

Discover Nature

News and Programs
from the ODC Network



Spring
2020



The **ODC Network** is a collection of nine business divisions with the mission to advance outdoor education and conservation in West Michigan.



FREE ADMISSION—Two Locations!

4214 56th Street • Holland, MI • 49423

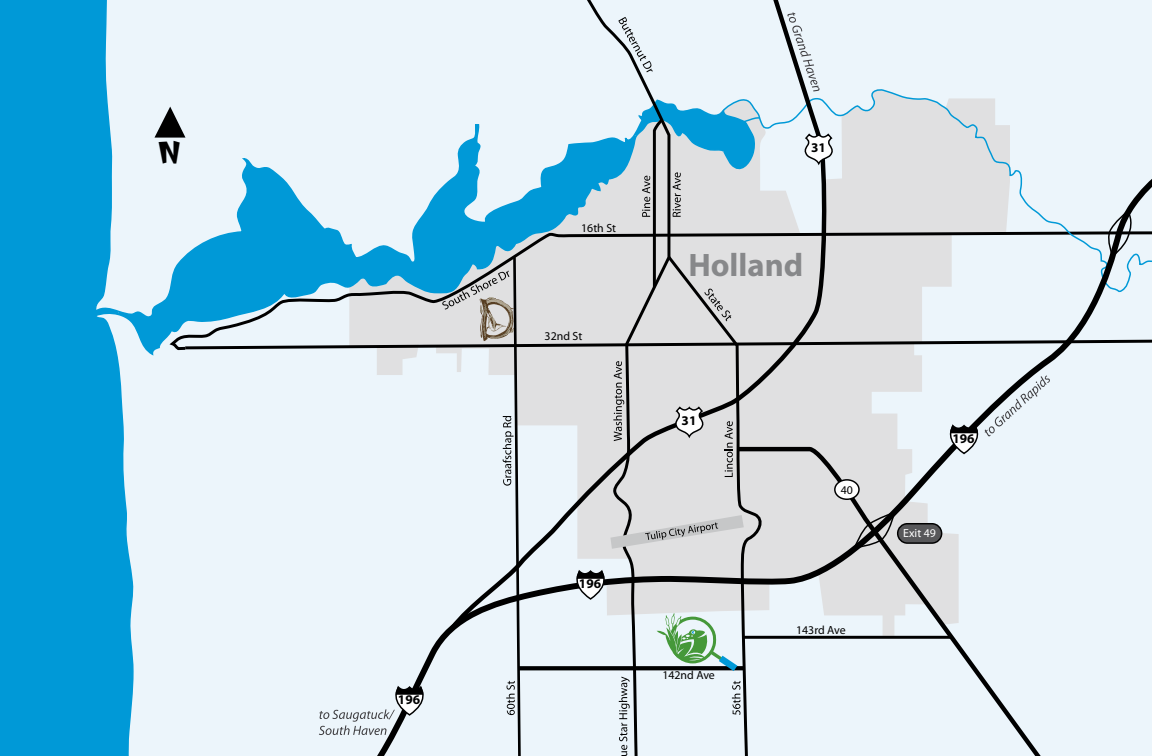


The Outdoor Discovery Center is 155 acres with about 3 miles of trails, located on the south side of Holland, just south of West Michigan Regional Airport. Admission is free!

600 Graafschap Road • Holland, MI • 49423



DeGraaf Nature Center is 18 acres of forest and wetlands located within the City of Holland, just south of Lake Macatawa. Admission is free!



Join us for a Program!

In the following pages, you will find titles or descriptions of our community programs available in the upcoming months. Look for more on our website or Facebook!

Find more program details and register at outdoordiscovery.org

Program Locations

Programs may be held at the **Outdoor Discovery Center**, at **DeGraaf Nature Center**, or at **various other parks** and natural areas in our community. Attend programs closest to you—or discover new places in our community. All locations are listed next to the program title—when necessary, the address and details can be found in *italics* beneath the program description.



Outdoor Discovery Center
4214 56th Street
Holland, MI 49423
outdoordiscovery.org



DeGraaf Nature Center
600 Graafschap Road
Holland, MI 49423
degraaf.org



Other Locations
*Addresses listed beneath
program description*



Join us March 28 for Maple Palooza at DeGraaf!

March

Did you know?
Find more Programs online at outdoordiscovery.org!

April

May

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6 Knee-high Naturalists	7
8	9 Hungry, Hungry Serpents	10	11 Nature for Tykes	12	13 Knee-high Naturalists VoLes	14 Maple Sugar Time
15	16	17 Explore a Story	18	19	20 Knee-high Naturalists	21 Maple Sugar Time
22	23	24	25	26 Homeschool Nocturnal Creatures Beach Clean-up	27 Knee-high Naturalists	28 Maple Palooza VoLes
	30	31	1	2	3 Knee-high Naturalists	4 Reptiles Rock
	6 Hungry, Hungry Serpents	7 Woodland Walk Woodcock Waddle	8 Little Explorers Discover Nature	9	10 Knee-high Naturalists Live Birds of Prey	11
12	13 Nature for Tykes	14	15 Explore a Story	16 Homeschool Migration	17 Knee-high Naturalists VoLes Woodcock Waddle	18 Birds at the Window
19	20	21	22 WiN—Spring Wildflowers	23 Birds & Brews	24 Early Birds Hike Knee-high Naturalists	25 Mist-netting Songbirds VoLes Beechwood Grill
26	27	28	29	30 Morning Bird Walk Gardening with Native Wildflowers	1 Knee-high Naturalists	2
3	4 Hungry, Hungry Serpents	5 Morning Bird Walk Gardening with Native Plants	6 Wildflowers of the Nature Center	7	8 Knee-high Naturalists	9 Nature's Paintbrush
10	11 Wildlife IRL	12 Explore a Story	13 Homeschool Amphibians	14 Nature for Tykes WiN—Road Biking	15 Morning Bird Walk Knee-high Naturalists	16 Native Plant Sale Macatawa River Clean-up
17	18	19	20 Springtime Story Step it Up! Brewery Vivant	21 Morning Bird Walk	22 Knee-high Naturalists Knee-deep in a Wetland	23 All About Owls
24 31	25	26	27	28 Archery Night Farmhaus Cider Co.	29 Knee-high Naturalists VoLes Birds' n Flights	30

Hungry, Hungry Serpents (ODC)

Monday, March 9

Monday, April 6

Monday, May 4

2–3 PM • No registration necessary • Fee: FREE

Find more program details and register at outdoordiscovery.org

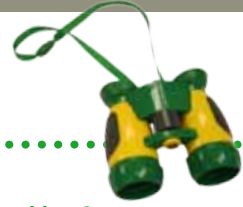
Nature for Tykes (ODC)

Wednesday, March 11 • Theme: Birds of Prey

Monday, April 13 • Theme: Wetlands

Thursday, May 14 • Theme: Snakes

10–11 AM • Registration required • Fee: \$5 per child, FREE for members



Knee-high Naturalists (ODC)

Friday, March 13

Friday, April 10

Friday, May 8

Friday, March 27

Friday, April 24

Friday, May 22

10 AM–12 PM • Registration required • Fee: \$10 per child, \$5 for members

Discover Nature Spring Break Camp (ODC)

This camp is for kids crazy about wildlife. They will study a variety of animals and plants native to Michigan and the habitats where they live at the ODC. For kids ages 7–11.

Tuesday, April 7—Thursday, April 9

9 AM–12 PM • Registration required • Fee: \$60 per child, \$45 for members

Woodcock Waddle (ODC)

Explore the nature preserve with a naturalist in search of two bird species most people don't see: American Woodcock and Wilson's Snipe. Dress in dark clothing and be prepared to be outside the entire time. Flashlights are welcome.

Tuesday, April 7

Friday, April 17

8:30–9:30 PM • Registration required • Fee: \$5 per person, FREE for members

Live Birds of Prey (ODC) Friday, April 10 • 1–2 PM • No registration necessary • Fee: \$5 per person, FREE for members

Gardening with Native Plants (ODC)

In this gardening program, participants will learn the difference between native plants and "wildflowers", how they can be used in urban or suburban landscapes, and how native plants can attract birds and butterflies to their yards.

Tuesday, May 5 • 1–2:30 PM • Registration required • Fee: \$5 per person, FREE for members

Wildlife IRL (ODC)

Do you want to experience nature in real life? We will have a selection of live animals from our captive wildlife collection out for participants to see up close, touch, or hold. This is a drop-off style program for kids ages 10 and up.

Monday, May 11 • 4–5 PM • Registration required • Fee: \$5 per person, FREE for members

Step it Up! (ODC) Wednesday, May 20 • 6–7:30 PM • Registration required at www.miOttawa.org/StepItUp
Fee: FREE - Sponsored by Ottawa Dept of Public Health, Ottawa Co Parks & Recreation, Allegan Co Michigan, and Allegan Co Parks

All About Owls (ODC)

Did you know that we have eleven different species of owls that call Michigan home? Join us as we learn about the owls of Michigan and get a close up view of the ODC's resident rescue owls.

Saturday, May 23 • 11 AM–12 PM • Registration required • Fee: \$5 per person, FREE for members



Archery Night (ODC)

Hey grown-ups, don't you want to shoot at a duck-billed dinosaur or possibly a giant mosquito? This event is for adults of all levels. We will provide all of the equipment you will need. (Sorry, no outside bows.)

Thursday, May 28 • 6–7:30 PM • Registration required • Fee: \$10 per person, \$8 for members



Maple Sugaring Events

The quiet of a winter forest is interrupted in the spring when the weather warms and the sap starts flowing. Birds will return for nesting, plants will start growing, and we will begin the sugaring season! There are a few steps required to turn this watery tree sap into the delicious maple syrup that we all know and love.

Maple Sugar Time

Saturdays, March 14 & 21 • 11 AM–4 PM

Join us in making maple syrup at
Van Raalte Farm
1076 16th Street Holland, MI

The sugar bush, a forest of mostly sugar maple trees, will be where we show you how to collect the sap by drilling holes into trees and tapping in a spigot called a spile. Buckets are placed under the spiles to collect the sap. When full, they need to be carried down to the

sugar house. In the sugar house there is a large evaporator where we boil the sap to remove water and concentrate the sugars. The final product is finished and bottled off-site.

At Maple Sugar Time, activities will include drilling holes and tapping maple trees, transporting sap to the sugar house with a yoke, cutting tree cookies with a cross-cut or buck saw, and branding tree cookies to take home. You can also purchase maple treats in the barn, such as ice cream with maple toppings. Don't forget the great coffee provided free of charge by Biggby!

To finish the maple sugaring season, we will be celebrating at DeGraaf Nature Center during our annual Maple Palooza! The event will take place on Saturday, March 28 from 12–4pm and is open for all. We will have activities for all ages, as well as food and beverages available for purchase.

Maple Sugar Time & Maplepalooza
Presenting Sponsor:



Additional Thanks To:
Biggby Coffee
Back to Health Chiropractic
Hudsonville Ice Cream



Maple Palooza

Saturday, March 28 • 12–4 PM
DeGraaf Nature Center

Knee-high Naturalists (DeGraaf)

Friday, March 6
Friday, March 20

Friday, April 3
Friday, April 17

Friday, May 1
Friday, May 15
Friday, May 29

10 AM–12 PM • *Registration required • Fee: \$10 per child, \$5 per child for members*

Explore a Story (DeGraaf)

Tuesday, March 17

Wednesday, April 15

Tuesday, May 12

9–10 AM • *No registration necessary • Fee: \$5 per child, FREE for members*

Homeschool Programs (DeGraaf)

Thursday, March 26 • Theme: Nocturnal Creatures

Thursday, April 16 • Theme: Migration

Wednesday, May 13 • Theme: Amphibians

9:30 AM–12 PM • *Registration required • Fee: \$10 per child*



Find more program details and register at degraaf.org

Reptiles Rock (DeGraaf)

Snakes and turtles and skinks, oh my! They don't have fur or feathers, they have scales. They have four legs, or maybe none. They are totally awesome and we have 31 different species in Michigan! Join us as we investigate and meet some of Michigan's reptiles.

Saturday, April 4 • 11 AM–12 PM • *Registration required • Fee: \$5 per person, FREE for members*

Little Explorers Spring Break Camp (DeGraaf)

Does your little one like to look for bugs and play in the mud? Would they like to explore for the day and discover what lives here at DeGraaf Nature Center? In this camp we will do all that and more! We will spend our time inside and outside listening to stories, creating crafts and hiking. For kids ages 4–6.

Tuesday, April 7—Thursday, April 9

9:15–11:45 AM • *Registration required • Fee: \$60 per child, \$45 for members*

Mist-netting Songbirds (DeGraaf)

Help inventory songbird species found at DeGraaf Nature Center. Stay for a few minutes or a few hours. No prior knowledge is necessary and all ages are welcome. Participants may be able to help retrieve birds from nets, band birds, record vital information about birds captured, and release birds back to the wild.

Saturday, April 25 • 8:30–11 AM • *No registration necessary • Fee: FREE - sponsored by Hope College Biology Dept.*

Morning Bird Walk (DeGraaf)

Start your day with a morning walk at DeGraaf Nature Center. We will walk the trails in search of birds. With the songbird migration in full swing there should be something new to see almost every day of spring. Binoculars are available for lending.

Thursday, April 30

Tuesday, May 5

9–10:30 AM • *No registration necessary • Fee: \$5 per person, FREE for members*



Nature's Paintbrush—Springtime Flowers (DeGraaf)

Nothing brings cheer better than a bunch of springtime flowers, and even better, a painting of them! Join naturalist and artist, Nancy Berg, in this acrylic painting class designed for artists 12 yrs–adult. All materials are provided to create a 16x20" acrylic painting on canvas.

Saturday, May 9 • 1–3 PM • *Registration required • Fee: \$30 per person*



Summer Camps

Now is the perfect time to start thinking about this upcoming summer and your plans to attend some of our 2020 Summer Camps. Our summer camps are a great way to get kids outside and exploring the wonderful world around them.

This summer we are offering 24 camps which include our staples of Kayaking, Archery, and Little Explorers, along with some new camps like Wetlands and Wildlife and ODC



Olympics. Our day camps are available to a wide age range, with different camp options for your 4–16 year-old. Camps will mainly take place either at ODC or DeGraaf Nature Center.

To learn more about the camps offered and to register, visit our website:

outdoordiscovery.org/education/community-programs/summer-camps



Native Plant Benefits

This growing season, you can help reintroduce native plants into our otherwise cultivated landscapes, full of non-native or invasive plants and monocultures of green grass. With the various forms of native plants and their dynamic seasonal displays, there is the opportunity to create incredible designs. Beyond their aesthetic, native plants benefit our ecosystems in irreplaceable ways!

Native plants provide higher-quality shelter and food than non-native plants, ensuring better survival for animals all of the way up the food chain. Their deeper roots provide flood and erosion control by increasing rainwater infiltration. This reduces storm water runoff and limits the amount of pollution and sediment reaching our waterways, increasing water quality.

By planting natives, you can save time and money. Mowing less will reduce your fuel consumption, as well as noise and carbon emissions. Reduce your time spent weeding by

choosing varieties that grow in a dense group or drop leaves and twigs as natural mulch.

Additionally, native plants require less care. Compared to their non-native counterparts, native species require less water, and no extra accommodations such as pH and soil adjustments, nor fertilizers, pesticides, or herbicides. Since they are from Michigan they are more resistant to drought, freezing, diseases, and herbivores that occur here. The greater variety of plants present will further protect your garden from disease and environmental stress.



DeGraaf
nature center

Native Plant Sale
Saturday, May 16 • 9 AM–4 PM

Come explore some native plant options
at DeGraaf Nature Center

Beach Clean-up (Shore Acres Township Park)

We're teaming up with Saugatuck Brewing Company, Landsharks, Keen, and Patagonia to get the trails of Shore Acres and the Saugatuck Dunes ready for the summer season. We'll provide you with garbage bags, rubber gloves, and a trail map—all you need to bring is your hiking boots! Celebrate the clean trails with refreshments afterward.

Dress for the weather, event will take place rain or shine.

Thursday, March 26 • 5–8 PM

*No registration necessary • Fee: FREE - sponsored by Saugatuck Brewing Company, Landsharks, Keen, and Patagonia
Program Location: Shore Acres Park, 6602 138th Ave. Holland, MI 49423*

VoLEs (Various Locations)

Our Volunteer League (nicknamed "VoLEs") is a service club for teens to experience what it takes to maintain a natural area and captive wildlife. This program is designed for 12–18 year olds who will work with staff on a variety of indoor and outdoor tasks at the ODC and DeGraaf. Past projects have included removing invasive species, cleaning up animal enclosures, and adding nature play features. It's a great way to earn those community service volunteer hours!

Fri, March 13 • 3:30–5:30 PM **Fri, April 17 • 3:30–5:30 PM** **Sat, May 16 • 1–3 PM**
Sat, March 28 • 1–3 PM **Sat, April 25 • 1–3 PM** **Fri, May 29 • 3:30–5:30 PM**

Registration required • Fee: FREE • Program Locations Vary

Woodland Walk (Sanctuary Woods)

Visit Sanctuary Woods to explore the sights and sounds of spring. This time of year brings migrating birds, beautiful wildflowers, and active mammals. Please note this hike does include approximately 170 stairs up a dune.

Tuesday, April 7 • 10–11 AM

*Registration required • Fee: FREE - sponsored by Laketown Township
Program Location: Sanctuary Woods, 4749 66th Street, Holland, MI 49423*

Birds at the Window (Window on the Waterfront)

The marsh is coming alive at Window on the Waterfront. Go birding with a naturalist to see what has taken up residence or is passing through. Rails, wrens, ducks and more will be sought. Dress for the weather since even in rain birds can be active! Binoculars will be available for loan.

Saturday, April 18 • 9–11 AM

*Registration required • Fee: \$6 per person, \$3 for members
Program Location: Window on the Waterfront, 93 Columbia Ave, Holland, MI 49423*

Women in Nature—Spring Wildflowers (Rabbit River Preserve)

Women in Nature is a program series with various experiences designed to motivate women to be more healthy, active and passionate about the natural world surrounding them.

Is it a Trout Lily? Trillium? Jack-in-the-pulpit? Hike the trails of Rabbit River with a naturalist as we find and identify woodland wildflowers. Cameras are encouraged. Sturdy hiking shoes are required. Field guides and magnifying glasses will be provided.

Wednesday, April 22 • 6–7 PM

Registration required • Fee: FREE • Program Location: Rabbit River Preserve, 4401 135th Ave. Hamilton, MI 49419

Specials at Beechwood Grill in April (Beechwood Grill)

For the entire month of April, Beechwood Grill and the ODC Network are teaming up to help fundraise for the care and enrichment of our live birds of prey! Beechwood Grill will donate a percentage of sales from drink and appetizer specials. Dine out to show your support during the month of April or join us for lunch April 25th to see our birds of prey! Kids eat free with an adult lunch purchase.

Saturday, April 25 • 12–2 PM

Location: Beechwood Grill, 380 Douglas Avenue, Holland, MI 49424



Birds & Brews (Saugatuck Brewing)

Join the ODC and Saugatuck Brewing Company as we pair specialty beers with a live birds of prey show. We'll learn about 5 different birds of prey and "pair" each bird's personality with the characteristics of one of SBC's beers and include a 5 oz sample. You will also receive a welcome pint of one of SBC's staples on your way in.

100% of net proceeds from this event will be donated to the ODC Network and will go toward further education about and treatment of our local water sources. Always remember, without clean water, we can't make great beer.

Thursday, April 23 • 6:30–8:30 PM

Registration required at saugatuckbrewing.com • Fee: \$35, must be 21+, IDs required

Program Location: Saugatuck Brewing Company, 2948 Blue Star Hwy, Douglas, MI 49406

Early Birds Hike (Stu Visser Trails) Friday, April 24 • 8–9:30 AM • Registration required

Fee: FREE-sponsored by Park Township • Program Location: Stu Visser Trails, 923 Ottawa Beach Rd, Holland, MI 49424

Fundraiser at Brewery Vivant

On May 20, Brewery Vivant will donate a portion of their proceeds to the ODC Network.

Join us on the patio with live birds of prey from 4–7 PM.

Wednesday, May 20 • 4–7 PM • Location: 925 Cherry St SE, Grand Rapids, MI 49506



Up Close & Wild at Farmhaus Cider Co. Thursday, May 28 • 4–6 PM • No registration necessary

A percentage of the proceeds from the day will be donated back to the ODC • Location: 5025 Stanton St. Hudsonville, MI 49426

Birds 'n Flights (Virtue Cider) Friday, May 29 • 6–8 PM • Registration required

Program Location: Virtue Cider, 2170 62nd St, Fennville, MI 49408

May on the Greenway

Enjoy Spring and Explore the Macatawa Watershed!

Wednesday, May 6 | Wildflowers of the Nature Center | @ DeGraaf • Registration required

Fee: \$5 per person, FREE for members

Thursday, May 14 | Women in Nature Road Biking | @ Velo City Cycles, 326 S. River Ave. Holland, MI • Registration required

Helmet and bike required. If bike rental is necessary please contact Velo City Cycles • Fee: FREE - Sponsored by Velo City Cycles

Friday, May 15 | Morning Bird Walk | @ Van Raalte Farm, 502 Country Club Rd. Holland, MI • No registration necessary

Fee: \$5 per person, FREE to members

Saturday, May 16 | Macatawa River Clean-up | @ Dunton Park, 290 Howard Ave., Holland, MI

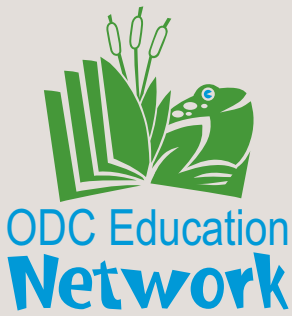
Registration required • Fee: FREE

Help clean Lake Macatawa. Depending on the group size, there may be a crew on the shores of the lake and another in kayaks in the lake. Anyone under 16 years old must be with an adult. All boats, paddles and life vests will be provided.

Thursday, May 21 | Morning Bird Walk | @ Window on the Waterfront, 26 Columbia Ave, Holland, MI • No registration necessary

• Fee: \$5 per person, FREE to members





Forest School Partnership

The ODC Education Network is a team of education professionals that work with schools to build connections between the classroom and the outdoors using project-based learning, environmental education, and customized experiences that build relevance, context, and meaning into an educational experience. One of the schools that we partner with is Holland Christian, who started their Forest School program in the fall of 2018. They currently have a Kindergarten and 1st Grade class in the program, and plan to add a new grade each year. Our partnership with Holland Christian includes planning sessions, monthly field trips, and a weekly visit from Ms. Vicki or Ms. Jill. Here's a perspective on the program from Ms. Jill.



Each week I visit the Holland Christian Kindergartners to help them learn more about nature and the world around them. I go through different topics throughout the year; trees and plants, seeds, what animals do in the winter, nocturnal/diurnal animals, tracking, mammals, reptiles, amphibians, birds, human impact on the environment, etc. I bring an animal from the ODC each week for them to learn about, and sometimes to touch and hold. We learn new vocabulary words, we read books, we play games, and do many types of activities to get hands-on learning in their environment. They also have a monthly visit to the ODC where they spend most of the day. We want to build their knowledge and understanding early so that they will learn to appreciate the greatness of the environment that they live in and will grow to be stewards of the land themselves.

"Holland Christian's Forest School is achieving excellence in large because of the partnership we have with Outdoor Discovery Center and we continue to grow and learn together. Outdoor Discovery Center has guided us, supported us, and has provided expert knowledge as we have developed Forest School," says Ron Harig, Forest Kindergarten teacher.

It is so much fun getting to know these children and seeing them grow throughout

the year. It is also very rewarding when I ask them questions about the environment and they are able to shout out the answers proudly right away. "Each week we have an ODC team member here (Jill and Vicki) that brings enthusiasm and passion about the outdoors and the lessons they have prepared specifically for Forest School. It has been an incredible adventure walking hand and hand with the Outdoor Discovery Center and we look forward to working together as we continue to develop Forest School at Holland Christian."

It is always exciting walking up to Forest School. The kids get super excited when we come for our weekly visits. They just LOVE learning about nature, playing games, and meeting new animals.

The kids at Forest School are content just playing in their natural environment. They do not have supplemental toys to aid in their play, they just interact directly with nature. I never hear them complain about being hot or cold, they just adjust and adapt to their environment. They learn to be resilient and flexible so that they are always having fun no matter the weather. When they fall, they get back up and keep going. They like to say that they are "forest school tough". They learn with, in, and about nature at Forest School.



Little Hawks Discovery Preschool

Recording our Adventures and Wonders at Little Hawks



**A perspective
from Ms. Kelsey,
*Chickadees and
Gray Squirrels*
class teacher**

Nature is filled with wonder! As a teacher at Little Hawks Discovery Preschool, I am constantly on the search for what topics my students are interested in, or wondering about, in the natural world. (Recently my four year old students have been passionate about spiders, tornadoes, and owls.) Why do I spend so much time trying to figure out student interests? I've found that my students learn best when they are investigating something they are excited about. Incorporating social-emotional goals and academic skills into learning on a topic of interest to my students is a powerful combination!

One way I record the wonder of nature with my students is through the use of a "floorbook." A floorbook is a large sketchbook that can be laid out on the floor, so multiple students can write in it at the same time. After our hike, my students write or draw in our large floorbook what they learned or experienced on the trail—as well as their wonders, questions, or ideas.

As a teacher, this allows me to notice student learning and misconceptions, while also helping me notice what my students are

interested in. I then use these student interests to create future lesson plans. For example, during our most recent study on how animals prepare for winter, students started drawing spiders. One student even wrote about how "Spiders don't wear winter coats." This showed me that students were considering what invertebrates do in winter, leading me to plan a whole week dedicated to learning about what insects and spiders do when the snow falls!



Our classroom's floorbook is full of our adventures and experiences in the natural world from this past school year. My hope is that my students will continue to reflect on the wonder of the natural world and will keep investigating their interests and curiosities for years to come!



Annual Lake Macatawa Update



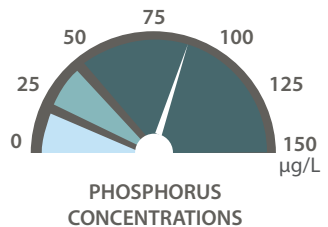
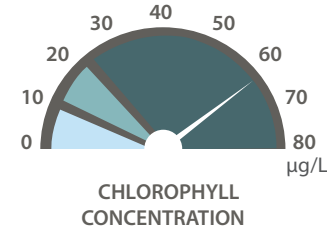
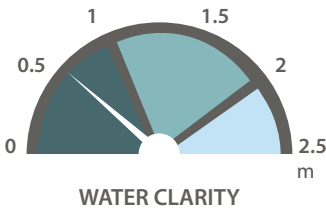
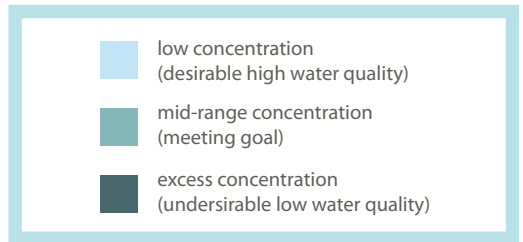
PROJECT clarity

GVSU's Annis Water Resources Institute (AWRI) recently released their 2019 Lake Macatawa Dashboard report. It summarizes the sampling of basic water quality indicators in the lake over the course of the year, which provides us an idea of how healthy the lake is. All of the indicators remain in the "undesirable" category, albeit far lower than historical highs from two decades ago. Researchers monitor the lake for phosphorus concentrations, algae content, and water clarity, providing an idea of conditions in the lake and where its ecological balance sits.

There are a number of factors that influence the lake's health, including precipitation, temperature and thaw patterns, and land use. These can vary how the lake reacts season to season and year to year, meaning we need to examine these trends over longer periods of time to get an idea of how things are changing. These longer term trends are encouraging, but factors such as the increasing intensity and irregularity of precipitation need to be

watched and taken into account for future planning within the watershed.

Crews from AWRI and Hope College will continue to help us monitor the lake and surrounding watershed, helping us keep tabs on the lake over the coming years. They collect and analyze data including water temperature, clarity, nutrient concentrations, flow, and fish populations, giving our planning team a better picture of how things are changing.



Greenway Plans Endorsed



Some exciting and promising activities are taking place along the Kalamazoo River. We continue to get endorsements for our plan from local units of government and partner organizations around Allegan County. To date, eight local partners have adopted the plan. The greenway plan promotes recreational, ecological, and educational improvements along the river to better connect the surrounding communities. Even more exciting was the news of a proposed settlement

between the state and federal governments and NCR Corporation, one of the legally responsible parties for pollution along the river. Included in the nine-figure settlement, which will help fund EPA and DNR restoration efforts, will be \$27 million designated for the community to recover and improve damaged habitat.



Holland Christmas Bird Count Tallies Nearly 7,000 Birds

Our naturalist staff recently participated in the 120th annual Christmas Bird Count on January 2. The Holland count has been coordinated by the ODC's Jamie Krupka for the last two years, though it has taken place for the last 23 years. This citizen science study organized by the National Audubon Society is the longest running wildlife census and includes more than 2,600 locations across the US, Canada, and Latin America. Counts always take place between December 14 and January 5 each year.

The 15 mile diameter circle which makes up the Holland count area includes quite a bit of Lake Michigan, from Holland State Park to Pier Cove in Douglas. The center of the circle is actually several miles into Lake Michigan near 138th Avenue in Laketown Township.

For this year's count, there were 32 people split into nine teams who canvassed the area driving a total of 314 miles and hiking another 17 miles. Their objective was to count every individual bird they could find! Final data from the Holland census had 6,901 birds tallied for a total of 58 species. Interesting finds included a Northern shrike, a red-shouldered hawk, Eastern bluebirds, bald eagles, and American kestrels.

Bird numbers fluctuate from year to year based upon environmental conditions and the expertise of the people who are trying to count them. The data are compiled and compared to data from other count circles and years in order to better understand bird populations over time. Trends in bird populations such as shifts in species range and overall health of a habitat can be seen thanks to studies like these. They have also contributed to the recent observation by scientists that, on average, bird populations in North America have seen a 29% decline since 1970.

Participating in citizen science is one way we can help wild birds. Mark your calendars now if you would like to be a part of the count next year—it will take place on Saturday, January 2, 2021.



Interpreting Michigan's Living History

Since 2001, the Outdoor Discovery Center has been helping visitors learn about Michigan cultures through its living history programs. We gear our program toward 3rd–4th graders to help enhance the school's curriculum and follow Michigan's education standards. In the program, the students learn about the People of the Three Fires: the Chippewa, Ottawa, and Potawatomi tribes. The intention of the program is to help students understand what life was like for Michigan's indigenous people who lived here during the period leading up to contact with Europeans.

This cultural history program is like any other program we do at the ODC, as it includes as many hands-on opportunities as possible. During the program, the students visit a reconstructed summer village and replica winter house, explore artifacts, see a Three Sisters garden, play games, and investigate daily life during that period in Michigan's



history. The students compare and contrast their own lives to the lives of people who lived several centuries ago.



Photo by Mike Lozon

A newer addition to this program includes the introduction of the French fur trade and French voyageurs in the Great Lakes region. New artifacts and experiences have been added to the program for those teachers that want to connect Michigan's indigenous people to one of the first communities of Europeans they encountered. Artifacts like clothes, blankets, baskets, and jewelry accompany the programs' activities to learn about this brief period in Michigan's history where trade between Europeans and the indigenous people was at its all-time high.

Our goal is to provide better opportunities for people to explore Michigan's living history whether with a school group or simply visiting the site. Over the next two years, look for additional changes in programs related to Michigan's indigenous people and French voyageurs. With the support of the community, we are working to develop new teaching spaces both inside buildings and outdoors at the Outdoor Discovery Center. To learn more about how you can help this project, contact David Nyitray, david@outdoordiscovery.org.



A student practices starting a fire with a hand drill, *above*; a group explores handmade artifacts, *right*





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