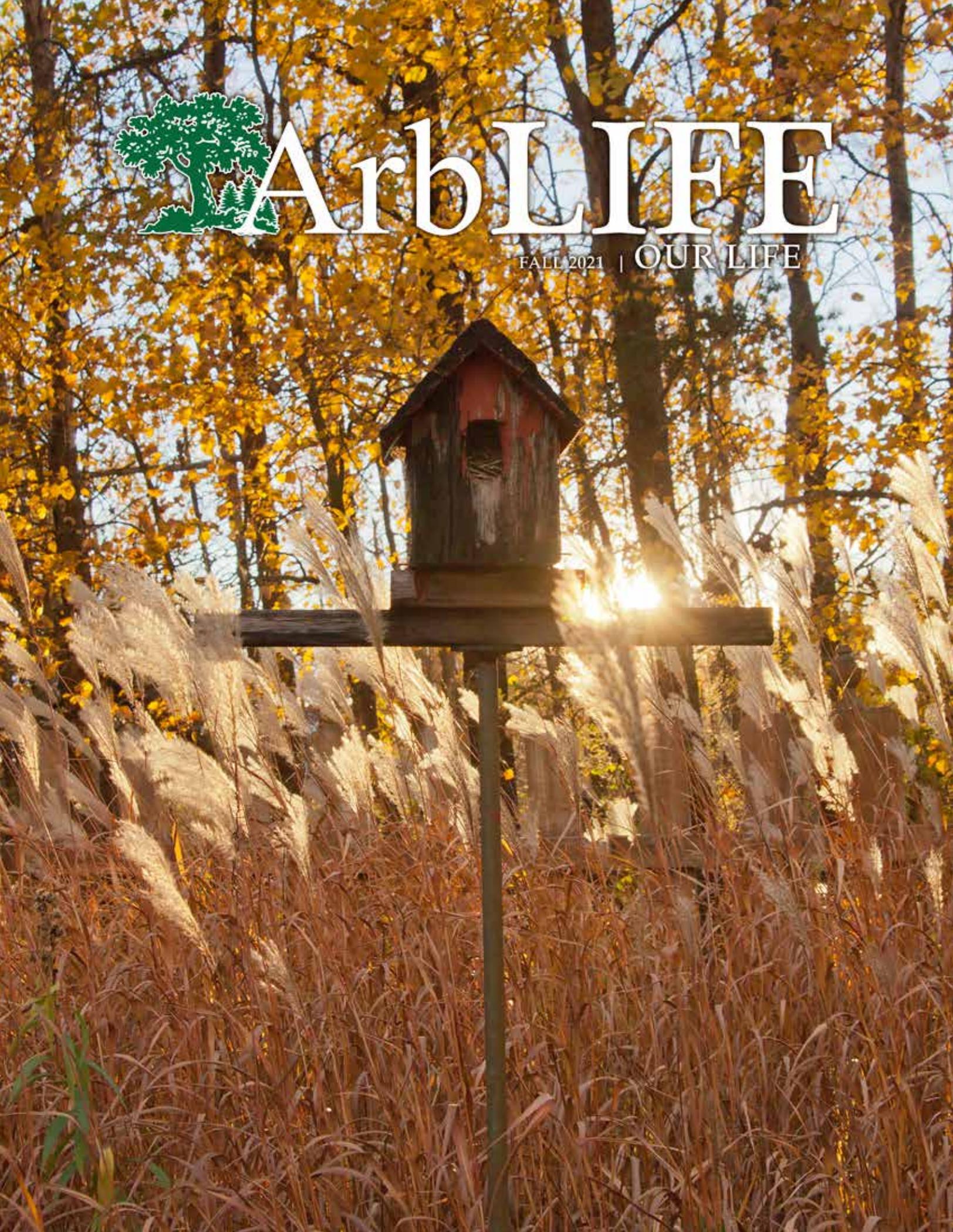




ArbLIFE

FALL 2021 | OUR LIFE



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Our Mission: "The Northland Arboretum strives to be a valued community asset providing outdoor recreation and educational activities for all while protecting the natural environment".

Our Vision: The Northland Arboretum will be the premier destination in Central Minnesota connecting people to the environment for the promotion of education, recreation and conservation.

What's your legacy?



The Northland Arboretum Legacy is preserving this premier public environmental facility in the Brainerd Lakes Area for the promotion of education, recreation and conservation. Ways you may wish to help the Northland Arboretum: Gifts of Cash, Gifts of Real Estate, Gifts of Stock, Life Time Gifts, Bequests, Life Income Gifts, Gifts of Life Insurance. Memorial envelopes can be mailed upon request. The Northland Arboretum can provide you with additional information on any gifts you may be considering. Contact us at 218-829-8770 or at info@northlandarb.org.

Thank you for your support throughout the year.



On the Cover:

Photographer unknown

Photo taken on the
North Star Trail at
the Arb.



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A word from the Executive Director

Let's admit it, this summer has been a scorcher! Hot and humid temperatures made it awfully difficult for the Arb's plants and wildlife this season. And it was even harder on our maintenance crew! If you run into them on your hikes coming up, be sure to thank them! They certainly did their best while chasing broken sprinkler heads, withering trees, and the occasional hungry black bear. Now, with great anticipation we look forward to witnessing those burning temperatures collapsing into crisp, autumnal days as we welcome back our fuzzy sweaters and comforting flannel. In my humble opinion, it's the way Minnesota was meant to be experienced.

At the Arboretum this fall we still have plenty to look forward to as the weather turns. Most of all, I want you to note our Haunted Trail is going to be bigger and better than ever! We are still in need of volunteers, so step right up and join

the fun! If scaring isn't your idea of a good time, we still need helping hands with set up, volunteer coordination, parking, security, take down and more! Even if you only have a few hours to spare we can find a fun job just for you. Volunteers will receive free tickets for helping us make this a successful event AND new this year, we will have judges voting on the best scare sections.

This fall we will be adding some new additions to our team as well. We have a GreenCorps member joining us in September and an intern, both of which will be helping us boost our educational programming and conservation efforts. I'm personally looking forward to the new energy they will bring to our team. I hope to be able to introduce them to you very soon!

Take care, fellow nature-lovers. Hope to see you soon!

Candice Zimmermann
Executive Director, Northland Arboretum

Give Today So We Can Grow Tomorrow

As we approach the end of the year, consider giving to the Northland Arboretum's general fund. Your contribution will help us continue to create a peaceful space for the health and wellbeing of the community. This year, we hope to use these annual funds to renovate the waterfall in the Memorial Garden and purchase an all-terrain vehicle with a water tank for the grounds. Even the smallest amount will make a difference! If every member contributed just \$10 we would have enough funds to complete both of those projects in 2022! Just use the included envelope to mail your check or go online to www.northlandarb.org/give-back.

Imagine the joy we will bring our members and visitors when they connect with nature in a calm, beautiful, and green space. We appreciate your membership, your involvement, and your passion for the outdoors.

Candice Zimmermann,
Executive Director
Northland Arboretum



WonderTrek
CHILDREN'S MUSEUM

SEPTEMBER 18TH - BIRD WATCHING
OCTOBER 2ND - FORT BUILDING
OCTOBER 16TH - OUTDOOR SURVIVAL

Trekking the Trails

A new partnership with the Northland Arboretum along with the Children's Museum WonderTrek are offering educational hikes over the fall months.

1st and 3rd Saturdays in September & October from 10am - 12pm
These programs will be geared for children ages 3-9
Meet at the Holden Gazebo

Free to Arboretum members
Non-Members will need to purchase a day pass.



2021 Northland Arboretum

Haunted Trail

October 21-23 from 6:30 - 9 pm. Come experience haunted thrills and chills as you walk the low & high scare trails in the dark woods of the Arboretum! Tickets ARE LIMITED and may be purchased in advance for \$17 at the Visitor Center or at the door for \$20. This year, fast pass tickets are available for \$25 at northlandarb.org.

Concessions, Tattoos, Finger Flashlights, Glow Necklaces and T-Shirts will be for sale!



Volunteers Needed...

We are looking for groups & organizations to run scare sections for the Haunted Trail. The trail features high scare and low scare sections you can pick from. The Arboretum has props and costumes you may use, or you may come up with your own idea. Themes we have include: medieval, mummies, scary clowns, human butcher shop, snake pit, and more! This is a great opportunity for any high school tech or theatrical students to put their skills to the test!

Scare section selection and actor training is September 20 at 6pm.

Prop selection from the Arboretum's stock may be picked out on October 4 at 6pm.

Volunteers will receive dinner each night of the Haunted Trail. All volunteers will receive free admission for themselves and a friend to this year's haunted trail. Your total hours may qualify towards your service organizations volunteer hours, and there is an award dinner and wrap up party in November where the "Best Section" contest winner will be announced and a traveling trophy awarded.

If you are interested in participating in this year's event, please rsvp to the Northland Arboretum at 829-8770. You may also reserve your scare section at this time.



Looking for something a little less scary?



Low Scare Trail & Trunk or Treat



Saturday, October 30th | 4-6 pm | \$5 per person
T-shirts and Finger Flashlights will be for sale

Come experience fun haunted thrills featuring The Great Pumpkin, Underwater World, Jurassic Park, The Nightmare Before Christmas and more on the Low Scare trail at the Arboretum.

Attention Members & Businesses

On October 30th the Arboretum is hosting a KIDS ONLY Halloween Event and you are invited! The Low Scare Haunted Trail will be open and followed by Trunk or Treat!

Advertise your business (banners, stickers, or in the theme itself). Park in our visitor parking lot and hand out candy for the Trunk or Treat. There are only about 15 spots available! The event is Saturday, October 30th and goes from 4-6 pm.

To participate please let us know by October 15. Call the Arboretum at 829-8770.

SPONSOR A MONSTER

READY TO SCARE UP SOME BUSINESS?

Several different levels of sponsorships!

Contact the Northland Arboretum to get started!
829-8770 or arbdirector@northlandarb.org

The Common Loon

By Judd Brink Owner/Guide MN Backyard Birds



The Common Loon (*Gavia immer*) or the “Great Northern Diver” is Minnesota’s official state bird. The American Goldfinch (*Spinus tristis*) was the state’s first designated state bird but was changed to the Common Loon in 1961. Minnesota has the highest Common Loon population (12,000) outside of Alaska in the United States. The land of 10,000 lakes provides adequate habitat of clean and deep lakes. The Common Loon is one of five species of loons found in North America and is the only one that nests in the lower 48 states. The Common Loon winters in the Gulf of Mexico and immature loons spend three to four years here before returning to breed. The other loon species are Red-throated, Yellow-billed, Arctic and Pacific, all nesting along the Arctic or the coasts.

Having loons on our many lakes is special and is an indicator of how clean and clear the water is. Loons are very sensitive to any changes in their environment; water quality is very important for them and it should be for us too. Many of us are fortunate to live in an area where loons are commonly seen or heard during the summer season. For many it’s the loon that is the true symbol of the north! Even though loons don’t nest at the Arboretum they are often heard and seen during the spring and fall seasons during their migration. One of the best places in the state to see large numbers of loons is on Lake Mille Lacs in late fall where numbers can reach 500 or more birds.

The Common Loon is a large bird weighing 8-12 pounds with a 46” wingspan. Loons are very interesting in many ways, such as how far back their legs are on the body, making it very awkward and difficult for them to walk on land (it’s nearly impossible). Loons are exceptional divers, with depths reaching nearly 200 feet! They also have great speed and agility underwater for chasing and catching their prey, which is mainly fish. Another unique attribute of loons is that their bones are not hollow but are “honeycomb” in structure which allows them to sink or submerge without

a splash (like a submarine). When watching loons through a pair of binoculars you can clearly see this technique as they dive for food or escape danger. The Common Loon also has red eyes, which allow it to see underwater.

The Common Loon might be one of the most vocal of all the water birds. It can be heard throughout the day but is mostly known for its haunting calls during the night. The loon has four basic calls...the yodel, tremolo, wail and hoot. The yodel is given only by the male to declare and defend its territory from other loons. The tremolo is an aggressive call and is used when it’s disturbed. The wail sounds like an eerie laugh and is used to find other loons nearby, so it makes sense that this is one call heard during the night. The hoot is less obvious than the others and is generally used between adults and young.

Loons arrive soon after ice-out; in most years it’s within days. Soon after arriving at their breeding locations the priority is to establish a territory that includes a nesting location. Larger lakes may contain several pairs of loons, with each pair defending a specific size or portion of the lake within its territory from other loons.

Once a lake is chosen and a territory is established their attention shifts to nesting. With their feet set back so far it’s hard for them to nest away from water. Most loon nests are at the water’s edge so they can just slide off the nest and into the water. The nest is usually constructed by both adults with whatever is available around them, mostly reeds, grasses, rushes and mud. Almost all loon nests are found along natural vegetative shorelines along sheltered bays, peninsulas, islands, or on floating vegetation mats and constructed platforms. Loon nesting platforms are sometimes placed at specific locations by the Minnesota Department of Natural Resources (MN DNR) or through some lake home associations to provide better protection and nesting success. Loons usually lay 2-3 eggs that hatch about 30 days later. In June you can watch the young chicks riding on the parents’ back to keep safe from predators. Because loons nest so close to the water’s edge they are very susceptible to nest failures that result from flooding or wave action. A rise of just a few inches can be detrimental





captured and fitted with a special tracking device that measures and calculates their migration pattern showing the dates, locations and distances. You can follow one or more of these loons as they migrate to the Gulf of Mexico and back. To learn more and track the loons, search for “loon migration”.

Enjoy Minnesota’s waters, but please remember to respect and share the water with our state bird. I would encourage you to join the LoonWatch program for your lake. It’s a great way to learn more about the Common Loon. Remember, having loons on our lakes is a good indicator of how healthy and clean our lakes are.

The MN DNR started a volunteer Loon Watcher Survey Program back in the early 1980’s to help monitor loon populations on our many lakes. Volunteers sign up to monitor loons on their lake or one nearby. All the forms are provided and you are asked to survey the loons throughout the summer nesting season. Crosslake, Minnesota is possibly the future home of the National Loon Center! This facility will be home to education and research and many interactive displays! Happy Birding!

Judd Brink, is the owner of MN Backyard Birds in the Brainerd Lakes area. MN Backyard Birds provides birdscaping for homeowners and businesses to attract and enjoy more colorful songbirds. The business was recently featured on Kare 11 news with Belinda Jensen and MN Bound with Ron Schara. For more information about birdscaping or a free backyard consultation contact me at (218) 838-4784 or email me at info@birdminnesota.com.

Sincerely,

MN Backyard Birds

Attract and enjoy more birds with birdscaping!

to a loon nest and waves from any powered motor craft can be deadly too. It’s very important to stay away from marked or known loon nesting areas.

In 2010 the largest oil spill occurred in the Gulf of Mexico with over 5 million barrels of crude oil released into the gulf. This will have an everlasting impact on wildlife and its habitats. Many of us were greatly concerned for our wintering loons and for the juvenile loons that spend 3-4 years in this ecosystem. Some loons and many other birds were found dead or covered in oil, unable to fly or fish. From this disaster, a new study started to learn more about loon migrations. Several loons from the state were safely

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That Midsummer Peak

By Charles Johnson | Photos By Charles Johnson

The midsummer temperatures get into the uncomfortable ranges: the humidity is no different. The sun scales into the sky as high as it can go, emitting radiant power enough to warm the air in the deepest shadows beneath the thickest bushes. Rains come and go in varying amounts and intensity; sometimes torrential, sometimes barely even worth referring to as a mist.

In the Northland Arboretum, such conditions bring benefits that border on the miraculous.

Creatures move along with greater speed than they have all year. The squirrels, who in the spring ambled along casually in search of acorns from last year, are seen dashing from tree to tree as if they had superpowers. The past spring's fawns are less identifiable as their spots fade, foreshadowing their inevitable growth. They still leap and frolic in childlike joy – and yet here come the antlers, here comes their adulthood. Insects, now free of their cocoons and other adolescent forms, have metamorphosed into their new existence, growing delicate wings that carry them with assurance – some of them heading thousands of miles away as the weather changes. The birds, their springtime mating colors now muted, are just beginning to feel the pull of the migration that has so long been a part of their instinctive pattern.

The flowers develop into fully-bloomed ornaments of nature, displaying hues that seem beyond the scope of our own imagination in their vibrance. Shades of one color appear from the core of a petal, out to the edges. Some darken from the inside out, some the reverse. Even the whites of the water lilies shimmer enough to make us shade our eyes as we look at them. The thistles have opened, offering their nectar to the world. Petals fall away in time, leaving behind seeds, berries, or pods to serve as a meal for some of the inhabitants of the arboretum, or to fall to the ground, propagating themselves for the next year. Eventually, even the foliage loses its green and takes on its fall costuming as it proclaims the passing of time.

The peak of summer seldom crashes into autumn. It peaceably glides with silent grace into the calmness among the oranges and reds of changing leaves. It nestles into the quieter branches of the trees as a good many species of birds take their songs and head south. It follows the burrowing animals into their dens and underground homes. Even larger animals like the deer sense the change as they find ample sources for food and as their furs thicken into their winter coats.

The summer peak may subside, but it will be back soon enough with all its ardor and energy.



Arb Library

By Rosanne Blass, Ed.D, University of Minnesota
Extension Master Gardener

Browse & Borrow from the ARB Library

Come! Browse and borrow from the ARB library collection located in the Arb Conference Room. The collection includes a little bit of almost everything: garden and woodland inhabitants; pests and diseases; indoor and outdoor gardening; landscape and design; trees and shrubs; school and community gardens; wetlands, water, and rain gardens; herbs, crafts, and cooking; gardens and gardeners; even essays and poetry.

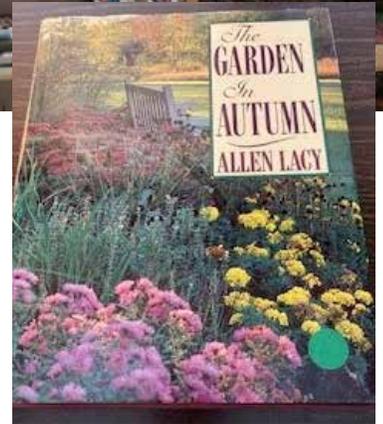
As summer ends and autumn begins, you may want to take a look at *The Garden in Autumn* by Allen Lacy which highlights the new beginning of the new season with perennials, annuals, and bulbs that flower after frost as well as grasses and woody plants. Although many of the plants grow in Southern gardens, many also grow in Northern gardens. The author includes sources of plants as well as a bibliography at the end. Because the book was published in 1990, sources and bibliography are probably still current.

As you browse the shelves, you will also find craft ideas for the upcoming holidays, tips for preserving flowers, and recipes for cooking and preserving your autumn harvest.

Books are organized and color coded with a color coding guide located on the side of the bookcase. To borrow from



the collection enter your name, the book title, and date on the sign out sheet which is located on the shelf of the book case closest to the door. When you return your books, enter the return date on the sign out sheet and place your books in their proper place on the bookshelf.



HAPPY BROWSING!
HAPPY BORROWING!
HAPPY READING!

The Nature Network is a coalition of nature-focused partners that encourage outdoor activities for the good of individuals, families, and the community. The partners at the table include the Northland Arboretum, Brainerd Lakes YMCA, Kinship Partners, Mount Ski Gull and Crow Wing Energized. The purpose of this team is to work together toward a similar goal - to improve the community's connection to nature! Our first task was to create a Passport to Nature, which was launched in a recent publication of the Dispatch. This passport is a pilot project which will encourage people to get outdoors.

Visit all of the above businesses and get your passport stamped. After you get all of your goals completed, participants can receive prizes by dropping off their passport at the Arboretum, Ski Gull or YMCA. It's time to get outside!





Giving Garden

Master Gardeners

Ever wonder what's going on in the fenced gardens through the gate and down the gravel road on the Arboretum grounds? Just beyond the apple trees, surrounded by pollinator plants and fluttering monarchs, are expansive flourishing vegetable gardens.

Established by University of Minnesota Extension Master Gardener Volunteers of Crow Wing County, these gardens pre-2020 were used for Gardening 101 classes. This summer and the previous one, education and community outreach has remained the goal but with a slight twist.

The brainchild of volunteers Dan and Jennifer Lee, the G101 area has become a Giving Garden, giving not only fresh food, but knowledge; and promoting a taste and love for fresh vegetables throughout Crow Wing County.

This Community Giving project spans the year, beginning in early spring with Bedding Plants Project, the distribution of Container Gardens Project in early June, and finally the Giving Gardens you see today. Members of the Bedding Plant Project grew 250 plants to be used in the Container Gardens and the Giving Garden. The Container Garden Project, spearheaded by Judy Morgan, donated more than

145 container and bedding plants to several Crow Wing County organizations including: Veteran's Administration, Pequot Lakes Food Shelf, Garrison Lions Club, CRMC Senior Living Crosby, CRMC Social Workers, and Sharing Bread Kitchen. Remaining plants became the strong starting point for the Giving Garden.

The 2021 goal of the Giving Garden is to donate 2000 pounds (4000 vegetable servings) to the Salvation Army, Sharing Bread Soup Kitchen, and food shelves throughout Crow Wing County. As of Monday, August 17, 1000 pounds of produce have been donated with heavy produce such as cabbage, squash, and apples still to be harvested.

If you have a chance, stroll by the gardens and read some of the educational signs. Maintained by trained Master Gardener volunteers, the gardens are really a sight to behold. Chances are good that one of the volunteers will be there, weeding or pruning a tomato plant, and they would be happy to show you around and answer some questions. Perhaps, you have always harbored an interest in gardening and education and would like to join our Master Gardener ranks. Now is the time to learn more and consider applying! Check out our website, www.crowwingmastergardeners.org/growwithus.

Photo Credits:

Brittany Goerges, approaching the gardens;

Jennifer Lee;

Kalsey Sults, Crow Wing Energized - Pictured Master Gardener Volunteers (left to right, Sally Jacobsen, Rhonda Cosgrove (intern), Deb Albrecht (intern), Susan Lutz, Diane Wiener (intern), Brittany Goerges (coordinator), Judy Morgan, Paula Schwartz (intern), Jennifer Lee, Marsha Thomson (intern), Dan Lee, Diane Wiener (intern), Pauline Condon, Rosanne Blass, Sharon Bodie);

Unknown;

Jennifer Lee (donated harvest with Master Gardener Volunteers interns Diane Wiener, Paula Schwartz, and Deb Albrecht)





Kids Corner



Why do baby deer have spots?

Fawns have spots so they can hide from predators. The spots help them blend into grassy areas and brush. Fawns need their spots to survive, but as they gain strength, independence, and maturity they will lose their spots completely, which will be after the first 120 days or so. Fun fact: reindeer babies are NOT born with spots.

Autumn Leaf Nature Craft

These autumn leaf butterflies and dragonflies are so cool and are completely inspired by nature! Fall is here, and there are so many beautiful trees changing colors. Take a nature walk and gather fun nature materials, find twigs, berries, flowers and tiny thistles.

Leaves and twigs are free, which makes this craft super inexpensive! All you'll need in addition to your leaves etc. is some tacky glue, scissors and cardstock. The rest is up to your imagination!



Fluffy Sweet Potato Muffins

With a fluffy texture, a naturally sweet flavor, and a hint of cozy spices, these Sweet Potato Muffins may be your new favorite muffin!

INGREDIENTS

- 1 cup mashed sweet potato (very smooth and cool or at room temperature)
- 1 cup milk
- 1/4 cup melted unsalted butter (slightly cooled; 1/2 stick)
- 1/4 cup maple syrup
- 1 egg (lightly beaten)
- 2 teaspoons pure vanilla extract
- 1 cup all purpose flour
- 3/4 cup whole wheat flour
- 2 teaspoons baking soda
- 1 teaspoon cinnamon (or pumpkin pie spice)
- 1/4 teaspoon salt
- optional: chocolate chips or fresh lemon zest



INSTRUCTIONS

Preheat the oven to 375 degrees and grease a standard size 12 cup nonstick muffin tin well. (I use classic Pam spray.)

Add the sweet potato, milk, butter, maple syrup, egg, and vanilla to a medium bowl.

Stir together, going slowly and gently, until fully combined.

Stir in the flours, baking soda, cinnamon, and salt.

To add chocolate chips, sprinkle a few on top of each muffin before baking. To add lemon zest (without chocolate), stir 1 tablespoon fresh lemon zest into the batter.

Divide among the prepared muffin tin, using about 1/4 cup batter in each, and bake for 16-20 minutes or until a cake tester inserted into the center of a muffin comes out cleanly. (In my oven it was right at 18 minutes. To make as mini muffins, bake for about 12-14 minutes.) Let cool for a minute in the pan, then transfer to a wire rack to cool.

Serve slightly warm or at room temperature.

A Scavenger Hunt that Rocks!



Come check out our Fall & Halloween themed painted rocks. New rocks added all fall. Enjoy spending creative time in nature with family and friends.

When you find a rock you can either keep it or re-hide it.



Find the golden rock and win a prize!



Getting to know the oaks

By Christopher Jennings

Article courtesy of The Outdoor News: North Country tree identification

August 2020 *Scientific American* article detailed the origins and subsequent evolution of *Quercus* – the genus to which all Oak trees belong.

After 56 million years of evolution, Oaks now number more than 400 species. Oaks are especially prominent in the Americas, home to roughly 60% of living Oak species. In North America and Mexico alone, Oaks account for more forest tree biomass than any other woody plant.

Early in their evolution, Oaks diverged into two major groups: the Whites and Reds.

White Oaks 101

The leaves of White Oaks have lobed tips lacking prominent bristles. Pollinated by wind, White Oak catkins will mature into acorns in a single season. Many of these acorns will germinate and begin growing a taproot radicle immediately on the forest floor. In addition to a limited shelf life, acorns in the White Oak group are lower in bitter-tasting tannins. When coupled with their perishable nature, it's been suggested that wildlife will focus on consuming White Oak acorns as soon as they drop each fall.

Red Oaks 101

The leaves of the Red Oaks are tipped with prominent bristles. For the Red Oaks, acorn development is a two-year process. After pollination by wind, the pollen of Red Oaks takes a full year to travel through the catkin and complete fertilization. After fertilization, it will take another full year for the acorn to ripen. Compared to those from White Oaks, Red Oak acorns are higher in tannins which give them a bitter taste.

The Red Oak and White Oak groups diverged early in their evolution. Today you can often find a Red Oak and a White Oak coexisting and thriving in the same environments. Here are some Oaks you should know:

The White Oak Group

The **White Oak** (*Quercus alba*) grows best in well drained, fertile, neutral to slightly acidic soils. Fairly drought-tolerant once established, you can expect 12 to 24 inches of annual growth in ideal conditions in full sun. White Oaks can grow to 80 or even 100 feet tall and spread as wide. Slow growing, the White Oak will take up to 20 years before producing its first crop of acorns and those crops will not peak until the tree is 50 years or older. Intolerant of alkalinity, White Oak is most often found on a landscape's better soils; deep, well-drained, slightly acidic to neutral.

White Oak acorns mature in the same year they are pollinated, this means they can bear every year. The reality is more intermittent, and White Oaks might not bear every year and "a heavy crop" might occur just every four years or so. White Oak acorns are an inch or so long, ovoid in shape, with a cap covering a quarter of the length. White Oak acorns will germinate almost immediately after dropping. A sharp root radicle will emerge from the acorn's tip in a matter of days. This humble radicle will bore through the soil a foot or more in the next growing season and eventually grow into a deep tap root that will both anchor the adult tree and provide drought resistance for 300 years or more.

The **Swamp White Oak** (*Quercus bicolor*) is a hearty tree of the river bottoms and floodplains. They tolerate flooding very well, though they will not grow where flooding is permanent.

They grow best in moist, well drained acidic soils, and – in ideal conditions – established trees can add up to 20 inches per year and produce acorns in 20 years. Swamp White Oaks can grow to 60 feet tall and 60 feet wide.

The acorns of the Swamp White are about an inch long with a scaly cap covering the top third. These acorns are low in tannins and renowned to be the sweetest. The scaly cap provides little protection when these prizes hit the forest floor. I once found a spot that looked like a snow angel in the

duff and dirt beneath a Swamp White Oak. Closer inspection revealed that a bear had sat down and used its paws and forearms to shovel acorns into its waiting mouth.

The **Bur Oak** (*Quercus macrocarpa*) is a common “big oak” of wood lots from the Great Plains east to Nova Scotia. A Bur Oak buried in deep woods, belies its pedigree as the fire-adapted monarch of North America’s prairies and oak savannas. In top conditions, the Bur Oak has fire-resistant, corky bark at 12 years old.

Among the slowest growing of the Oaks, Bur Oaks are not fussy about soil, and they will grow on sandy to loamy and even clay soils. Burs will tolerate both acidic and alkaline soils. Bur Oaks can grow in wet, well-drained sites, and their deep taproot affords some drought tolerance. Bur Oaks will not tolerate well in shade; they need full sun in order to become established, and will grow up to 100 feet tall and sprawl nearly as wide in 300 or more years of life.

At up to two inches long and up to 1 1/2 inches wide, its acorns are the largest in North America. The Bur Oak’s name is owed to a thick scaly cap that covers two-thirds of the acorn. Wildlife love these acorns, and more than once I have puzzled at the dexterity employed by whitetails as they shuck off this imposing armor using only lips and bottom teeth. As a White Oak, Bur Oak acorns mature in the same year they are fertilized, yet heavy mast crops are produced intermittently, perhaps once every four years.

The Red Oak Group

The **Northern Red Oak** (*Quercus rubra*) is a fast grower as oaks go; it can add up to 24 inches a year when planted in full sun. Red Oaks grow best in moderately fertile soils that are acidic, loamy to sandy, moist, and well drained. Red Oaks can grow to 75 feet tall and spread to 45 feet wide and may live as long as 300 years. The bark of the Red Oak is a distinct, pale gray to tan surface contrasting against darker reddish umber furrows giving the tree a striped appearance. Northern Red Oaks can begin producing acorns in as few as 15 years. Catkins emerge along with leaf-out in spring when daylight reaches 13 hours. Weather plays a huge role for these wind pollinated trees, heavy rains,

late frosts, and even calm conditions can negatively affect the acorn crop that will not be evident for 18 months. Red Oak acorns average 1 3/4 inches long and 3/4 -inch wide. A saucer-shaped cap covers the top quarter. Red Oak acorns require three months of cold treatment before spring germination.

Here are three Red Oaks that are less widespread, but regionally important. These can be difficult to tell apart and their ranges sometimes overlap. All three have deeply lobed bristle tipped leaves and all three produce round or elliptical acorns that are 1/2 half to 1 inch long and mature the second year after fertilization in the spring.

The **Northern Pin Oak** (*Quercus ellipsoidalis*) ranges from central Minnesota to northern Illinois and southern Michigan. It will grow to 70 feet tall on dry, acidic sandy upland soils in pure and mixed stands.

The **Black Oak** (*Quercus velutina*) ranges from southeast Minnesota across the southern Great Lakes and to the East Coast. It will grow to 80 feet tall on dry sandy and rocky upland ridges in pure or mixed stands. The inner bark of the Black Oak is yellow or orange and historically was used to make dyes.

The **Pin Oak** (*Quercus palustris*) ranges across Illinois and the southern Great Lakes to the East Coast from Long Island and south. It grows to 90 feet in pure stands on poorly drained to wet and clay soils.

I’ve heard that squirrels will stash Red Oak acorns while favoring White Oak acorns to eat immediately. It is also said that deer feed preferentially on White Oak acorns before moving on to those from the Reds. As a hunter and aspiring naturalist, I’ve never actually confirmed this pattern in the heat of the early fall acorn drop. Everyone is eating everywhere!

By December, however, when I see leaves on the forest floor freshly churned by deer and turkeys, the canopy is most certainly Red Oak. In years when the Red Oaks produce good yields, I will make a note for late season hunts. Get to know your Oaks, and you can, too.



Northern Pin Oak



Swamp White Oak



Bur Oak



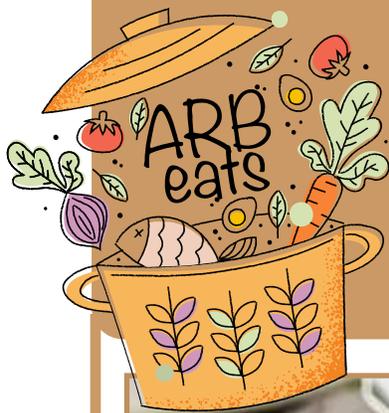
Black Oak



Northern Red Oak

Arb Eats: Calling all foodies!

The Arb would like to collect your favorite seasonal recipes with the chance they will be featured in an upcoming ArbLIFE. Share your steadfast, homestyle, stick-to-your-ribs recipes with your membership family. If you have a story to go along with your recipe – that's even better! Send your recipes and stories to Kelly at adminassistant@northlandarb.org.



Roasted Summer Squash

Coated in a seasoned breading and roasted until golden brown, this summer squash will be a new family favorite

1. Slice squash and toss with olive oil.
2. Combine other ingredients (per recipe below) and toss with the squash.
3. Lay on a prepared baking pan. Bake until tender.
4. Broil a minute or two to get the coating crispy and golden brown.

Ingredients

- 1 pound summer squash (zucchini or yellow squash) - about 2 medium zucchini or yellow squash
- 1 tablespoon olive oil
- 2 tablespoons parmesan cheese grated
- 1 tablespoon panko bread crumbs
- 1 teaspoon lemon pepper seasoning
- ½ teaspoon paprika
- ½ teaspoon kosher salt or to taste

Instructions

1. Preheat oven to 400°F.
2. Cut squash into ½" slices. Toss with olive oil.
3. Combine remaining ingredients in a small bowl and toss with squash.
4. Place squash on a baking pan and roast 12-14 minutes or until squash is tender. Broil 1-2 minutes or until crumbs are lightly browned.

NEEF National Public Lands Day

National Public Land's Day 2021

September 25, 2021

9 am - 12 pm

National Public Land's Day is a national day of service being sponsored by Minnesota Master Naturalists in cooperation with other local partners such as you!

The Northland Arboretum is a host site.

We will meet at the visitor center at 9:00 am.

Please bring your own gardening gloves.

All volunteers will receive snacks and water and a free item for participating.

Please call the Arboretum to sign up.



SNOW SHOE RENTAL

The Arboretum now rents snowshoes!
Adult & kids sizes available.



\$20.00/pair for a 3-hour rental

Call the Arb to reserve - 829-8770

Stop in and visit the Arboretum's gift shop, Nature's Gifts.

The shelves are stocked with unique gifts!

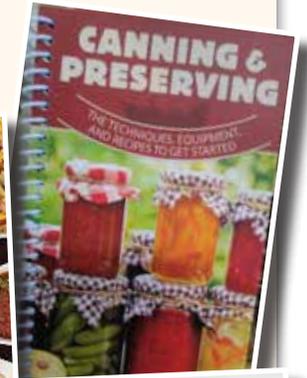
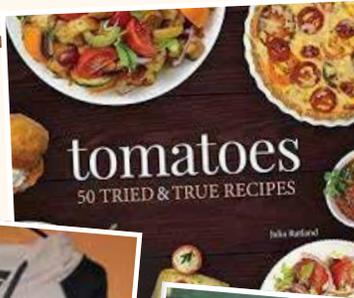
Just in are Minnesota themed puzzles, new recipe books on tomatoes and themed journals such as hiking, state parks and golf.

We just got in new jewelry from the Radiant Honey line.

Remember...gift certificates make great gifts!



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THANK YOU

The Arb appreciates the incredible support of our local businesses this past year. Starting in September, the Arb will host one Super Saturday per month for employees and their families of one of our participating Business Members.



EMPLOYEES WILL RECEIVE:

- Free gate fee/parking for the whole day
- Free use of snowshoes/Nature Knapsacks
 - Free dog treat for your furry friend!
- Free SURPRISE item available at the Visitor Center

The following businesses are on our calendar:

SEPTEMBER 11th - Lakes Printing

OCTOBER 9th - Atek Access Technologies

NOVEMBER 13th - Mickey's Pizza and Subs

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You shop. Amazon gives.

Whether you are shopping for school supplies, a new outfit or that next DIY project; make sure you use Amazon Smile to give back to the Northland Arboretum while you shop.

Follow this link on your desktop: smile.amazon.com and search for "Paul Bunyan Arboretum". Click Select and start shopping!

On your mobile phone: Download the Amazon app. Under settings go to AmazonSmile. Search for "Paul Bunyan Arboretum". Click Select and start shopping!



HOLIDAY PARTY

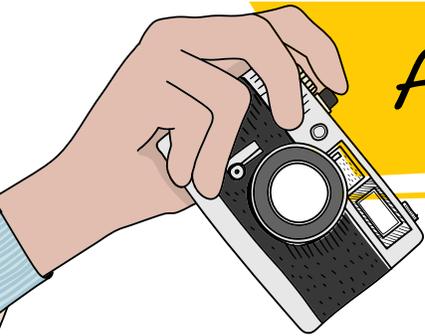
Exclusive Offer!

**Arb members and business members
Book your holiday party with us and get a
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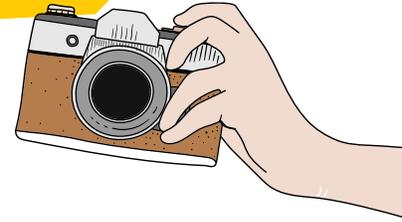
- New lighting in our lower level and outside patio for a cozy feel
- Seating for 64 in our upper level and 170 in our lower level
- Gather around our fireplace in our upper level
- Enjoy the lights of the Sertoma Winter Wonderland
- Get your discounted tickets in advance
- You may bring in your own food or have it catered
- Full kitchen on the upper and lower level
- Newly painted ceiling in lower level
- Sound System
- Wooden bar available for rent

Call the Northland Arboretum to book your party 218-829-6770

Northland Arboretum



Attention Photographers



We are doing a photo contest!

Do you want to see your art on our ArbLIFE magazine cover?

We are looking for photos to use for publishing in our ArbLIFE magazine. Subjects can range from nature, people, to all the seasons at the Arb. We want you to capture the beauty of the Arboretum!

- Photos must have been taken at the Arboretum
- Photos should be high resolution of at least 300 dpi
- Photos should be clear
- Please include a brief description of what is in the photo and where it was taken
- Include who took the photo so we can give photo credit
- The photograph must be original and no watermark of any kind should be on the photograph.
- It can be in landscape/portrait mode (portrait works best for our cover)
- Photographs that have been digitally altered beyond standard optimization (removal of dust, cropping, reasonable adjustments to exposure, color and contrast, etc.) will be disqualified.
- Photos should be in color

Please email your photos to adminassistant@northlandarb.org by November 30th.

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Northland Arboretum appreciates all of our donors. We could not be here without your generous support!



Thank you to Steffen Tree Service for donating wood to build our new wedding arch for our Prairie Gazebo.



Thank you to the Garden Club Members and MN Master Gardeners for their donation of plants for our plant sale.

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Scott & Cristina Thomas

In-Kind Donations

Steffen Tree Service - wood for our new wedding arch and benches at the prairie gazebo

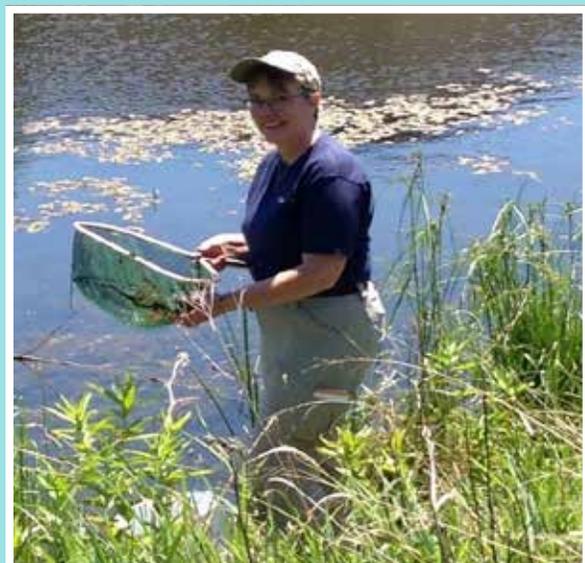
Backyard Greenhouse - *salvia* and *perennials*
Boys-N-Berries Farm - *plants*
DeAnn Caddy - *garage door*
Christine Rasmussen - *four handcrafted hats*
Chris Shelito - *snowshoes*
Syvantis Technologies - *four rain barrels*
Garden Club members - *plants*
DeAnnCaddy - *plants*
Marlys Ray - *plants*
Angie Curran - *fossil kit for education*
Donna Lebrun - *coffin for Haunted Trail*
The Farm on St. Mathias - *3 easels and props for Haunted Trail*
Mickey Schaefer - *tools and hoses*
Dan Hegstad - *donation of time for video production*

Donation in memory of Rick Johnson from Vernon & Jeanette Smith

Donation in memory of Rick Johnson from Dianne McMullen

July - August Volunteers who donated a reported 179 hours;

Jennifer Lee, Dan Lee, Loni Heldt, Jill Mertes, Heather Baird, Katie Holtz, Bryan Pike, Linda Hurst, Rick Hines, Dawn Himes, Rick Meyer, Tony Hughes Jake Spandl, Linda Rasmussen, Diane Wiener, Paula Schwartz, Deb Albrecht, Lori Wick, Marlys Ray, Sharon Bodie, Judy Hustak, Meg Douglas, Dave Boran, Bob & Jean Larson, Lou Anderson, Alyssa Sushoreba, DeAnn Caddy, Rosanne Blass, Pat Shelito, Marsha Thomson, Bob Vornbrock, Sally Jacobson, Brittany Goerges



Northland Arboretum would like to honor

Jane Stevens

Jane is a Master Naturalist and a member of Focal Point Photography club. She recently completed an AAS degree in Natural Resources Technology with a certificate in Wildlife Tourism. This summer she put that education to work at the Arboretum as she taught several environmental education classes. She has also volunteered at the Arboretum for several National Public Lands service days and worked with the Brainerd Lakes Area Master Naturalist Club as they have had clean-up days and completed a self-guided wildflower trail. Jane has been active as a member of Focal Point photography club for many years and has taken photos at many Arb events. She loves to walk the trails looking for native wildflowers, enjoying the many species of plants and animals that live at the Arboretum!

It's **HAPPENING** at the Arb!



Follow us for updates on events and classes

Full details and flyers for events are available online at northlandarb.org

We are committed to connecting people to the environment by promoting education and preservation, health and wellness, recreation and enjoyment. Our events and classes are open to members and non-members both. For more information on what's happening - visit our website (northlandarb.org) and click on the events tab or the education tab.

UPCOMING EVENTS

- September 18 - WonderTrek
- September 20 - Pick your scare section for Haunted Trail
- September 25 - Public Lands Day - register to volunteer
- September 30 - Blood Drive
- October 2 & 16 - WonderTrek
- October 4 - Pick out props for Haunted Trail
- October 6 - United Way Chili Cook Off
Come vote for us at the Westgate Mall!
- October 6 - Forest Health Class
- October 21-23 - Haunted Trail
(Tickets go on sale Sept. 17th!)
- October 30 - Trunk or Treat & Low Scare Trail
- November 20 - Vendors Sale *(looking for vendors)*
- November 25 - Sertoma Winter Wonderland starts
- December 3 & 10 - Santa's at the Arboretum

Come check out a few of our favorite things!

Holiday Market

Saturday, November 20th
9 am - 3 pm

Northland Arboretum
14250 Conservation Drive, Brainerd, MN

Home décor, sourdough bread, paintings, walnut cutting boards, woodland gnomes, re-furbished décor, jewelry, children's games & books, fire starters & more!

Hot chocolate, cookies, snowman water for sale. Pizza for sale by the slice.

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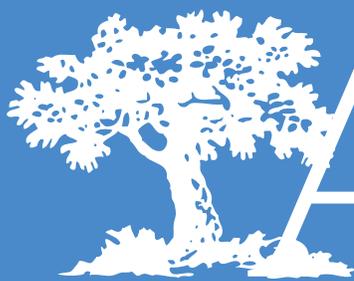
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