



Newsletter

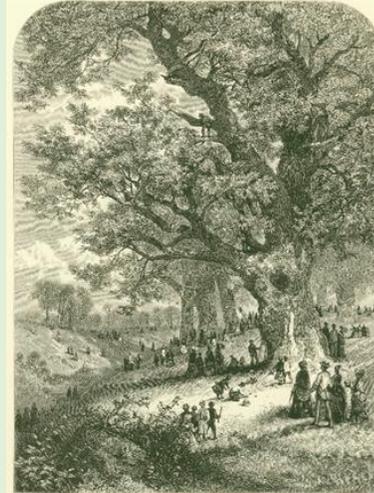
Preserving and Protecting the Historic Princeton Nursery Lands

Talk on the American Chestnut at FPNL Annual Meeting - November 5 at 7:30 pm via Zoom: Friends of Princeton Nursery Lands (FPNL) will be presenting this year's Annual Meeting via Zoom. Our speaker, Mike Aucott, is a Hopewell resident and an active member of The American Chestnut Foundation. He will share his rich knowledge of the American Chestnut, following a short business meeting. You may remember that he planted a young American Chestnut at the Mapleton Preserve this spring to give it a good start before the weather got too hot. (Below left) We are happy to announce that the young tree is doing very well. If the tree continues to survive and thrive, it might one day get to the size of the beautiful American Chestnut featured the delightful 19th Century engraving shown below (Below right).

You can connect to the FPNL annual meeting and the American Chestnut talk via this link, <https://us02web.zoom.us/j/3854822565?pwd=bW1jVmlvR1NoMkRtVFIWci8rYkEwUT09> or look for details on our website at www.fpnl.org Please note: if you will be attending, an RSVP to karen.e.linder@gmail.com is requested.



Mike Aucott planting the young American Chestnut
Photo by Tari Pantaleo



Gathering Chestnuts by J. W. Lauterbach
For a larger image, visit www.fpnl.org

Membership Renewal Appeal: 2020 is drawing to a close. That means that it is again time to **renew your membership with the Friends of Princeton Nursery Lands for 2021** (or join us for the first time). [If you were waiting for someone to ask you to join, please consider this your invitation].

Since we solicit renewals and donations only once a year, we urge you to join or renew your membership in the Friends of Princeton Nursery Lands TODAY. For those who are new to FPNL, our programs are generally free and open to the public. Your donations will be used for speaker and program fees, tree- and trail upkeep, as well as the newsletter. If you are a member, a renewal form will be sent to you in the mail. If not, please **visit our website at www.fpnl.org to join, or renew using either PayPal or by downloading a membership form at www.fpnl.org** Please give as generously as you can.

Mapleton Preserve update: Due to the COVID-19 pandemic, this summer and fall has seen significant increases in the number of visitors to the Preserve, and an increase in vehicular traffic as well, due to people driving down paths to find new places to explore, as well as traffic from dirt- and quad-bikes.

To stem this unwanted traffic, FPNL installed new signs to alert all that motorized vehicles on the paths are not allowed. This appears to have stopped the problem for the most part.

The Preserve is lovely in the fall, so we invite you to come out for a walk soon. Please remember to practice social distancing on the trails to protect yourselves and others. **Photo by Kirstin Ohrt**



Mowing: Big “haircut” for the fields at Mapleton Preserve: Our friends at Kingston Greenways Association (KGA), with the approval of South Brunswick Township, the D&R Canal State Park, and the State Historic Preservation Office, and with the blessing of the Mapleton Preserve Commission, has engaged Jim Irish to “brush-hog” the fields of the Mapleton Preserve to start the process of restoring them.

The nursery fields have been fallow for at least 25 years. During that time, they have become overgrown with several pioneer and non-native invasive species. This includes aggressively spreading shrubs and trees like Autumn olive, Callery pear, Black locust and Japanese honeysuckle and invasive plants such as mugwort, phragmites, Japanese knotweed, Chinese bush clover, porcelain berry and wisteria (an escapee from former nursery days). For images of these invasives and others, visit Jim Irish’s website at <http://jamesirishinc.com/>

The project took 5 full days of work, and has left a messy aftermath of sheared weeds, shredded shrubs and small trees. These will soften over winter, but right now, the mess is impeding people's use of the trails. KGA is working on potential solutions to this problem and is committed to their implementation.



We expect that the property will have to be mowed one more time, to knock down resprouting woody plants and control the newly exposed “seedbank” of previously buried seeds that are now newly exposed to proper growing conditions. It will be interesting to see what emerges following this dramatic change.

Long term, the goal is to restore the fields to their full abundance, with a diversity of native plants and animals. The fields of Mapleton Preserve are beginning to make the transition to forest, which is not in keeping with the cultural landscape proposed for this preserved land, once home to the fields of Princeton Nurseries. We look forward to the day when the fields are rich with native plants and flowers, to the delight of the birds, pollinators, and human visitors to the Mapleton Preserve.



The Bluebird Trail at the former Princeton Nursery Lands - Anne Zeman

A Bluebird Trail was put in along an old farm road through the former Princeton Nursery Lands in 2018 with help from the New Jersey Bluebird Society. There are eight boxes at four locations. Each bluebird box is paired with another box approximately 15 feet apart. This provides a nesting box for the Tree Swallow who would otherwise overpower the bluebird and take the nesting box.

The boxes are strategically placed where the bluebirds have access to trees and open area. Bluebirds need a low grass area to feed, but they need plenty of perching area for the adults. Bluebirds lay one egg per day and they hatch 12-14 days after the last egg is laid. The baby bluebirds will fledge/fly in 16-21 days. Both parents feed the young.



April 15th. Five pale blue eggs.



**April 26th.
Hatchlings
beginning to
emerge**



**April 30th.
Ready for food**

The goal of the boxes is to provide habitat to sustain and increase population for the bluebirds. Bluebirds can be seen in New Jersey year-round and almost always on the former Princeton Nursery Lands.

May 5th. Fledglings begin to show blue wings (on left)

May 11th. Eyes are open, almost grown (on right).

All five bluebirds fledged between May 15-19.



All nestling photos © Anne Zeman

Special thanks to our friends at the D&R State Park, especially Tony, who kept the area in perfect condition for our bluebirds.

Events: Normally, this back page is filled with upcoming events – most of them outdoors, including our Thanksgiving Day and First Day Hikes. However, with the current COVID-19 situation, FPNL remains cautious about scheduling in-person events.

Hopefully this will change in the future, so please stay in touch with Friends of Princeton Nursery Lands on our webpage [www.fpnl.org] or Find Us on Facebook [@fpnlNJ](https://www.facebook.com/fpnlnj)

Notes from the fields - Witch hazel cone gall – Karen Linder and Boël Denne-Hinnov: While walking in the arboretum this summer, we noticed some weird pink, yellow-green and red cone-like galls on the leaves of some of the American Witch-hazels (*Hamamelis virginiana*) in the Flemer Arboretum. A gall is an abnormal growth on a leaf, twig or branch that is a plant's response to invasion by an insect, mite, bacteria or fungus. Galls found on leaves seldom harm the plant but may cause striking changes in the normal growth pattern of a leaf.

The strange growth shown in the photo below is called the witch-hazel aphid cone gall. It is the plant's response to a mother aphid (*Hormaphis hamamelidis*) who hatched from an egg laid in a witch hazel leaf bud last fall. After the egg hatched in April, the mother began feeding and gave birth to many baby aphids. Chemicals in her saliva stimulated the developing leaf to grow around them. These bulbous things that look like a witch's hat formed; there may be 50 to 70 babies inside each cone. The galls, usually found over a vein on the leaf, provide the insects inside a sugary diet from the leaf's supply. In addition, the galls provide shelter and security for the young to grow. For a spectacular close-up view, visit Chris Engoto's wonderful video on this subject at <https://www.youtube.com/watch?v=SgRiYxxV5m8>

		
Witch hazel aphid cone gall	Witch hazel aphid cone gall Photo by Boël Denne-Hinnov	Exit hole for the aphids that lived in the gall. Photo by Boël Denne-Hinnov

The life cycle of these witch-hazel cone gall aphids is complicated. There may be a few flightless generations of the aphids (all females), followed by a generation of both males and females. A winged generation flies to birch trees to lay eggs of the new form that looks like whiteflies when hatched. These will subsequently send a final generation back to witch-hazel to produce eggs that overwinter.

These interesting galls don't seem to harm the plant and are worth looking for the next time you are in the Flemer Arboretum. As a native prey insect, the aphids sheltered inside may provide high energy food for several of their natural enemies, including lady bugs, lacewings, and probably multiple birds.