

Upstate Advocate

2021-2022 | FALL/WINTER



ON (& OFF) THE CLOCK:

Upstate Forever staff at work and play



Caitlyn Gendusa & Richard Carr look at a chestnut seedling on a visit to the recently protected White Tract (read more on page 21).



Ava Thacker (aka "Nanna") welcomed new grandson Harper Chance Thacker in September.



Ranger Tim Lee, UF Executive Director Andrea Cooper, and conservation leader Doug Harper after a hawk watch at Caesars Head.



Erika Hollis, Megan Burton, and Joy Dickerson keep a positive attitude while sheltering in the bathroom during a tornado warning.



Protecting Land & Water | Advocacy | Balanced Growth

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Mission

Upstate Forever is a conservation organization that protects critical lands, waters, and the unique character of the Upstate of South Carolina.

Vision

To conserve our land and water resources, resulting in an environmentally healthy and economically prosperous region, with a high quality of life now and for future generations.

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FROM THE DIRECTOR

We live in a spectacular region with remarkable wildlife.

When my sons were young, we used to hike every summer in Jones Gap and Caesars Head state parks. The biggest draw to these outings were the natural creatures we could find. The boys' eyes were trained to spot salamanders, frogs, snakes, spiders, crayfish, and all sorts of bugs. Newts and Chinese mantises were their favorites. These hikes helped instill a love of nature in my children at a young age.

When Upstate Forever assesses land for permanent protection, we prioritize properties that have outsized impacts on water quality and high-quality habitat for plants and animals. The lands we protect provide refuge for black bear, wild turkey, migratory warblers, Oconee bell, American Chestnut, brook trout, quail, and more.

Preserving habitat for local flora and fauna has tremendous benefits for humans as well. Thriving ecosystems are essential for water quality, pollination, flood mitigation, carbon sequestration, and even disease control. We are healthier and happier when we live in balance — not conflict — with the ecosystem around us.

What's more, the plants and animals who call the Upstate home greatly enrich our quality of life by contributing to recreation, scenic beauty, and educational opportunities. This high quality of life is largely what draws so many people and businesses to the Upstate.

However, to fully realize the economic and social benefits of this growth, we must proactively protect the wilderness and its inhabitants. Otherwise, we face the dreadful irony of destroying the natural assets that make the Upstate so special and attractive to begin with.

So far this year, Upstate Forever has permanently protected more than 2,000 acres of high-quality habitat — forests, fields, wetlands, and mountain coves — with an additional 6,000 acres slated to close this year.

[See some recently protected properties on **PAGES 20-21**]

This issue of the *Upstate Advocate* features stories and perspectives about the furry, feathered, and flowered friends who share this land with us. As you read it, I hope you'll consider making a gift to Upstate Forever so we can continue our work to protect habitat, reduce sprawl, and safeguard water quality, now and for future generations.

Thank you for your support! We could not do this work without you.

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Andrea Cooper, Executive Director

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Greenville County Council funds Trust to protect special places

We were proud to partner with Greenville For Greenspace — a broad coalition of businesses, corporations, nonprofits, and residents — to encourage Greenville County Council to establish the Greenville County Historic and Natural Resources Trust ("the Trust") late in 2020.

When no funding was allocated for the Trust in the County's new budget this summer, the community banded together to urge Council to change course and fund the Trust.

After hearing from the coalition and concerned residents — and seeing dozens of you attend Council meetings to show your support — Greenville County Council voted



unanimously in July to commit \$2 million over the next two years to the Trust. This funding will be an invaluable resource for eligible local landowners, agencies, governments, and nonprofits to protect land and historic resources in Greenville

County. Thank you to all who spoke up on this important issue!

To learn more about the Trust, view the board, and see application criteria and deadlines, visit the website at **gchnrt.org.**

2020 Cumulative Gift & Legacy Societies

Upstate Forever's Cumulative Gift Societies recognize the total program support given by individuals and entities over the life of the organization. Support includes membership and contributions, sponsorships, and planned gifts.

THE FOUNDERS SOCIETY (\$1 MILLION & UP)

Anonymous, In Memory of Marjorie E. Schmidt The Mary Black Foundation Tommy & Harriet Wyche Brad Wyche & Diane Smock The V. Kann Rasmussen Foundation

THE UPSTATE CHAMPION SOCIETY (\$500,000 - 999,999)

Glenn & Heather Hilliard
Fujifilm Manufacturing
Hollingsworth Funds
The South Carolina Department of
Health & Environmental Control
Alice M. Wald

THE 1998 SOCIETY (\$250,000 - 499,999)

Anonymous
Prisma Health System
Naturaland Trust
The Hipp Foundation
The Graham Foundation
The Pfifer Johnson Foundation
The South Carolina Department
of Natural Resources
Pete & Sally Smith Foundation

THE STUMPHOUSE SOCIETY (\$100,000 - 249,999)

Anonymous **Brad Campbell** Callie & John Rainey Foundation Charles Stewart Mott Foundation Community Foundation of Greenville Erwin & Nancy Maddrey Genevieve Manly Greenville Transit Authority Greenville Women Giving Harriet Wyche Memorial Endowment J. M. Smith Foundation Jack & Cindy Plating James & Kathy Barr John L Smith Charities Jolley Foundation Lillian Darby Mast General Store Mike & Laura Baur Milliken & Company ScanSource Spartanburg Water System **TD Charitable Foundation** Conestee Foundation Daniel-Mickel Foundation Palmetto Bank **Priester Foundation**

THE COMMUNITY PARTNERS SOCIETY (\$50,000 - 99,999)

Blue Cross & Blue Shield of South Carolina BMW Manufacturing Company, LLC Mike & Laura Baur **Duff & Margaret Bruce** Andrea & Edwin Cooper Fannie Cromwell Dianne Culbertson The Duke Energy Foundation The Turner Foundation Gally & Fielding Gallivan Roger & Marianna Habisreutinger Doug & Ren Harper Brice & Reid Hipp Bill & Libby Kehl Paul & Sara Lehner Mary Peace Sterling Foundation Carlton & Brenda Owen Pacolet Milliken Enterprises Leon & Barbara Patterson Piedmont Natural Gas Hal & Minor Shaw David & Angela Shi Bruce Snyder Startex-Jackson Water District The Stringer Foundation The Oak Hill Fund Mark & Starla Taylor



"Soon after we moved to Greenville County in 1977, we fell in love with the area's natural beauty, and we hoped it could be preserved for future generations. As we reviewed our estate plans several years ago, we recognized that including Upstate Forever would carry our hopes into the future."

Thomas & Sandra Kester Family

Warren Guinn

John & Priscilla Hagins

- BARBARA AND GILBERT ALLEN, LEGACY SOCIETY MEMBERS

You can join Barbara and Gilbert in including Upstate Forever in your estate plans. To learn more about planned gift options or request a copy of our complimentary estate planning guide, visit **UpstateForever.GiftLegacy.com** or contact Aldon Knight, Director of Development & Community Relations, at **aknight@upstateforever.org** or (864) 250-0500 x131.

THE LEGACY SOCIETY (THOSE WHO HAVE PUT UF IN THEIR ESTATE PLANS)

Tommy & Harriet Wyche Brad Wyche & Diane Smock Fd Hall Wade H. Sherard David & Angela Shi Stephen & Julie Ziff **Fd Krech** Jo & Bob Hackl Gary Davis Joyce P. Murphy J. Tony Rackley Gilbert & Barbara Allen Dennis & Jane Chastain Priscilla Ann Woodside Bill & Emily Holt Maureen Johannigman



If you've followed Upstate Forever's work over the past few years, you've seen many references to the bunched arrowhead. UF has worked alongside partners like the Southern Environmental Law Center, The SC Environmental Law Project, and the SC Native Plant Society to protect this rare plant from the negative impacts of rapid development.

"Rare" is an understatement in this case. The bunched arrowhead, which lives in sensitive wetland habitat known as Piedmont seepage forest, has been found in only two places on the planet — Henderson County, NC, and Greenville County, SC. It is one of the rarest plants in the entire world, and it lives right in our "backyard."

But the bunched arrowhead is not the only ecological wonder to be found in the Upstate. Just as astonishing is the Blue Ridge Escarpment, an area of extraordinary beauty and biological diversity. More species of trees grow in the Escarpment than in all of Europe, and it is home to more than 300 species of rare plants.

Other areas are remarkable as well: Conestee Nature Preserve, just a few miles from the City of Greenville, treats visitors to glimpses of great blue herons, river otters, and migratory birds. The meadows of rural counties like Laurens and Abbeville provide habitat for pollinators, whitetail deer, and vanishing species of grassland birds. And the Clemson Experimental Forest is home to three SC Champion Trees — a chinquapin oak, a rusty blackhaw, and a white basswood that are judged to be the largest of their species in the state — as well as salamanders, insects, and aquatic life.

Just as fascinating are the ways that these special places, plants, and creatures impact people in the Upstate.

Read on for stories and perspectives about the wild and wonderful lifeforms who call the Upstate home — and consider joining Upstate Forever in the effort to protect the critical lands and waters essential to their survival.



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LIFE SCIENCE

Q&A: Tim Taylor of Roper Mountain Science Center

Can you tell us about yourself?

I've been working at the Roper Mountain Science Center now for 21 years and I am the Environmental Science Chair and Life Science Specialist. I teach natural science programs, lessons, and field trips.

I grew up out in the country in Indiana and participated in Boy Scouts. I knew early on in high school that I wanted to pursue this field. I started out with an opportunity to work in Indiana State Parks when I was at Purdue University working on a bachelors of science in environmental science and natural resources. Then I came to Clemson University for graduate school, with an emphasis in environmental interpretation. I worked with the South Carolina State Parks, Blue Ridge Parkway, and Boy Scouts for many years, and have been here now for two decades.

What's your favorite part of teaching children at the Roper Mountain Science Center?

I really enjoy seeing kids' excitement with nature and the animals. If they learn more, they tend to care more. Usually awareness leads to understanding, which leads to caring for animals and plants and nature.

Why is it important for kids to learn about nature?

Everything depends upon it. We really depend upon nature — we are animals dependent upon plants. If kids can learn to care for plants and animals and become connected in an ecosystem, they're also going to hopefully become interested in preserving and conserving nature in the future.

What can we do to protect our natural resources?

One thing anyone can do is plant more native plants. We can educate people of all ages about native plants and animals, because the animals depend upon the plants for shelter and especially food. Native wildlife have evolved with native plants and are adapted to them, especially insects that have co-evolved with the plants. So many things depend upon plants and insects in that early part of the food chain and food web.

For instance, a native oak tree can support 500 species of caterpillars! Compare that with a gingko tree, which is non-native, and supports only about five species of caterpillars. Going up the food chain, it takes lots of



caterpillars — like 6,000 caterpillars — just to support one family of chickadees.

Since native plants have evolved over such a historic period of time, thousands of years, they're able to support other species and are better able to adapt to their natural environments so that they can thrive.

What are some of your favorite native species?

We have several native plants that are basically only found in this part of the world, like the mountain sweet pitcher plant, bunched arrowhead, and Oconee bells. It's pretty interesting that we have some native plants that are only found in this area and nowhere else.

We have really special native animal species, too. The Eastern king snake is a native snake and, like a lot of other animals, its populations have been hurt by habitat destruction. It can feed upon venomous snakes, and that's pretty neat! We like to teach about snakes because there are so many myths and misconceptions of snakes. The more you know, the less you're going to be afraid of something.

Another native animal we love teaching kids about is the Eastern box turtle, our only common land turtle. They depend upon native plants and wildlife for food. Again, this is a species that has evolved with and adapted with native species — they're an omnivore so they're feeding on insects and fruits from our native plants. A study has shown that they even help distribute seeds of native plants more so than non-native ones, because the native plants are used to surviving through their very slow digestive system. So when they excrete out the seed, they help plant a lot of our native plants. It all comes full circle.

"If kids can learn to care for plants and animals and become connected in an ecosystem, they're also going to hopefully become interested in preserving and conserving nature."

- TIM TAYLOR, Environmental Science Chair and Life Science Specialist at Roper Mountain Science Center

NATURE & CULTURE

The Cherokee tradition of land stewardship

"The Cherokee have always been an agricultural people, and their old country is a region of luxuriant flora, with tall trees and tangled undergrowth on the slopes and ridges, and myriad bright-tinted blossoms and sweet wild fruits along the running streams." – James Mooney, *Myths of the Cherokee*, 1888

A reverent and symbiotic relationship with nature was historically — and continues to be today — a cornerstone of Native American cultures, including the Cherokee.

The Cherokee people, who endured forced removal from their ancestral lands, which encompassed the region that is now Upstate South Carolina and much of the Southeast, had a sacred bond with this lush and abundant land. They were stewards of the earth for thousands of years, passing down intricate knowledge of plants, their uses, and unique qualities throughout generations. Historically, plants were used not only as food and sustenance, but also for medicine, clothing, and art.

Today the Eastern Band of Cherokee Indians (EBCI), based in the Qualla Boundary in Western North Carolina, continues to protect, conserve, and enhance Tribal natural resources for the benefit of the Cherokee community through its Natural Resources Program.

EBCI Natural Resources works to maintain healthy fish, wildlife, and plant populations, manage forest and aquatic habitats, protect Tribal air and water quality, assist community members with regulatory processes, promote natural resource-related recreational and subsistence opportunities, and provide educational services to the Cherokee people. You can learn more at **cherokeenaturalresources.com**.

Learn more about local Cherokee history

Located in Walhalla, the Museum of the Cherokee in South Carolina provides a preserve for a deeper and more meaningful understanding of the Cherokee heritage of South Carolina. | cherokeemuseumsc.org

The Museum of the Cherokee Indian in Cherokee, NC offers traveling exhibits and immersive experiences celebrating 13,000 years of Cherokee history. | mci.org

Local plants & their uses

These plants were commonly used by the Cherokee people for medicine, food, clothing, art, and more.



COMMON NAME: Elderberry

SCIENTIFIC NAME: Sambucus nigra ssp. canadensis

CHEROKEE NAME: gaksûka útana

The Cherokee used many parts of the gaksûka útana plant to treat various ailments, and the berries were often used in jellies or baked into breads. Elderberry continues to be used today, commonly in syrup, to boost the immune system and treat the common cold.



COMMON NAME: Mayapple

SCIENTIFIC NAME: Podophyllum peltatum

CHEROKEE NAME: u'niskwetu"gĭ

With its umbrella-shaped top, mayapple was called u'niskwetu"gĭ — "it wears a hat" — by the Cherokee. Though parts of the plant are poisonous, mayapple rhizomes were used to treat cough or stomachache in humans, and in a tea concoction to deter pests from recently planted corn.



COMMON NAME: Bloodroot

SCIENTIFIC NAME: Sanguinaria canadensis

CHEROKEE NAME: gílĭ wă'ta

Bloodroot is a special spring ephemeral, blooming for only a few days in late winter or early spring. Sap from the root creates a rich, red dye traditionally used for baskets, clothing, and body paint — hence the common name "bloodroot." The Cherokee would soak the plant's roots in cold water to be used as a cough medicine, while the powdered dried root could be used as a snuff for mucus congestion.



COMMON NAME: Joe-pye weed

SCIENTIFIC NAME: Eutrochium spp.

CHEROKEE NAME: amditátĭ útana

On an autumn drive in the Upstate, you're likely to spot joe-pye weed growing on the roadside. This tall plant, often growing to 4-6 feet, blossoms in purple bursts in late August and early September. Today they might be an excellent addition to a native plant garden with moist conditions and good sunlight. Traditionally, amditátĭ útana was used as a kidney medicine and to treat fevers.



COMMON NAME: Pink lady's slipper or moccasin flower

SCIENTIFIC NAME: Cypripedium acaule

CHEROKEE NAME: gŭgwĕ'-ulasu'la

This wildflower is actually a species of orchid. Its common name comes from the flower pouch's appearance resembling a shoe or moccasin traditionally worn by Native Americans (ulasúla meaning slipper in Cherokee). It grows about a foot tall and flowers in early summer. Parts of the plant have been used by Cherokee people to soothe stomach cramps, nervousness, toothaches, and to treat kidney issues and high fevers.



COMMON NAME: Jack-in-the-pulpit

SCIENTIFIC NAME: Arisaema triphyllum

CHEROKEE NAME: túyastĭ'

You may find Jack-in-the-pulpit blooming from April to June all across what is now the Eastern United States. When not flowering, it can be confused with poison ivy. Its stem, leaves, and flower are toxic, but the root of túyastĭ' was cooked and used as a vegetable or dough ingredient. Roots were also used in a poultice for headaches or consumed to treat kidney problems.

Sources: Mooney, J. (1888). Myths of the Cherokee; Dinkins, H. Plants of the Cherokee and their uses. Highlands, NC; Highlands Biological Station.

Photos from the Ladybird Johnson Wildflower Center (LJWC) Digital Library and Clemson Extension Home and Garden Information Center.



TREE BENEFITS

Creating a more equitable tree canopy

Recent tree canopy maps produced by the Green Infrastructure Center show a direct correlation between tree canopy, income level, and land surface temperatures in the City of Greenville. **Joelle Teachey** of TreesUpstate offers a perspective on the many benefits of trees, and why it's important to address the tree deficits of less affluent communities.

For many of us, planting trees is a natural thing to do. We want beautiful yards, more birds, and more shade. Some of us have cultivated urban nature oases where we weary city dwellers can find much needed rest and solace before our next venture into town. If we are very dedicated or fortunate to have land, we may have even created a backyard ecosystem that plays a role in restoring the natural environment.

While a small number of people may plant trees just to keep up with the neighbors or show-off, the vast majority of us love it when our nearby neighbors and our communities have more large and vibrant trees. Trees are sources of pride and make cities more livable by providing important public health, mental health, social, environmental and economic benefits.

Yet, if you've ever paid a landscaper, arborist, or a nursery, you also know that healthy trees can come at a hefty financial cost — including planting, maintenance, watering, leaf blowing, pruning, pest control, and removal. It's no wonder that there are more trees in more affluent communities — not because we don't want others to have the same trees — but because of lack of resources and other complex social and economic reasons. That is why TreesUpstate is a nonprofit committed to tree equity and works closely with Upstate Forever and other problem-solving organizations who tackle a host of issues such as affordable housing, transportation, clean air, clean water and economic development.

Decades of peer-reviewed research show that trees have enormous benefits for everyone in a community. Unfortunately, the opposite is also true. Low tree canopy is directly linked to an increase in social, health, education, transportation and public safety issues. But trees can also save money in both the short and long term. Trees lower heating and cooling costs. Trees can decrease heat-related emergencies and are known to reduce the temperature of an area by an average of 10°F (and, in some places, as much as 45°F)! Poor air quality is

"Trees are sources of pride and make cities more livable by providing important public health, mental health, social, environmental, and economic benefits."

- JOELLE TEACHEY, Executive Director, TreesUpstate

carcinogenic and linked to cardiovascular and lung diseases and disorders. Add bad air to at-risk areas with lower access to health care, and it's easy to see why tree inequity demands the attention of leaders and advocates like you.

TreesUpstate launched our tree equity program in 2008 in partnership with the Greenville County Redevelopment Authority. Since then, we have planted over 10,000 trees with an emphasis on underserved parks, schools, and neighborhoods with little to no existing canopy. Every tree we plant is mapped so we can track and analyze their health and survival rate. The cumulative 25-year benefits of the trees we've planted is valued at over \$5 million dollars. That amount will only grow as our trees reach 50, 75, and 100 years old and as we plant more trees.

But even if a tree is planted, that doesn't guarantee its long-term survival. Improperly planted trees require more maintenance, are more prone to pests and diseases, and have shorter life expectancies. We can avoid unnecessary and burdensome tree care costs in affordable housing communities through sound policy, enforcement, and by making sure the right people are involved in the process of planning and planting. I've seen way too many developer promises, only to find out ten years later that the frontline landscaper was ignoring rules, being lazy, or covering up catastrophic mistakes.

As a fellow advocate of our Upstate's natural resources, I know that you understand our challenges. But I'm also hopeful for the future. Trees have a way of crossing the political divide, uniting, and restoring communities. They really are amazing. So, who wants to plant some equitable trees together?



ABOUT THE AUTHOR

Joelle Teachey is the
Executive Director of
TreesUpstate. She is an
ISA Certified Arborist
and a SC Certified
Landscape Professional.
Visit TreesUpstate.org
for more information.

HEALTHY LANDSCAPES

Why plant native trees?







LITTLE TO NO FERTILIZER

NEED LESS IRRIGATION

HABITAT FOR WILDLIFE

Native plants and trees are already adapted to our local Upstate conditions, so, once established, they generally need little to no fertilizer or irrigation to thrive. They help reduce and filter stormwater runoff, which helps keep our rivers and drinking water clean. Plus, native plants provide natural habitat for a variety of local bird, wildlife, and pollinator populations.

Urban hardy native species that do well in our area include (but are not limited to):

OVERSTORY

Includes medium to large canopy trees

white oak
swamp white oak
swamp chestnut oak
overcup oak
Shumard oak
Nuttall oak
black tupelo
American yellowwood
eastern redbud
American beech
honeylocust
pignut hickory
pecan
mockernut hickory

tulip poplar Carolina silverbell

American holly sassafras

nerican nolly sassarras

eastern redcedar American basswood

southern magnolia red maple

American hornbeam cherry bark oak

hophornbeam American persimmon

UNDERSTORY

Small trees that are by definition less than 25'

serviceberry southern catalpa fringetree chalk maple red buckeye pawpaw







ASK AN EXPERT

Where are the best birding spots in the Upstate?

Birding has skyrocketed in popularity since the beginning of the pandemic, and the Upstate is a great place to engage in this rewarding outdoor hobby. We asked expert birder and photographer **Dr. Anthony G. Martin** to share some of his favorite spots to get up close and personal with local featherfolk.

I moved to Greenville in 1998, discovered Conestee Nature Preserve in 2013, and then discovered "birding" while there on a hike. On that hike I saw a tiny yellow, masked bird (a Common Yellowthroat) on the ground near a bush that reminded me of the "Lone Ranger" TV show from my childhood. This renewed my interest in photography, which I had dropped during my many years of college due to the high cost of film and developing on the low earnings of a student. By 2013, photography had gone digital and film and developing were things to forget. Today, I spend my free time engaged in various types of natural-world photography, specializing in birds.

Whether your thing is birding or bird photography, you will find in this activity a lot of fun and many pleasant experiences with like-minded people. The Greenville County Bird Club or the Keowee Clemson Bird Club are both great places to start. It's on you to get out there and give it a shot!

Conestee Nature Preserve (CNP) is less than a 10-minute drive from my home and is essentially "home base" for me. Since 2013, I have probably made well over a million image captures there, with most of those being deleted — a great feature of digital cameras compared to film!

The "dog days of summer" are the hard months for bird photography at CNP, but the birds come back starting around September and CNP becomes a stopping over place for migrants looking for a resting spot. The leaves start to drop as autumn sets in, and the birding (and photography) becomes a lot easier. For me, winter is the best time of year for photography as the colder early mornings means fewer people but still hungry birds. This time of year, it is easy to find solace and peace in the hidden places in CNP in the pursuit of images of avian subjects.

One aspect of CNP that I find amazing is the fact that we consistently, over the years, have had opportunities to get really good looks at birds that are typically hard to see up close. A notable example is the always elusive American Bittern. Their rulebooks say they have to stay hidden in the tall reeds away from people. Yet, on many occasions we have photographed them very near the observation deck in the West Bay area of CNP. They'd be right out in the open, feasting most of the day on sizable crawdads.

Even better, this year we had our first official sighting of a Least Bittern at CNP. This is a much smaller relative of the American Bittern. It is also elusive, and, due to its small size, extremely hard to get a shot of when flying. It remains hidden and then takes off from its hiding place for a short but low jaunt across the bay. But at the West Bay Observation Deck, we have gotten shots that show both a male and a female Least Bittern.

Another Upstate birding spot became a favorite of mine







(1) A male Blue Grosbeak in the grass at Dobbins Farm in Townville, SC. (2) An adult bald eagle in flight at Dobbins Farm. (3) A juvenile Fork-tailed Flycatcher sits on a fence at Dobbins Farm. (4) A female Least Bittern flies low over the marsh near the west bay observation deck of Conestee Nature Preserve. (5) A Swallow-tailed Kite feeds on grasshoppers near Greenpond Road in Spartanburg County. All photos by Dr. Anthony Q. Martin.

in 2020 during the height of the pandemic. CNP was closed for a spell, and I needed to get out. I had known of the **Dobbins Farm area of Townville, SC**, but had not spent a significant amount of my free time there.

During this time I, and several other birders who live nearby, would learn to bird from our cars! Yes, for a period of time we did social distancing by staying inside our cars instead of standing next to each other on the side of the road. Birding and doing photography from a car can work really well because the car serves as a blind, enabling you to get closer to a bird than you could if you just attempted to walk up to it. Most birds don't like people, and they tend to fly away once they see you coming (and they always see you).

Exciting sightings in the area include Blue Grosbeaks, a bird I never really got a close capture of until the pandemic drove me to Townville, and a Fork-tailed Flycatcher, a rare bird, and one of the things that make this an excellent place to spend your birding and photography time.

There are several other great birding spots in upstate South Carolina. Among them are **Cedar Falls Park** near Fountain Inn and the **South Carolina Botanical Gardens** in Clemson. However, birds know no boundaries and can be anywhere where food is found. In fact, just the other day, word came through the grapevine that Swallow-tailed Kites, large hawk-like birds, were feeding on grasshoppers in a field on **Greenpond Road in Spartanburg County**. A quick trip to that location yielded the capture shown above (*photo 5*).

ABOUT THE AUTHOR

Dr. Anthony Q. Martin is an Associate Professor of Electrical and Computer Engineering at Clemson University. He joined the Clemson faculty in 1991 and continues to teach graduate and undergraduate courses and occasionally serves as an engineering consultant for Lockheed Martin to help pay for photography gear. If you have photography-related questions, you can reach him at anthonyqmartin@gmail.com.



Bicycle Botany at Stumphouse Park



By Lauren Muller

LAND STEWARDSHIP ASSOCIATE

Imuller@upstateforever.org

Adventure tourism is on the rise and travelers are increasingly seeking new places to connect with the natural world. The City of Walhalla's Stumphouse Mountain Bike Park in Oconee is an outstanding example of how state-of-the-art trails can draw in visitors with an affinity for adventure from near and far. Upstate Forever holds the conservation easement on this property and protects it in perpetuity from residential or commercial development.

Nestled within the foothills of the Blue Ridge Mountains, the 440-acre Stumphouse Mountain Bike Park is a must-see for the rider with an affinity for botany. The park boasts over 14 miles of trails, which wind through a matrix of humid bottomland forests, ephemeral streams, moody tunnels of Mountain Laurel and dry upland stands of Loblolly Pine.

Riders will travel across damp coves blanketed in ferns,

wild ginger, and fragrant hydrangeas. This opulent tapestry of understory plants is constantly in flux, each season revealing new wildflower treasures. Be sure to stop at the edge of the Walhalla Reservoir to see Littleleaf Sensitive Briar growing happily along the border of the trail. Petite and charming, this delicate vine adorned with pink powderpuff flowers appears to be straight out of a Dr. Seuss book.

Along the Palmetto Trail, gaps in the forest canopy provide abundant sunshine for Black-eyed Susan, Goldenrod, Phlox and Wild Quinine. In the summertime, fallen petals of Mountain Laurel decorate the Lake Loop Trail like delicate confetti.

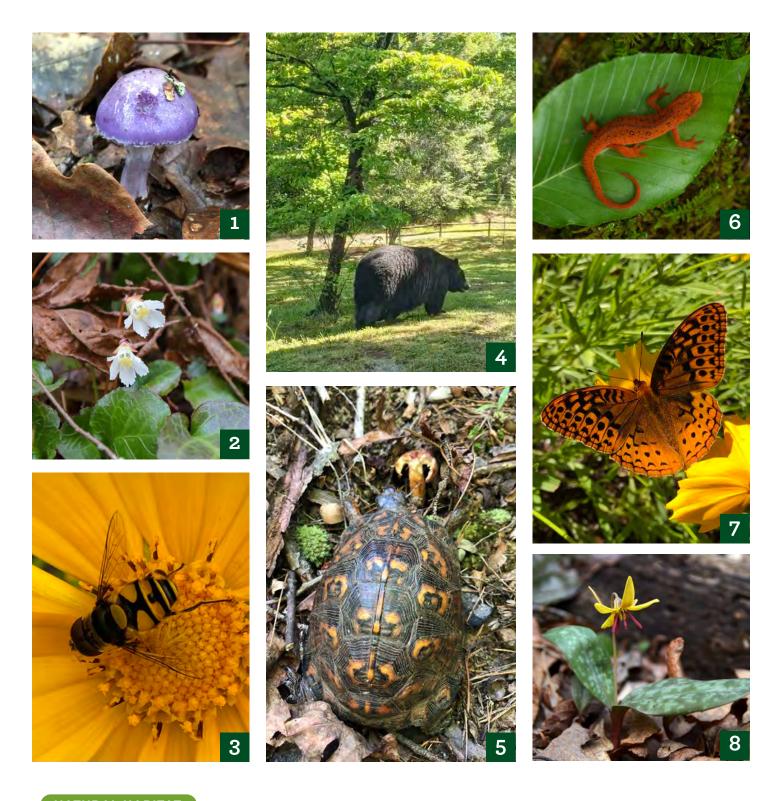
Stumphouse Park is a true gem of the Upstate that provides cyclists of all ages and skill-levels an excellent workout and a chance to experience the wildness of the Blue Ridge Escarpment region.

To learn more about the park's history, trails and amenities, visit visitoconeesc.com/stumphouse-park.









NATURAL HABITAT

Flora and Fauna on conserved lands

Upstate Forever's Land Conservation program works to protect some of our region's most critical habitat for plants and animals. So it's no surprise that we see lots of interesting lifeforms on the properties we steward. Here are some photos snapped on protected lands throughout the Upstate. (1) Viscid Violet Cort / SCOTT PARK (2) Oconee bells / MEGAN BURTON (3) Transverse-banded flower fly / DOROTHY SIGNAL (4) A well-fed black bear / MARK JORGENSON (5) Box turtle / LAUREN MULLER (6) Red eft / MAC STONE (7) Great spangled fritillary / DOROTHY SIGNAL (8) Trout lily / VAN WHITEHEAD

'Creating healthful futures'

Wofford researchers analyzed discrepancies in access to safe, high-quality parks and greenspace in Spartanburg County

The benefits of safe and convenient access to parks and natural areas are well documented. Urban parks have huge benefits for physical health, mental health, community vibrancy, and more. But the reality is that accessible greenspaces are not equally available to all, particularly communities of color and those historically and systemically underserved.

Wofford College professors **Dr. Laura Barbas-Rhoden** and **Dr. Jen Bradham** — joined by student fellows and community context experts — recently set out to evaluate the quality, location, and common uses of greenspaces within various Spartanburg communities, with a particular focus on the prevalence of high quality parks in areas with higher concentrations of Hispanic/Latinx and BIPOC (Black, Indigenous, and people of color) residents.

They layered maps, census information, and cell phone data, coupled with direct qualitative feedback from community members, to capture the full picture of greenspace equity in the City and County of Spartanburg — and shared their preliminary findings in a conversation with Upstate Forever.



Dr. Barbas-Rhoden



Dr. Bradham

Why are inclusive greenspaces so important?

Dr. Jen Bradham (JB): Studies have shown the presence and use of urban greenspaces promotes a wealth of health benefits, including decreased rates of stress, as well as lower blood pressure and cholesterol rates. The ongoing pandemic has also brought to light just how valuable greenspaces are, as they have provided a means through which friends and family can gather during a time when social distancing and fresh air circulation are critical.

Dr. Laura Barbas-Rhoden (LBR): From a personal angle, I've experienced my parents' caring relationship with places — like their own garden and local and state parks — as something beautiful and sustaining for our family. My father is an immigrant, and some complex geopolitics separated him and his siblings from lands that were in our family's care for generations. So it's always been clear to me how deep our connections to place can be, and how they can be both ruptured and nurtured.

How did your academic backgrounds influence your decision to work on this greenspace equity study?

LBR: My work in public research has drawn upon my proficiency in Spanish and familiarity with cultural contexts in Central America and Mexico. This background

helps me conduct inclusive qualitative research locally.

JB: I am a quantitative ecologist primarily working in Central and South America. I research how large, tropical mammals interact with the landscape, and how those interactions may be modified with anthropogenic climate change and land use change. Unfortunately, since COVID hit, I haven't been able to go back to South America, so I transitioned to conducting more local research.

How did you decide to embark on this project?

JB: Laura brought me into Alianza Spartanburg (a social impact network comprised of collaborators that work to facilitate, encourage, and promote the inclusion of members of the Latinx community in improving quality of life in Spartanburg County), where I was able to become more involved with what was happening in our community. From this group and regular conversations with Laura, it became apparent that there may be discrepancies in access to greenspace in Spartanburg County and the way people utilize those areas. So we set out to evaluate just that.

LBR: Jen and I share a common interest in intersectional approaches to social and environmental challenges. The 2019 study took a specific interest in inclusive placemaking with a focus on amplifying voices of

Latinx residents of Spartanburg. We chose that emphasis because Latinx residents represent a significant and growing population in the county, and yet their representation in places of institutional decision making is not yet proportionate to their percentage of the population. The moment felt right to pull together a team to further local work by gathering high-quality data and thinking about it together with community context experts who are advocates in and from Black and Latinx communities.

So you took both a qualitative and quantitative approach. Has this been done before with this subject?

JB: There was no research to date evaluating green space equity and access through a complementary, interdisciplinary lens that incorporates both qualitative and quantitative data. Yet, we have found through our research that if you want to tell the whole story, you really have to have both of these types of data. I'm the numbers side, and Laura makes those numbers human.

How did you each conduct your research?

LBR: We conducted 29 observations in June and July of parks located in the City and County. These were neighborhood parks, destination parks, and one "not park." We also talked with neighborhood, grassroots, and community leaders and people in parks who agreed to an interview —basically understanding people's perceptions and experiences as they share them in their own words. We then analyzed the qualitative data for emergent themes such as safety, connectivity, usage, amenities, and so forth.

JB: While Laura's team collected qualitative data, my team focused on quantitative data. My team assessed location and size of the parks, how much land is dedicated to greenspace in a zip code or in a census tract, and the *quality* of those greenspaces. Just because the greenspace is there doesn't mean it's high quality.

We also looked at use of those greenspaces. We have cell phone data that tells us the degree to which people are using the greenspace — when and how often they are going.

Continued >>



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Did your study yield any compelling results?

JB: Collectively, we found some pretty interesting patterns. For example, census tracts that have the highest percentage of people who identify as Hispanic are areas within the urban footprint that are completely devoid of public greenspace. So it's interesting to kind of tease out some of these patterns, and we're hopeful that this research can help direct green space development to be more equitable for these areas.

It's pretty evident that there are some serious park deserts outside of the urban footprint in the county.

LBR: Plus, some of the parks in the urban footprint are not necessarily accessible by infrastructure people would use. The only park in a census tract with a large Hispanic population is particularly low quality, and not only that, there's a lot of old rail infrastructure in the area. Navigating to that park in a car is really difficult. Navigating to the park on foot, which I had a previous research team do, is nearly impossible. You have to walk on the shoulder, and there's a lot of overgrown grass. That research team actually came back with ticks!

JB: Something kind of cool that we've seen, as someone who comes from a complete numbers side, is the power of putting numbers and stories together.

For example, Arkwright Park is a new park, and we saw basically no use from the cell phone data. But Laura's team was actually able to go to the park and interview



Spartanburg's Cleveland Park. Studies have shown the presence and use of urban greenspaces promotes a wealth of health benefits, including decreased rates of stress, as well as lower blood pressure and cholesterol rates.

Photo by Hub City Bees

"Land and water and air give us our lives, and finding ways to co-create healthful futures, collectively and equitably, is an imperative."

- DR. LAURA BARBAS-RHODEN,

Professor of Spanish at Wofford College

people there and discern that it actually gets used all the time by kids who are walking there from the neighborhood. So it makes sense it wouldn't register cell phone wise, but that park is being heavily used. We'd never have known that without both types of data. That's a really powerful tool for understanding how greenspaces are used and why they're important. That's leading to other things that we want to investigate in the future.

How will you present your findings, and what kind of impacts would you like to see from your research?

JB: The data is from the community, and we believe it belongs in the hands of the community. We make our research available Open Access on the Wofford Digital Commons (digitalcommons.wofford.edu), where the reports are available for free, in perpetuity, for anyone who would like them, at any time. Our students will present in academic venues, and we welcome invitations to speak with organizations, elected officials, and grassroots organizers. We're excited to see how others share the data with those in their networks.

LBR: This study provides a way to assess our existing parks, and determine what is needed for the future. Land and water and air give us our lives, and finding ways to co-create healthful futures, collectively and equitably, is an imperative. We're each going to engage with this work in ways that resonate with our own lives and histories, and our efforts will deepen as we find ways to be in dialogue and relationship with one another. For each action we take, we want to be living into the future we'd like to see.

Drs. Barbas-Rhoden and Bradham would like to thank student researchers Emily Arnold, Kayla Chávez, Paola Cruz, Marlen Ramírez-Alvarado, Drew Wilson, and Wade Wood; community context experts Nora Curiel-Muñoz, Angelia Edwards, Toni Sutton; and all who shared insights and data for this study.

Greenville's bold goals mean big changes.



By Sherry BarrettLAND POLICY MANAGER
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The City of Greenville has launched a once-in-a-decade process to overhaul their zoning and land development regulations: the primary tools determining how and where growth takes place within City limits.

The new GVL Development Code (which will include zoning and land development regulations) will largely decide whether — and to what degree — the City achieves the bold outcomes identified in GVL2040, the comprehensive plan adopted unanimously by City Council in 2021.

One thing is for sure — if the City of Greenville wants to achieve the goals it set out in GVL2040, it needs a new way of growing, as the plan itself acknowledges. That means significant changes from "business as usual" when it comes to how we build and develop within City limits.

What are GVL2040's goals?

GVL2040's desired outcomes are interdependent and rely on one another to ensure measurable progress on three priority issues:

- » Green Space & Environment: To preserve as much as 35% of remaining vacant land as open space or parkland to bolster quality of life and protect environmental assets.
- » Affordable Housing: To make at least 10% of all new housing units affordable.
- » Transportation & Mobility: To make alternative forms of mobility more accessible and appealing to reduce reliance on cars.

Below are some of the choices and changes that will need to happen for the City to realize its goals. Read more about Upstate Forever's advocacy priorities for the GVL Development Code and the specific policies we are working to see enacted at upstateforever.org/gvldevcode

If we want to preserve greenspace:

We must significantly change HOW we develop.

We must build UP, not out.

We must prioritize including accessible greenspace and open space as part of new development.



We must create more diverse housing options.

We must build "right-size" buildings to suit their location. That means:

Taller, larger footprint, well designed buildings along major streets.

Smaller scale, house-size buildings in walkable neighborhoods (*ie duplexes, triplexes, mansion apartments, cottage courts*).

If we want to reduce cars on the road:

We must significantly change how and where we develop.

We must create pockets of higher density, walkable, mixed-use development to make efficient public transit feasible.

We must invest in "complete streets" infrastructure for walking, biking, and transit.







Want to help shape Greenville's growth? For updates and action alerts related to growth and land use in the City and County of Greenville, join our dedicated mailing list by visiting upstateforever.org/email.







RECENT LAND PROTECTION

600+ acres conserved in Abbeville County

We're delighted to announce the recent protection of two properties in Abbeville County totaling 664 acres. **Morrow Creek Timbers** is a nearly 430-acre property comprising hardwood forests, 30 acres of wetlands, and a six-acre pond. **MROS Preserve** is approximately 239 acres of pine and hardwood forest and frontage on Gill Creek, a tributary of the Savannah River. Grants from the South Carolina Conservation Bank made possible these conservation projects that will contribute to the protection of forest, wildlife habitat, and water quality in the area.

These two properties are directly adjacent to each other and near to a third property previously placed under a conservation easement with Upstate Forever. The Natural Resources Conservation Service and the Upper Savannah Land Trust also protect properties in the area, combining efforts to make significant strides to protect water quality while ensuring future production of working lands.

Together, these protected lands have a tremendous potential to influence the water quality of the Savannah River, the sole source of drinking water for the county, as well as critical natural resources and wildlife habitat.

Both Morrow Creek Timbers and MROS Preserve include prime soils (having physical and chemical characteristics as determined by the United States Department of Agriculture). They are also home to a spectacular array of wildlife, including white-tailed deer, grey and red fox, bobcats, black bear, and quail.

Preserved: 42 acres of Oconee bell habitat

Taychoedah, derived from a Native American word meaning "camp by the water," is a 42-acre property near Lake Keowee in Oconee County. The location and unique properties of this land provide suitable habitat for the propagation and enhancement of the rare Oconee bell. Protecting properties such as Taychoedah, located within the known geographical range of its historical distribution and appropriate moist and wooded conditions, are imperative to the future of this rare, endemic plant species. The protection of this property also helps safeguard water quality on Cornhouse Creek, a tributary of Lake Keowee.

DO YOU OWN LAND YOU'D LIKE TO PROTECT FOREVER?

Our Land Trust helps landowners preserve their legacy through voluntary conservation easements. You continue to own the land, and you may realize significant tax benefits. Funding may also be available. For more information, email Scott Park, Glenn Hilliard Director of Land Conservation, at spark@upstateforever.org.

RECENT LAND PROTECTION

White Tract in Northern Greenville adds 300 acres of protected wilderness near Jones Gap

Upstate Forever's Land Conservation team recently protected 300 acres in northern Greenville County in partnership with the South Carolina Department of Parks, Recreation & Tourism (SCPRT).

The property, which is owned by SCPRT and known as the White Tract, significantly expands protected acreage in the Blue Ridge Escarpment area near Jones Gap State Park, Mountain Bridge Wilderness Area, and other protected lands owned by SCPRT, Naturaland Trust, and The Nature Conservancy.

Although not currently open to the public for outdoor recreation, future public access is planned to help meet growing demand for natural areas and expanded park access along the Blue Ridge Escarpment.

"The protection of the White Tract property is coming at a time when outdoor space has never been more treasured, and outdoor recreation demand is at an all-time high," said SCPRT Director, Duane Parrish. "Our Mountain Bridge Wilderness Area offers some of South Carolina's best hiking and most scenic mountain views, and protecting the White Tract property ensures the land will be available for generations of South Carolinians to enjoy."

In addition to serving as future park lands, the protection of the White Tract will contribute to the conservation of water resources and habitat for plants and wildlife. The property contains the headwaters of the Middle Saluda River with critical waters for reproducing trout populations. It is entirely forested with pine and hardwood canopy with an understory of rhododendron, mountain laurel, silverbell, and American holly.















Top: Members of the Grant Family, UF, and the SC Conservation Bank cut a ribbon commemorating the property's protection. **Center left:** The weather was perfect for this outdoor event. **Center right:** Hoyt Grant and granddaughter Laura. **Bottom:** Grant Meadow will continue to be managed as a hay meadow.

RIBBON CUTTING

A celebration of the iconic Grant Meadow

Upstate Forever was joined by the Grant family, South Carolina Conservation Bank, and others to celebrate the recently expanded protection of Grant Meadow in Pickens County. Nestled at the base of Table Rock and hugging Cherokee Foothills Scenic Highway 11, the recent addition of 21 protected acres joins a 36-acre property that was placed under a conservation easement by Hoyt and the late Laura Grant in 2013.

A partnership between Upstate Forever and the landowners, as well as a grant from the South Carolina Conservation Bank, made this conservation success possible. The scenic vista is one of the most photographed spots in South Carolina. Pickens County recently completed a pull-off for visitors to safely view this protected property.

IN MEMORY OF LAURA GRANT

Born and raised in Pickens County, Laura Ann Grant was one of 11 children, and therefore knew the importance of family, something that continued when she married her high school sweetheart, Hoyt Grant. She also



knew that home was where the heart is, and the two made upper Pickens County "home" not just for themselves but for their entire family. Through genuine acts of Southern hospitality, they shared their love of the Upstate with everyone.

Laura had a gentle spirit and could put anyone at ease, whether family, friends, or strangers. We are deeply saddened by her recent passing and forever grateful to her and her family for their generous role in protecting some of the Upstate's most treasured places.

A FOND FAREWELL

Thank you for 13 great years, Shelley!



We bid **Shelley Robbins**, former Energy & State Policy Director, a bittersweet farewell this spring after 13 years at Upstate Forever. Shelley has been a stalwart defender of the Upstate's natural resources and a tireless advocate for clean energy and forward-thinking policy. She was the UF lead in the years-long Kinder Morgan gasoline spill lawsuit, which resulted in \$1.5 million for water quality projects in Anderson County. Shelley also worked to prevent unnecessary pipeline infrastructure in the Upstate, a planned mega-landfill in Spartanburg County, a coal ash landfill in Pickens County, rate hikes on energy bills, and much, much more. Truly, every single resident in the Upstate owes her a debt of gratitude. Cheers, Shelley!

Welcome, new board and staff members!

BOARD OF DIRECTORS

Evan Cramer is CEO of Willey Family Ventures, a fourthgeneration, family-owned diversified group of companies based in Greenville. Evan received his bachelor's degree from Washington and Lee University and holds a Master of Business Administration and Master of Historic Preservation degrees from the University of Georgia. Evan has served in various roles as an intern, volunteer, and board member for several conservation organizations in the Southeast. Evan lives in Greenville with his wife and four daughters. He enjoys spending his spare time with his family, as well as mountain biking, hiking, hunting, fly-fishing, and playing golf. For more board bios, visit **upstateforever.org/board.**

UF STAFF

Lauren Muller comes from the State Botanical Garden of Georgia in Athens where she served as Conservation Outreach Coordinator. She earned her bachelor's and master's degree in horticulture from the University of Georgia and is experienced in the areas of native plant propagation, habitat restoration, invasive species management, and plant conservation networking. She is delighted to join the UF team and apply this knowledge through her work as Land Stewardship Associate. For her full bio, visit upstateforever.org/team.

CLEAN WATER

Be septic smart



By Erika Hollis
CLEAN WATER DIRECTOR
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It's not the most appealing topic, but healthy and properly functioning septic systems are critical to protecting local water quality.

When a septic system isn't properly maintained, homeowners might experience untreated sewage backups in their homes or yards. That untreated sewage can contaminate surface or ground water with bacteria, viruses, and pathogens.

Septic tanks should be pumped every 3-5 years and the average cost typically ranges between \$250-500. For perspective, repairs to a failing septic system cost on average between \$3,000-\$5,000 and upwards of \$10,000.

By investing in routine septic maintenance every 3-5 years, you can help keep your system working properly, protect water quality, and save money.

If you think your septic system is malfunctioning, the first step is to call a septic professional to assess the problem and identify solutions.

Thanks to funding from SCDHEC, Upstate Forever can pay up to 60% of the costs for interested landowners in select watersheds to repair or replace failing septic systems. Currently, we have funding available for projects in the North, Middle, and South Tyger River watersheds as well as the 3&20 Creek watershed.

To see if your property falls within the grant funding area, and to learn more about the importance of septic system upkeep, visit upstateforever.org/319grants.



Protecting Land & Water | Advocacy | Balanced Growth

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