



CONSERVATION GARDENER

FALL/WINTER 2021/22
\$4.95



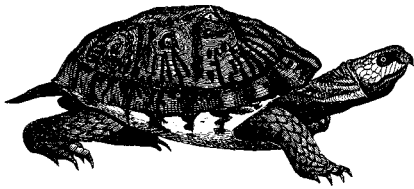
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

ON THE COVER

Diospyros virginiana

Common persimmon

Photo by Keith Bradley



Terrapene carolina

Eastern box turtle

Read about the relationship between persimmons and box turtles on page 6.

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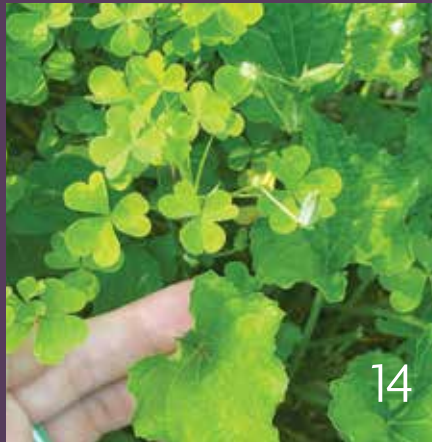
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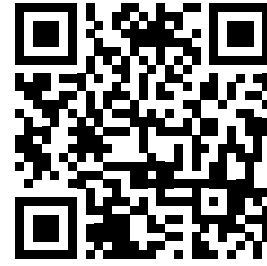
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To inspire understanding, appreciation and conservation of plants and advance a sustainable relationship between people and nature.

Scan this QR code
to join the choir.



Why Membership Matters

BY DAMON WAITT, NCBG DIRECTOR

Dear Members and Friends,

I've been thinking a lot about how the Garden is not that different from a religion—non-denominational of course. Our visitors are the congregation. Some only attend (visit) the Garden one or two times a year, others attend regularly, and these days, many are first time visitors. As theologians, ahem, staff, of a Conservation Garden, our job is to make the congregation feel welcome and introduce them to our cause. We do this not for riches, fame, and glory. Quite the opposite. We sacrifice many of those things because we are passionate about plant conservation and the work we do to make the world a better place.

That makes you, our members and friends, the choir.

You are that part of the congregation that amplifies and understands our conservation cause more than any other. You know the Conservation Garden hymn verse by verse...

biodiversity, plant conservation, botanical research, native plant horticulture, education, and community outreach...each verse followed by the refrain...*to inspire a better understanding, appreciation, and conservation of plants and advance a sustainable relationship between people and nature.*

Your relationship with the Garden is transformational. It is a meaningful sharing of yourself because you believe in what we do, not because you are expecting anything in return. Remember in the member survey when we asked you what you value most? Ninety-three percent of you said it was because "the Garden is a native plant conservation garden" and ninety percent of you said it was because "the Garden is engaged in plant conservation and botanical research."

That's why membership matters.

When you joined the choir, you

became part of a community of conservationists. When you sing the Garden's praises, you are a powerful advocate for plant conservation. When you sing in harmony, you recruit others to our plant conservation cause.

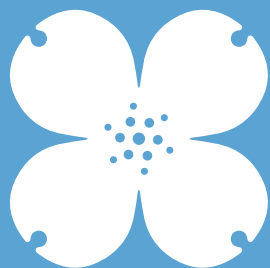
This September is Membership Month, and I invite you to sing at the top of your lungs. Think about who you can recruit and give them the gift of membership. And, when you are done reading this edition of the magazine, pass it along to a friend, a neighbor, or a family member, maybe hum a few verses of *A Conservation Garden*, and invite them to join the choir.

Sincerely Yours,

A handwritten signature in black ink, appearing to read 'Dwaitt'.

Damon Waitt





NORTH CAROLINA BOTANICAL GARDEN



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

North Carolina Botanical Garden

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Conservation Gardener

JENNIFER PETERSON *Managing Editor*

Edible Campus UNC, a program of the Garden, implements foodscaping throughout UNC-Chapel Hill's campus, with beds of edible plants for all to enjoy.



Mmm...Native Plants...

BY JENNIFER PETERSON, MANAGING EDITOR

I am a bit curious by nature and tend to have a lot of questions. This edition of *Conservation Gardener* is a bit self-indulgent, in that many of these articles are answering questions I have had for quite some time. For example...

Have you ever wondered what Indigenous people ate, before European vegetables were introduced? Of course, meat was consumed, and some native plants are edible. But, we've all heard of the three sisters garden, with corn, beans, and squash. Where did the corn, beans, and squash come from? And where did they go? You don't exactly run into those plants when visiting a natural area.

I consulted Google, and discovered Native Americans often lost their seeds, along with their land. Some elders have stashed seeds away, other seeds have been found in museums, and some were found stored in seed banks. There is a movement across the nation to

grow these seeds and rematriate them to their rightful owners, which I think is a fascinating story, and I'm pleased to share it with you (p. 20).

I also wanted to know more about ethnobotany, a term I've heard frequently over the past few years. Thanks to Linwood Watson for writing an explanation with examples (p. 6)!

Rounding out this edition's focus on edibles, I'm excited to answer how to incorporate natives and vegetables in home gardens with an article by Brie Arthur (p. 10), how to find a salad (and more!) in your yard with an article by Kim Calhoun (p. 14), recipes using native plants (p. 18), and more!

I am looking forward to putting my newfound knowledge about edibles and culture to good use. I hope you enjoy learning along with me. And I hope to see you at the Garden soon!



FITCH
LECTURE

NORTH CAROLINA: LAND OF WATER, LAND OF SKY

NOVEMBER 7; 5:30 P.M.

During this special Jenny Elder Fitch Memorial Lecture, Bland Simpson will read from and speak about his new book, *North Carolina: Land of Water, Land of Sky*. He will present and discuss photographs from the book, with help from the photographers, including his wife Ann Cary Simpson and Tom Earnhardt.

DETAILS AT
GO.UNC.EDU/FITCHLECTURE

Carolina Community Garden Provides Taste of Home

BY JENNIFER PETERSON, MANAGING EDITOR

In a vegetable garden tucked away on Wilson Street, not far from the hustle and bustle of the UNC-Chapel Hill campus, you'll find bottle gourds, tatsoi, yard long beans, and mizuna growing. Not your traditional North Carolina garden crops.

The Carolina Community Garden (CCG), part of the North Carolina Botanical Garden, grows vegetables and fruit so all University employees can have access to fresh, sustainably-grown produce. The garden serves as a learning community for developing gardening skills, healthy living, social responsibility, and interdisciplinary academic pursuits through the shared efforts of staff, students, faculty, and local residents.

The garden is a buzz of activity, with volunteers weeding, chopping compost, mulching paths, and more during several workdays each week. Their hard work provides UNC housekeepers with fresh produce and often, a taste of home.

The Chapel Hill area is a new home for many refugees from Burma, and many of them, along with immigrants from other parts of the world, find work as housekeepers at UNC-Chapel Hill. Starting over in an unfamiliar land with new customs and traditions is difficult.

"Once I became aware of the number of refugees from Burma working as housekeepers at UNC, I wanted to grow crops that they would especially appreciate and

might not be available at the local grocery store," says Claire Lorch, CCG program manager. "I met early on with the garden manager of Transplanting Traditions, a local farm supporting refugee agriculture, and she filled me in on the more unusual (for us) crops her gardeners were growing."

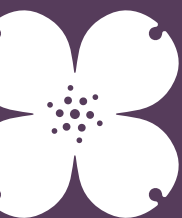
"In addition to getting advice from Transplanting Traditions on what to grow, I also circulated the Kitasawa seed catalog (a seed company specializing in Asian vegetables) to the zone managers in Housekeeping and asked them to find out from their staff what they would like us to grow. I would also get important feedback at the distributions themselves. That is where I discovered how popular the snake gourds were, along with kohlrabi and some of the other more unusual crops we grew."

"In addition, a housekeeper from Guatemala asked me to grow chipilín and even brought me seeds to do so. One year, she brought her husband and children to help plant the seeds. It is a beautiful plant in the legume family and was popular with many of the housekeepers once they tried it. We grew it for many years, but not since the pandemic started."

If you are interested in volunteering at CCG visit ncbg.unc.edu/ccg and click on Volunteer Workdays.



**Top: Harvesting bottle gourds.
Middle: Harvesting snake gourds.
Bottom: Volunteer with lemongrass.**



Ethnobotany: What It Is, What It Isn't, and What It Can Be For You

BY LINWOOD WATSON, MD, HALIWA-SAPONI, NC NATIVE ETHNOBOTANY PROJECT

People hear the term “ethnobotany,” and once they wrap their tongue around its long pronunciation, questions arise about the nature of this subject. In its most basic form, ethnobotany is the study of the intersection of people, plants, and culture. Be careful, though, since such a broad intersection can be open to narrowly-focused interpretations. Like many things in life, sometimes it is more helpful to identify what something is not. To wit, ethnobotany is not:

1. “Hey, I have “X” disease, can you suggest “Y” plant cure?”
2. “Is there a way to maximize the plant chemical I am looking for?”

3. “Can we isolate a plant compound and synthesize it in the lab for purity?”
4. “We had a nice harvest but where is the “official” ceremony?”
5. “I want to learn about all the exotic and endangered plants!”

True ethnobotany circulates around relationships. Moreover, it is about the myriad things that go into maintaining those relationships, both on the plant side and the human side. When practiced properly, ethnobotany is additive, not extractive. It is systems-based, not product-based. It is sustainable and self-replicating, not finite and limited. The “fuel” of ethnobotany—

the things that maintain those connections between plants and humans such as words, ceremonies, dances, rituals, feasts, family stories, laughter, and crying (emotions count, too!)—rekindle and maintain these ties. In essence, they are the cell phone towers between the human world and the plant world, to use modern parlance.

Admittedly, due to our traditions and common closeness to nature, many Indigenous people are ethnobotanical fountainheads. However, as some of the following examples will show, all people can cultivate ethnobotanical ideals in their lives, provided we listen

and remain reflective, patient, open-minded, thankful, and observant with all our senses and our heart about our interactions with plants. Let's chuck the dictionary out the door and get into the nitty gritty of some real life ethnobotanical marvels.

Example 1:

The Amazing Plant Sorcery of Saurochory

The following is a recounting of a keen summary of connections gleaned by The NC Native Ethnobotany Project (ncnativeethnobotany.org). Follow along to see if you can connect the dots.

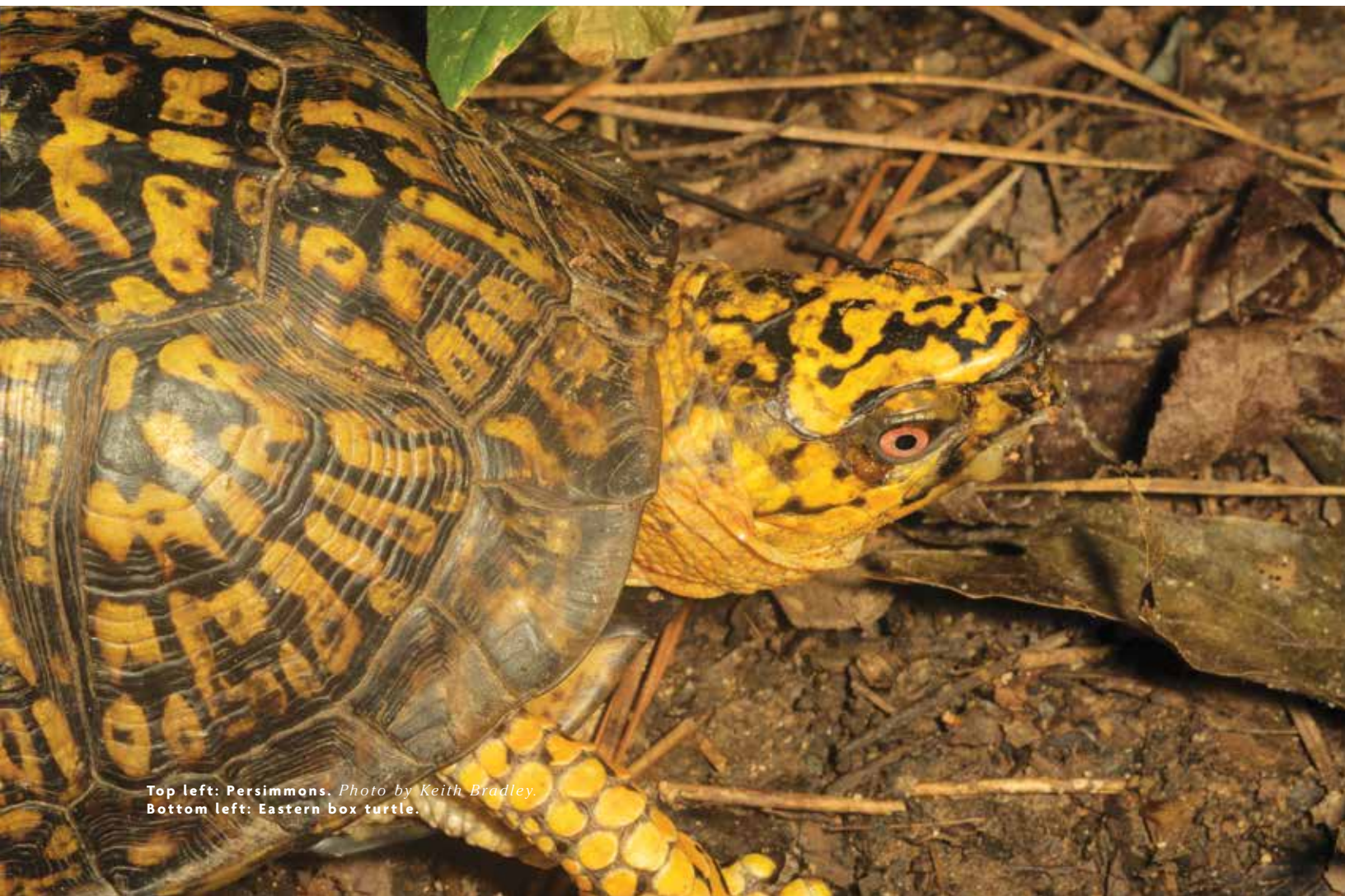
"I'd bet you your last dollar my persimmon seed would sprout sooner and live better than any that you plant! Bring on your concocted soils, chemicals, and hybrids. I only need one thing—a turtle—with the best being an eastern box turtle. Now do you have your dollar ready to lose?"

I eyed the interviewed elder carefully. Then I nervously palpated my wallet and I feigned confidence with a reply,

"Okay, I'll take your challenge, but what is the secret? I am prepared to lose, if at least I know how and why I lost!"

The elder glinted a smirk at me, money the least thing on his mind, and replied, "You see, we are losing our box turtles. It is a shame. They try to move around in the spring and people run over them. Worse, people drain their wetlands. Turtles don't do well on asphalt. But, there's more. Turtles move slowly, and that helps with seed scattering. Seeds need to move from under their parents, but not too far. Unlike a long flying bird that can fly miles with say, a small mulberry, a turtle is just big enough to eat a persimmon, yet slow enough to not leave the proper growing area near the parent tree. Plus, that turtle digestion and poop is perfect, a pure heaven, for a persimmon seed. If you are enjoying an American persimmon this fall, you better thank a slow moving turtle and his poop. That's right, that reptile gave you your persimmon bread. Don't you forget it. And don't run over any turtles!"

I thanked the elder. I double checked my wallet. Then I



Top left: Persimmons. Photo by Keith Bradley.
Bottom left: Eastern box turtle.

returned home to do some research. After all, the internet is spotty around the elder's home.

"Sauro-who?" I thought as I cranked up the Internet search engine.

Turns out, the elder was schooling me through an, at least through Western science, poorly explored and woefully neglected academic realm of saurochory. (Yes, this would make a killer Final Jeopardy clue, but I digress.) Saurochory is the study of how reptiles aid in seed dispersal. Amazingly in my internet searches, I quickly saw that almost every "saurochory" entry had an introduction along the lines of, "the poorly studied area of," or "the neglected area of." As it turns out, in the few saurochory studies I found, turtles were indeed a major seed disperser. Turtles, due to their size and the typical persimmon fruit size, excelled in persimmon germination. Who knew? Yes, the elder knew.

Fast forward to the present, and my personal actions as well as actions of other tribal members and friends of the elder have changed. We drive carefully in the spring.

We watch for turtles on the road. We connect the spring turtles to future fall persimmons. Our diet is enhanced by our turtle respect. Our minds now know saurochory. Our hearts know an elder who helps us connect the ecological dots. We are thankful for both. Ethnobotany is the combination of both.

Skeptics will say this is all nostalgia, unscientific "sunshine and rainbow" anecdotes. Anecdotes, though, are Native American wisdom. People all too often wrongly confine Native Americans to solely the past. We are not museum relics. We are a vibrant and evolving people. Our respect for turtles has ties to eons ago and that respect is manifest in our driving habits. It also manifests in our enjoyment and gratitude to persimmons. Our current actions, intentions, respect, friendly jokes, and contests all keep in mind eastern box turtles and *Diospyros virginiana*. This example is ethnobotany in the here and now.

Example 2:

The Significance of Some Soggy Days In May

If the name Senora Lynch sounds familiar, it is likely because she is the Haliwa-Saponi artist who designed "The Gift," the eastern woodland themed walkway at the UNC-Chapel-Hill Student Union. If you have not, go check it out near The Pit on the UNC campus. However, this Haliwa-Saponi's artistry ranges from clay sculpture works the size of the palm of your hand to huge works

like "The Gift." Among one of Senora's smaller works lies an excellent ethnobotanical illustration. I recently called Senora and share the following with her permission. I then humbly add some ethnobotanical addendums. Keep in mind the times, plants, and seasons are matched to North Carolina.

As Senora explained to me and I now paraphrase with permission, "The work you mention is called, in short, 'Blackberry Winter.' It was made to honor my elders who planted solely by the moon. Those old ways take much knowledge. Things appear to be quiet and slow in winter and early spring in wild blackberries until the fifth moon (May). This was a key time for my elders. At this time, my elders explained that if around the full moon in May, you had a cool, misty, rainy few days,

don't despair. Don't get frustrated that spring is stalled. Those cool spring days are important. The blackberries won't get plump and fill out unless those cool misty May days bless them. Misty, foggy fifth moon days mean plump berries. It means strong plants. It means bears lurking and enjoying the berries. It is a blackberry bounty. It starts in the winter and blossoms with those cool rainy May days. These things are what 'Blackberry Winter' honors."

True to form, you can see near the top of the piece five full moons for May, and then a full year/circle of growing plants and bear paw prints. Unquestionably, humans are eating what the bears miss!

Think about the lessons Senora just depicted in her work, "Blackberry Winter." While not an artist, I can lend a botanical perspective from raising blackberries (with successes and failures) for a decade here in North



Carolina. As many people know, blackberries usually bear fruit on the second year of woody cane growth. May, in North Carolina, is a crucial time for berries to get a jump on growing. Moreover, the fruit for next year is just sending up its first year canes in this critical growth time. In other words, you have two major water-intensive items in mid-late May—this year's growing berries, and next year's canes. The canes seem to shoot up from nowhere in late April to suddenly be four to five feet high—if the cool moisture arrives in May, that is. If the cool, misty weather comes too early, in April, it might hamper flower pollination. If you are a bee, do you want to fly on a cloudy 62-degree day? No. “Blackberry Winter” is an honoring, teaching tool, and celebration of that commencement. Which is precisely why it is our second ethnobotanical example!

And so, while we focused on two example plants, one quickly sees the importance of interconnections and relationships in ethnobotany. It is truly a dialogue between plants, humans, and the environment. Farming is a monologue, with only a human saying, “Gimme, gimme, gimme! I want yield per acre!” Ethnobotany thinks about not just the berries, but the weather, timing, other animals (the bears), and also people. Moreover culturally, a piece of art was physically constructed to honor these relations

and to serve as a medium to share with others. So go ahead, gently swerve to avoid a spring turtle. Don't fret about your rained out golf tee time on a rainy weekend in May. The ethnobotanist in you is coming alive! In these times, the Earth could use this expansive and more inclusive thinking.

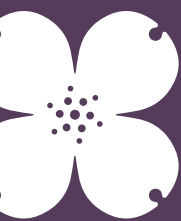
“True ethnobotany circulates around relationships.”

About the Author: Linwood Watson, MD, is a member of the Haliwa-Saponi Tribe and a board certified family medicine physician. He is a collaborator and contributor to the NC Native Ethnobotany Project (ncnativeethnobotany.org). He and his family tend a small two-acre orchard, The AspenSkye Orchard. He is a member and journal contributor to the North American Fruit Explorers (nafex.org), as well as a member of The Livestock Conservancy (thelivestockconservancy.org). He deeply thanks all the NC Native Ethnobotany contributors and Mrs. Senora Lynch.

Left: Dreamcatcher Turtle with “Blackberry Winter” Design, Artwork copyright Senora Lynch.

Below: Blackberry brambles with berries forming in June, shortly after the misty, foggy days of May.





Foodscaping with Natives

BRIE ARTHUR, AUTHOR AND HORTICULTURIST

Do you have a passion for native plants and a love for fresh, healthy produce? Are you interested in sustainable land management practices and supporting the community you live in? Foodscaping just may be the answer to all your gardening dreams!

Foodscaping is a simple idea to help everyone make the most of the land they steward. Just grow edibles right alongside your favorite native flowering plants. It should not be a revolutionary idea, but over time, our landscapes have evolved into high maintenance spaces that often cause more harm than good to our natural environment. As a lifelong gardener and professional horticulturist, I aim to change that.

Every outdoor space has the potential to solve problems. From

cleaning stormwater and providing habitat to becoming a meaningful source of nourishment for the communities we dwell within, landscapes play a key role in future sustainable development. And it all starts with a focus on native plants.

Consider adding native edible trees, such as paw paws (*Asimina triloba*) and persimmon (*Diospyros virginiana*) for delicious, unique harvests that can never be found in the grocery stores. Both trees provide important ecological services in addition to their tasty fruits. The foliage on the paw paw is the sole source of nutrition for zebra swallowtail larvae, and it's deer-resistant, too. And the native persimmon feeds a wide range of scavengers including possums, raccoons, foxes, and even horses, who have been known to binge eat

the sweet treats in late autumn! Even if you aren't eating from these trees, they are important to be included in your home landscape.

Blueberries (*Vaccinium* sp.) are one of the easiest native edibles to include in a landscape. Often considered the gateway to foodscaping, this native, acid-loving shrub provides year-round beauty and a bounty that both people and animals, especially birds, get to enjoy. Consider growing strawberries (*Fragaria* sp.) as a groundcover to maximize the square footage and extend your harvest season.

Foodscaping isn't just about growing edibles. Ornamental plants are equally important as they provide structure and interest in addition to pollinator services. Here are a few of my favorite native perennial

**“...landscapes
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foodscape combinations, based on cultural needs including sun exposure, water, and fertility:

- Butterfly milkweed (*Asclepias tuberosa*) with corn, okra, peppers, rice
- Blue wild indigo (*Baptisia australis*) with barley, cucumber, squash, wheat
- American beautyberry (*Callicarpa americana*) with peppers and tomatoes: ‘Mad Hatter’ Pepper; ‘Cream Sausage’ tomatoes are my favorites!
- Purple coneflower (*Echinacea purpurea*) with chard, kale, spinach, tomatillo
- Joe Pye weed (*Eutrochium purpureum*) with beets, corn, peppers, sorghum
- Dwarf witchalder (*Fothergilla gardenii*) with mustard, rice, sweet potatoes, turnips
- Virginia sweetspire (*Itea virginica*) with asparagus, herbs, eggplant, peanuts,
- Summer phlox (*Phlox paniculata*) with beans, carrots, kale, potatoes
- Short toothed mountain mint (*Pycnanthemum muticum*) with oats, okra, peanuts, sesame

Landscapes that present nutritional, ecological, and aesthetic value will ultimately better meet the needs of modern society. With climate extremes becoming the norm, now is the time to re-evaluate high maintenance lawns, exotic hedges that need constant shearing, and dangerous spray regimens that impact water quality and damage the native ecosystem.

By cultivating more native plants, we can counter some of the problems excessive development has caused. And when a few of your favorite food crops are included, you can help reduce food miles while providing delicious, seasonal harvests for your family and friends.

Every product at the grocery store has a “food mile” associated with it. In fact, it is estimated that the average meal in America travels 1,500 miles from farm to table! There are many reasons to be concerned about the long-distance travel of food, including the massive consumption of fossil fuels and enormous quantities of carbon dioxide emissions. Additionally, to transport food long distances, much of it is picked while still unripe and then gassed to ripen. Tomatoes are a prime example of harvesting for shipping purposes leading to flavorless fruit.

Nutrient density, or lack thereof, is yet another cause for concern.

Each food crop has a story, but garlic may be one of the best examples. This easy to grow, cool season veggie should be cultivated everywhere. The unfortunate reality is that since 2012, 90% of the garlic distributed in American grocery stores is imported all the way from China. This is absurd given the reality that every sunny landscape could be a source for organic, local garlic harvests. Beyond that, garlic is great for deterring animals who can wreak havoc on your garden, such as deer, rabbits, groundhogs, and in-ground creatures like voles.

Here in the Piedmont region of North Carolina we can grow both hard neck and soft neck varieties. There are a few differences between the two types that are significant.

Soft neck garlic varieties tend to have a longer shelf life once cured, lasting six to nine months in room temperature conditions. They have a mild flavor and are excellent for cooking. One of the main distinctions is how easy these are to braid because they do not produce a flower scape. They also thrive in warm climates, like the Deep South and Gulf Coast. A few noteworthy cultivars include ‘California White,’ ‘Lorz Italian,’ ‘Inchelium Red,’ and ‘Silver Rose.’

In contrast, hard neck garlic has a much shorter shelf life, three to six months, and is better preserved either in oil,



Left: A tiger swallowtail butterfly on butterfly milkweed (*Asclepias tuberosa*), with corn in the background.
Above: By simply growing your own garlic, you can reduce the number of miles your food travels to your plate.
Photos by Brie Arthur.

vinegar, or freezing. It has an extraordinarily strong flavor, so you won't need to use a lot when cooking. Because it does produce a flower scape, it is impossible to braid. The main advantage is that it thrives in cold climates and can be grown in zones 3-8. My favorite variety is 'Music' because it produces large cloves that are easy to peel. A few other recommended cultivars are 'German Red and White', 'Spanish Roja', 'Red Russian', and 'Chesnok Red.'

Never grown garlic before? Here are a few tips:

- Plant the cloves, paper on, in the fall, anytime between September–December in zones 6-8.
- Site in full sun (6+ hours) for best development.
- Focus on planting along bed edges to help create a barrier around your gardens to prevent animals.
- "Thumb the clove" into the ground 1-2" deep. I literally use my thumb to push the clove into the ground—no tools needed.
- Garlic prefers well drained but moist soil. Add organic matter such as ground aged leaves and compost to improve hard packed clay.
- Foliage will grow fall–spring and can be eaten, just like chives.
- If growing hard neck garlic, remove the flower scape in spring. This will ensure all the energy goes into bulb production.
- In late spring or early summer, when the leaves begin to turn brown, it is time to harvest!
- Hang your bulbs in an area with good airflow out of direct sun where it will not get wet from rain for 2-4 weeks for curing. This drying out period will ensure

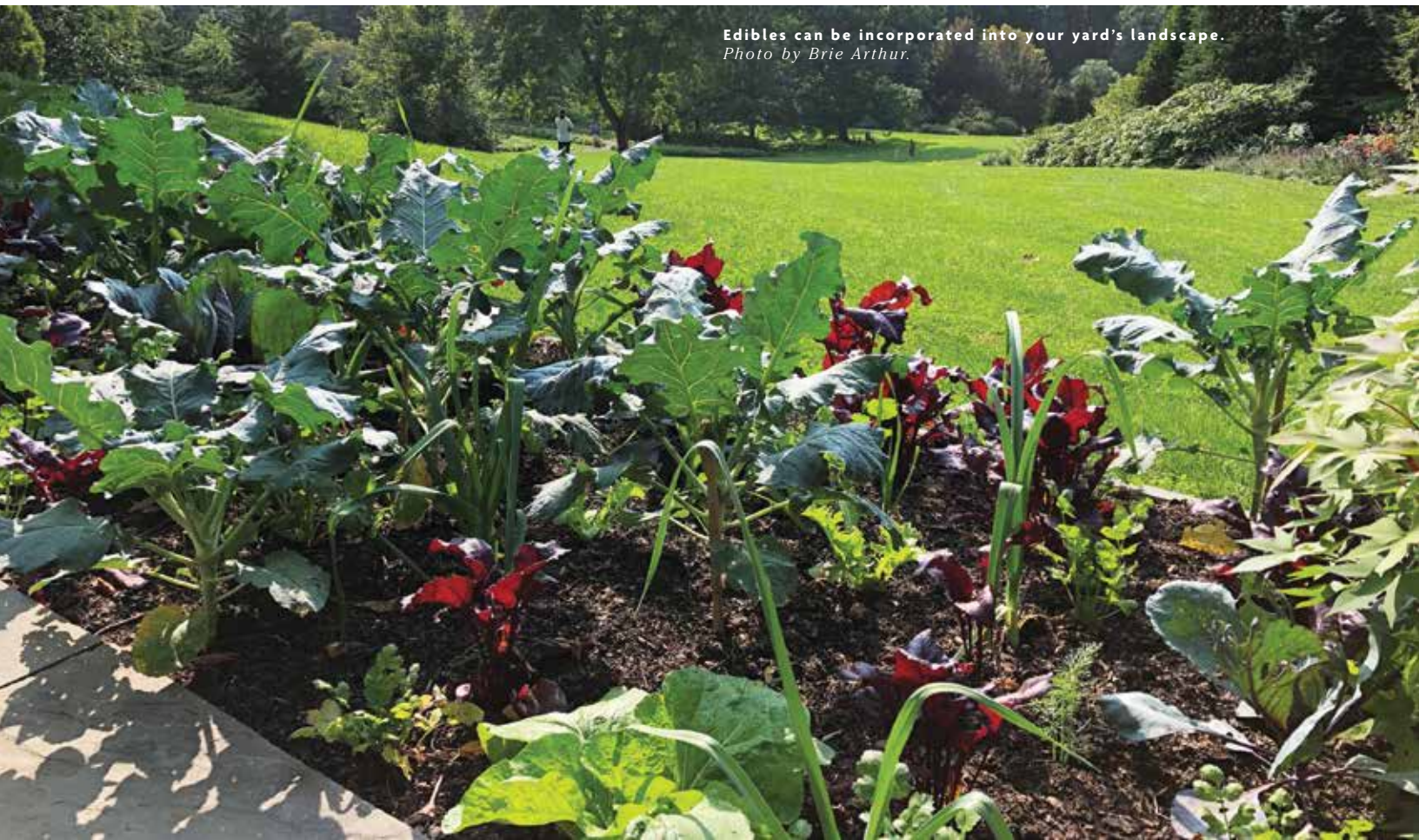
your bulbs to have the longest shelf life.

- Store your cured garlic in a dark area with room temperature conditions. The temperature of your refrigerator, 42°F, is the trigger for growth, so do not store your garlic in the fridge!

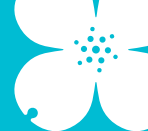
While on the subject of critters, there are several creative foodscape solutions to help prevent animals from eating everything you grow. For instance, direct seeding arugula or mustard along bed edges in the fall can also help reduce mammal browse while providing you with fresh salad greens all winter. Dwarf globe basil, often sold as Greek basil, can be used the same way through the heat of the summer. For more ideas on how to keep the animals out, register for my on-demand class highlighted on the next page.

Over the past 20 years of my career, it has become obvious that the full potential of our landscapes is not being realized. Growing native plants and food together seems like an obvious win-win, but many homeowners believe property values will go down with a rogue farmer on the cul-de-sac, hence the many restrictive HOA covenants.

It is important to recognize the role residential landscapes play and understand these spaces are not meant to be farms, nor are the residents professional farmers. Rather, the goal of a foodscape is to cultivate supplemental amounts of produce while meeting the aesthetic standards of the surrounding community. This starts by thinking outside of the box.



Edibles can be incorporated into your yard's landscape.
Photo by Brie Arthur.



Contrary to popular modern belief, lumber-encased beds are not the only way to grow food. In fact, raised beds are generally the cause for the “no food in the front yard” mantra of suburbia. Boxed beds can also cause decreased production due to over planting and lack of crop rotations. Often problem insects and disease can build up, resulting in less ideal growing conditions. Additionally, this method of containing edibles creates monocultures, as our food crops lack biological diversity. Did you know most home gardeners only grow food from four plant families?

- **Amaranthaceae:** beets, quinoa, spinach, and Swiss chard
- **Brassicaceae:** cool season crops such as a broccoli, cabbage, cauliflower, and kale
- **Fabaceae:** beans, peas, and peanuts
- **Solanaceae:** warm season crops like eggplant, peppers, potatoes, and tomatoes

Instead, foodscaping offers an opportunity to utilize areas throughout your entire property leading to increased diversity and greater productivity. Along with ethical organic land management strategies, including biological controls, natural fertilizers, and proper soil development, foodscaping is a technique that embraces all the best practices for long term solutions.

As a professional horticulturist, I strive to meet the needs of a growing population and focus on ways to extend the relevance of gardening in our society. I am proud to see plants being recognized for all the attributes they represent, including beauty, ecology, health, wellness, nutrition, and lifestyle. Foodscaping is a design technique that embraces the heritage of home gardening while developing a new level of sophistication for modern day living. Join the Foodscape Revolution and make the most of the space you cultivate. Harness the power of the sun, soil, and available space of the everyday landscape, and grow some food alongside beautiful native plants!

About the Author: Bestselling author and horticulturist, Brie Arthur has garnered acclaim for her enthusiastic presentations and practical, out of the box gardening advice. Originally from southeastern Michigan, Brie Arthur studied landscape design and horticulture at Purdue University. With more than a decade of experience as a grower and propagator she now shares her expertise as an advocate for consumer horticulture and home gardening across America. The author of The Foodscape Revolution and Gardening with Grains, Arthur also contributes to the Emmy-winning PBS television program Growing a Greener World.

GARDENING WITH BRIE ON DEMAND

Brie Arthur, best-selling author and horticulturist, led several NCBG virtual classes this spring. She is graciously allowing us to continue to offer these programs on-demand. Classes include foodscaping with native plants, deterring animals from home gardens, and preparing spring vegetable gardens.

LEARN MORE ABOUT EACH CLASS AND REGISTER
GO.UNC.EDU/BRIEONDEMAND



RELATED CLASSES & PROGRAMS

Lovesome Okra: An Ethnobotanical Perspective of the Past, Present, and Future Thereof

A discussion of the past:
Tuesday, September 7; 6:30 – 8 p.m.

A discussion of the present:
Tuesday, September 14; 6:30 – 8 p.m.

A discussion of the future:
Tuesday, September 21; 6:30 – 8 p.m.

Edible Campus Tour

Thursday, September 2, 3-5 p.m.

Native Edibles Workshop

Wednesday, October 13,
9:30 a.m. – 12:30 p.m.

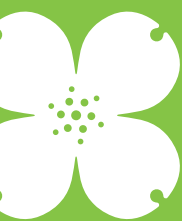
Fall Cornucopia: Pumpkins and Fall Foliage in Watercolor

Saturday, October 16, 1-3:30 p.m.

Recorded Lunchbox Talks

Elderberry Identification, Traditional Uses, and Medicinal Syrup Recipes and Pawpaws and Other Native Tree Fruits
ncbg.unc.edu/learn/recordings

And more! Find our latest edibles classes at
go.unc.edu/NCBGEdibles



Finding Native Edible Greens in Your Yarden

BY KIM CALHOUN, FORAGING INSTRUCTOR AND AUTHOR

Thankfully, I am able to follow my friend and teacher Frank Cook's advice to "eat something wild every day." While I adore harvesting wild fruit and nuts like pawpaws, persimmons, and hickories, what I try to consume in some form at every meal are wild greens—yes, even at breakfast!

Over the course of the year, I prepare over 100 different species of wild greens (both native and naturalized), incorporating their tasty and nutrient-dense gifts into main dishes, snacks, beverages, and seasonings. Having relationships with these plant friends brings richness and health to my life, and it is my passion to share these foraging skills with others. For over a decade, I have offered classes and plant walks here in the North Carolina Piedmont, where I was born and raised. I'm currently writing a local wild greens guide.

I'd like to introduce you to a few of my favorite wild native greens who are abundant and can be easily woven into mealtimes. When you finish reading, I hope you will go out to see if they are growing in your yarden

(yard + garden) or neighborhood. Remember to practice safe and sustainable foraging practices, beginning with appreciation and including 100% certainty of your identification. When you first try a plant, start with a small portion. Find more detailed foraging guidelines on my website.

Violet (*Viola* species)

Some of my earliest and happiest memories are connected with violets and my Grandma Margie in the woods of Chatham County. Here in the North Carolina Piedmont, we have around 27 wild violet species, and all are edible. I focus my foraging on the native violets growing abundantly in yards and fields like common blue violet (*Viola sororia*) and field pansy (*Viola bicolor*) rather than the less common woodland violet species.

I gather common blue violet almost year-round, especially in spring. This violet's leaves are heart-shaped with a toothy margin. For best eating, look for tender, young, vibrant-green leaves that curl inwards. Older leaves are

darker green, less rounded, and too fibrous to eat (but can still be good for soup stock or tea).

Be aware that kidneyleaf buttercup (*Ranunculus abortivus*) sprouts at the same time and has similar heart-shaped basal leaves, but they are flat versus the inward curve of common violet. Once you are sure of your identification, give a violet leaf a nibble and see what you taste. I find the flavor of common violet can vary from neutral green to slightly sweet to mildly spicy. They have a slightly slippery texture that's soothing for the mucosal membranes of the digestive tract and are high in Vitamins A and C and soluble fiber.

How do I like to eat violets, you ask? Raw: I add chopped leaves in salads, use a bigger leaf like lettuce on a sandwich, or throw a small handful into smoothies and pesto. Cooked, I will chop fresh leaves and add them to soups where they can act as a thickener or mix them into frittatas and quiches.

Since common violet is so abundant in the spring, I harvest and dry leaves to make flakes that I combine with other dried wild greens for a seasoning to sprinkle on an open-faced fried egg sandwich or oatmeal. You can dry violet leaves in a dehydrator or place the leaves in brown paper bags in a sunny car dashboard, giving frequent shakes till they are completely dried. You can also infuse violet leaves in apple cider vinegar, honey, or oil.

While I'm focusing on native greens, I must tell you violet flowers are edible too and boast high levels of vitamin C and antioxidants. Try them sprinkled raw on salads, pancakes, cupcakes, and inside spring rolls.

With all these gifts, how could one not love violets?

Wood Sorrel (*Oxalis* species)

Often when I'm leading a foraging walk and introduce wood sorrel, adults will have fond memories bubble up from their childhood of nibbling these tart tasty plants, while kiddos in the group have already reached in to start grazing, knowing a good snack when they see one.

All wood sorrel species are edible, and there are no poisonous similar-looking plants. In the Piedmont we have several common native species. Southern wood sorrel (*Oxalis dillenii*) and common yellow wood sorrel (*Oxalis stricta*) both have small five-petaled yellow flowers and grow in fields, disturbed areas, and forests. Violet wood-sorrel (*Oxalis violacea*) has purple flowers and lives in the woods.

Wood sorrel's leaves are divided into three heart-shaped leaflets. All tender above-ground parts of wood sorrel are edible: stems, leaves, flowers, and cute seedpods that look like little okra and crunch like cucumbers. I find wood sorrel from spring through fall and harvest them by snapping off the tender stems or cutting towards the base of the plant with scissors then stripping the tender parts from any fibrous stems.

Some of my favorite ways to enjoy wood sorrel? Nibbling a leaf provides a simple thirst-quenching pick-me-up on hot days. I add wood sorrel to wild greens pesto or smoothies, or chop a small handful of leaves and mix in with other greens for a tangy pop to a salad. Don't have a lemon handy for making salad dressing or dessert sauce? Add finely chopped wood sorrel or whiz in your blender with other ingredients for a nice acidic note.



Left: *Oxalis* and *viola* growing in Kim's yarden.
Above: Kim harvesting *oxalis* for a tasty snack.
Photos by Kim Calhoun

Wood sorrel creates a refreshing, even slightly sweet beverage: chop coarsely, add cold water, and steep for several hours. For more of a lemonade flavor, use hot water to make tea. Ethnobotanist Dr. Jim Duke shares that wood sorrel tea has traditionally been used for fevers and other ailments.

According to foraging author John Kallas, wood sorrel is high in Vitamin C, calcium, and iron. Wood sorrel's sour taste comes from various acids, including oxalic acid,

which is found in many cultivated vegetables like spinach, chard, and beets. If you are healthy and eat a diverse diet, consuming plants high in oxalic acid should not be a problem for you. It may be good to avoid more than a nibble if you have kidney stones, rheumatism, or gout.

Other Greens

Other native edible greens I will highlight in my guidebook are passionflower (*Passiflora incarnata*), poke (*Phytolacca americana*), mulberry (*Morus rubra*), catbriar (*Smilax* species), and self heal (*Prunella vulgaris*). (Re) building close relationships with these nourishing wild plants helps us feel at home and remember there is enough for us all when we share the earth's gifts equitably. A list of recommended foraging books and links are on my website's resources page, AbunDanceHealingArts.com. While there, please sign up for my newsletter to find out about upcoming plant walks and to hear when my wild greens guidebook is ready.

...

You may notice that I use who (versus what) and they (versus it) as this language better reflects my mutually caring relationship with these living plant friends. Many thanks to Robin Wall Kimmerer (author of *Braiding Sweetgrass*) and Indigenous wisdom in reminding us of the importance of this way of relating.

As a white person and teacher I acknowledge with gratitude and humility that much of what I know about our local plant friends comes from Indigenous and Black peoples' wisdom (as well as working class folks of all backgrounds). I encourage you also to learn about/from and support (including financially!) Black, Indigenous, and People of Color sharing their botanical relationships. Some places to start or continue: the NC Native American Ethnobotany Project, @blackforager Alexis Nikole on Instagram, @folkhealers uplifting Indigenous and Black herbalists on Instagram, and the African American Herbalist blog series by dear friend and ethnobotanist Marc Williams. Thanks to all my teachers, including of course, the plants!

About the Author: Kim Calhoun has life-long roots in Chatham County, NC where she loves reconnecting folks to our plant and tree friends through popular foraging walks, workshops, and personalized tours to learn who's growing in your yard. She believes that sustainable foraging skills are foundational for resilient and equitable local food systems. Her book Eat Wild Greens Everyday; Finding Free Food for Our Families Year-Round will be available in 2022. Follow her foraging celebrations on Instagram @plantykim and sign up for her newsletters at AbunDanceHealingArts.com.





Friday, November 12

The UNC American Indian Center and the Garden are collaborating to host a symposium celebrating cultural relationships among Native American people and native plants. Watch our website for more information.

Partner Spotlight: UNC American Indian Center

The North Carolina Botanical Garden partners with the UNC American Indian Center (AIC) whenever we have an opportunity. Here are a few of their projects we are excited about.

The AIC is a university-wide public service center designed to advance the University's mission of research, education, and service with three primary goals:

- leadership in American Indian scholarship and research.
- engagement with and service to Native populations.
- enrichment of campus diversity and dialogue.

Recently, the AIC, along with the Garden and other stakeholders, collaborated to determine priorities, elements, visual preferences, and possible locations for a future American Indian Cultural Garden on UNC's campus. The suggested design includes quiet spaces, and informal meadow, ceremonial space, and a medicine garden, offering students and others a space to connect with Indigenous culture. A report from this project is available at go.unc.edu/AmericanIndianGarden.

Healthy Native North Carolinians (HNNC) was started in 2008 to facilitate sustainable community changes to support health and wellness within North Carolina's tribes and urban Indian organizations by leveraging common goals and resources. Using an Indigenous approach to holistic health, HNNC addresses physical, mental, emotional, and spiritual wellbeing. Projects of this program include farmers markets, community gardens, workshops, and more.

In addition, the Garden is collaborating with the AIC to offer a symposium celebrating cultural relationships among Native American people and native plants. Watch our website for more information closer to the event on November 12.

We are excited about our future projects with the AIC, and are pleased to include them as a partner. Read more about these and other AIC programs at americanindiancenter.unc.edu.



Many Native groups share the story of Turtle Island to describe the Earth, the North American continent, and creation stories. There are regional variations but a common thread is the Creator scooping soil on the back of a turtle to create land in a water and sky filled world. From there, spiritual beliefs describing the relationships between the earth and its inhabitants flow. Human beings are not at the center of the world's context but a part of a larger network of essential connections and relationships among all life and the natural world. This concept was applied during the design process for an American Indian Cultural Garden.



FALL
PLANT
SALE

FALL IS FOR
PLANTING!

Choose from a wide variety of southeastern native wildflowers, shrubs, trees, vines, and ferns at our annual sale, in addition to native wildflower seeds.

Members' Night:

FRIDAY, SEPTEMBER 24, 4-7:30 P.M.
NCBGF members enjoy early access to the annual Fall Plant Sale and light refreshments. Members receive a 10% discount on plant purchases.

Public Sale:

SATURDAY, SEPTEMBER 25, 9 A.M.-3 P.M.



Three Sisters Soup

By Renee Russel, www.welcometothetable.coop/recipes/three-sisters-soup

Total Time: 1 hour, 10 minutes - 2 hours, 10 minutes

Servings: 8 to 10

The Three Sisters—corn, squash and beans—is an ancient Native American growing technique that capitalizes on the strengths of each individual ingredient. Cooked together they make a great soup.

Ingredients

2 pounds of your favorite winter squash (butternut, acorn, kabocha)
2 to 3 tablespoons olive oil
1 yellow onion, diced
1/4 cup garlic, chopped
2 quarts vegetable stock or water
1/2 cup white wine
2 teaspoons dried thyme
1 large bay leaf
1 pound fresh or frozen corn kernels
2 15.5-ounce cans cannellini beans, drained
1/2 bunch green onions, sliced
Salt and pepper to taste

Preparation

- Preheat the oven to 350°F. Halve the squash and scoop out the seeds. Place the squash halves skin-side down on a lightly oiled baking sheet, and then roast until cooked through and soft, anywhere from 30 to 90 minutes (see tips below for cooking times depending on your squash). Remove from the oven and allow to cool.
- Scoop the flesh of the squash into a large bowl (save any liquid!). Puree the cooled squash with a blender or food processor, adding some of the reserved liquid if needed.
- In a large stockpot, heat the oil over medium heat and sauté the onions until they begin to brown. Add the garlic and cook, stirring often, until the garlic turns light brown in color.
- Add the stock or water, wine, thyme, bay leaf and pureed squash and bring to a simmer. Stir in the remaining ingredients and simmer for 15 to 20 minutes. Taste and adjust seasoning as needed.

Brook Trout and Fiddleheads

Total Time: 40 minutes

Servings: 2

Recipe by Aroostook

food.com/recipe/brook-trout-and-fiddleheads-109470

Ingredients

6 brook trout, cleaned with heads removed (8 in.)
4 tablespoons flour
4 slices bacon
3 cups fiddleheads, cleaned
6 cups water
salt and pepper, to taste

Preparation

- Boil six cups of water in a large sauce pan. Add fiddleheads, cover and set on stove to cook on medium for 10 minutes.
- Meanwhile, place bacon strips in a large cold cast iron fry pan. On medium-low heat, cook bacon until crisp. Crumble bacon and set aside. Remove bacon grease from pan and save. Clean cast iron pan thoroughly and set aside.
- Place flour in a bag. Place washed trout in the bag 2 at a time and shake until fish are coated in flour.
- Place cast iron fry pan over medium heat. Add bacon grease and heat for 30 sec. Add trout and cook one side for three minutes until crisp. Turn and cook other side for three minutes.
- Drain fiddleheads. Place trout on a hot platter and serve. Serve fiddleheads with the choice of butter, cider vinegar, and crumbled bacon on the side.



Cattails

Provided by Herbarium Associate Richard LeBlond,
from Euell Gibbons's book *Stalking the Wild Asparagus*

Cattail is one of our most under-utilized food sources, as the shoots, pollen, and root starch are all edible. The key is entering the cattail patch when the bloom spike portion (upper part) of the inflorescence is green and firm. Cut the stalks about two feet from the top, strip off the leaves, and place the stalks flowers-first into a large pot of boiling salted water for about five minutes. The water should be deep enough that all of the flowerhead is submerged. Place a whole stick of butter on a plate, then lay a fresh-boiled flowerhead along the length of the stick, twisting it to form a groove for the ones that follow. Hold it as if you were playing a flute, and strip the flesh off the axis with your teeth, as you might eat an ear of corn.



Sam's Persimmon Hickory Nut Bread

Samuel Thayer (2017). *Incredible Wild Edibles- 36 Plants that can change your life. Forager's. pg. 262*

Dry Ingredients

3.25 cups all purpose flour
1.5 cups hickory nuts
1.5 tsp baking soda
¾ tsp salt
½ Tbsp cinnamon
½ Tbsp powdered ginger
dried fruit (e.g., raisins, apricots, dates) optional

Wet Ingredients

3 medium eggs
1.5 cups maple syrup
1.75 cups persimmon pulp
½ Tbsp vanilla extract
¾ cup coconut oil



Preparation

Mix dry ingredients and set aside. Mix maple syrup and eggs, then add coconut oil, breaking it into small pieces with a pastry cutter or fork. Now mix in the other wet ingredients. Add dry ingredients and mix just until all flour is moistened. Spread into an oiled casserole dish and bake at 375°F for about 50 minutes.

FIND THIS AND MORE RECIPES AT NCNATIVEETHNOBOTANY.ORG

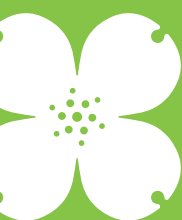
The North Carolina Native American Ethnobotany Project is about maintaining strong, resilient Native American communities through knowledge and environmental stewardship. They work with communities interested in reaffirming relationships with native wild plant relatives, remembering and relearning medicinal and cultural value of native wild plants and documenting and disseminating collective cultural knowledge about native wild plants in a meaningful way. Their website is filled with useful information about culturally important plants, and even some recipes!

Mason Farm Sourdough Bread

While you might not be able to make this in your home kitchen, it's worth mentioning native yeast can be found locally. In March 2020, Herbarium associate Van Cotter explored Mason Farm Biological Reserve and came upon a grape vine covered with orange slime. Even more interesting, a portion of the orange slime was covered with a frothy white material which smelled wonderfully of yeast. Intrigued by the odor, Cotter wondered if the micro-organisms in the froth could be captured and used to make sourdough bread.

READ MORE AT GO.UNC.EDU/MASONFARMYEAST





How Seed Saving Is Repairing a Painful Past for Native Americans

BY LIZ SUSMAN KARP, REPRINTED WITH PERMISSION FROM MODERN FARMER MAGAZINE

In just two years, Native American activists and local farmers have turned just six pounds of rare Mohawk red bread corn seed from the variety's last two remaining ears into nearly 2,000 pounds of grain, sparking a remarkable cultural regeneration for the Akwesasne Mohawk tribe of northeastern New York.

Thanks to an innovative seed-saving venture that began in 2017 on a patch of land in Kingston, New York, for the first time in decades, the Akwesasne can eat a much greater variety of their long-established, healthy foods. They can use those seeds in planting and harvesting ceremonies, just as their ancestors did. Seed saving is an ancient practice in which seeds and reproductive matter from plants are saved for future use. In nods to the past and sustainability, seed libraries and seed-saving projects are popping up across the country.

Purposefully named the Native American Seed Sanctuary, this initiative to safeguard and produce seeds to return to the Akwesasne is a collaboration between the tribe, Seedshed, the Hudson Valley Farm Hub and the Indigenous Seed Keepers Network. For Native Americans, it is spiritually meaningful because they believe that seeds are living, breathing beings from whom they are descended. Native Americans also believe in a symbiotic relationship in which the seeds, or seed relatives, take care of them by providing food. In return, they protect the seeds for the future.

"Much of the importance of revitalizing our traditional foodways and bringing back these heritage varieties of seeds is that they are a cornerstone to our cultural identity and our understanding of who we are," says Rowen White, a Mohawk seed

keeper who created the Indigenous Seed Keepers Network. She collected seeds from elders and entrusted Ken Greene, founder of Seedshed, to grow them. "These foods and seeds figure prominently in our cosmology, our creation story and many of our cultural stories," she explains.

Greene established the country's first seed-saving library in Gardiner, New York, and owns the Hudson Valley Seed Company. He believes that, like water, seeds should be treated as a resource that's available to all, shared and protected. Each year, the Native American Seed Sanctuary grows one variety of corn, eight varieties of beans, two varieties of squash and one variety of sunflower in a "four sisters" configuration to return to the Akwesasne. White calls this seed return "rematriation" instead of the more commonly known term "repatriation" because the work of

Left: Seeds ready for planting at the Hudson Valley Farm Hub.
Right: Harvesting beans at the Seed Sanctuary Harvest.
Photos courtesy of Hudson Valley Farm Hub

seeds belongs to women in Native American culture. She describes rematriation as “powerful healing.”

Greene says one of the most emotional parts of the project is the three-day harvest, where he invites the Akwesasne, local farmers, high school students and Mexican migrant farm workers to participate. “Through seed work and handling and conversations that explore historical and current traumas between these groups, there’s a lot of peacemaking and healing that can happen,” he explains.

Greene and White’s references to healing are the underpinning of the project, the painful recall of colonialism and the Trail of Tears, in which Native Americans were forced from their lands. James Beard Award-winning chef Sean Sherman, Oglala Lakota, says that Native Americans hid and sewed seeds in their clothing to protect them. “The European colonial culture had no sense of those really deep connections and stories at all,” he says.

Sherman is on a mission to revitalize and bring awareness to indigenous foods, which began when he sought to understand what his ancestors ate in the late 1800s. In his research, he discovered how unsung indigenous agriculture is, even though these seeds that are now traditional in all corners of the world and changed the entire world, he says. “You see corn in its many varieties and all the different kinds of squash, beans, tobacco, sunflowers and amaranth,” he says. “So many beautiful seeds are out there.” His cookbook, *The Sioux Chef’s Indigenous Kitchen*, won a James Beard Award. He also received the group’s leadership award for his work, which includes founding the nonprofit North American Traditional Indigenous Food Systems and opening a not-for-profit restaurant and training center called the Indigenous Food Lab in Minneapolis.

Sherman and White serve on the board of Seed Savers Exchange, the country’s largest public-access seed bank. Last year, White forged an ambitious and successful trial partnership, similar to the Native American Seed Sanctuary, between Seed Savers Exchange and her Indigenous Seed Keepers Network to return 25 seed varieties to 11 tribes in New Mexico and the Upper Midwest. Fundraising covered costs, the exchange’s farm grew seeds, and culturally sensitive guidelines, protocols and best practices were developed. More importantly, the tribes retained control of their seeds, many of which are traditional, culturally appropriate and not commercially available. This year, 20 individual varieties will be rematriated to 16 tribes across the country. White expects the effort to grow. The organizations have identified hundreds and even thousands of varieties with tribal origins found in the vaults of public institutions, seed banks, universities, seed keeper collections and elders.

“Rematriation allows Native Americans to produce foods and seeds and gain a true sense of sovereignty,” says Sherman. “This work honors the grand lineage of ancestors who kept these seeds alive despite adversity and challenges,” adds White. “It’s a renewed commitment to make sure that younger generations have them for generations to come.”

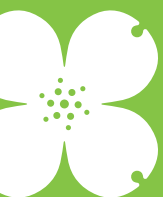
Top: Harvesting beans during Hudson Valley Farm Hub’s Seed Sanctuary Harvest.

Middle: Squash harvested during the event.

Bottom: Braiding corn husks for storage during the harvest.

Photos courtesy of Hudson Valley Farm Hub





Staff Pick: Hopniss

BY CHRIS LILLOIA, HABITAT GARDENS CURATOR

Groundnut and hopniss are common names for *Apios americana*, a perennial vine in the pea family. The twining plant makes clusters of rose-pink flowers from June to September. It looks a bit like a summery American wisteria, another native vine in the pea family, but it is more delicate and dies back to the ground each winter. Like many native peas, it is a larval host plant for the silver spotted skipper.

Hopniss is an American Indian name for this plant which was a staple food for multiple tribes. The name Groundnut refers to the tubers which form along the vine's roots like beads on a string.

Foragers and permaculture practitioners are enthusiastic about this native edible. Though all parts of the plant can be consumed, the starchy tubers are the prize. Young plants have small tubers but after a couple years of growth they will get larger and better lend themselves to cooking.

This species is common in wetlands in the eastern US. I'm intimately familiar with the tubers and spend plenty of time trying to control their presence in NCBG's Coastal Plain Habitat collection. This is just the right kind of spot, with wetter soils and plenty of sun. Following a morning of weeding, I boiled and served the tubers to adventurous staff members. Satisfied eaters likened it to boiled peanuts or potatoes. I recommend adding salt to the water and washing the pot while it is still hot. The tubers produce a latex that can be hard to scrub off.

This species can be problematic as an ornamental because of its weedy tendencies, but sometimes a weed is just what you need when you're looking for a good perennial food plant. It is hard to control in a mixed garden setting as any number of student workers and volunteers will attest, but grown alone, it will produce a relatively easily harvestable perennial yield. Try growing it on a trellis to save space.

Top left: Hopniss (*Apios americana*). Photo by Bruce Sorrie.

Top right: The tubers form along a long root.

Bottom left: Harvested tubers.

Bottom right: Tubers, ready to eat after boiling for 30 minutes. Peel the skins before eating.

Conservation Gardener FALL/WINTER 2021/22



New Entrance Walk and Breezeway Unveiled

We are thrilled to announce that our Bob and Molly Broad Entrance Walk and Sara Waitt Breezeway are now open to the public! Together with our new sign wall on Fordham Boulevard, this marks the completion of a multi-year entranceway master plan to increase the Garden's visibility, improve the visitor experience, and elevate our entrance landscapes.

Garden staff and contractors began work on the entrance walk and breezeway in January 2021 and completed the project in under six months. We have replaced the

grit path with concrete and stone accents, including rock wall seating areas, improved the area's drainage and irrigation system, replanted the wildflower beds, and paved the breezeway. Visitors will now be able to access all of the spaces in our Allen Education Center via paved paths.

The entrance walk is dedicated to Bob and Molly Broad. Bob, who passed away in the summer of 2020, was an active board director and member of our Foundation. Molly served as UNC System President from 1997 to 2006. This project was

made possible by support from North Carolina Botanical Garden Foundation board members and many community members.

The breezeway is dedicated in honor of Sara Waitt, friend and supporter of the Garden, who passed away in the fall of 2020. Key support for this project was given by Tom Kenan.

Whether due to the new sign along 15-501 or pandemic restrictions, the Garden has seen a sharp increase in visitation, with roughly 60% enjoying their first visit to the Garden.



SCULPTURE
IN THE GARDEN

SEPTEMBER 12 – DECEMBER 5

Our annual outdoor sculpture exhibition unites the work of North Carolina artists with the curated landscapes of the Garden. Free and open to the public.
[NCBG.UNC.EDU/SCULPTURE](https://ncbg.unc.edu/sculpture)

PREVIEW PARTY,

SATURDAY, SEPTEMBER 11, 4:30–6:30 P.M.

Meet the artists, vote for the People's Choice award, make early purchases, and enjoy beverages and hors d'oeuvres. Tickets: \$30 per person.



Fueling the Conservation Appetite

BY STEPHEN KEITH, DIRECTOR OF DEVELOPMENT

Fighting through adversity and the fear of the unknown, you helped the North Carolina Botanical Garden persevere over the past year. Thank you for your displays of support and encouragement to maintain the programs, outreach, plant collections, research, and conservation lands of your Botanical Garden. With your support, the Garden continues to serve as a regional leader in biodiversity education, land protection, and prairie restoration.

The North Carolina Botanical Garden Foundation board and the community prevailed in 2021 to complete Phase II of the Entranceway Master Plan. Not only is there a new entrance sign and landscape to welcome visitors (completed in May 2020), but the recently completed **Bob & Molly Broad Entrance Walk** and **Sara Waitt Breezeway** now provide a distinct visual cue to access the main entrance and larger gathering space for classes and events. Dedicated on June 26, 2021, this area is a testament to the resolve of Garden supporters to continue beneficial capital improvements projects. Thanks to 37 total donors to the Phase II project (including heavy investments from Foundation board members), we have redefined the main pedestrian entrance and the initial visitor experience of the North Carolina Botanical Garden. During your next visit, enjoy the new low stone walls, new plantings, and the stone clad patio walkways on your way to the upgraded breezeway space at the James and Delight Allen Education Center.

Thanks to over 4,000 donors and members of the North Carolina Botanical Garden Foundation in fiscal year 2021 (July 2020 – June 2021), over

\$100,000 of general operation support helped successfully meet the Garden's annual budget requirement. With the new membership categories established on March 1, 2021, members now have the opportunity to support the Garden at various benefit levels, including the Director's Circle and Sustainer levels (recognized on page 27).

Annual gifts are the lifeblood of the Garden. Consider how you could endow your annual gift as a legacy of support for biodiversity and plant conservation. A donor recently asked me to help them think through this scenario and it was a great lesson in annual support for the Garden. By making a calculated gift to the NCBG General Operating Endowment, we were able to determine how a larger invested gift will provide annual income for the Garden in perpetuity. If this idea interests you, or if you would like to discuss additional planned gift options, please contact me to discuss further. The Garden has long benefited from planned gifts from supporters who desire the mission to continue.

The Carolina Moonlight Garden Party is the Garden's largest fundraising event of the year and was a tremendous success in May. Local botanist **Derek Haynes** joined Garden Director **Damon Waitt** to host this live virtual event, with dynamic presentations from staff members and current and former foundation board members. A special thank you to all the behind the scenes NCBG staff who made this event possible and especially the presenters **Alan Weakley, Chris Liloia, Mike Kunz, Dan Stern, Anne Harris, Johnny Randall, Neville Handel, Joanna Lelekacs, Brie Arthur, and Tom Earnhardt**, who kept this event

exciting and engaging. This year, 23 Carolina Moonlight event hosts and over 80 supporters provided funds to exceed the fundraising goal. Thanks to a late Carolina Moonlight challenge match by an anonymous donor and the response of **Anne Harris, Jeanne & Charles Hecht, Julie Irwin, James Joslin & Beth Hahn, and Ryan Willis**, over \$62K was raised to support the Garden, which is the largest amount ever raised from Carolina Moonlight.

Thank you for your continued support and care for the North Carolina Botanical Garden. There are so many individuals and families keeping the mission going strong. Your annual, recurring, project, and planned gifts are all essential to the success of the Garden and allow us to keep fueling our essential plant conservation efforts.

Stephen Keith
Stephen.Keith@unc.edu
(919) 962-9458



Thank you for choosing to honor or remember friends and family through a gift to the North Carolina Botanical Garden.

Tribute Gifts below were received from January 1 to June 30, 2021.

IN HONOR OF

Nick Adams

Julie and Pete Gaskell, for
The NCBG Student Intern Fund
Carolyn H. Ikenberry

Bob and Molly Broad

For Botanical Garden
Entrance Walk Fund
Terry and Ernest Ball
Patrick and Jordan Barratt
Catharine and Wood Burns
Stephen L. Keith and Lisa C. Glover
Anne F. Harris
Bo and Pat Howes
Harriet and D. G. Martin
Florence and Jim Peacock
Rani and Riju Ray
Ladell and Amara Robbins
Sandy and Reaves Thompson

Melissa McComb Cain

Kim and James Goff

Cathy Cole

Jean R. Farley, for
The NCBG Student Intern Fund

Marie K. Coleman

Charles P. Gurkin

Barbara B. Driscoll

Jim Protzman and Jane Brown

Carey Martin Durham

On occasion of his 70th birthday
Missy and Sam Rankin,
for NCBG Director's Fund

Ella Louise Engstrom

Peter G. Engstrom

Sheldon Fogel

Anne Salenger,
for Botanical Garden Library

Matt Gocke

Julie and Pete Gaskell, for
The NCBG Student Intern Fund

Neville Handel

Julie and Pete Gaskell, for
The NCBG Student Intern Fund

Stephen L. Keith

On occasion of his birthday
Sally Sue Glover,
for Carolina Moonlight Garden Party

Bradshaw Lentz

Martha W. Lentz

Livy Ludington

Will Ludington, for *School Programs*

Margo L. McIntyre

Satsuki L. Scoville and David W. Farrell, for
Coker Arboretum Endowment

Harriet Wall Martin

Grier and Louise Martin

Jim R. Massey

Elizabeth L. Ley and Edward C. Balinsky,
for The Mary McKee Felton Herbarium
Internship Endowment

Mary Lou Maynard

Nathan and Anne Partin

Carol Ann McCormick

John R. Bozeman,
for Friends of UNC Herbarium

Ady and John McNair

Marian and Jeff Olson

Maureen Mikolajczak

Chapel Hill Garden Club

Julie Hackney Moore

Ed Harrison and Pat Carstensen, for
Natural Areas Endowment

Ken Moore

Julie Hackney Moore

Michael J. Papay

Julie Papay

Margaret Pender

Chapel Hill Garden Club

David Robert

Mary Clara Capel, for
Coker Arboretum Improvement Fund

Janice Stratton

Roberta and Douglas Tilden, for
The NCBG Student Intern Fund

Anne D. Varley

Peggy and William Markham,
for Seed Collecting Fund (check)

Becca Wait

Master Gardener Group of Gaston County

Alan S. Weakley

John R. Bozeman,
for Friends of UNC Herbarium
Cameron Donaldson,
for Friends of UNC Herbarium
Farrington Garden Club

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Ann and William Borden

Michael D. Aitkin

Joanna and Bill Lelekacs
Betsy B. Rudolph

Carl Anderson

Margery Connelly
Thuy-Ai T. Nguyen

Susan Egan Balik

Lea Boumenot
Jill Brunkhorst
John Kunna
Karen Rubinstein
Thomas and Victoria Wintermeier

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Jeffrey J. Gregg

C. Ritchie Bell

Ben L. Rushin

Jane Freer Brinkley

Sarah Brinkley, for *Mason Farm*
Endowment

Robert W. Broad

David S. Butts

Brentz Brooks

Steven D. Brunson,
for NCBG Director's Fund

Reece Williams Chambers

Charles and April Bocholis,
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Elizabeth Cheek Rives

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Linda N. Curtis

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Sharon and James Morgan
Frances P. Rollins,
for Carolina Moonlight Garden Party
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Karen and Clark Havighurst
Pamela and R. D. Sprinkle

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Richard and Tracy DeSelm,
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for Summer Camp Scholarships

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William and Emily Ray,
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Joan Gillings

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Linda A. Davis

Mary Elizabeth "Libby" Grubb

Rodney and Sherry Jones,
for Coker Arboretum Endowment

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Angie G. Hall

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for Conservation Fund
Dean Myron Floyd, on behalf of NC State
University's College of Natural Resources
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for The 2 J's Acres Conservation
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Christopher and Leslie Moorman
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for UNC Herbarium
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Areas Endowment
 Larry J. Rosenfeld and
 Lisa Leanne R. Bailey
 Tharrington Smith LLP
 Kenneth A. Soo
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Mabel Stolz
 Neal G. Mochel

Elizabeth Thorne
 George and Agnes Harvin

Susan Toplikar
 Mike Cindric

Trevor and Emma's little girl
 Ed and Katherine Syciarz, *for*
Children's Wonder Garden

Carolyn Sue Underwood
 Theo U. Farge

MONTHLY GIFT

Support the Garden each month
 by establishing a recurring gift via
 your credit card. See the options on
 the Garden's giving page, or contact
 Stephen Keith at 919-962-9458

Sara Shiplet Waitt
 James D. Joslin and Beth A. Hahn,
for Carolina Moonlight
Garden Party
 Grant and Leslie Parkins

Ida Robinson Wickham
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Brandin Wienhold
 Linda M. Cepek,
for Friends of UNC Herbarium

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DONOR SPOTLIGHT: MURIEL EASTERLING PROVIDES SUPPORT FOR PIEDMONT NATURE TRAILS

Muriel first visited North Carolina when her daughter studied at the University of North Carolina, and she fell in love with North Carolina's biodiversity as she toured the countryside and was introduced to natural populations of wildflowers. Muriel and her husband, Mahlon, moved to North Carolina in 1980. After working for a few years, Muriel volunteered at the Garden, starting with Harry Phillips in the propagation group, then moved to the mountain habitat and the plant families garden.

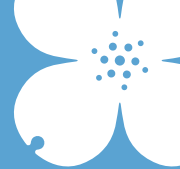
Soon after Hurricane Fran in 1996, Muriel read in the Garden's newsletter about the need for ridding the Garden of invasive exotic plants, and thought, "That's what I want to do!" She was assigned to work with Wendy Wenck, and after a few years, she joined Stephen Keith's crew of student interns and work study students in the Piedmont Nature Trails. Muriel became an expert at identifying and removing *Youngia japonica*, but also took on removing large swaths of English ivy and other invasive plants. "That's what I loved to do! Working to maintain the biodiversity of the forest gave me great pleasure. I just wish there were more volunteers and staff to help with the work. It's very rewarding to work outside and accomplish a much needed job."

Muriel recently made a large gift to build the Piedmont Nature Trails endowment. This gift will allow the Garden to hire an annual student intern and purchase materials to continue forest restoration efforts in the Piedmont Nature Trails. "I am thrilled to think of someone taking my place to do the work I can no longer complete."

Thank you Muriel!



Muriel Easterling, NCBGF
 Honorary Director and volunteer
 for many years, has chosen to
 support the Piedmont Nature
 Trails with a large gift.



THANK YOU, CORPORATE PARTNERS!

Corporate Partners are businesses who support the North Carolina Botanical Garden year-round by sponsoring the full year of signature events. Thanks to our 2021 Corporate Partners for their commitment to the Garden's success. If you would like to become a Corporate Partner, please contact Jordan Wilkins at 919-843-2411.

NATURAL AREA STEWARD



HABITAT SUSTAINERS



GARDEN SUPPORTERS



MEMBERSHIP RECOGNITION

Director's Circle and Sustainer members provide aspirational annual membership support to champion our plant conservation mission. The following joined the North Carolina Botanical Garden Foundation's top membership categories between March 1, 2021 and June 30, 2021. Thank you!

Director's Circle (\$1,500)

Ruth N. Benton and Tod Sedbrook
Bruce and Dianne Birch
Lee and Libby Buck
Jinny Clancy
Robin and Lewis Davis
Anne F. Harris
Eric and Emily Iverson
Allen and Gina Jones
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Sims Preston and Olympia Stone
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Mal and Amanda Watlington
Floyd and Diane Whitney

MARK YOUR CALENDAR

September 11
**Sculpture in the Garden
Preview Party**

September 12-December 5
**Sculpture in the Garden
Exhibition**

September 24 & 25
Fall Plant Sale

October 29
**Boo-tanical:
Pumpkins in the Garden**

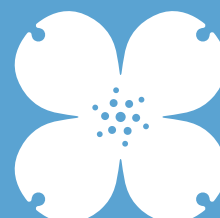
November 7
Jenny Elder Fitch Lecture
featuring Bland Simpson

November 19
**Botanical Garden Foundation
Membership Meeting**

Through December
**Winter in the Garden
Holiday Festival**
ncbg.unc.edu/wig

December 11
**Botanical Garden Foundation
Holiday Party**

For more information:
ncbg.unc.edu/calendar



North Carolina Botanical Garden

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