inspire your next adventure in Cleveland Metroparks.

Cleveland Metroparks Zoo Crossword Puzzle

2. Across



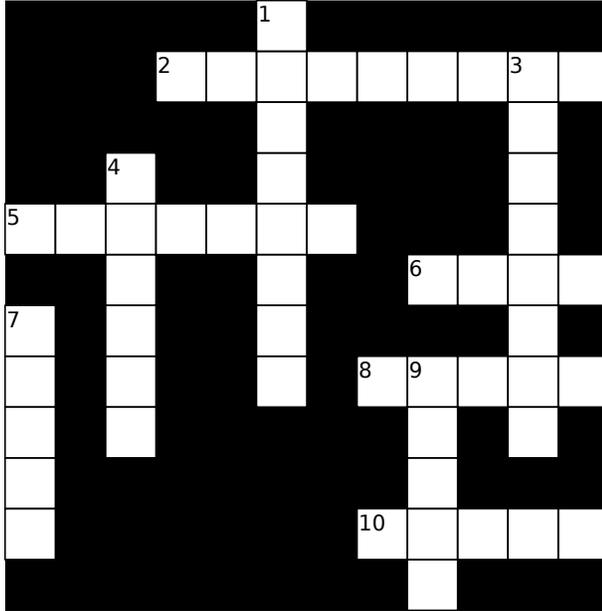
5. Across



6. Across



8. Across



1. Down



3. Down



4. Down



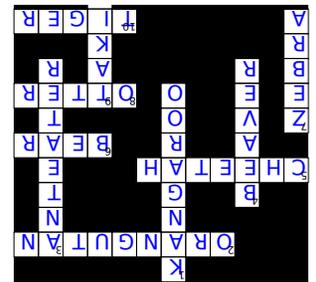
7. Down



DIRECTIONS:

Name the animals shown in each picture and write in the name in the correct spot (across or down) in the crossword puzzle. No peeping at answers until you are done!

- ACROSS**
 1. KANGAROO
 2. ORANGUTAN
 3. CHEETAH
 4. BEAVER
 5. ZEBRA
 6. BEAR
 7. OTTER
 8. TIGER
 9. TAKIN
 10. TIGER
- DOWN**



10. Across



9. Down



Always Follow CDC's Guidance When Heading to Cleveland Metroparks

Think First
Do not use the parks or trails if you are exhibiting symptoms.

Wash Hands
Wash your hands often, carry hand sanitizer, avoid touching surfaces with bare hands such as railings or benches.

Social Distancing
Provide other park users with proper space of at least six feet at all times during your visit.

Prepare for Your Trip
Be prepared for limited access to public restrooms and water fountains that may be closed for your safety.

Share the Trail
Share the trail and warn other trail users of your presence as you pass.

Playgrounds Closed
All playgrounds and outdoor fitness stations are closed for safety.

Cleveland Metroparks

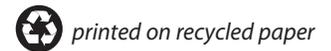
For updated closures and program cancellations visit clevelandmetroparks.com/COVID-19

Nature Scavenger Hunt

Bird	Water	Bee
Squirrel	Tree Stump	Mushrooms
Rock	Dandelion	Worm
Tree	Tree Leaves	Ant

Explore Cleveland Metroparks to find all of these familiar inhabitants within our parks.

Visit clevelandmetroparks.com for more educational programs.



Emerald Necklace®

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Directory

Cleveland Metroparks Administration Offices
216-635-3200/24-hour info
4101 Fulton Parkway
Cleveland, OH 44144
clevelandmetroparks.com

Cleveland Metroparks Police
Accidents or Emergencies
440-333-4911

Cleveland Metroparks Zoo & The RainForest
216-661-6500/24-hour info
3900 Wildlife Way
Cleveland, OH 44109
FutureForWildlife.org

Cleveland Metroparks Golf
Golf Services/440-232-7247
(general course info & inquiries)
clevelandmetroparks.com/golf

The Chalet Recreation Area
16200 Valley Parkway
Strongsville, OH 44136
Mill Stream Run Reservation
440-572-9990

Lakefront Reservation Administration Building
8701 Lakeshore Blvd.
Cleveland, OH 44108
216-881-8141

Outdoor Recreation
216-341-1704
clevelandmetroparks.com/or

Outdoor Experiences
216-881-8141

Cover photo: Royalview Trail, Mill Stream Run Reservation
Additional photos courtesy of Cleveland Metroparks photo archive, unless otherwise noted.

Volunteer Services
440-331-8237
clevelandmetroparks.com/volunteer

Rental Facilities
216-635-3304

Nature Centers:
Brecksville Nature Center
9000 Chippewa Creek Drive
Brecksville, OH 44141
Brecksville Reservation
440-526-1012

CanalWay Center
4524 E. 49th Street
Cuyahoga Heights, OH 44125
Ohio & Erie Canal Reservation
216-206-1000

North Chagrin Nature Center
401 Buttermilk Falls Parkway
Mayfield Village, OH 44094
North Chagrin Reservation
440-473-3370

Rocky River Nature Center
24000 Valley Parkway
North Olmsted, OH 44070
Rocky River Reservation
440-734-6660

Watershed Stewardship Center
2277 W. Ridgewood Drive
Parma, OH 44134
West Creek Reservation
440-887-1968