

DEEP PORTAGE

Learning Center

Fall 2023

Deep Portage Learning Center

2197 Nature Center Dr. NW
Hackensack, MN 56452
Phone: (218)-682-2325
www.deep-portage.org

Our Mission:

Through the exploration of woods, water, and wildlife, Deep Portage prepares and inspires learners of all ages to sustain and celebrate our natural world.

Who Are We:

We are a nonprofit residential environmental education center located on more than 6,000 acres of lakes, bogs, rivers, and woodlands. For nearly fifty years, we have provided extraordinary outdoor experiences for school groups, campers, families, and all who love the great outdoors.

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Social



Forkhorn 3 Summer Camp

By: Neal Tacheny (Camp Director)

After a four year break, Forkhorn 3 camp was held at Deep Portage! This summer, Forkhorn 3 camp had no certification or test, just a focus on outdoor skills and specialized techniques. Campers shot muzzleloaders and shotguns up at the range, learned how to clean guns, and slept in tents under the stars while cooking campfire meals. Waterfowl day included each



student receiving their own duck call, and on turkey day, campers built their own turkey calls. Camp became a symphony of duck and turkey calls the rest of the week! After a final evening of karaoke dance party, campers arose on their last morning and participated in the first ever "Ultimate Forkhorn Challenge." Campers competed in 6 events with skills and techniques learned from Forkhorn 1-3 camps. Such skills included fire building, firearms shooting, wildlife ID, and archery.



Forkhorn 3 camp will be back next summer with even more activities. If you have a camper interested in any Forkhorn camp, online registration starts in winter. For camp scholarships, reach out to the Minnesota Deer Hunters Association. Take a look at their website to find the chapter local to you. They send hundreds of campers to Forkhorn camps on full scholarships each year.



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New Donation Site & 2023 Mugs!

We have a new donation platform on our website! This will be a more streamlined process for donors and Deep Portage staff.

As we move away from memberships, a \$50 donation is what gets you the annual mug. You may make a donation in person and bring home your mug, or make the donation online or by check (specify that you wish to receive a mug) and we will ship it to you. Donate by clicking the "Donate Here" button or visit www.deep-portage.org/donate.

[Donate Here](#)

2023 Annual Meeting

Mark your calendars for **Saturday, November 18, 2023!**

Be sure to get this year's annual meeting on your calendar. This will be our final opportunity to celebrate Deep Portage's 50th Anniversary. Plan for a little extra fun, details to be determined. We will be opening up the time capsule we "buried" in 2013, and placing new items in for the future. All are welcome to attend!

New Solar Panels

It's here! The newest addition to our solar community was installed in mid-August in the backyard prairie. The new array will replace the Great Hall roof solar array that was removed from the 2022 roof project. The new panels are a 18kW system installed by Champion Solar and are already screaming away, producing clean on-campus energy. Why are we not putting them back on the roof? Two reasons. First, cleaning snow off roof panels is extremely difficult. During winter we could only clear about 20% of the panels. The rest would be covered with snow and ice until a good March thaw. On the ground, we have easy access to clean the snow off after every snow. Secondly, the roof panels had to be at the same angle as the roof which wasn't the best angle for production. The new ground array is angled more properly towards the sun, producing more energy! This system comes equipped with wifi technology that helps us track real time production.



Critter Mug Art Contest

Now taking submissions for the 2023 Deep Portage Annual Critter Mug artwork contest!

Every year, Deep Portage puts out a special mug available for those that donate \$50 to support our organization. This year, you can be a part of the history and creating the image for the 2024 mug.

Contest Guidelines:

- Artwork should be 1 color
- Size printed on mug is about 2"x2"
- We have a few suggestions of critters, but you are free to come up with any critter as long as it hasn't been done before and is a species that would be found at Deep Portage
- Email digital files to office@deepportage.org or mail paper submissions to 2197 Nature Center Drive NW, Hackensack, MN 56452
- Submissions due: **October 13th, 2023**
- Winners chosen on November 3, 2023
- Winner receives a free mug and a t-shirt



Past Critter Mugs

Year	Animal	Year	Animal
1980	Mallard w/ 4 Ducklings	2002	Northern Pike
1981	Mallard w/ 4 Ducklings	2003	River Otter
1982	Ruffed Grouse	2004	Largemouth Bass
1983	Beaver	2005	Black-capped Chickadee
1984	Great Blue Heron	2006	Bluegill
1985	Red Fox	2007	Flying Squirrel
1986	Hairy Woodpecker	2008	House Wren
1987	Skunk w/ Lady'slipper	2009	Porcupine
1988	Bald Eagle	2010	Painted Turtle
1989	Black Bear	2011	Great Horned Owl
1990	Mallard	2012	Osprey
1991	Raccoons	2013	Dragonfly
1992	Ruby-throated Hummingbird	2014	Black-and-White Warbler
1993	White-tailed Deer (Buck)	2015	Hooded Merganser
1994	Bobcat	2016	Common Loon
1995	White-tailed Deer (Fawn)	2017	Wood Frog
1996	Great Horned Owl	2018	Bees w/ Honeycomb
1997	Male Wood Duck	2019	Tiger Salamander
1998	Pileated Woodpecker	2020	Black Bear
1999	Canada Goose w/ 3 Goslings	2021	Wild Turkey
2000	Gray Wolf	2022	Flying Squirrel
2001	Ruffed Grouse	2023	Trumpeter Swan

Future Critter Ideas

Animal

- American Woodcock
- Fisher
- Bat (Big Brown or Little Brown)
- Ermine/Least Weasel
- Garter Snake
- Species of moth
- Species of butterfly

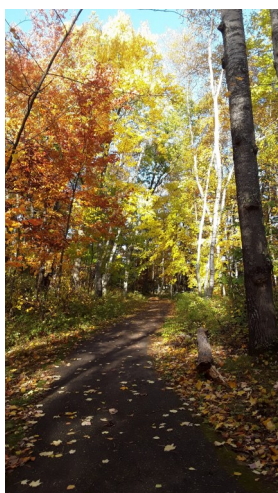


Fall Phenology

By: Sophie Bishop (Communications and Office Manager)

With summer coming to an end and seeing the nights becoming longer, many changes happen in nature that makes Autumn so magical. One of these incredible changes we see every year in Minnesota are the leaves turning colors; red, orange, brown, and yellow.

Earth is tilted on an axis at 23.5° and this never changes while it spins around the sun creating our calendar year. During the summer months, the northern hemisphere is tilting towards the sun. When our season starts turning into fall and eventually winter, the northern hemisphere is tilting away from the sun causing the shorter days/longer nights. This rotation causes the fluctuations in temperatures and the trees are very effected by this transition.



To figure out how the leaves change colors and why, we need to investigate what causes the leaves colors. Chlorophyll is a structure in plants cells that creates the green color, and this is how plants produce sugars and oxygen with sunlight and carbon dioxide through the process of photosynthesis. Carotenoids are a pigment in leaves that give the yellow, orange, and red colors during the fall and is always present in the leaves. During the fall, the trees exposure to light is diminishing which causes the chlorophyll production to lessen and eventually it is all destroyed (see next paragraph). This gives way to the carotenoid pigments we see in the leaves. Another pigment that is present in leaves during this time is anthocyanin which is produced in the autumn.

After the beautiful colors are done, the leaves start turning a browner color. They begin turning brownish because a corky layer of cells starts being produced right where the leaves stem joins the tree's branch, and this is known as the abscission layer. This is caused by the reduction of sunlight throughout the day. This layer does not allow the flow of nutrients from the inner tree to the leaves and the chlorophyll production is no longer viable. Eventually, the leaves detach and drop.



Deep Portage is an amazing place to come see all the wonderful autumn colors. We have many trails surrounded by trees including aspens, maples, birch, oaks, and tamaracks. During the fall, aspen leaves turn yellowish amber, maple leaves turn vibrant red, yellow, and orange, birch leaves turn yellow, oak leaves turn maroon and brown, and tamarack needles turn golden. Tamaracks are a coniferous tree that loses its needles in the fall; you can see them in our bogs. Come check out what our 6,307 acres have to offer for all the marvelous fall adventures.

