

July 2024

ORGANIZATIONAL UPDATES



WildOnes North Alabama hosted Holt Akers-Campbell for our July seminar. His talk was entitled "Cultivating Native Fruit.," is now available on YouTube and a copy of his presentation will be uploaded to the WildOnes website (file too large for this newsletter).

July Seminar and Upcoming Garden Tour

by Charles Pannell on 31 July

In July WildOnes North Alabama hosted Holt Akers-Campbell from Alabama Extension for our monthly Seminar. His talk on "Cultivating Native Fruit" was very informative, and he was generous enough to allow us to record his session, which is now available on YouTube. We are blessed to have so many wild, cultivated and native fruit species growing in our state, and Holt provided an overview of some of the more useful and commercially available fruit varieties with particular focus on blueberries, mulberries, pawpaws, persimmons and elderberries. We are proud that Holt decided to join WildOnes earlier this year, and we are happy to support his upcoming talk on August 1st with another WildOnes member and former guest speaker - Jesse Akozbek. More info on this upcoming event (tomorrow) and other events mentioned during Holt's talk are linked below:

Native Fruit: Growing and foraging pawpaw, American persimmon, blueberry, and <u>elderberry</u> (Thursday, August 1st)

<u>Alabama Regenerative Growers Conference</u> (Saturday, November 2nd)

In July, WildOnes also finalized plans for our first landscape tour of the Zappe's property (coming up Saturday September 28th). This member-only event will be limited to 30 participants, and if you'd like to sign up to attend, you can do so here. To read more about the Zappe's garden and landscape and their journey to America to landscape with native plants (amidst historically challenging native plant availability), please see the <u>full</u> <u>description</u> of the tour on our events calendar. If you would like to host a future garden tour of your landscape (either finished or a work in progress), please email wildonesnorthal@gmail.com with the details (including preferred dates) and location, and I will be glad to discuss with you further. Or better yet, come to the Zappe's landscape tour, and we can talk about it there. I hope to see you there in September!

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An American chestnut leaf from a recently discovered stump sprout in Madison County. Its leaf is strongly elongated and has dentate margins - the origin of its specific epithet *C. dentata*. Comparisons of various chestnut species can be found on the American Chestnut Foundation's website.

American chestnut (Castenaea dentata)

Guest Article by WildOnes member and forester Donald Niebyl

On a recent hike in Madison County, I stumbled upon what by all appearances was an American Chestnut (*Castanea dentata*). It stood as a meager stump sprout, hardly noticeable or interesting to any passerby who wasn't aware of this tree's dark, tragic history. With this sighting, I felt it would be a perfect opportunity to explore the cultural and ecological history of this tree that was historically one of the most important members of this country's eastern forests.

A charismatic tree, the American Chestnut could be aptly described as the "king" hardwood of the Appalachian forest. Chestnuts once towered over 100 ft tall, with its most identifying features being its deeply furrowed bark, saw-toothed leaves (from where it gets its species name "dentata") and delicious nuts – covered in a sharp spiny husk. Within its vast Appalachian range from northern Alabama to Maine, it absolutely dominated. It is believed that one–in–four trees in the southern Appalachian forests was a chestnut. Unlike red oaks (that bear acorns only every two years) and white oaks (that produce acorns in variable

masts from year to year), a chestnut tree would unleash bumper crops of nuts every season, making them a favorite of wildlife and people. In addition to being a key mast producer, its strong rot-resistant wood (laden with tannic acid) was integral to the early American pioneer and homesteader, who often constructed their barns (many of which still dot the landscape) from this resilient timber.

In the late 19th century, as large numbers of exotic plant stock were being introduced into the United States for horticulture and agriculture, batches of decorative Japanese Chestnuts were imported that contained the Asian bark fungus (*Cryphonectria parasitica*). This fungus slowly made its way to the American Chestnut population via windborne spores and started what came to be known as the "Chestnut Blight". The spores of the bark fungus enter the Chestnut through wounds and other openings, whereupon it grows through the tree's cambium (living vascular tissues), releasing oxalic acid as it spreads through the tree. This acid drastically lowers the pH of the cambium, leading to the tissue's death. The entire cambium around the Chestnut's trunk is killed, girdling the tree, and it slowly dies. A Chestnut's infection is evidenced through small orange cankers which erupt at the points of fungal growth. The first incident of Chestnut blight was observed at the Bronx Zoo in New York City in 1904. Within 40 years, Chestnut blight had spread to nearly all mature American Chestnut trees across its range and eliminated an estimated 4 billion trees.



Incipient chestnut blight can be observed on this small sapling from Madison County. The rust-colored fungus emerges from the cambium and breaks the bark. The release of oxalic acid will once again girdle this tree by damaging its tissues and cutting off the movement of nutrients and water..

While the above ground Chestnuts trunks were girdled and killed by the fungus, the underground root stock of the tree continued to survive. Epicormic sprouts from afflicted trees continued to arise from the roots long after the original tree perished. Many of these Chestnut root systems still send spouts skyward to the present day. However, these spouts

only survive a couple of years before they too succumb to the bark fungus. Furthermore, because of the rot resistant properties of Chestnut wood, which made it an excellent material for barn construction, it also resulted in Chestnut stumps enduring in the forested landscape long after the original trees vanished. As the Chestnut disappeared, significant portions of American culture and biodiversity were lost with it. Communities who depended on the tree's lumber were devastated, and this multi-million dollar timbering industry vanished within just a few decades. Meanwhile, countless bird and insect species became threatened or went extinct when the tree vanished from Eastern forests. Today, the American chestnut is mostly a memory, and is referred to as functionally extinct in the wild. Despite this sad state of affairs, American chestnut (and other members of the genus) remains a keystone species in Eastern forests, supporting 115 species of caterpillars.



A tiny stump sprout, no taller than 3' is all that remains of this towering American chestnut. The chestnut was once referred to as "the redwood of the east" and memorialized in the poetry of Henry Wadsworth Longfellow's "The Village Blacksmith."

In the present day, much work is being done across the country to save the remaining American Chestnuts and reintroduce this vital tree into our forests. There are currently programs that are creating hybrids through backcrossing the American Chestnut with the blight-resistant Chinese Chestnut. Meanwhile, studies have also been conducted with hypoviruses (which have been found to reduce the amount of oxalic acid the bark fungus produces), and methods developed to genetically transmit the genes for blight resistance in Chinese Chestnuts directly into American Chestnuts. Two of the primary organizations coordinating and facilitating work towards the conservation of this nearly extinct tree are the American Chestnut Foundation and the American Chestnut Cooperators Foundation.

A number of other native trees in the genus *Castenaea* known as chinquapins (not to be confused with Chinquapin oak - *Quercus muehlenbergii*) including one endemic (and contested species) *Castenaea alabamensis*, are also susceptible to chestnut blight and have also been devastated - despite showing more resistance than the American chestnut. A few surviving specimens of Ozark chinquapin, which is believed to be ancestral to the American chestnut, are apparently even more resistant to chestnut blight than Chinese chestnut. More information on the Ozark Chinquapin Foundation and their project to restore this vital tree can be found here.

INVASIVE SPECIES SPOTLIGHT



The climbing Japanese fern (*Lygodium japonicum*) is one of the few invasive ferns in our region.. It is sometimes accidentally introduced to new habitats with pine straw mulch. Note that the form of its leaves changes throughout the growing season becoming ever more finely dissected as spores are generated.

Photo courtesy of mipapay from iNaturalist.

Japanese climbing fern (Lygodium japonicum)

Japanese climbing fern, as its name indicates, originated in the Far East - Japan, China and Korea, and was introduced to the United States as a horticultural plant around the turn of the twentieth century. I found this plant growing at the Madison County Nature Trail in 2022, and unfortunately, it has plenty of company with several other invasive plants nearby: Oregon grape (Berberis aquifolium), Purple loosestrife (Lythrum salicaria), Yellow flag iris (Iris pseudoacorus), Japanese knotweed (Reynoutria japonica), Burning bush (Euonymus alatus) and Japanese stiltgrass (Microstegium viminium), which all deserve articles of their own. While none of these plants have yet taken over the nature trail, making a visit there is a good opportunity to learn to identify them.



Japanese climbing fern is a fire hazard, growing up trees and creating fuel ladders that fires can climb to the upper canopy. It also smothers native plants in the understory and is a threat to many rare plants in

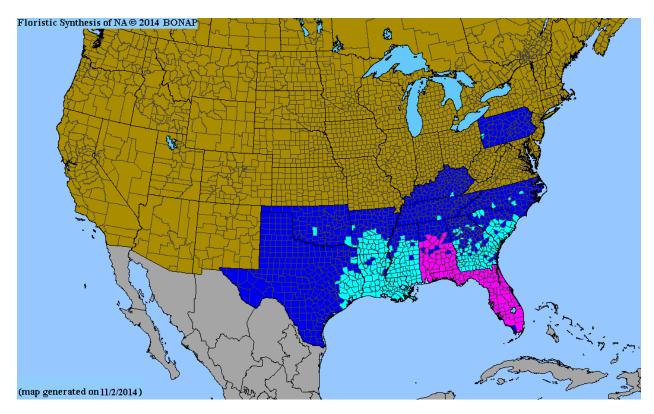
Identification

Look for twining ferny vines growing to 90'(!) with spores on the undersides of leaflet margins (edges). Pubescent hairs are also present on the undersides of fronds (leaflets). The finely dissected fronds are opposite, compound, approximately triangular in shape, 3-6" long and 2-3" wide. Japanese climbing fern can produce 38,000 spores per square inch from late summer through early Fall, so the sooner you take care of it, the better. Like other ferns, it produces spores in sporangia on the undersides of fertile fronds. The spore-producing fronds are finely dissected.



Fronds of Japanese climbing fern roughly triangular in shape, and margins become finely lobed when spores are being produced along the margins. Photo courtesy of iNaturalist contributor <u>riverbass</u>.

In Alabama, Japanese climbing fern is a Class B Noxious weed - primarily affecting the southern $\frac{2}{3}$ of the state. It grows in sun or shade, usually in damp soil (but can tolerate drier sites), smothers native plants and creates fuel for fire ladders that can burn the canopies of forests. It often occurs in pine plantations, and prescribed fire is not an option for controlling it. The plant is commonly spread via pine straw mulch from silvicultural plantations, so if you use pine straw in your landscape, be vigilant for this exotic invasive plant in your garden beds.



The range of *Lygodium japonicum* includes much of the Southeast Gulf Coast Plain with occasional sightings as far North as Pennsylvania and as far West as Oklahoma. Map courtesy of <u>BONAP</u>.

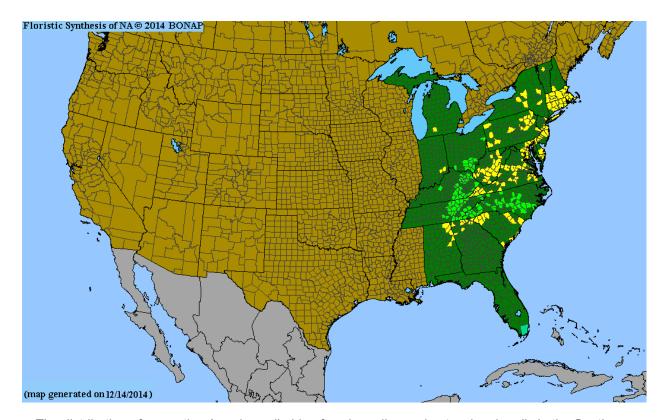
Mowing, cutting, pulling, (also grazing) and herbicide application are all effective methods to treat Japanese Climbing fern infestations, but be sure any mechanical methods are applied prior to spore emergence – July through September is recommended. More details on control (including recommended herbicides and concentrations) can be found on the Alabama Extension's website.

In North America, we have one native climbing fern species - the American climbing fern - (*Lygodium palmatum*) that might be mistaken for Japanese climbing fern. This plant has palmate fronds and is relatively uncommon, though locally abundant, in sites with moist, acidic soils and high light levels. In general, it grows in the northeastern quadrant of the state, but it is possible to find disjunct populations where conditions are right. Interestingly, this is another plant (similar to Lycopodium) that was formerly over-harvested for Christmas greenery.



The American climbing fern or "Hartford fern" (Lygodium palmatum) has palmate (like a hand) fronds, grows 6-8' tall and wide, and is restricted to moist, acidic soils. It is threatened in many states but was

once very common in the area around Hartford, CT. It has an infrequent occurrence in northeastern Alabama. Photo courtesy of iNaturalist contributor <u>Toby Koosman</u>.



The distribution of our native American climbing fern *Lygodium palmatum* is primarily in the Southern Appalachians, mid-Atlantic, and New England. Photo courtesy of <u>BONAP</u>.

You can learn more about other invasive and native ferns as well as the basics of fern identification from the University of Georgia Extension's fabulous <u>website</u>. In 2025 Susan McDonald from the Fern Society will present a Seminar on ferns followed by a visit to the Fern Glade at the Huntsville Botanical Gardens.

CLASSIFIEDS

Because local ecotype plants are still difficult to find in the nursery trade, the classifieds section will include requests for plants and offers for plants. Please send responses to

<u>wildonesnorthal@gmail.com</u>. Please be encouraged to bring the native bounty of your land to the monthly WildOnes seminars at the South Huntsville Public Library (Third Thursday of each month at 6 PM).

UPCOMING EVENTS
WILD ONES NORTH ALABAMA

All events, including local and national WildOnes webinars coming up in August and September can be viewed on our <u>Events Calendar</u>.

Wild Ones North AL August Board Meeting

Who: Wild Ones North AL board members

What: The WildOnes North AL Board of Directors meets periodically to plan upcoming events and focus the strategy for the organization within the regional context. If you have an interest in joining the Board of Directors or starting a committee focused on a particular topic, please contact us at wildonesnorthal@gmail.com with your idea. Otherwise, if you are a member and would like to join the Board for this event, please contact us at wildonesnorthal@gmail.com.

When: Saturday, August 3rd, 1:00-3:00 PM

Where: WildOnes member Rhonda Zook's house

Wild Ones North AL August Seminar: Year-Round Gardening with Native Plants to Support Pollinators and Wildlife

Who: Wild Ones North AL members and the North Alabama general public

What: Donnie is Vice-President of Middle Tennessee Wild Ones, and a member of The Tennessee Native Plant Society. Since retiring from teaching high school arts in 2018, Donnie has dedicated his time to building an award winning native plant garden in his backyard and becoming a champion seed germinator. Donnie grows over 250 plants for his Wild Ones Chapter plant sales every spring and fall. He works to rescue native plants from

local build sites in Nashville. He presents to garden long groups around the Middle

Tennessee area. Donnie and his native garden were featured on Nashville Public

Television's Volunteer Gardener.

When: Thursday, August 15th, 6:00-7:30 PM

Where: South Huntsville Public Library (7901 Bailey Cove Rd, Huntsville, AL 35802)

Wild Ones North AL September Seminar: Foraging Ahead: Native Habitats for the Urban

Setting

Who: Wild Ones North AL members and the North Alabama general public

What: My name is Aaron Stiles and I run Foraging Ahead, a landscape design service

dedicated to reintroducing native habitats to the urban setting. Habitats are more than just

gardens that use native plants- they are dynamic ecosystems that support a wide variety of

life. By utilizing native ecosystems as a model, we can create small sanctuaries for the

plants and animals that make Alabama so beautiful.

When: Thursday, September 19th, 6:00-7:30 PM

Where: South Huntsville Public Library (7901 Bailey Cove Rd, Huntsville, AL 35802)

Wild Ones North AL September Garden Tour

Who: Wild Ones North AL members (only)

What: WildOnes North AL will host its first ever garden and landscape tour in September

2024. Details will be forthcoming in the August newsletter. Garden and landscape tours are

a strategic objective of our organization, and if you would like to showcase your finished or

work in progress garden at a future date, please contact wildonesnorthal@gmail.com

When: to be announced

Where: to be announced (Madison County, Alabama)

Wild Ones North AL October Annual Members meeting (members only)

Who: Members of Wild Ones

What: The organization will have an open event to elect new officers, reflect on the year behind us, discuss what worked and didn't, review strategic objectives, plan for the new year ahead, and discuss opportunities for one or more winter weed wrangles.

When: Thursday, October 17th, 6:00-7:30 PM

Where: South Huntsville Public Library (7901 Bailey Cove Rd, Huntsville, AL 35802)

UPCOMING EVENTS IN THE COMMUNITY

Native fruit: growing and foraging Pawpaw, American persimmon, blueberry, and elderberry (sponsored in part by WildOnes North AL)

Who: Anyone interested

What: A collaborative event on native fruit between Extension and Feral Foraging: Alabama Cooperative Extension System commercial horticulture agent Holt Akers-Campbell will offer best practices in the propagation, planting, and management of some of our most cherished native fruits including pawpaw, American persimmon, blueberry and elderberry. We will discuss planting for ecological value, managing for fruit yield, and how these fruits can fit into landscaping or small farm systems. Additionally, Jesse of Feral Foraging will show you how to forage these wild fruits safely and responsibly! You will learn how to scout and positively identify them as well as how to process and preserve what you've gathered! A lot of these fruit trees can be found in many places at different times, but Jesse will share some secrets with you on when they are easiest to find and where to go looking! Online registration reserves your seat.

When: Thu, Aug 1st, 5-7 PM

Where: Limestone County Extension Office, 1109 Market St W Suite A, Athens, AL 35611

Learn more:

https://www.aces.edu/event/native-fruit-growing-and-foraging-pawpaw-american-persi

mmon-blueberry-and-elderberry/

Alabama Regenerative Growers Conference

Who: Anyone interested

What: One day gathering with classes, vendors, refreshments and lunch for ecological

farmers & gardeners, organic producers, and holistic thinkers. Speakers (farmers and

university professionals) discussing a range of agroecology topics for both commercial fruit

& vegetable producers and home gardeners. Pre-session farm tour of Jones Valley

downtown site available to a limited number of participants with pre-registration required.

Hosted by Alabama Cooperative Extension System, Alabama Sustainable Agriculture

Network, and Jones Valley Teaching Farm.

Thank you to our sponsors from Dirtcraft Living Soils, CAWACO RC&D, Southern SARE,

Hiwassee Products, Seven Springs Farm Supply, Sweet Grown Alabama, and Johnny's Seeds.

Contact hza0093@auburn.edu to inquire about participating as a vendor.

This project is supported through the United States Department of Agriculture (USDA)

Transition to Organic Partnership Program (TOPP). TOPP is a program of the USDA Organic

Transition Initiative and is administered by the USDA Agricultural Marketing Service (AMS)

National Organic Program (NOP)

When: Sat, Nov 2nd, 9 AM

Where: Jones Valley Teaching Farm, Birmingham, AL

Cost: \$20 / person

Learn more & Register:

https://secure.touchnet.net/C20021_ustores/web/product_detail.jsp?PRODUCTID=6278

&SINGLESTORE=true

Mushrooms & Woodland Medicinals: growing & foraging high-value fungi, ginseng, and other forest botanicals

Who: Anyone interested

What: Alabama Cooperative Extension System commercial horticulture agent Holt Akers-Campbell will offer an introduction to "forest farming": producing wild-simulated ginseng, gourmet mushrooms, and other high-value woodland crops. There will be a live demonstration of inoculating a shiitake mushroom log. Additionally, Jesse of Feral Foraging will show you some of the important species that can be found and gathered and the forest types they are associated with. Many deep-forest herbs are sensitive to over-harvesting, so we'll also learn about how to interact with these species responsibly and even how foraging them can be beneficial to their populations! Register online to reserve a space.

When: Sat, Dec 7th, 2-4 PM

Where: Morgan County Extension Office, 3120 Hwy. 36 West Suite B, Hartselle, AL 35640

Learn more & Register:

https://www.aces.edu/event/mushrooms-and-woodland-medicinals-growing-foraging-high-value-fungi-ginseng-and-other-forest-botanicals/

READ MORE ON OUR WEBSITE



Native Plants, Natural Landscapes