# WWIA News Fall 2019



# Forbes State Forest Field Trip Recap

By John Hilewick, WWIA President

On Saturday, June 15, eight members of WWIA met at the Braddock Division maintenance headquarters building just off Skyline Drive in Wharton Township, Fayette County. We were greeted by Dave Planinsek and Ralph Campbell, foresters for the Forbes District. Dave and Ralph shared information about the Braddock Division and some historic specifics of the forest holdings that make up this component of Forbes State Forest.

We began the day with a brief visit to the fire tower that sits just behind and above the maintenance headquarters building. It is no longer in service because the wooden stair treads and the cabin are not in good enough shape to risk use or exploration. The public is fenced out by a padlocked chain-link fence.

Ralph said they hope that funds may be raised to rehab the fire tower so it can be staffed or at least support supervised Bureau of Forestry educational excursions to enjoy the view from the tower. Otherwise, this historic landmark may not survive. *Continued on Pg. 2* 

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### Forbes State Forest Field Trip Recap (cont.)

Next, we carpooled to several sites to view the results of prescriptions for low shade removals. One involved mowing treatments using a forestry mower device attached to a piece of tracked equipment. The low shade culprits were dense thickets of mountain laurel and rhododendron.

At another site, herbicides were used to kill or substantially set back mountain laurel and rhododendron, as well as spicebush and other undesirable species. In each case, the goal was to help establish and enhance diverse regeneration of desirable tree seedlings. In some places follow-up treatment may be necessary.

Dave and Ralph then showed us one of the success stories involving regeneration. It was a track that had earlier had less desirable and poorly formed stems removed, leaving the predominant species of white oak and northern red oak as seed sources to continue through to maturation. As Dave and Ralph explained it, this particular site had a good aspect for the desirable species, and the soil and growing conditions were also quite good.



Right before that initial harvest, the competing vegetation was treated with an herbicide. Later, after the next generation of the forest had been established in the way of advanced seedling growth, an overstory harvest was done. We saw a young forest with a substantial amount of white oak, with good quantities of red oak and some other desirable species too. These trees were thriving. In fact, they were more than head high.

A short jaunt to a site of historic significance was next. Wharton Iron Furnace is a few miles south of Route 40. This charcoal-fired stone iron furnace was built in 1837. As we came to know, many furnaces like this one were located throughout what is now the Forbes State Forest. The main Wharton Furnace structure was restored by the Pennsylvania Department of Conservation and Natural Resources.

This wonderful project has preserved part of Pennsylvania's early industrial heritage. It has become a destination for history-minded tourists and forestry travelers alike. Explanatory panels with historic photographs and descriptive text carry visitors through the history of the individuals who made iron in 19th-century southwestern Pennsylvania.

We stopped for lunch at a beautiful picnic glen where enormous yellow poplar trees gave us nearly full shade at the picnic tables, with just a few beams of sunshine coming through the minimal breaks in the canopy. Several attendees remarked that the day had been extremely enjoyable and informative.

Someone even exclaimed, "Gee, what will we do next year for the tenth annual Forbes field trip?"



I said maybe we should consider doing something even more to celebrate the tenth anniversary of WWIA's being hosted by the Forbes State Forest team for a field trip and skills day. All agreed that it was a thought worth some serious pondering.

As we finished lunch, Dave and Ralph told us about a wildfire that damaged the Braddock Division several years ago. Between 400 and 600 acres were burned before it was extinguished. The burned area extended beyond the state forestland.

The field trip ended with visits to two locations to see some results of that springtime "unprescribed burn." First, we visited a section where the fire did not burn really hot since there was not excessive fuel near the ground. Ralph and Dave explained that there was no lasting damage. In fact, some good may have come from the fire in this location because it set back undesirable competing species. That allowed more desirable species, like the oaks, to surge in growth the following year.

The second site involved a walk up a retired fire access/firebreak road. Here we were shown a place where the fire burned extremely hot. The trees that survived were really damaged on the hot fire side of their trunks. In other places the forest was much more open. The resulting growth was an estimated 40-acre stand of very thick hay-scented fern three feet tall!

This probably occurred because the fire destroyed most of the above-ground vegetation. The root bases of the ferns survived and the ash from the fire provided a rush of nutrients, so the ferns grew and multiplied unimpeded. Not much of anything but a few sparse blackberry bushes have been able to germinate and grow **"Some good"** 

up through them. The foresters said that regeneration will be able to occur here only if multiyear mechanized herbicide treatments are

here only if multiyear mechanized herbicide treatments are applied. It may not be worth it to make such a financial investment because desirable seed sources are at a minimum at this site.

When we returned to the division headquarters and maintenance facility, we thanked Ralph and Dave for this great field trip. As we were saying goodbye, longtime WWIA member Susan Caroleo offered male and female pairs of rooted vine cuttings from her hardy kiwi arbor to anyone who desired to take some home to plant. What a thoughtful, gracious expression of friendship and camaraderie. Susan's generosity was yet another example of the rewarding WWIA experience! "Some good may have come from the fire in this location because it set back undesirable competing species."

# Recap of Leslie Horner's Woodland Regeneration Workshop: Way Down the Hill

by John Hilewick and Judith Gallagher

On June 29, WWIA members were lucky enough to attend another in a series of programs on forest regeneration. This was a field day run by Leslie Horner, a forest stewardship program associate with the Center for Private Forests at Penn State. Longtime WWIA member and current vice president Fred Lau was our host. He volunteered his woodland for the hands-on workshop.

#### The Morning Session

The day began with a PowerPoint presentation in which Leslie explained the concepts behind woodland regeneration. She explored how our forests are declining through Inadequate regeneration—a lack of either quantity or quality in tree seedlings.

Leslie passed out a booklet called *Woodland Health and Regeneration Introductory Assessment Form*, which would be essential to our afternoon activities. She also provided handouts on identifying trees and eradicating various invasives.

Leslie cautioned, "Seedlings in your woods may not survive and thrive unless you take action to reduce the challenges to successful regeneration."

We broke for a Panera box lunch, which the Center for Private Forests generously provided. Participants compared notes on what work they'd undertaken in their own woodlands and what projects they planned to do in the future.

#### The Hands-On Demo

After lunch came a hands-on demonstration of the assessment process. Most of the group made the trek down the hill, which became substantially steeper as we moved from the gas-well access road to a patch of woodland. Here Leslie guided us to find answers to questions about the health and resilience of this small segment of Fred's woodland.

First, with the help of Westmoreland Conservation District forester Tony Quadro, we chose a random center point and flagged it. Then we laid out a 1/1,000-acre (3.72-foot diameter circle) plot and, surrounding it, a 1/10 acre (37.2-foot diameter circle) plot: a small circle inside a large circle. The milacre plot was where we would assess advance regeneration. The 1/10 acre plot was where we would assess deer impact and overstory conditions.

Leslie reminded us that the health and resilience of woodlands depend on various factors, including 1) minimal stress from invasive plants, insects, diseases, and deer; 2) diversity of tree species; 3) sufficient regeneration; and 4) vigorous trees of various sizes and ages.

She had us examine the 1/10-acre plot. We found it fairly easy to identify trees of various sizes and ages and determine the diversity of tree species. But the other two factors--various stressors and sufficient regeneration--were substantially more difficult to determine.

**Step 1 of assessment** was to **examine the overall structure of the stand**. Leslie pointed out that regeneration is a process and part of the cycle of forest renewal. She quoted the Center for Private Forests booklet: "Not every woodland stand will be at the stage of development where regeneration is beginning."

According to the booklet's criteria (page 3), this stand sample looked to be in the stem exclusion stage. "The growing trees—saplings to small timber sized—are relentlessly competing with each other for light, space, and other resources. Some individual trees grow taller, faster, and thrive, while less competitive trees die. The surviving trees expand their crowns into the now-vacant space."

As I recall it, we saw sugar maples, red maples, a couple of northern red oaks, a few black cherry, one or two black locust, and one fairly large hop hornbeam. Similar species were being outcompeted by these more dominant trees and were either dead or dying. There were some small canopy openings, but shade dominated.

**Step 2** of assessment was to **check for signs of deer impact**. We saw browsing of the tender ends of greenbriar and wild grapevines, as well as browseback of some epicormic sprouting of dying trees. We saw little of the ephemeral types of vegetation we'd expect in June. Between two fairly large fallen tree trunks, Lorree Speedy did find a small multiprong ginseng plant that had been spared so far.

Step 3 was to look for seedlings (advance regeneration). Each seedling with a height of two inches to one foot is counted as one seedling. Each seedling one to three feet tall counts as two seedlings. Each seedling three to five feet tall counts as twenty seedlings. Each seedling five feet or taller counts as fifty seedlings. We determined that this plot had inadequate advance regeneration.

**Step 4** was to **estimate current canopy cover**. We estimated that this plot had a canopy greater than 50 percent, making it unfavorable for regeneration.

**Step 5** was to **estimate competition from other vegetation**. Though we found competing vegetation was present, it did not reach the critical threshold of 30 percent or more of this 1/10 plot's understory.

In the larger landscape of the Lau woodland, we observed competing vegetation in multiple classes, especially common invasives like tree of heaven (*Ailanthus altissima*), bush honeysuck-le, autumn olive, multiflora rose, garlic mustard, Japanese stiltgrass, Japanese knotweed, oriental bittersweet, and Japanese honeysuckle. These species may have been introduced during recent exploration, development, and maintenance of natural gas wells.

Step 6 was to impose a simulated harvest. Steps 7 through 11 involved evaluating the effects of the simulated harvest on light levels, changes in species composition, potential seed sources, quality of the residual stand, and average diameter of trees.

We didn't have enough time for these last six items of assessment. But we agreed that portions of the woodland could benefit from silvicultural prescriptions that would deal with invasive plants, deer predation, and specific harvest alternatives to stimulate regeneration opportunities. Of course, in any woodlot all these items would need to conform to the owners' goals, financial resources, and desire to take action.

All in all, it was a great day of learning and camaraderie. We thank Fred Lau for his graciousness and hospitality and Leslie Horner for her expertise and for all her work in making the day such a success.

### Species Spotlight: Tulip Poplar

By Celine Colbert, Service Forester

When I'm asked what my favorite tree is, my go-to answer is a tulip poplar. Sure, it may not be as valuable for timber as black cherry, as beautiful as a redbud in flower, or as valuable to hungry wildlife as a white oak. Instead the tulip poplar is well rounded. It is an adaptable jack-of-all-trades tree, serving equally well in the woods as in a yard.

Standing in a forest dominated by tulip poplar can feel like standing in a cathedral. Among the tallest trees in our woods, tulip poplars can grow up to 190 feet tall and tend to shoot straight up, so they resemble grooved



brown columns as you stand among them. Though their wood is not exceptionally hard, the straight, fast-growing, clear trunks find a market in furniture, trim, and plywood.

The flower of the tulip poplar is large and resembles a creamy yellow tulip. Though it may be tough to spot these flowers far up in the canopy, they are a valuable resource to bees, which can gather eight pounds of nectar (equaling four pounds of honey) from a single tulip poplar in a season. If you like butterflies, you may appreciate the fact that tulip poplars are host trees for tiger swallowtail caterpillars.

Tulip poplars are also commonly planted as shade trees in yards and parks for a variety of reasons. Their uniquely tulip-shaped leaves turn a pretty yellow in the fall, they withstand urban pollution more than many other native trees, and they grow quickly (about two feet per year!).

Perhaps I'm not the only one partial to the tulip poplar: It's the state tree of Tennessee, Indiana, and Kentucky. Famous fans include George Washington, who planted tulip poplars at Mount Vernon that are now 140 feet tall, and Daniel Boone, who used their wood for his 60-foot dugout canoe. Sometimes it's your adaptability that makes you stand out, and that is certainly the case for the tulip poplar tree.

### WWIA 2019 Calendar

October 17, 6:00 p.m. Ryan Hamilton, an attorney at Fair Shake Environmental Service and an expert on environmental law, will give a talk on "Utility Rights of Way in Our Forests." He serves on several local boards, including the Jacobs Creek Watershed Association, and has a great deal of experience with utility ROW laws. Join us and learn how complying with ROW laws aligns with WWIA's goal to promote productive ways to use forest resources while preserving their natural beauty. There will be a social half hour starting at 5:30, followed by a potluck dinner at 6:00 and a brief business meeting. The presentation will begin at 7:00. All are invited.

Please check westmorelandwoodlands.org for the latest information about program times and places.

## Showcase a Resource: Partners for Fish and Wildlife at California University of PA

by Janet Sredy & Raul Chiesa, Beckets Run Woodlands becketsrunwoodlands@gmail.com

Based at California University of Pennsylvania (Cal U) since 1999, the Partners for Fish and Wildlife (PFW) is a cooperative effort among many agencies. It works collaboratively with landowners to restore wildlife habitat, including streams, wetlands, grasslands, and young forests. The program also provides internships and applied learning opportunities for Cal U students.

Beckets Run Woodlands began working with this organization in 2014 when it converted some of our forest openings infested with invasive plants into wildlife habitat with beautiful native flowering plants and grasses supporting pollinators, songbirds, and other forms of wildlife and game.

The forest openings received initial treatments with herbicide to control invasive species. These were followed by removal of dead ash trees killed by the emerald ash borer, invasive tree of heaven, and other trees damaged or killed by invasive oriental bittersweet vines. A few dead trees were left standing as den trees; the rest were used to build wildlife brush piles.

Woodland pools were built at the natural spring seeps, a native pollinator/wildlife seed mix was sown, and bird boxes were installed.

Today, five years later, the wildflowers are visited by massive numbers of pollinators, from wild bees to hummingbirds. Birds feed on the seeds of the native grasses and the insects on the brush piles. Bluebirds nest in the birdboxes. The pools are home to a variety of amphibians and are visited by an array of wildlife. One pool naturally expanded and is now visited by mallards and a great blue heron.

In addition to the wildlife habitat work, PFW improved our old forest access road and installed gates and fences on the property.

All planning and work are overseen by project supervisor Jose Taracido, assisted by a staff of six to twelve professionals equipped with all the machinery needed to get the work done efficiently. Jose is an expert on native warm-season grasses and wildflowers, so visits with us always include his expert assessment of our wildlife habitat management.

If you have an interest in any of the practices mentioned here or have similar needs, you can learn more about PFW by visiting <u>https://</u><u>www.calu.edu/community/institutes/partners-fish-wildlife.aspx</u> or by contacting the office manager, Amy, at taracido\_a@calu.edu or 724-938-5799.

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We honor Margaret Baber, who passed away on July 12, 2019. We are thankful for her many years of service to WWIA.

### Westmoreland Woodlands Improvement Association

Membership Application and Renewal – Dues \$10 per year

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