

Muddy Gloves Quarterly

Winter 2020 Edition

Brought to you by the Stewards of the Thielke Arboretum

How to Become a Naturalist...the Easy Way

Walking around the Arboretum can be so exciting. One minute you're having a casual walk, then you spot a small critter on a nearby stem. What in the world is that? You've never seen anything like it. You really want to know what it is. You're a modern individual, so you whip out your cell phone and take a picture or two. What's next? The easiest method is to use two of the free apps created for such a purpose. I find both apps so essential that they are now on my home screen.

iNaturalist is an app developed for smart phones; a joint initiative of the California Academy of Sciences and the National Geographic Society. It was developed as a citizen science project and online social network of naturalists and biologists. The purpose is to map and share observations of all forms of life around the world. It is now considered the model tool for recording valuable open data for scientific research. If you choose to register, your observations add to the data set available to scientists that can also help to confirm the species identification. Your location data is necessary to map the species you are seeing. If you just want to use iNaturalist to identify a plant or animal without registering, that's OK too, but you won't get additional help with identification.



Virginia meadow beauty
(*Rhexia virginica*) located by
the educational center;
identified with Seek on
August 24, 2019

Once you have downloaded the app and completed any registration required, here are a few tips for success with iNaturalist:

1. Take several pictures of your specimen, trying to isolate it from other species. For example, a plant needs several pictures: one of the total specimen, plus close-ups of flower, leaf, underside of the leaf, bark, etc. Full-sized trees are difficult for it to identify, especially in winter.
2. From your camera roll, upload the clearest 2 to 4 pictures of your specimen.
3. After a few moments, the app will give you its best guesses.
4. Decide what the specimen is, or take different pictures, to see if you can get more definitive answers. If you upload your information publicly, others with more knowledge may be able to help.

In a partner app, **Seek**, the methodology is similar but simpler. In the app with the camera open, all you do is hover over the specimen and it works to identify the species. Seek was designed for children and families, requires no online account registration, and all observations may remain private. Seek has some built-in games, to encourage observation and exploration. It will divide your observations into groups, and give you a running count of the species in each category.

Both apps include automated species identification, using an artificial intelligence model, which has been trained on a large database of accurate pictures. If your picture is blurry, or has several species in it, the model may not be able to determine the precise species. The apps will give you the best possible guesses.

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Volunteer with Us !

Stewardship Volunteer Hours - 9am-12pm - Every Tuesday & Saturday
weather permitting

Autumn Field Report

PROJECTS: Tree planting, Weed removal, deer protection, trail maintenance and corduroying

DATES: September 2019 – December 2019

VOLUNTEERS PRESENT INCLUDE:

Stewardship Director: Jean E.

Veterans: Herb A., Tom B., Peter B., Terry C., Carol E., Naomi G., Leila G., Liz G., Fred L., Charlie M., Keith M., Caroline N., Frank N., Pat O., Jennifer O., Barbara P., Noreen P., Gerry R., Harriet S., Lisa S., Doug S., Tom S., Melissa T., Wendy W., Diane V.

2020 Master Garden Class: Anita, Terry

Students: Erik, Emily, Musaab, Alex H., Max K., and Robert K. and his boy scout compadres.
(If we missed you, let us know!)

CONDITIONS: Usually cool and damp, 30°-50° weather.

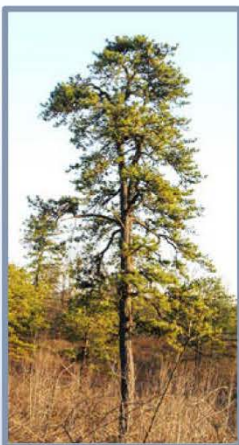
DAYS/TIMES: Tuesdays & Saturdays / 9:00 AM - 12:00PM

Tuesday sessions were led by Master Gardener Barbara P.
Saturday sessions were led by the boss, Jean E.

TREE OF THE SEASON

Pitch Pine, *Pinus rigida*

- Full Sun
- Evergreen
- Dry Acidic or Sandy Soil
- Drought Tolerant
- Slow Growing
- Asymmetrical Shape, Great as a Garden Accent
- Cones Provide Forage for Small Mammals
- Fallen Pine Thatch Lowers pH & Restores Soil Facilitating Success of Native Plants Below (Like Rhododendron & Blueberry)
- Host Plant to Beneficial Insects



COMPLETED TASKS:

1. Tuesday toilers worked mainly on the mundane tasks of trail clean-up and weir clearing. However, on one special Tuesday we initiated newbie steward, Anita (MG Class of 2020), with the job of planting four of the five new gray birch trees in soil that was compacted and strewn with gravel. Anita got a good workout that morning. The last birch was planted in the new birch grove where groupings of the five native species of birch are on display. Special thanks to Pinelands Nursery for donating the five gray birches that were 10' - 12' tall.



Gray birch planting



Cutting down the wisteria "anaconda" vines

2. Saturday's stewards spent a good part of October clearing invasive species. They removed a gnarly twisted mass of Chinese wisteria vines which looked like a giant anaconda and snaked through (pun intended) the canopies of several trees. They also removed a large area of Mile-a-minute vine which was overtaking the arboretum's spicebush swamp section at the rate of a mile-a-minute.

3. November saw the return of deer devastation. The Arbor Day balsam fir tree was destroyed by a rambunctious stag. Jean made a special trip to Mount Vernon Nursery to purchase a replacement tree. The new tree was planted and immediately protected with a wire cage to prevent the recurrence of the previous carnage. Deer protection was installed and repaired on numerous vulnerable trees and plants throughout the arboretum.



Deer fence repairs

4. Corduroying continued on the trails in the wetland forest. Now that it is cold enough, the abundant ground/wood nesting yellow jackets are not active and stewards can safely scavenge for the straight 2" to 4" downed branches required for the job.

5. Rutgers Gardens had their fall clearance sale where we picked up one Carolina silver bell and three ironwood trees for a fantastic price. They were planted as new additions to the arboretum tree collection.

6. Boy scout Robert K. with the help of his troop buddies, replaced two old wooden bridges over the swales. He also leveled a slanted bridge that settled over time and applied non-slip coatings to help keep visitors safe.



A new non-slip bridge

Invasive Vice or Native & Nice, What is Your Garden Made of ?

INVASIVE

Japanese holly, *Ilex crenata*

Last year at this time, the Maryland Invasive Species Council published an article entitled, "Tis The Season to Fear Holly." Despite the title, there was nothing glib about their message. They had chosen non-native hollies as the *December Invaders of the Month* because of their insidious proliferation in open forests and parklands, including the shrub Japanese holly (*Ilex crenata*), a favorite foundation plant in many NJ homeowners' landscapes.

Japanese holly and other non-native hollies are cultivated for their dark green, shiny leaves and striking berries. But beware! The seeds from berries are spread throughout our woodlands and open spaces in bird droppings, where they take root. Mature plants cause dense shade and deep leaf litter, endangering and snuffing out the native plant species, a critical link in our ecosystem for providing food, shelter and necessary habitats for wildlife.

Whether you deck your home or your landscape with non-native holly, you are unwittingly contributing to the spread of an invasive species. Birds will feed off the berries on your garden plants and those on *holidays wreaths and boughs* that are left outside. The best approach is to keep decorations with berries inside and plan a strategy for removing the non-native hollies on your property (including the roots) and replacing them with native alternatives. This will not only enhance your property but you will also be helping the birds spread native seeds throughout the region!

Often times Japanese holly is mistaken or misrepresented as inkberry because of their likenesses. They both have evergreen leaves and dark blackish blue berries. But, Japanese holly leaves are much shorter than inkberry at one half to three quarters of an inch in length. They look oval to even roundish and sometimes revolute (slightly curled under or cupped). The growth habit of Japanese holly has very dense branching structure and leave arrangement in comparison to inkberry.



Japanese holly foliage

NATIVE

Inkberry holly, *Ilex glabra*

What's a good alternative to Japanese holly? Consider inkberry (*Ilex glabra*), a mound-shaped shrub that opens somewhat with age. It grows six to twelve feet tall and wide. You will enjoy the inkberry's evergreen leaves and its black berries that linger through the winter, as well as its versatility in your landscape. (Note: berries require a male and female plant of the same species that bloom at the same time).



Inkberry flowers



Inkberry foliage and berries

Inkberry supports many local wildlife species. It is an important winter food for small mammals as well as many species of songbirds such as the eastern towhee and cedar

waxwing. The flowers in spring provide nectar for several native pollinators like bumblebees, ants, flower flies, and moths. On top of this, inkberry is deer-resistant, an essential consideration for the New Jersey gardener! And if you're looking for a native that can be used as a hedge it can also do that duty.

Inkberry does best in moist, acidic soil (sandy to peaty) in part shade, but it will tolerate sun. If your soil is heavy, consider mixing it with equal parts play sand and peat moss for better drainage.

When distinguishing inkberry from Japanese holly, look at the length of the leaves. Inkberry leaves are one inch to two and half inches in length while Japanese holly are less than three quarters of an inch. At the nursery many of the inkberries sold are cultivars that grow in a more compact form than the straight native species. These are great options to replace Japanese holly or even boxwoods in formal gardens. Boxwoods are very susceptible to many pests and diseases that are costly to control. Inkberry is mainly pest free and the compact varieties provide the same look as boxwood in the landscape. If you are looking for the straight native (not a cultivar) of inkberry few places carry them, but Pinelands Nursery (Wholesale) or Pinelands Direct (Retail) always have it growing and for sale.

How to Become a Naturalist, Continued

Here's where you need to be careful. I uploaded a picture of a plant in my yard, and found that it was trying to identify a species of "snake" (my striped garden hose). Yes, there are few times when Seek is clueless. Your best bet is to use both Seek and iNaturalist; when Seek cannot help, you can upload Seek specimen photos to iNaturalist. If you make your observation public an expert can help with identification.

Plus, there are more benefits to using both apps and making your observations public. There are simple citizen-science projects for you to participate in, like bio-blitzes, that use iNaturalist to record data. Some in our area challenge you to identify specific invasive organisms in parks you visit. That project continues to document areas where an invasive organism is just getting started, so that scientists and managers can eliminate a troublesome pest before it really gets out of control. These apps and users are providing a significant service by helping scientists to study and conserve our natural heritage.

Or, you can just use both apps to satisfy your own curiosity, happy to know the name of the critter, plant, or fungi you spotted. Happy exploring!

"Dear Tom"

Dear Tom, I'm an avid gardener but New Jersey winters are long and my fingers itch to do something! I've planned my gardens for next year, so what else is there to do in the dead of winter?

-Frustrated Gardener

Dear Frustrated Gardener,

I can understand your itch to be doing more for your garden. Have you tried winter sowing? It's a great way to get an early start. All you need are seeds and mini-greenhouses which you can make with one-gallon, plastic milk jugs. January is a fine time to start many of your favorite perennials and cold hardy vegetables! Wait until March for tender annuals.



Cut gallon with hinge left uncut



Many new seedlings



Sample soil depth

Instructions:

1. Wash out a clear, gallon milk jug.
2. With a box-cutter, cut *almost* all the way around the middle of the jug but leave an inch or so to act as a hinge.
3. Punch a generous number of holes in the bottom for drainage and a few around the top for ventilation. You can use a screwdriver or even an electric drill.
4. Pull back the top of the milk jug and put in a potting mix of garden soil, peat moss, and sand (several inches). Water and let it drain.
5. Spread seeds generously and close together; follow package directions just for depth.
6. Use duct tape to seal the top and bottom of the jug together. Leave off the cap and put directly in a sunny spot *outside*. Let nature do the rest (no need to water unless you notice the soil has dried out). Don't worry about snow, ice, or low temperatures.

When it's time to remove the seedlings and put them in your garden, take off the top of the jug and invert the whole clump into your open hand or cut off the front of the jug and slide the clump out. If your seedlings are very close together you can cut them into brownie-like squares before planting.

UPCOMING EVENTS

Tu. 1/7 Best Gardening Advice	7pm
Su. 1/12 Science & Art in Nature: Biomimicry	3-5pm
Tu. 2/4 Best Gardening Advice	7pm
Su. 2/16 Build a Rain Barrel	1-2:30pm
Su. 2/23 Science & Art in Nature: Ice Ornaments	3-5pm
Tu. 3/4 Best Gardening Advice	7pm
Su. 3/8 Science & Art in Nature: Bird Watching	3-5pm
Tu. 4/7 Best Gardening Advice	7pm
Su. 4/19 Science & Art in Nature: Seed Balls	3-5pm
Fri.- Su. 4/24 - 4/26 Arbor Day Weekend Open House and Plant Sale	TBD
Su. 4/26 Rain Gardens	1-3pm

For complete information or to
REGISTER visit:
www.thielkearboretum.org