

Newsletter



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**WINTER
2022**

The American Beech Tree and Beech Leaf Disease

by Felix Gonzalez

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The American Beech Tree, *Fagus grandifolia*, is a native deciduous tree found abundantly in New York and the surrounding areas of the Northeastern United States. The native range of American Beech encompasses a portion of North America ranging from Illinois, south to Georgia, and north to Nova Scotia. The trees are commonly admired for their smooth grey bark and easily recognizable appearance thanks to their wide canopies and golden-yellow hue when changing colors during the fall seasons. These beautiful native trees are quickly becoming infected with a new disease known as Beech Leaf Disease (BLD). BLD threatens to clear large portions of beech tree populations in the forest of the Northeast, ranging from Ohio to New York.

What is this Beech Leaf Disease?

First discovered in Ohio in 2012, BLD is a threat to beech trees resulting in the gradual loss of leaves among infected trees. It is associated with an invasive foliar nematode, *Litylenchus crenatae*, feeding on beech trees, resulting in specific symptoms appearing on the leaves of the infected trees. These symptoms include dark banding of leaves, early leaf drop, thinning canopies, and curled leaves. Over time, these symp-



The underside of an American Beech leaf (Fagus grandifolia) infected with Beech Leaf Disease

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Notes from the Friends of Trailside President

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Our annual meeting was held Saturday, December 11th. In attendance, in addition to our Board and our Trailside Museum curator, Mindy Swope Quintero, were Jeff Main, the Supervisor of Ward Pound Ridge Reservation, and Taro Ietaka, the Supervisor of our county curators, and Dan Aitchison, the Senior Curator of Wildlife for the County.

Mindy reported that there was a busy Fall schedule with school groups and over 50 classes. Her attention is now turning towards new exhibits, sugaring season and winter public programming. She currently has enough staff to be open seven days/week. We are hoping for warm days and cold nights to promote sap flows and looking forward to our maple sugaring party on March 12th to which you are all invited.

Taro reported on a project he is leading on the Luquer-Marble native flower garden located behind the Trailside Museum and is in need of attention. He is working with the Bedford Garden Club on re-design and repairs, including the replacement of the current chain link fence with something more attractive. He will be working with the Parks Foundation to organize volunteers to help with invasive plant removal and any Friends members interested in helping this spring please let Mindy or Taro know. The Friends of Trailside will also be helping by financing the removal of dying and dead ash trees.

Although Dan's duties, including deer control, are county-wide, since both his home and office are at the Reservation we are fortunate to have him take a special interest in WPR. As an example of this, Dan reported on the results of a study at the Res recently completed by his staff on the native Eastern Cottontail population for which the Friends provided the necessary equipment.

Jeff Main reported on the recent extensive work done at the Res and future plans. One upcoming project includes repairing several dams, including the dam along Michigan Road that creates a pond that was used by the CCC back in the 1930's to run a saw mill. The dam will be restored and the area cleared of invasive species so it will be easily visible from the road. We are looking forward to this and many other improvements to our Res.

The Friends of Trailside are pleased to be able to advocate for and financially support many of these improvements which are made possible by your membership. Thank you for being members and supporting the mission of the Friends of the Trailside Museum and Ward Pound Ridge Reservation.

Happy Trails,

Philip Petronis, Board President

The American Beech Tree and Beech Leaf Disease

(Continued from page 1)

toms will lead to tree mortality and can occur 6-10 years after the initial infection. Mortality occurs due to the tree's inability to produce enough nutrients to sustain itself through the course of the infection. The lack of nutrients is believed to be caused by the feeding nematodes gradually increasing in numbers and causing damage to the internal structure of the leaves. When damaged, the chloroplasts within the leaves are unable to photosynthesize properly, reducing the amount of nutrients the beech trees are able to create. In some stands, when the sugar reserves of the trees are depleted, root sprouts are developed from the main tree in an attempt to create more leaves for photosynthesis. However, this new growth uses more of the reserved nutrients and can potentially increase the speed in which mortality occurs. Much more information still needs to be collected to understand how we can prevent this outcome or delay it.

It has recently been discovered that BLD can not only infect our native populations, but also ornamental species like the European Beech, *Fagus sylvatica*, and its cultivated varieties commonly found in gardens and golf courses where their reddish-purple hue adds to the seasonal aesthetic. The only exception at the moment is the Japanese Beech, *Fagus crenata*, which appears to have developed its own resistance to the nematodes and displays only mild symptoms that do not result in tree mortality.

What is being done to control BLD?

Much more information is required to fully understand this new disease and how it spreads from tree to tree and region to region. Despite having only been discovered in 2012, BLD and the associated nematodes have made their way through the forests of Westchester County and New York State. Early detection is difficult as the leaves do not display symptoms of infection during their first year. Along with the delay of symptoms, the symptomatic leaves do not show signs of pro-

gression in severity until the following spring. This rapid spread has garnered concern among conservationists and environmentalists due to the widespread mortality expected in the coming years. Many forested areas of New York State are comprised of approximately 25% American Beech trees. Wide spread infection throughout the state could result in the loss of a massive portion of the state's forest. Various treatment options are being experimented with, but few have showed promising and effective results. With the help of citizen science and data collection by conservation based organizations, municipalities, and state agencies, more information can help to determine the best possible approach to treating infected trees, preventing the spread of infection, and identifying candidate stands for plantings.



A stand of American Beech trees infected with BLD. The infection here has begun to thin the canopy, allowing more light to penetrate to the forest floor.

Weeding Out Invasives One Bite at a Time!

by Robyn Graygor

Seasoned foragers from far and wide seek out nature's treats within the Ward Pound Ridge Reservation, and it's about time we give back to this oasis of plentiful goodies. If you hike the winding trails within our reservation, you may have come across people walking with baskets picking ramps, chicken of the woods, and even puffball mushrooms to eat. Yummy, right? Wrong! These plants and fungi are native to New York, and are essential elements in our local environment. In fact, in New York State, harvesting ramps to eat on state land is illegal. This is because picking our native vegetation is actually harmful to the ecology of our forests. It decreases biodiversity, and leaves bald patches that invasive species later happily fill.

But why pick the helpful plants when we can pick the harmful ones? Yes, I'm talking about those nasty invasives. Now, I know the idea of sitting down after a long day to munch on prickly Japanese Barberry isn't very convincing, but invasives can actually be delicious. You just have to get creative. Let's talk Garlic Mustard. This invasive herb from Europe has blanketed enormous patches of the forest floor, shading out other native plants and saplings that are trying to grow. The genus of this sneaky invader is *Alliaria*, rightly named after the *Allium* (or garlic) scent that floats off of the leaves when squished. Some defining characteristics include a tall slim green stem, broad, pointed, jagged leaves, and a S-shaped curve in the roots. You can also spot them in the early spring blooming with little white flowers. Once you find a nice patch (which shouldn't be very hard, they're everywhere) start the harvest. Garlic Mustard is actually a popular herb in Asia used in a variety of recipes, so the possibilities are endless. The seeds found in little pods found near the flowers and leaves are the jackpot. They can be harvested and mixed in with any dish to add a spicy flare.

Another pesky plant we can knock out with our stomachs is Phragmites. This Middle Eastern plant made its way to the U.S. and has wreaked havoc to say the least. Dense growths of the reed outline many swamps (or wetlands) and slightly resemble Cattails. Even after they die, the stalks often dry up and remain in place taking up space where natives could grow. To correctly identify your future meal use the following tips: The long narrow leaves grow close to the stalk, and have a grey, or blue tint. The tanish stem is strong and tall, and becomes woody when dried. The native Phragmites have leaves that are more yellow-green, and the stems have a more reddish coloring. Invasive Phragmite shoots can be boiled and seasoned with butter and salt to make a quick and easy snack.

Even Japanese Knotweed can be made into a scrumptious morsel. This invasive from Japan resembles bamboo, and grows in dense patches almost anywhere. It has broad rounded leaves, and a wide hollow stem. Shoots, which sprout in the spring, can be harvested and eaten pickled, roasted, raw, and even in a pie! Knotweed is often used in place of rhubarb due to its similar flavor.

These are only a few examples of invasive plants we can eat, but there are plenty more. If cooking isn't your forte, there are also different medicinal uses for invasives. For instance if you're not interested in Knotweed pie, some studies show Knotweed's high resveratrol concentration can be used as an antioxidant, or even to fight the bacteria which causes Lyme disease. Instead of feeling distressed when seeing invasives on hikes, now you can feel hungry! As we all know humans can eat a lot, and now we can use our eating habits for good. Maybe even start a new cooking hobby to combat invasives. So, next time you're out hitting the trails and forget your granola bar, you can handle your hunger and fix your local environment at the same time!

Welcome!



It is our pleasure to introduce our new naturalist, Leah Cass. Learn a little more about Leah, in her own words:

Hello! My name is Leah Cass and the new naturalist here at Trailside. I am a recent graduate of George Washington University where I double majored in Biology and Environmental Studies which provided great opportunities to study wildlife and ecology. I first got involved with research my sophomore year by joining a lab group studying social behavior in bees. Later, while studying abroad in Tanzania I contributed to a study on human-elephant conflict mitigation. After graduation I completed an internship at the nearby Mianus River Gorge Preserve. There, I studied coyote-prey dynamics and worked on mapping and managing invasive plant species. That position led me here and I am very excited to have joined the Trailside team! I look forward to continuing to learn about our local ecosystem and hope to help the next generation develop knowledge and appreciation of the natural environment. Feel free to stop in to say hi and I hope to see you on the trails!



We are also very lucky to have Robyn Graygor helping us out on the weekends at the museum. Here's a little intro from Robyn herself:

Hello everybody, my name is Robyn Graygor. I am so excited to be working at the Trailside Museum where I'll finally fulfill my childhood dream of wearing a Park's shirt. I spent every summer since kindergarten at the Reservation's ecology camp where we explored every inch of the trails. I then worked as a volunteer camp counselor for two years, and as a counselor last summer. Now, I am here to advise visitors using the information I gained from practically growing up in this park. Outside the Reservation, I interned at the North Salem Open Land Foundation for five weeks where I expanded my knowledge of conservation, and invasive management. I am also currently working on getting a double major in Environmental Studies and Journalism at SUNY Purchase. I can't wait to give back to this park which gave me so much, and help create the magical environment which inspired my passion for the environment.

Calling all Volunteers!!

Work will begin this spring on our Wildflower Garden and we need your help! A revitalization project is underway that will remove invasives, open up the canopy and increase diversity in the garden. We need YOU to help with the initial work and we will be forming a group of Wildflower Garden Volunteers that will assist with ongoing efforts to maintain the garden.

If you're interested, please call the museum at (914) 864-7322 or email Mindy at mqs5@westchestergov.com.



Animal Profile: Groundhog

by Leah Cass



Photo by Chris Whittier

Groundhog day is rapidly approaching when famed groundhog Punxsutawney Phil will issue his prediction on the changing of the seasons. Legend says he will either see his shadow and retreat into his den, condemning us to six more weeks of Winter, or he will emerge shadowless, signaling an early Spring. The tradition evolved from what was originally a Pagan celebration of coming Spring. This celebration was later modified by Christianity, becoming a feast known as Candlemas. Some believed that a sunny Candlemas meant 40 more days of winter weather.

Candlemas spread throughout Europe and Germans added their own take on the legend, measuring the sunniness of the day based on if small animals like badgers could see their shadows. When German immigrants came to Pennsylvania, they continued the tradition, switching out badgers for groundhogs which are common throughout the northeastern United States. Since then, Punxsutawney Phil has issued his predictions with a success rate of about 50% -- certainly not inspiring a lot of confidence in his skills as a weatherman. However, the tradition, and the groundhogs behind it, has continued to capture the hearts of Americans around the country.

But how much do you really know about these elusive little animals?

Groundhogs (*Marmota monax*), also commonly known as woodchucks, are one of fourteen species of marmots. They are true hibernators which means they eat as much as they can during the warm summer months before retreating into their dens to rest throughout winter. The male groundhogs awake from their slumber early to begin searching for the dens of female groundhogs and potential mates. That's why every Groundhog Day celebration from Punxsutawney Phil to Staten Island Chuck features a male groundhog.

The males wake and emerge from their dens in February. They will then search their territory which is usually a two-to-three-acre area, claimed by one male but often housing multiple females. When he comes to a female den, the male will enter and spend the night there, leaving the next morning. Generally, males will visit two or three female burrows during this time. However, mating does not occur until later in the season. Biologists have described these meetings as potentially being a chance to "get to know each other" so to speak and exchange biological information. After these "dates" the male groundhog returns to his own den and continues hibernation for an additional month. It isn't until Spring when he reawakens and mates with the females he previously visited. Baby groundhogs are generally born in April following a 30-day gestation period.

Groundhogs construct impressive burrows that often reach around 20 feet in length, excluding side passages. These burrows include a "nest" area for hibernation and mating which is usually lined with dead leaves and grass. They also construct a separate latrine area, much like a bathroom. Burrows have a main entrance for coming and going and a secondary entrance that typically functions as a "spy hole" to keep watch for predators.

Groundhogs, especially babies, are preyed upon by foxes and coyotes as well as hawks and other birds of prey. Groundhogs themselves are omnivores and will eat a combination of plant materials such as grass, bark, and fruit as well as invertebrates like insects, snails, and grubs. They can grow to be about ten pounds. Groundhogs are mostly crepuscular meaning

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The Trailside Challenge

by Patrick Harmon

We hope you all had a fantastic holiday! Were you able to identify the subject of the last trailside challenge? If you were unable to, don't worry. The leaf pictured in the last newsletter belonged to *Liriodendron tulipifera*, otherwise known as the tulip tree or tulip poplar. Growing up to 170 feet tall, it is one of the largest tree species native to the northeast. Their tall, pillar-like trunks decorated with deeply furrowed bark can make them easy to distinguish amongst other deciduous trees within our forests. Furthermore, their trunks are largely absent of branches and their wood is considered very light yet durable. For these reasons, they are considered valuable among loggers. These trees were also incredibly important for Native Americans who used the trunks of these giants to make dugout canoes. European settlers even coined the term “canoewood” to refer to the tulip tree. They are also notable for their distinctive tulip-like flowers, hence their name. These little green blossoms are on display from mid spring to early summer and are known to attract all sorts of butterflies, moths, bees, and hummingbirds.

For this winter's trailside challenge we have a species of duck that stops by our rivers and lakes during the winter. Can you guess who it is?

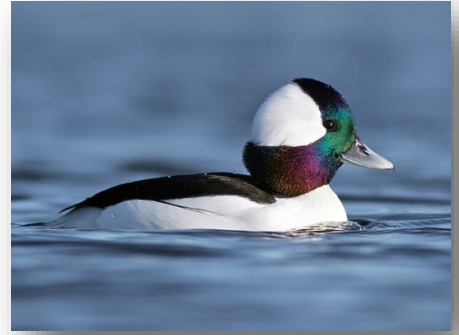


Photo credit: Liron Gertsman
Macaulay Library

Animal Profile: Groundhog

(Continued from page 6)

they are most active during dusk and dawn. However, it is possible to see one at any time during the day. The average lifespan in the wild is about three years, though they often live up to six. In captivity groundhogs have made it an impressive fourteen years.

Groundhogs are often considered a pest species by humans because they can destroy gardens by stealing food and potentially damaging underground structures with their burrows. However, they also offer many benefits to humans and other wildlife. By burrowing, groundhogs both turn and aerate the soil which helps with nutrient cycling. The burrows are often used by other animals such as skunks, foxes, opossums, and raccoons. Additionally, many of the invertebrates eaten by groundhogs are considered pests by humans, and we benefit from their help managing these species. Thanks groundhogs!

Program Highlights

SUGARHOUSE CHATS

FEBRUARY 13TH AND 27TH
& ANY DAY YOU SEE STEAM
COMING FROM THE SUGAR HOUSE



12 PM - 2 PM

Maple Sugaring: Past to Present

MARCH 6TH
1 PM



Friends of Ward Pound Ridge and Trailside nature Museum Presents

Sugaring Off Party & Friendsraiser

March 12th

12 PM - 3 PM

Join us for our annual maple syrup celebration! Includes music, sugaring demos, pancakes and more! Free event. Parking fees apply.

Also learn how to become a member of the Friends!

Trailside Nature Museum Calendar of Events • January - March

JANUARY

Saturday 8th, 1 PM: AQUATIC LIFE IN WINTER

Participants will learn how fish, frogs and other aquatic animals stay alive once ponds and lakes freeze over. Make a snow globe out of recycled materials to take home.

Sunday 9th, 1 PM-3 PM: THERE'S AN APP FOR THAT

Ever find a plant and wonder what it was? Learn about an app that helps you identify plants and animals using photos on your phone. We will show you how to use the app and help you join our Biodiversity Club!

Saturday 15th, 12 PM-2 PM: FEEDERWATCH

Warm up at the museum with some hot cocoa and watch our feathered friends visit our feeders. Make a bird feeder to take home! Perfect for all ages!

Sunday 16th, 1 PM: FIRE BUILDING IN WINTER

Join us for a basic fire building program with a sweet reward for our efforts.

Saturday 22nd, 1 PM: BACKYARD BIRDS

Join our naturalist on a leisurely walk to find some common backyard birds and make bird seed balls to take home. Bring binoculars if you have them.

Sunday 23rd: FAMILY TAPPING EXPERIENCE

Bring your family or small group of friends to the reservation for a one-on-one tapping experience. Each 30 minute time slot costs \$20 for a family of four. **Also on 1/30/22.**

Saturday 29th, 1 PM: BE A SCIENTIST

Our be a scientist series continues! We will take ingredients, develop a hypothesis, perform an experiment and then draw conclusions. Program could involve the use of "messy" materials. Scientists of all ages welcome! Pre-registration required by 1/28/22.

FEBRUARY

Saturday 5th, 8 AM: FIRST SATURDAY BIRD WALK

Join our naturalist on the first Saturday of each month for a leisurely birding walk around the reservation. Bring binoculars if you have them. Geared towards all ages.

Sunday 6th, 1 PM: SURVIVING WINTER

Ever wonder how animals survive in the winter? Join us for a short lesson, story and craft. Appropriate for younger ages.

Saturday 12th, 1 PM: VALENTINES THAT GROW

Show the earth some love by making recycled seed paper Valentine's. All participants will make and decorate their own seed paper valentine to take home or give to someone special.

Sunday 13th, 12 PM-2 PM: SUGARHOUSE CHAT

As long as the sap is running we will be making one of nature's sweetest rewards, maple syrup. Come on into the sugar house to chat with us!

Saturday 19th, 1 PM: WINTER TREE ID

No leaves? No problem! Hike with our naturalist and learn how to use bark, buds and branch arrangement to identify our local trees. Younger kids will also collect twigs and create their own tree art to take home.

Sunday 20th, 10 AM-3 PM: WESTCHESTER AREA MAPLE OPEN HOUSE WEEKEND

Trailside will be joining our other nature center sugarhouses this weekend open to the public for sugaring demos and tastings.

Saturday 26th, 1 PM: FAIRY TALES & TRAILS

Join our naturalist as we look for signs of animals and build our fairy friends a home.

Sunday 27th, 12 PM-2 PM: SUGARHOUSE CHAT

As long as the sap is running we will be making one of nature's sweetest rewards, maple syrup. Come on into the sugar house to chat with us!

MARCH

Saturday 5th, 8 AM: FIRST SATURDAY BIRD WALK

Join our naturalist on the first Saturday of each month for a leisurely birding walk around the reservation. Bring binoculars if you have them. Geared towards all ages.

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View from the Porch

by Jeff Main



As we enter a new year, we look forward to some of the social restrictions giving way to opportunities for interacting with you, our Reservation visiting community. While the Res did provide a place to get outside and enjoy some fresh air, we also sense the desire, especially for those who have newly discovered the Reservation to learn more about the park, our mission and to take advantage of staff knowledge about the park and its role as a biodiversity reserve. Coupled with that, some of the educational and entertaining programs that were traditionally offered are ready to meet this new and/or returning interest.

In an effort to provide for a growing weekday audience, I will be offering, once a month, a series we'll call "Hike for Health". I will choose a suitable trail and an associated theme appropriate for the season. It will be a chance to get out and get some exercise with the addition of some naturalist interpretation. So if you are retired or working from home and just need a break from the computer, this could be just the thing. The first scheduled hike will be on Thursday, March 24th at 10:00 AM, meeting at the end of Michigan Road. Oh, and did I mention.....this will be in collaboration with the Lewisboro Land Trust, a relationship we continue to build.

Another opportunity on the horizon is the Reservation's Art in the Park Committee seeking to delve into "performance art". This will be both musical performances as well as small theatre productions. Stay tuned for when and where. We also hope to open both the WPA and Main Galleries to more regularly scheduled exhibits this year. We already have some great ideas for upcoming shows so look for our first openings sometime in late spring. And for those of you who have missed its pageantry and friendly competition, the Leatherman's Loop 10K foot race is on the Res's and the Leatherman Harriers' calendars for Sunday, April 24th.

Not sure about when, but if we get enough snow we'll be out tracking the cross country ski trails. It's been very limited the past few years as conditions were marginal. But we're hoping for a good amount of snow for this very healthy way of getting in some winter exercise.

See you on the trails....

Jeff Main

2022 Memberships Available Now!

Visit our website for details!

www.friendsoftrailside.org

Calendar of Events

(Continued from page 9)

Sunday 6th, 1PM: MAPLE SUGARING: PAST TO PRESENT

Northeast North American's history comes alive during a demonstration of the origins of this amazing product.

Saturday 12th, 12 PM-3 PM: SUGARING OFF PARTY

Enjoy winter's sweet rewards at this annual celebration that offers food, music and sugaring demonstrations all day. Free. Co-sponsored by the Friends of Trailside Nature Museum.

Sunday 13th, 1 PM: SHAMROCK STAMPS

In the spirit of St. Patrick's Day, participants will find natural materials and use their creativity to make four leaf clovers.

Saturday 19th, 1 PM: CELEBRATION OF SPRING

Go for a hike with our naturalist to look for signs of spring and make a craft to take home.

Sunday 20th, 1 PM: CELEBRATION OF SPRING

Let's celebrate the coming of spring! Together we will explore the science of spring and learn about the changing seasons through storytelling and crafts.

Saturday 26th, 1 PM: IT'S THE GREAT MIGRATION

Our feathered friends are returning and some are just stopping by! Learn all about our migrating friends and build your own bluebird nest.

Sunday 27th, 12 PM-3 PM: WILDFLOWER GARDEN VOLUNTEER DAY

Our peaceful wildflower garden is beginning to transform and we need your help! Join us to learn about the history of our wildflower garden while helping us with spring clean-up! Gloves and tools provided.

Trailside Staff

Curator—Mindy Quintero
Naturalist—Patrick Harmon
Naturalist—Leah Cass
Naturalist—Robyn Graygor

Conservation Division of the Westchester County
Department of Parks, Recreation and Conservation

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Friends of the Trailside Nature Museum and Ward Pound Ridge Reservation is a private, not-for-profit organization dedicated to promoting a better appreciation and understanding of the natural world and the relationship between people and the land. Through its support of the Trailside Nature Museum, operated by the Department of Parks, Recreation, and Conservation of the County of Westchester, the Friends provides financial and volunteer aid for exhibits, school, and educational programs.

Become a Member Today!

Friends of the Trailside Nature Museum

P.O. Box 236, Cross River, NY 10518

☐ I would like to join / renew (Please circle one)

Membership Categories

- ☐ Other \$_____
- ☐ Mountain Lion \$1000
- ☐ Black Bear \$500
- ☐ Bluebird \$250
- ☐ Wood Turtle \$100
- ☐ Dragonfly \$50
- ☐ Salamander \$25

Name: _____

Address: _____

City: _____

State: _____

Zip: _____

Phone: (____) _____

Email: _____

Note: Membership at the Wood

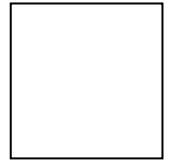
***Turtle level or above includes a parking pass allowing free access to the
Reservation throughout the year.***



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www.friendsoftrailside.org



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