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Monongahela River Barges

In Morgantown's *Dominion Post* 'America's 250 Celebration' edition, **Jim Bissett** wrote an article about traffic on the Monongahela River in the late 1700s. Bissett stated that in that era, it wasn't coal that was moved, but rye whiskey from the Monongahela Rye Whiskey Company, a Pittsburgh distillery dating back to the very early 1800s. The distillery owner was Michael Kerns, a Dutch immigrant who took an axe to towering stands of American chestnut trees in 1772. Kerns built a flatbed boat to transport his whiskey to towns on the banks of the Monongahela River. What would eventually become Morgantown, was at that time 600-acres of old-growth forest. Kerns built a house (most likely from American chestnut), and he founded a grist mill at present-day Decker's Creek. When Kerns began construction of the flatboat, river traffic was the only traffic.



Representation of a flatbed boat from the early 1800s.

In Morgantown, there is talk of constructing a permanently anchored, and Colonial-correct flatbed to honor the memory of Michael Kerns.

In the same article, Bissett wrote about a Morgantown native, **Adelheid Schaupp**, the current owner of the Kerns' house. She wants a revisioning, to celebrate the massive, rough-hewn chestnut logs that the flatboat busi-

nessman cut down in 1772 with that axe of his. She envisions a museum with a sit-down cafe.

Before the railroads, the Monongahela River was the cheapest way to go. In the 1750s to 1760s, it was like our interstate highways. Between 1890 and 1900, the Monongahela River moved more tonnage than the Panama Canal. And flatbed boats built with American chestnut logs moved much of the goods on the river.

iNaturalist A Tool for Chestnut Enthusiasts



As with other state chapters, the WV chapter is comprised of members of various ages from the young who enjoy hiking to an older population whose hiking days are over. For those who are still fit and enjoy hiking through our majestic WV mountains, iNaturalist can help with finding and/or documenting wild, American chestnuts. This program helps in the identification of plants and animals while generating data for science and conservation.

By recording and sharing your observations, you create research-quality data for scientists working to better understand and protect nature.

What is iNaturalist?

iNaturalist is a lot of different things, but at its core, iNaturalist is an online social network of people sharing biodiversity information to help each other learn about nature.

It's also a crowd-sourced species-identification system and an organism-occurrence recording tool. You can use it to record your own observations, get help with identifications, collaborate with others to collect this kind of information for a common purpose, or access the observational data collected by iNaturalist users.

Hal Brindley, the former website administrator for TACF provided the following steps on how to use the iNaturalist program on your smart phone. Note that you have to have internet access for this program to work in the wild.

Using iNaturalist to find American chestnut observations

1. Open the iNaturalist app on your phone.
2. Click the 'Explore' button (bottom menu).
3. Click the filter icon (upper right).
4. Under Taxon, click 'Search For Taxon'.
5. Type "Castanea" (the genus of chestnuts) in the search bar and select American chestnut from the list that auto-populates below.
6. On the Explore Filters settings page, you can optionally uncheck the 'Needs ID' box to show only Research Grade observations and increase your chances of seeing a confirmed American chestnut.
7. Click 'Apply Filters' (green button at bottom).
8. Navigate around the map to find an area to search, or tap the 'My Location' icon (small compass lower left) to center the map on your position.
9. When you move the map, click the 'Redo Search in Map Area' (green button top) to show results in that map area. The observations will appear as small green pin icons on the map.
10. Zoom in on an area with several observations that seem likely to be in a publicly accessible location. Parks and protected areas are usually large green areas on the map.
11. Tap one of the observation points to open the data for that observation.
12. Tap the photo at the top of the observation page to view a gallery of images submitted with the observation. If you have some experience identifying American chestnut, you can use the photos to decide if this is a good specimen to look for. Visit TACF's ID page to learn more about identification.

Tip: When searching on the map, tap the basemap icon (lower left, next to the 'My Location' icon) to switch between satellite imagery and street map. Using satellite imagery can help determine if the tree is in someone's backyard (private property) or in a large patch of forest, which has a better chance of being public land.

Mountwood Days

WV chapter member, **Brian Smith**, led Adventure Camp for children 9-13 years of age at Mountwood Park near Parkersburg on Saturday, July 18. This was an outdoor, fun, get dirty camp. Included were fishing, hiking, archery, and nature activities.

This outreach activity was a workshop for ten attendees of Mountwood's Adventure Camp. Brain entitled it '*Phenotyping Local Trees, and Detailing the American Chestnut History*'. The class lasted two and a half hours and included planting two American chestnut trees. The kids were fascinated to learn about all the different local trees and all the different tree characteristics. One of their highlights was trying, but failing, to create a chain of people to reach around an imaginary ten-foot diameter tree.

July is a difficult time of year to transplant a tree. The Mountwood Park employees have accepted the challenge of keeping the seedlings watered and protected until the first frost.



Some of the youth participants at Mountwood Adventure Camp around a newly planted American chestnut tree.



Onlookers watch as a hole is dug prior to planting an American chestnut tree.

West Virginia Master Naturalist State Conference

This year's WV Master Naturalist State Conference was held July 24-26 at Camp Dawson in Kingwood. It was a weekend of learning, field experiences, networking, and fellowship. Classes varied from geology to avian conservation, small mammals, pollinator diversity, and WV moths. The program coordinator was WV chapter member, **Janis Boury**. One of the Saturday afternoon instructors was WV chapter member, **Mark Double**, who led a 3-hour course that included a 2-hour lecture followed by a tour of the Waddell chestnut orchard at Preston High School in Kingwood, led by **Robert Sybolt**. The field trip allowed the participants to view active chestnut blight, the aftermath of *Phytophthora*, sprouting and differences between American and Chinese chestnuts.



Robert Sybolt informed the group about the history of the Waddell orchard.



The group listened to Robert explain the various tree species.



The group posed for a photo in front of a 13-year-old American chestnut grown from seed at the Clements Tree Nursery.

Hampshire County Fair

Bernie Coyle (WV chapter president) and his wife **Linda**, hosted a table for the WV chapter at the Hampshire County Fair. Their chestnut display won the blue ribbon at the agricultural crop barn. It was chosen as the best display among all the those entered. Bernie and Linda will take their display on the road this fall to the Paw Paw Festival. Thanks to them both for being great ambassadors of TACF and the WV chapter.



Linda Coyle in front of their chestnut display at the Hampshire County Fair.



The Blue Ribbon for Best in Show for the WV chapter's chestnut display at the Hampshire County Fair.

Chestnut Video

In late April of this year, **Aden Nickerson**, communications specialist for the Division for Land-Grant Engagement at West Virginia University stopped by the WVU greenhouse to photograph some flowers raised by the greenhouse staff. Aden saw the WV chapter's thousand chestnut seedlings grown on three large tables, and he asked **Whitney Dudding**, the greenhouse manager, why chestnut seedlings were being grown. Whitney introduced Aden to **Amy Metheny** and **Mark Double** of the WV chapter. Aden set up an interview with Amy in the greenhouse in front of the chestnut tables.



A screen shot of Amy Metheny from the Davis College chestnut video.

As it happened, the following week was the installation of a 100-tree recurrent genomic selection chestnut planting in Parsons. Aden and crew packed up for a road trip, and they interviewed Mark and Amy at the Parsons planting. It took more than two months to complete the video, but it is viewable on WVU's Davis College's Facebook page. To see the 5-minute video, on Facebook type in Davis College of Agriculture and Natural Resources. To date, the video has been viewed more than 1,200 times.

Fall WV Chapter Meeting and the Rowlesburg Chestnut Festival

This year's fall chapter meeting will be held in conjunction with the Rowlesburg chestnut festival on **Sunday, October 11** in the Szilagyi Center in Rowlesburg.

11:00 a.m. — 1:00 p.m.

Historic Rowlesburg School Szilagyi Center 2nd Floor
WV Chapter of The American Chestnut Foundation Meeting

Bernie Coyle, President
Jerry Legg, Vice President
Jeff Kochenderfer, Secretary
Sam Muncy, Treasurer
The Public is Welcome



WV chapter president, Bernie Coyle

1:00 p.m. — 3:00 p.m.

Auditorium

Historic Rowlesburg School Szilagyi Center
Lunch and Chestnut Festival Ceremonies
(Lunch Tickets are \$12.00 at the Door)

Welcome and Introduction of Distinguished Guests
Robert Sypolt, Festival Director
Mark Double, Festival Scientific Chair

Chestnut - Vino Novelle Ritual

"Tasting the New Wine"

Shirley Hartley-Meissner Festival Emeritus Director

18th Annual Crowning Royalty:

Mr. and Mrs. Chestnut

Paul and Kyla Grafton

Kyla is the daughter of Chestnut benefactor
Duane Waddell

3:00 p.m. — 4:30 p.m.

Historic Rowlesburg School Szilagyi Center 2nd
Floor

Chestnut Technical Session

Mark Double Moderator & Past President, WV
Chapter TACF

Session No. 1

Kaitlyn Harless

Mid-Atlantic Regional Science Coordinator The
American Chestnut Foundation

TOPIC: Status of TACF's Current Chestnut Breeding
Program



Session No. 2

Amy Metheny

West Virginia University and member of the
WV chapter Board of Directors

TOPIC: Applications of Hypovirulence

Volcano, West Virginia

On August, 4, 2026, **Dave Weekley** from WV Metronews posted the following article about Volcano, a now-abandoned town in WV.

Volcano seems like an appropriate name for a town that briefly burned hot and then met a fiery end on August 4, 1879.

Volcano, West Virginia sat right along the border of Wood and Ritchie counties in the White Oak oil region; about 20 miles east of Parkersburg and 12 miles west of Ellenboro. Volcano holds a legendary place in West Virginia's energy history for several reasons. After the oil discovery in Titusville, Pennsylvania in 1859, Volcano was a hub for several major developments in oil extraction, transportation, and industrial technology.

The Endless-Cable System was first used in Volcano in 1874. Perfected and patented by W.C. Stiles Jr., it featured a central steam engine connected to a series of wooden wheels, belts, and iron cables that allowed a single operator to run up to 40 different oil wells at once, an amazing achievement at the time.

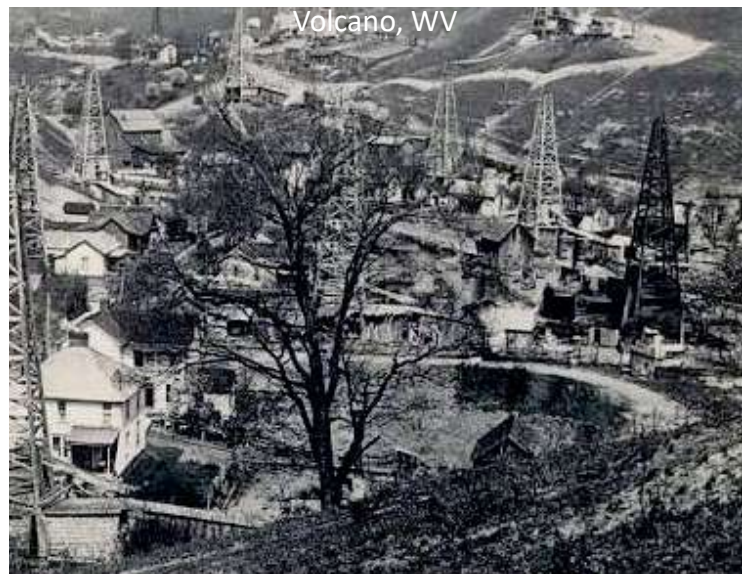
Volcano was also the home of West Virginia's first oil pipeline in 1879, running right from the oil fields to the refineries in Parkersburg. At its peak in the 1860s and 1870s, the field at Volcano produced over 2.3 million barrels of oil. The crude extracted from Volcano was heavy, high-viscosity oil that required minimal refining, perfect for factories, trains, and heavy machinery. With the oil flowing, the town of Volcano was growing. At its peak, counting the temporary oil rig workers, transient laborers, teamsters and others, as many as 10,000 once called Volcano home. Volcano had its own opera house, a bowling alley and not one, but two newspapers. Volcano's Main Street had hotels, churches, schools, a post office, and several fine homes for wealthy oil barons who made quick fortunes in our relatively young state.

But, it didn't last. The initial boom in the 1860s was driven by relatively shallow wells between 300 to 400 feet deep, and a little more than a decade later, those wells were producing less oil. Wildcatters moved on to bigger and deeper wells in the northern panhandle and beyond, migrating away from Volcano's mature shallow fields to new areas where new drilling technologies were emerging.

That brings us to August 4th, 1879. In the early morning hours on that day, after two earlier failed attempts to burn down the town, arsonists succeeded. After the night watchmen retired around dawn, a fire broke out in a central structure and the blaze spread quickly. Storage tanks brimming with oil ignited and burst open; thousands of gallons of burning, molten crude poured into the streets, setting fire to everything. By mid-day, downtown Volcano was gone, reduced to soot and ash. An arrest was made after a Pinkerton investigation, but the suspect was acquitted due to lack of evidence.

After the fire, the Laurel Fork & Sand Hill Railroad which connected to the B&O, carrying oil out and bringing supplies into Volcano, was dismantled rather than rebuilt.

Volcano, West Virginia; which got its name from the hundreds of glowing "yellow dog" amber oil lanterns and natural gas flares, which at night looked like a giant erupting volcano on its brightly lit hillsides, flickered out.



Gone now for nearly a century and a half since that fateful fire, we remember Volcano, West Virginia not just for the ending to its brief but colorful existence, but for its fascinating role in the post-Civil War Industrial Revolution.

Why is the story of Volcano of importance to the WV chapter. **Brian Smith**, cited earlier in this newsletter, has a 100-tree chestnut orchard planted in Volcano. Join Brian for Volcano Days, September 25-27. Located at Mountwood Park, 1014 Volcano Road, the festival features antique tractor displays, craft and food vendors and historical demonstration and museum exhibits. There are also chestnut trees to witness thanks to Brian's efforts.

USDA Multi-State Project

Every year since 1982, chestnut researchers have gathered annually to exchange data and ideas under the umbrella of a USDA Multi-State Project (NE-2333). This year, the meeting was hosted by **Cassie Stark** TACF's, Director of Science Implementation, at Blacksburg, VA. The two-day meeting (Aug 24-25) consisted of 45-minute presentations and a field trip to John's Creek chestnut orchard. Following are brief excerpts from some of the presentations:

Cassie Stark, TACF, Penn State

The first USDA chestnut meeting was held in 1982 at Chimney Corners, MI. Cassie talked about TACF's recurrent genomic selection (RGS) implementation strategy. This is a breeding approach that continually selects individuals with superior genetic traits using genomic data to improve populations. The current average for parents is: a blight resistance index >70; American chestnut ancestry >70%; and a height growth in the >70 percentile. TACF is currently raising about 7,000 nuts per year. Between 2025-2026 nearly 8,000 crosses were made and the nuts distributed to several greenhouses: Augusta, GA; Meadowview; University of Tennessee Chattanooga; Penn State; and the Connecticut Ag. Experiment Station. TACF put 4,523 seedlings into field plantings and 3,397 for early disease screening. All the seedlings were genotyped. TACF continues to conduct small stem assays (SSA) where small stems are inoculated with a virulent isolate of the chestnut blight fungus. Inoculations are assessed at 60 days.

The recurrent genomic selection plantings include:

- Progeny tests where stems will be inoculated once they are 1.5" in diameter to assess blight resistance/susceptibility. Two of the 100-tree progeny test orchards were planted in May 2026 at Burnsville and Parsons.

- Seed Orchards

 - Blight orchards

 - Phytophthora root rot orchards

 - Large surviving American orchards

Cassie expect about 20% mortality in these orchards.

TACF does have some bottlenecks with planting. Good chestnut sites and good land stewards are needed. Also deer fencing is required to eliminate deer damage in the orchards.

Nearly 10% of TACF's RGS material is slated for forest reintroduction trials. TACF sends about 30,000 nuts to

nursery partners to raise for bareroot distribution.

Jacob Olichney and Sophia Suriano, State University of New York, Environmental Science and Forestry (SUNY-ESF) The American Chestnut Research and Restoration Project

Jacob provided some updates on their growth and physiology studies. From a 2026 article published in Forest Ecology and Management, they found that Darling 54 transgenic trees survived and grew well despite reduced overall growth in 5-6-year-old trees. The transgenic trees retained a vertically-oriented crown structure, typical of American chestnut. The slower transgenic tree growth coincides with periodically stimulated leaf respiration. SUNY-ESF is beginning the evaluation of a DarWIN inducible promoter in field-based studies.

They assessed 500 trees (5-7-years-old) that had natural infections. There was a lot of variation, but the OXO+ trees had smaller cankers compared to OXO- trees after one year.

Oxalic acid is not the only virulence factor in chestnut. They are developing other methods and looking at other virulence genes. SUNY-ESF is still looking for government approval for Darling 54. At this point, they think that federal regulations may occur in stages rather than a simple deregulation of Darling 54. They are looking for citizen scientists to help plant the transgenic trees. Whether or not the trees have to have flowers removed is still to be determined. They are branching out to look at other forest issues: elm yellows; oak wilt; beech leaf disease; ash.

Sophia talked about speed breeding using high light. This enables year-round pollen production. Chestnut pollen remains viable for up to 4 years. Viable pollen is a 1:1 ration is viable seeds (20% viable pollen = 20% viable seeds). She can still obtain viable seeds with 4-year-old pollen.

Sophia is taking a look at the effects of mud-packing on cankers. This is a valuable tool for high-value trees. Sterile soil in mud packs is not effective, so the microbial component of mud is partially responsible for slowing the growth of cankers contained in a mud-pack. She is planning to look at 30 mud-packed cankers and identify the bacteria and fungi found in the mud.

Susanna Kerio, Connecticut Ag. Experiment Station

She is rebooting hypovirulence research. Trees at the Lockwood Farm were treated between 1978 and 1981 with hypovirulent isolates. The American chestnut CT

champion is 50 years old and 40' tall. She plans to introduce new hypovirulence trials in 2027 at seven sites. She received \$5000 funding from TACF and \$120,000 from the USDA Forest Service to conduct this work. She hopes to develop hypovirulent strains that can be used to treat cankers state-wide. She has sampled cankers in 2026 with canker treatments to occur in 2027-2028 on young and old trees. She will monitor the cankers in 2029-2030 and repeat sampling. To date, she has sampled 91 cankers, but she has only processed ten cankers. Of those 10 cankers, six yielded hypovirulent isolates (CHV1-Euro7).

Bruce Levine, University of Maryland

Bruce is working on oxalic-free knockout strains of the chestnut blight fungus. These strains induce variable disease symptoms in chestnut. He asked the question, 'what happens if oxalic acid is knocked out of the fungus?' Bruce found that oxalic acid is a co-factor rather than the sole source of infection. Oxalic acid seems to have the same effect in both American and Chinese chestnuts, suggesting that Chinese chestnut does not naturally block the action of oxalic acid. Without oxalic acid the fungus can still cause disease.

Jason Holliday, Virginia Tech

Jason talked about genome-informed prediction of environmental adaption in wild and hybrid chestnut populations. Common garden studies (same trees planted at different locations) are a key component for studies of local adaptation. One study suggests that American chestnut follows the usual pattern where southern trees grow faster than northern trees. However, southern trees are more prone to frost damage. When breeding trees, we are not just selecting one gene, but all the other genes that get pulled along on chestnut's 12 chromosomes. We are breeding not only for blight resistance but also for height, cold hardiness, drought tolerance and bud phenology. To what extent has TACF's breeding program captured everything needed? In short, TACF has captured everything pretty well, based on analysis of 300 hybrid trees.

Steve Jeffers, Clemson University

Clemson tests soil samples for *Phytophthora cinnamomi*, the causal agent of root rot. Only 14 isolates were mailed to Clemson this year to be assayed using a baiting method for *P. cinnamomi*. Those soil samples came from KY, NC, SC and VA. Of the 14 soil samples, 12 were positive.

Steve is evaluating fungicides against *Phytophthora* root rot (PRR) that can be used in germplasm conservation

orchards to keep valuable trees alive in the presence of PRR. He tested 'Reliant' and 'Aliette' (phosphonates) and 'Subdue MAXX' and 'Ridomil Gold' (Mefenoxams). He uses both foliar sprays and soil drenches. In trials with non-treated controls, all four fungicides are effective.

Jared Westbrook, TACF's Director of Science

What does success look like for TACF? We need genetic diversity, American chestnut ancestry and improved PRR resistance. We can now genotype initially for improved blight resistance and competitive growth and we can predict resistance by looking at trees' relatives. The next steps are: breed the best parents; select the best progeny; and repeat. This is accomplished by controlled pollinations (known mother and father) of trees that have blight resistance >70 and American ancestry >70%. After that, the trees are genotyped (DNA analyzed) with early selection of seedlings with improved disease resistance and height growth (form of American chestnut). TACF uses DART (diversity arrays technology) from Australia. They charge \$18 per sample, and they test 6,500 regions of the chestnut chromosomes. To date, more than 15,000 trees have been tested (it takes 4 weeks to get that data back). For many years, TACF has been using Small Stem Assays (SSAs). This technique tests young seedlings by inserting a small piece of the chestnut blight fungus into a wound on the stem made with a scalpel. Resistant seedlings will continue to grow in spite of the wound, whereas trees without sufficient resistance will wilt and die. Jared used his genomic data and compared that data with results from SSAs. In 2025, Jared analyzed 1,200 seedlings comparing SSA and genomic data. He found that SSAs underestimate long-term blight resistance of the parent. As a result of this data, Jared has eliminated SSA data because Jared does not want to kill half of the seedlings with SSA inoculations.

Vinny Varsalona, Virginia Tech

Viruses affect all Kingdoms of life and they may have significant implications for forest health and productivity. Vinny wants to produce a database of mycoviruses (viruses that affect fungi) that infect the chestnut blight fungus all across the State of Virginia. He wants to use this data to understand how fungal viruses spread. He has chosen 11 sites across VA based on stand age and disease presence.