

## The Fungal Connection Article & drawing by Nicole Kopas

Fungi, one of the least talked about kingdoms of life. Anytime I see a mushroom I always get excited, and inevitably call it really cute or super adorable followed by taking a few photos before going about my business. I might look up the species when I get home, but that is not always the case. Until recently, when I was at the book store and picked up the book entitled *Entangled Life: How Fungi Make our Worlds, Change our Minds and Shape our Futures,* by Merlin Sheldrake, I never gave much thought past that "really cute mushroom". I am still reading this wonderful book, but it has opened my eyes to a world we have a lot to learn about. As I have been thinking about fungus and mushrooms lately, I have started to wonder about their connections to the world as well. What happens to our fungal friends once we start to leave the cool dampness of fall for our cold, and sometimes harsh, winters?

Fungi are the unsung heroes of the natural world. There are three categories that fungus fall under: saprophytic, mycorrhizal and parasitic. Saprophytic fungi, the



Northern Tooth *(Climacodon septentrionalis)* found at Wells State Park in Menominee County, Michigan

decomposers, are those that we may be most familiar with. They recycle organic material back into the soil so that nutrients can be easily accessed by other organisms. Mycorrhizal fungi form symbiotic relationships with the plants around them. These relationships are extremely important to the wellbeing of plants because they provide increased water and nutrient uptake in plants. The last category is parasitic fungi. These fungi cause disease and use the live tissue of various organisms as their food source. All fungi are important, and each has their own uniquely adapted role in the world. Mushrooms are a part of this incredible world because they are the fruiting body of the fungus. If there were no mushrooms we may not know what is going on under our feet.

The category of fungus that I am most intrigued with is mycorrhizal fungi. Mycorrhizal fungi colonize the root system of a host plant thus creating a symbiotic relationship between the two. There are two types of mycorrhizal fungi: ectomycorrhiza and endomycorrhiza. Ectomycorrhiza fungi wraps its hyphae, which are the branching filaments of the fungus, around the plants roots. Endomycorrhiza's hyphae penetrate the cell walls of the plant. This does not hurt the plant because mycorrhizal fungus extends the root system of the plant with which it has developed a relationship. The fungus increases water and nutrient absorption for the plant, and in return the host plant provides carbohydrates formed through photosynthesis to the fungus. This is a win-win situation for both the fungus and the plant. Mycorrhizal fungi establish large connections in the soil that join together different plants. Mycelial networks are the underground system of hyphae that is sometimes referred to as the "Wood Wide Web." The relationship between plants and fungi allows nutrients to pass along from tree to tree and they have also been shown to pass chemical messages. For example, in a forest where there is not enough light getting to the understory for a young tree to photosynthesize enough food trees in the surrounding area will pass nutrients along through the mycelial network to the young tree. Older trees do this until the young tree is tall enough to access enough sunlight on its own. There is a flip side to this network between plants and fungi. It's not always about helping your neighbor, continued on page 3

#### **Reflections...**

What a spectacular fall season we enjoyed! The colors were more vibrant and lasting than any fall in recent memory. Or so it seemed. Perhaps our appreciation of the wonders of nature has been enhanced by the circumstances of the past ten months. Hardship has a way of sharpening our vision toward the good things in life. Regardless, I truly enjoyed the season – and I wasn't alone. Thousands of visitors stopped by the nature center this fall. I hope they all left with a greater sense of peace and joy than they arrived with.

But the colors of autumn are a distant memory now. Ahead lies the winter season, and with it shorter days, longer nights, and colder temps. Like many birds, some people migrate, escaping the Michigan winter by heading south, where palm trees and sunny beaches await. Others stay in their warm, cozy homes, protected from the elements like the chipmunk, who spends the winter safe and secure in its underground burrow, waking every few days to eat, urinate, and defecate before going back to sleep. If that sounds too familiar, you need to get outdoors more this winter! There is wonder along the snow-covered trails, awaiting discovery by those adventurous souls willing to step out.

What can you enjoy during winter? As a birder, I welcome the unique feathered visitors I can only see during this time of year. Dark-eyed Juncos arrive in October, a sure sign that winter is on its way. American Tree Sparrows follow closely behind them, having finished their nesting season in the far north, where scrubby trees give way to open tundra. During some years, an invasion of "winter finches" decorate our feeders - Pine Siskins, Common Redpolls, and Purple Finches. In the turbulent water of the St. Clair River, which rarely ices up, we can sometimes see hundreds of Longtailed Ducks, the handsome males sporting their black-andwhite winter tuxedos. We may find flocks of Snow Buntings and Horned Larks braving the barren farm fields. These fields may also hold the great hunters of the Arctic tundra: the Rough-legged Hawk and the Snowy Owl. As you can see, I find many reasons to embrace the winter season!

I hope you can also find joy in nature when the mercury dips below the freezing mark. The nature center offers miles of trails to explore, and the winter season presents them in a whole new light. Look for tracks on freshly fallen snow. Listen to the wind sing through the pines. Strap on some snowshoes for an exhilarating workout. Marvel at the chickadees as they bounce cheerily through the branches on the coldest winter days. Pack a thermos of coffee or hot cocoa for a steamy treat during a mid-hike break. Marvel at the serene silence on a cold, still January morning. Adventure awaits at Seven Ponds!

Daryl Bernard Executive Director

#### Around the Center

#### A new day for new plants

The garden area may look a little different the next time you see it. The spruce trees that once framed the Butterfly Garden were removed this fall. The trees (which are not native to this part of Michigan) were reaching the end of their life cycle. The area may look a little barren at the moment, but we have replaced the spruce trees with native trees and shrubs that will benefit wildlife.

#### A better view

The observation tower in the North-80 received a much needed haircut to allow better views of waterfowl pond. Native plants will be put in place of the removed invasive plants that were around the tower.

#### Small but mighty

Critter Corner welcomes a new hatchling common snapping turtle. This young turtle will be with us for a couple years until it outgrows its tank, when it will be released into Treetop Pond. Our education animals provide wonder and excitement as they connect people to our native species found here in Michigan.



### Heron Tracks

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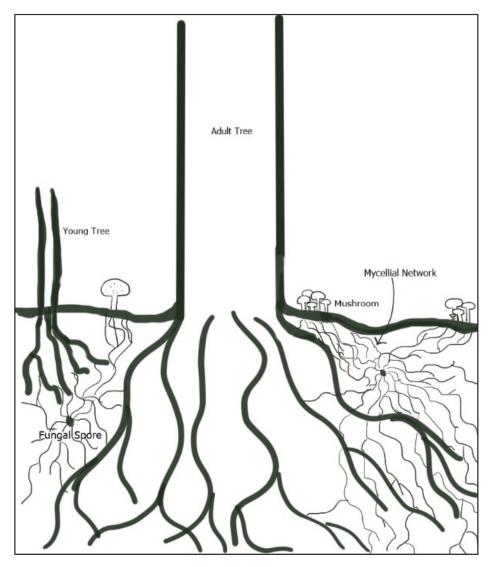
The mission of Seven Ponds Nature Center is to conserve the natural environment of Seven Ponds as a sanctuary for native plants and animals, as a living classroom for environmental education, and as a peaceful retreat for its visitors. The nature center fosters an understanding and appreciation of our natural world and development of an environmental ethic in the people and communities of Southeast Michigan through education, service as a community resource, and responsible stewardship of Seven Ponds and adjacent lands.

Executive Director:		Daryl Bernard
Director of Environmental Education/Chief N	laturalist:	<b>Carrie Spencer</b>
Office Manager:		Diane Rankin
Naturalists:	Nicole Kopa	as, Katie McKiernan
Gift Store Manager/Receptionist:		Stacey Holinsworth
Maintenance - Buildings & Grounds:		Mike Grappin

and passing helpful chemical messages throughout the forest. Sometimes fungi can spread toxic chemicals in the soil to prevent unwelcome plants from growing. The unwelcome plant could be a native species, or it could be a non-native invasive that could overtake the area. Trees and fungi are closely connected. It is estimated that about 90% of all land plants have a relationship with fungi. With that being said, what happens to fungi and their relationships with plants during the winter? The relationship between plant and fungi is still extremely important during the colder months. During this season a lot of plants lose their leaves, which means they are not producing food through photosynthesis. Plants are still alive during the winter. So, how are they getting their nutrients?

In winter this is where the connection with fungi is extremely beneficial to plants. For some fungi, winter is too cold for them and they die off. Mushrooms are sending out as many spores as they can for the following spring. This is why you see so many mushrooms during the fall. However, those that make it through the winter help the plants gain access to minerals and nutrients in the soil. Plants need nitrogen and phosphorus to survive, however plants are not as good as fungi at absorbing those nutrients. With the help of the fungi plants are able to obtain enough nitrogen and phosphorus to thrive.

You might be wondering, "How do some fungi survive the winter and others do not?" Fungi have to be careful during the winter because water can freeze and as the ice crystals expand they can break the cell membranes. This can cause serious damage and potentially kill the fungus. Some fungi have an amazing capability to biosynthesize specialized carbohydrates and proteins which act as a natural anti-freeze. Essentially this means the fungi are able to lower the freezing point of living cell contents by creating sugar alcohols that hold on to water and resist desiccation. This method can be found in several differ-



ent types of organisms, such as bacteria, green plants and even fish in the arctic.

Fungi have existed on earth for a long time. Because they have been around for so long fungi have had millions of years to adapt to the way of life that benefits them the most. Even though the symbiotic relationship happened shortly after land plants started to emerge, plants and fungi still have these connections today. It is estimated that roughly 90% of land dwelling plants utilize a relationship with mycorrhizal fungi. Thought some plant species have adapted to be independent of fungi, others still find the relationship to be the best way to survive. Without fungi the world would be a very different place. We have only begun to discover and understand their importance to the living and non-living world. There are estimated to be over five million fungal species in the world and we have only discovered roughly 100,000. We still have a lot to learn from and about the fungi of the world. So, next time you are in the forest or in your garden let's do our fungal friends a favor and give them more thought and wonder than "Oh that mushroom is super cute!"



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#### **Forest of the Future**

Because of many generous contributions, the 2020 Buy-a-Tree campaign resulted in the planting of over 160 native trees and shrubs at Seven Ponds Nature Center. The cedar swamp area near the A-Frame Bridge benefitted with the planting of 114 Northern White Cedars. The remainder of the trees and shrubs were planted along the berm behind the Butterfly Garden. Previously this area held a stand of White Spruce, which were removed in October. In place of the spruce trees, which are not native to southern Michigan, we planted Red-berried Elder, Spicebush, Michigan Holly, American Elder, Flowering Dogwood, and Arrowwood Viburnum. These native species will benefit wildlife by providing food and shelter. Plantings were provided with a protective fencing around them to keep deer and other animals from browsing. We are very excited about this year's plantings and the impact they will have on our grounds. Look for these fence enclosures and check out our "Forest of the Future" next time you visit Seven Ponds.

#### **Special Gifts Reminder**

Recently you received Seven Ponds' "Special Gifts" appeal in the mail. It is through our Special Gifts Campaign that we make up the difference between what we collect in fees throughout the year and the real cost of maintaining Seven Ponds as a quality nature sanctuary and environmental education center. The Special Gifts Campaign is always an important part of the center's annual financial picture, but even more so this year with the loss of so much anticipated revenue due to many event and fundraiser cancellations caused by COVID-19. We hope members and friends will help us by being as generous as they have in the past. This year's Special Gifts Campaign goal is \$32,000.00. If everyone participates, we can reach or surpass this mark. Thank you for thinking about the nature center during this season of giving.

#### Here and There

labor and equipment at a greatly re- programs. duced cost. Their generosity made possible the removal of many unwant- Thanks to Anita Spencer for donated trees on the berm behind the But- ing craft supplies which will be used terfly Garden.

Moon Yoga (Imlay City) for organizing a fund raiser for the benefit of Seven Ponds.

Thanks to Crooked Creek Farm (Lapeer) for providing beef fat for our ter. birds to enjoy all winter long.

Forge Blacksmithing (Hazel Park) for the unsolicited donation of a custom fire poker to benefit the nature • The Butterfly Gardeners who percenter.

Thanks to Owen Tree Service (Attica) for continuously providing the • The Friends of Herbs for fall work nature center with wood chips for our in the Herb Garden. trails and gardens.

Thanks to **Imlay City Fish Farm** for center, including cleaning tree cages. providing fish for our Critter Corner fish tank.

Thanks to Gerald & Nancy Buck for plants out of the North-80. their donation of a heavy duty power auger for our tractor.

Thanks to Randy Owen and Owen Thanks to Peg Flower for her dona-**Tree Service** (Attica) for providing tion of teaching supplies to help in our

in many upcoming programs.

Thanks to Cat Minolli of Peaceful Thanks to Tom Updike for his donation of a nest box for our trails.

> Thanks to Sherry & David Suddith for arranging the donation of numerous office supplies for the nature cen-

Thanks to all the volunteers who have Thanks to Owen Creteau, Jr. and CJ helped with a wide variety of activities this past fall, including:

> formed fall clean-up tasks in the Butterfly Garden.

• Noah Elkins for his help around the

• Keith Kanasty for working on the trails and helping us clear invasive

## Is this your final issue of Heron Tracks 222

If your Seven Ponds membership has expired and you have not yet renewed, you will not receive the next edition of our newsletter. Renewing is easy and only takes a few minutes online at www.sevenponds.org.

Please take a moment today to renew. We truly value and appreciate our faithful members. You are the foundation of the nature center and we depend on your support.

**Thank you!** 

## Seven Ponds Tributes Memorials, Buy-a-Tree, In Honor

#### In memory of Dick LaValley

- Justin Brickman
- Mickey and Cindy Featherstone
- Joyce and Ron Ferris, Lauren Ferris, and David Murray
- Larry and Marie McGregor
- Jocelyn Scofield
- William Valley
- Jody and Mark Baldridge
- Lawrence and Betty Coates

#### In memory of Suzanne Lacey

- Jean and Ken Casey
- Lyman Casey

#### In memory of James Goodrich

• The Pollack Family - Dennis, Aletha, David, Shawn, Becky, and Sarah

#### Buy-a-Tree in memory of Helen S. Korhonen

• Anita Spencer

#### Wandering with the Birds By Daryl Bernard

Michigan's eastern Upper Peninsula is a birder's wonderland during the winter months. Wide-open areas attract Snow Buntings in flocks that may number in the hundreds. Sharp-tailed Grouse scratch for seed in the wind-swept fields. Rough-legged Hawks patrol the fence lines and hedgerows. Snowy Owls stand guard atop fence posts, utility poles, and barn roofs throughout the area – sometimes you can see 20 or more in a single day. Fruit trees may be festooned with flocks of nomadic Bohemian Waxwings. The region's boreal forests harbor both Red and White-winged crossbills, Pine Grosbeaks, Evening Grosbeaks, and other hardy winter birds. Occasionally, but not very often, you may see one of the rare woodland owls of the north: Great Gray Owl or Northern Hawk Owl.

I had already seen a Northern Hawk Owl that morning – the first in my life: a Life Bird! Regardless of what the rest of the day brought my way, it was already a successful trip. I was standing alone at the Dafter Post Office parking lot, not a whisper of wind, with the temperature hovering somewhere around zero. There weren't any of the birds I was hoping for (Pine Grosbeak, Bohemian Waxwing, Sharp-tailed Grouse) that can sometimes be found near the post office. Still, I lingered a few minutes. Then I heard the croaking and squawking of a couple ravens overhead, a familiar sound in the UP. I looked up to see two Common Ravens in dueling, close, synchronous flight. I love to watch ravens fly! I put my bins on the birds and followed them as they danced in unison across the vivid blue sky. Then I noticed it: each time one of the birds croaked or exhaled, there was a small puff of condensed breath. Raven's breath! In the cold, still air each small cloud of raven's breath suspended against the blue sky for just a moment before vanishing. How wonderful! A special moment in time that I alone was privileged to witness, while out wandering with the birds.



#### Seven Ponds Field Tours

We offer field tours to amazing destinations each year. Due to a very uncertain 2021 and the numerous complications caused by COVID-19 such as airline travel, van travel, meals, lodging, etc., we have decided not to plan any field tours for 2021. We are very sorry for this, and we look forward to offing field tours once again in 2022.

## Seven Ponds Clubs!

Visitors are welcome at all club meetings. For additional information about any of the clubs which meet at Seven Ponds, please visit sevenponds.org or contact the nature center.

Astronomy Club • Beekeeping Club Birding Club • Photography Club Friends of Herbs • Butterfly Gardeners The Stingers

#### Shopping at SmileAmazon helps Seven Ponds

This year more than ever many people will be doing much of their shopping online at Amazon. Please consider using SmileAmazon.com instead. Once you designate Seven Ponds Nature Center as your charitable beneficiary, every time you shop with SmileAmazon, 0.5% of your purchase price will be donated to Seven Ponds!

SmileAmazon.com offers the exact same prices, selection, and shopping experience as the regular Amazon site, but you're able to designate a charitable organization as a beneficiary of every purchase you make. There is no cost to you, but Seven Ponds earns money with every purchase you make. You shop and Seven Ponds benefits!

#### **Nest Box Report**

Here at Seven Ponds every year we have volunteers perform nest box monitoring on our 88 different nest boxes. The volunteers are each given their own section of boxes to monitor once a week from April through July. Once the nesting season has come to a close those volunteers return their data sheets to the nature center where the data gets entered into Nest-Watch. NestWatch is The Cornell Lab of Ornithology's citizen science network for nest monitoring. All the data that is collected and submitted to Cornell helps scientists gain a better understanding of nesting patterns and how birds are doing collectively. Our nests are primarily inhabited by Tree Swallows (Tachycineta bicolor). Our other inhabitants include the Eastern Bluebird (Sialia sialis) and House Wren (Troglodytes aedon). We do have to be on the lookout for House Sparrows (Passer domesticus) which are a non-native invasive bird species. Overall our nest boxes had good fledgling outcomes this year. Hopefully next year we will have an even better year! If you are interested in becoming a citizen scientist or would like to know how to add nest boxes to your own property, feel free to call the Nature Center at 810-796-3200.

#### Stingers Rummage Sale - items needed!

The Stingers will be holding their annual rummage sale once again in the summer of 2021. The sale is scheduled for Thursday, Friday, and Saturday, June 17-19 (member's only pre-sale June 12). Starting March 2, you may bring your household items, clean and mended clothing, books, toys, and other goodies. All items should be in good condition and in working order. Please pack books and clothing in separate containers. We will not accept large appliances, televisions, computer equipment, or building materials.

#### **Holiday Auction & Christmas Party**

For the first time in nearly three decades, we will not be able to enjoy an evening together for our annual Holiday Auction and Christmas Party. This special event is not only a fun celebration for our staff, volunteers, and members, but is also an important fund raiser, providing vital revenue for the nature center. Please consider a generous donation to our yearend Special Gifs Campaign to help see us through the end of 2020 and help ensure a sound financial start to our 2021 operations.

#### **Invasive Plant Species Management**

Invasives! At Seven Ponds we have several different nonnative invasive plant species that we manage: autumn olive, Canada thistle, crown vetch, oriental bittersweet and purple loosestrife just to name a few. Since reopening in June we have been hard at work managing our invasive species. At the entrance near Crawford Road we have been working on crown vetch and Canada thistle. Directly in front of the interpretive building we have been solar sterilizing the crown vetch growing there. Solar sterilization uses greenhouse plastic and the sun to cook out the unwanted plants. We planted native seed this fall that will come up next spring and summer. We are expecting to spot treat any remaining crown vetch that pops up until the seed bank has been depleted. During the month of August we spent two weeks on the ponds controlling purple loosestrife via canoe. In the North-80 we have been treating Canada thistle and autumn olive. Around the North-80 tower and the tree row between the two fields we have removed autumn olive, bittersweet and some other unwanted plants, and planted native seed there as well. Over the course of late fall we continued managing woody invasive plant species in our tallgrass prairie. We are hard at work trying to preserve the natural habitats we have here at the Nature Center. If you are interested in managing your own non-natives, or would like to help us manage ours, please feel free to reach out and give us a call at 810-796-3200.

# Winterfest!

Saturday, January 30th 2021

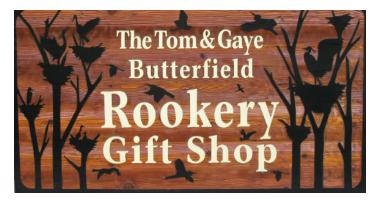
10:00 AM - 3:00 PM

Join us for our annual winter fun day!

There will be pre-packaged s'more kits to roast over a fire, pond dipping, lawn games, ice cutting, ice skating, a snowman building competition, and interpretive walks outside.

In the event there is not sufficient snow or ice alternative activities will be provided.

Fee: \$3.00 per person. Please pre-register for this event online as space will be limited this year. Masks will be required when activities involve close proximity to others. Visit sevenponds.org to reserve your spot.

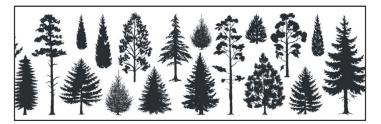


The Rookery Gift Shop has Seven Ponds t-shirts, so come and get yours today while supplies last! We also have new holiday ornaments, rock décor, stuffed animals, and puppets. We offer a variety of locally handmade items, including body products like foot scrub, body powder, lip balm, tub teas and soap. As always, we have locally made teas, honey, maple syrup, sniffle bags, bug off, lavender wands, vinyl decals, fauxleather earrings, hand crafted jewelry, and artwork made by local artists. Other items include bird houses, bird feeders, birdseed, field guides, children's books, naturethemed jewelry, toys, puzzles, games, and wind chimes. To help reduce single use plastic items we have reusable Chico bags that are made from recycled materials! Other reusable items are Blue Q bags, totes, pencil cases, lunch bags, and coin purses all made from 95% recycled materials!

We now offer birdseed delivery within a twenty (20) mile radius for just a small \$5.00 delivery fee. Call the nature center to arrange your birdseed delivery.

Curbside shopping is also available. Call the nature center to place an order and we will walk your items right to your vehicle! All orders must be prepaid.

Include a gift membership or Rookery Gift Shop gift certificate with your next purchase. These are the gifts that keep giving through all the seasons.



#### Seven Ponds Nature Center

3854 Crawford Road Dryden, MI 48428 810-796-3200 www.sevenponds.org

Address Service Requested

Non-profit Organization US Postage PAID Permit No. 2 Dryden, MI 48428

## WINTER PROGRAMS

December 2020 – February 2021

Exploring the winter world can be a wondrous experience with endless possibilities for adventure. If you are not sure what these adventures may entail, come out to Seven Ponds and we can help you out. Look over this winter's offerings of activities and make plans to join us as we explore winter's nature. Seven Ponds offers something for everyone from preschoolers and families to adults. All programs require advance registration through our website. Mark your calendars for some programs in our Winter Series, winter bird walks, seasonal activities, or WinterFest and let the winter adventures begin! Most activities are \$3.00 for adults and free for members and children under 12, unless otherwise noted. For more information, check out the center's website at sevenponds. org or call 810-796-3200.

## The Winter Series from Seven Ponds

Each winter, Seven Ponds sponsors the Winter Series, a series of Sunday afternoon programs highlighted by noted naturalists and photographers, live animals, fascinating natural history, and enjoyment for all ages. This winter each of our Winter Series programs will be presented by one of our staff. Sessions are open to everyone, but pre-registration is required. Come out for one or all of these programs. Seating is limited and COVID-19 safety protocols will be in place. Please register online.

#### Whoooo Goes There? Michigan's Magnificent Owls! Daryl Bernard

Executive Director Seven Ponds Nature Center SUNDAY, FEBRUARY 7, 2:00 PM

Michigan is home to ten species of owls, but many people live their entire lives without coming across most of these amazing predators of the night. Through photographs, voice recordings, specimens, and interesting details about their habits and habitats, we will explore the wonderful world of the owls of Michigan, from the tiny Northern Saw-whet Owl to the ghostly Snowy Owl. We will also discuss locations where some of these owls can be seen in Michigan. This program is intended for adults and older children.

#### *Rabbits of North America and the World* Katie McKiernan

Naturalist

Seven Ponds Nature Center SUNDAY, FEBRUARY 14, 2:00 PM

From *Alice in Wonderland* to the Jade Rabbit of the moon goddess Chang'e, rabbits have captured our hearts for generations. Of the many species belonging to the family Leporidae, two of them call Michigan home. We will take a look at how rabbits live today and how they have inspired legends and stories from around the world. This program is intended for adults and older children. Let's Go To The Beach! Nicole Kopas Naturalist Seven Ponds Nature Center SUNDQY, FEBRUQRY 21, 2:00 PM

Feeling a bit cold lately? Let's get out of Michigan for the afternoon and go to the beach! Saint John is a US Virgin Island located in the Caribbean to the east of Puerto Rico. Roughly 60% percent of the island consists of the Virgin Islands National Park. We will be learning about some of the island's history and the research that Naturalist Nicole participated in during college. The research focused on coral species diversity, health, and size around the island. Join Nicole for an afternoon at the beach! This program is best for 12 years and up.

## *How the Americas' Indigenous People Shaped the World*

#### **Carrie Spencer**

Director of Environmental Education/Chief Naturalist Seven Ponds Nature Center

SUNDAY, FEBRUARY 28, 2:00 PM

Our modern world owns many of its attributes to the native peoples of the Americas from capitalism to food domestication to the medicines we use today. This afternoon we will spend our time learning about the amazing contributions these peoples have made to shape the world we live in today. This program is best suited for adults and older children.

## December

#### Sunset Winter Walk

SUNDAY, DECEMBER 6, 4:00 PM

What could be better than seeing the end of the day at Seven Ponds? Hike with a Naturalist around the ponds, and view the sunset from the A-Frame Bridge. Please register online.

#### **Tree Painting**

Saturday, December 12, 2:00 PM

Looking for something to do with the kids? Come on out to Seven Ponds for an afternoon of tree painting! We will be using nature friendly materials to paint some of the trees around the nature center. Please register online.

#### Let's Walk on the Wild Side

SUNDOY, DECEMBER 13, 10:00 GM Come join a Naturalist for an adventure in the North-80 on some of our less traveled trails. Please register online.

#### Lapeer County Christmas Bird Count

#### SUNDAY, DECEMBER 19, 8:30 AM

If you would like to help count birds at Seven Ponds and Jonathan Woods for the annual Audubon Christmas Bird Count, please contact the nature center to register for the event. Naturalist Katie will be coordinating this year's effort at Seven Ponds. Join in for a half day or full day of counting. Fee: no charge.

#### Christmas Eve and Christmas Day

THURSDOY & FRIDOY, DECEMBER 24 & 25 Nature center building closed, trails open for members. Happy Holidays!

#### Winter Walk Around

SUNDOY, DECEMBER 27, 2:00 PM Feeling a little tired after all that holiday fun? Recharge with a nature walk around the ponds. Please register online.

## January

#### New Year's Eve and New Year's Day

THURSDAY & FRIDAY, DECEMBER 31 & JANUARY 1 Nature center building closed, trails open for members. Happy New Year!

#### **New Years Snowshoe Stroll**

Sunday, January 3, 1:00 pm

A new year brings new possibilities. Come take an interpretive stroll around the ponds atop a pair of the nature center's snowshoes and welcome the new year with us. Please register online.

#### Winter Scavenger Hunt

Saturday, January 9, 11:00 am

Bring the family and come join a Naturalist for a winter scavenger hunt around Seven Ponds. Please register online.

#### Animal Track Detectives

Saturday, January 16, 10:00 am

How do you know an animal has been here if you don't see it? You look for tracks and scat! Walk with a Naturalist to find signs left behind on the trails. Please register online.

#### Winter Night Hike

Saturday, January 23, 7:00 pm

During this night hike we will walk the snow covered trails and look and listen for signs of wildlife. We will end our walk around a cozy fire. Fee: \$3.00 for members and non-members. Space is limited, please register online.

#### Winterfest

Saturday, January 30, 10:00 am - 3:00 pm See the event flier insert for full details.

## February

#### Jonathan Woods Snowshoe Trek

Saturday, February 6, 1:00 pm

We will be going on a snowshoe trek at our beautiful Jonathan Woods. We will see how winter has changed the landscape in the big woods. Please note: this trek will be physically demanding due to the weather conditions, snowshoes, and terrain of Jonathan Woods. Space is limited, please register online.

#### Winter Series #1: Michigan's Magnificent Owls!

SUNDAY, FEBRUARY 7, 2:00 PM See the front page of this program flier for details.

#### Family Pond Dipping

Saturday, February 13, 10:00 am

What lies under the ice? Lots of insects are still active under water this time of year. Grab your family and take a closer look at what lives in the Seven Ponds. Space is limited. Please register online. **Winter Series #2: Rabbits of the World** SUNDAY, FEBRUARY 14, 2:00 PM See the front page of this program flier for details.

#### Winter Series #3: Let's Go To The Beach!

SUNDOY, FEBRUORY 21, 2:00 PM See the front page of this program flier for details.

#### *Winter Series #4: How the Americas' Indigenous People Shaped the World*

SUNDAY, FEBRUARY 28, 2:00 PM See the front page of this program flier for details.

#### **Full Moon Exploration**

SUNDAY, FEBRUARY 28, 7:00 PM The forests at night may seem a little spooky but they can be full of wonder. Coyotes will be calling this time of year. Walk with a Naturalist and hopefully hear their songs. Space is limited. Please register online.

#### ASSISTANT NATURALIST CLASSES

Classes are open to Assistant Naturalists only. We will start each class at 12:00 PM by having lunch (please bring your own) and then proceed to the day's lesson. If you would like to become a part of this fine program, contact naturalist Katie McKiernan at 810-796-3200 or kmckiernan@sevenponds.org.

December - no ASNAT class this month.

#### January 16 - Interpretive Techniques - Bag of Tricks

What do you have in your interpretive bag of tricks? We will open up our ASNAT box and go through all of the tools we have made for you to use on the trails.

#### February 20 - Interpretive Techniques - Special Needs

There are many ways people learn. In this program we will explore teaching techniques geared to our smaller friends with learning and physical disabilities.

#### Seven Ponds Nature Center Winter Bird Walks

This winter we will offer three bird walks on Wednesday mornings – one each in December, January, and February. We hope to find various winter bird species including songbirds, waterfowl, and gulls depending on the habitat. Seven Ponds bird walks are open to birders of all skill and experience levels, and beginners are always welcome. Bring your binoculars, your enthusiasm, and be sure to dress for the weather. These bird walks are free for Seven Ponds members, and \$5 for non-members. Pre-registration is required, and bird walks are limited to ten (10) participants. Each winter bird walk will begin promptly at 9:00 AM at the trailhead or starting point of the walk. Most bird walks will conclude by 12:00 noon. Please be on time and ready to go birding!

#### Winter Bird Walk #1 - Holloway Reservoir

#### Wednesday, December 2, 9:00 AM

#### Meet at Columbiaville Community Center · 4620 Water Street, Columbiaville MI

By early-December the waters of Holloway Reservoir should have several waterfowl species as well as a variety of gulls. We'll check the reservoir from several different locations in Lapeer and Genesee counties, searching for ducks, geese, and possible lingering loons and grebes. Bald Eagles regularly cruise the waters in search of fish, so we'll be on the lookout for them as well. We will also check the adjacent woods and shrubs for various wintering songbirds.

#### Winter Bird Walk #2 - Port Huron area

#### WEDNESDAY, JANUARY 6, 9:00 AM

#### Meet at Lighthouse Park · 2875 Omar Street, Port Huron MI

Mid-winter can be a great time to check the waters at the southern tip of Lake Huron as well as the St. Clair River for large flocks of congregating diving ducks, such as Redhead, Canvasback, Bufflehead, Long-tailed Duck, and Hooded, Common, and Red-breasted merganser. A variety of gulls can sometimes be found here during winter as well, and we'll be sure to search for the Peregrine Falcons which make the bridge area their home. This bird walk will include several stops and will conclude with an early afternoon lunch at a local restaurant (optional).

#### Winter Bird Walk #3 - Seven Ponds Nature Center

#### Wednesday, February 24, 9:00 AM

Let's enjoy a winter bird walk at the nature center, where we may encounter the hardy birds that make this area their home during the cold months of a Michigan winter. Along with the year-round residents such as chickadees, titmice, nuthatches, and woodpeckers, we hope to find winter visitors such as juncos, tree sparrows, and perhaps a variety of northern finches.

### Nature Study Series for Homeschoolers

Seven Ponds Nature Center is an ideal outdoor classroom where children can experience nature first hand. In this series of programs, our experienced naturalists guide children toward an awareness and appreciation of our natural world, using hands-on activities, specimens, slide shows, and nature walks. These programs complement state science objectives and focus on specific ecological concepts. Fee: \$4.00 per person. Register for the *Nature Study Series for Homeschoolers* sessions online at sevenponds.org.

#### Special provisions in place due to COVID-19:

- Classes are limited in size.
- Pre-registration is required at sevenponds.org.
- All classes are held OUTDOORS; dress for the weather.
- Adults may wait outside or walk the trails.
- Participants must wear a mask unless otherwise directed.
- Classes may be cancelled due to poor weather conditions.

#### WINTER NATURE STUDY SESSIONS

#### Winter Insects

Grades K-2 and 3-6

December 16 or 17, 2020 • 1:00 – 2:30 PM

Insects have amazing adaptations for surviving the winter, from leaving or freezing. We will explore how they spend their winters, and what they need to do in order to make it to the next spring. Homeschoolers will be divided into older and younger learners.

#### **Animal Locomotion**

#### Grades K-6

January 20 or 21, 2021 • 1:00 – 2:30 PM

Every animal leaves a story behind, and learning how an animal moves helps you read their story. We will discover the many different ways wild animals move, and what those "clues" could mean. Homeschoolers will become "Nature Detectives" and solve the many mysteries in the forest.

#### Coyotes

#### Grades K-6

February 17 or 18, 2021 • 1:00 – 2:30 PM

February is the time of coyote love, and we will give the coyotes some love as we learn all about these incredible creatures. We will learn about their super abilities, their lifecycle, and how they do so well in the natural world. We may even become coyotes!

## Seven Ponds Nature Center Knee-High Naturalist Classes

For preschool children around 3 or 4 years old

Fridays 10:00 – 11:30 AM

#### Fee: \$7.00 per child (\$6.00 for members)

Come out and enjoy nature with your child. All classes include nature fun like walks, crafts, games, stories, snacks, and so much more!

Online registration required.

#### Special provisions in place due to COVID-19:

- One adult per child.
- Only bring the child enrolled in the class no siblings.
- All adults are required to wear a mask.

**Finding Wild** 

DECEMBER 11, 2020

#### **Owl Moon**

JANUARY 15, 2021

#### Frost Bright, Forest Night

FEBRUARY 12, 2021

#### The Hike

March 12, 2021

The Lorax

April 16, 2021

## Bees

