







Beth Sullivan is a self-taught naturalist, educator, writer, and passionate defender of the forestlands and

waterways of southeastern Connecticut. She has served as chair of Avalonia Land Conservancy's Stonington Town Committee where she led the effort to rehabilitate the Hoffman Evergreen Preserve among other projects. We caught up with Beth to learn more about her conservation work and sharing the gift of nature with children.

What is your favorite time of year to hike?

Emerging spring and early summer. Everything is new and exciting. I am always searching for my "firsts"—first peepers, salamanders, osprey, phoebe, purple martins; first blooming wildflowers; skunk cabbage. Spring, for me, is the slow wander: stop, look, and listen. Remember birdsongs and notice the shades of new green. Hope.



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On the cover: Jahnyah Lumpkin enjoys a sunny paddle while on a wilderness trip with Outside Perspectives.

In addition to Hoffman, what are some other Avalonia projects you're currently working on?

Avalonia has about 1200 acres in Stonington alone. As a coastal town, we face some unique climate challenges, such as sea level rise and erosion on several properties. We have been working to save Dodge Paddock from eroding into the sea, living shorelines, native plantings, marsh migration buffers. At Copps Brook, our newest preserve, we are thinking about how to make an accessible trail and an area for those with disabilities to enjoy nature.

If you had one piece of advice to share with other land trusts, what would it be?

It has become important to look at the bigger picture. How is the health of the larger forest? How can we focus on connectivity and the value of the land and waterways? Educate the community; get neighbors engaged and on board. We all have to set priorities based on a bigger picture. But never forget to be intimate with the land itself.

What do you most love about spending time outdoors with children?

I don't have to be super scientific with kids, but mostly enthusiastic and supportive of their natural curiosity, dispelling unbased fears without judgement, and rewarding their natural powers of observation. If a child develops curiosity, they learn to love and respect nature. They will grow to be the ones who want to protect it in their own lifetimes. My grandkids are my hope for the future. Being with them in nature brings me my greatest joy.



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Editor's Note

In late February, news spread that Falco, a Eurasian eagle-owl who had escaped from his enclosure at the Central Park Zoo a year earlier, had died after crashing into a window on West 89th Street. It was a tragic end for a bird who'd achieved celebrity status and been named "the Ultimate New Yorker" by the New York Times. Sadly, Falco's story is far from unique. According to the National Audubon Society, across the country a billion birds are killed each year from collisions with windows.

At the time of Falco's death, we had already accepted Elaine Zimmerman's poem, "Instructions for Birdsong," for this issue of Woodlands. It is a poignant elegy, one in which Zimmerman not only invites the reader to contemplate the value of a bird's life but also offers hopeful actions that people can take—such as planting trees and shrubs—to help prevent these untimely deaths.

At times, ours can feel like a deeply troubled and uncertain world, and yet, the world persists. Each spring, daffodils and crocuses push upward to feel the sun's embrace. Leaves burst forth, blanketing the landscape in every shade of green. The delicate pink flowers of redbuds sparkle like jewels in the forest. And against all odds, millions of birds who've spent the winter in places as far away as South America, return home to New England to nest and raise their young as they've done for generations.

As environmentalists, we face innumerable challenges—from fighting climate change and saving imperiled species, to making our forests and parks more accessible and welcoming for all. It can feel overwhelming at times. But we must not lose sight of the beauty and joy that surrounds us. So, pull out that daypack, dust off those hiking boots, and hit the trail. I guarantee it will make you feel better and inspire you for the fight ahead.

I'll see you outside,

Timothy Brown

The Connecticut Forest & Park Association, Inc.

The Connecticut Forest & Park Association (CFPA) is a 501c3 nonprofit organization that protects forests, parks and the Blue-Blazed Hiking Trails for future generations by connecting people to the land. Since 1895, CFPA has enhanced and defended Connecticut's rich natural heritage through advocacy, conservation, recreation, and education, including maintaining the 825-mile Blue-Blazed Hiking Trail System. CFPA depends on the generous support of members to fulfill its mission. For more information and to donate, go to ctwoodlands.org

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SETTING FOOT ON A NEW TRAIL

brings a rush of excitement and a refreshing sense of discovery. Yet, the best part of a hike is settling into a steady pace and appreciating the sights, smells, sounds and feel of the forest.

As the new Executive Director of CFPA, there is much to appreciate. My walks and talks with our community are inspiring and affirm our shared commitment to conserve Connecticut for today and tomorrow.

I'm a newcomer to Connecticut, but my roots here run deep. My mother's family lived in Fairfield County for almost 90 years. The woods and granite boulders behind my grandmother's house loom large in my memory. Today, as I work towards my first 50 miles on Blue-Blazed Hiking Trails, I remember that magic but now see it with fresh eyes. CFPA has an amazing legacy of achievement. Our core forests, Blue-Blazed Hiking Trails, parks, and urban green spaces are within the grasp of every resident of the state. How can we work together to promote them and inspire the next generation of environmental stewards?

The answer is not far off. CFPA's land conservation, trail stewardship and education programs are having a positive impact, and we remain an effective force in Hartford and our nation's capital. Together, we have a once-in-a-lifetime opportunity, embodied in our strategic plan. We can integrate the best of the traditional conservation movement with powerful values that are making Connecticut's great outdoors accessible to all people and well-managed to help fight climate change.

Our office is buzzing with expectation of the arrival of CFPA's Woodlands Trail Crew. Clare Cain and her team are identifying projects, fresh off their recent advocacy victory of the designation of the New England Trail as a National Scenic Trail unit of the National Park Service.

Our award-winning Master Woodland Manager program is setting a new standard for the stewardship of land. And, our long-standing partnership with the Friends of Goodwin Forest, the State Department of Energy and Environmental

Protection, and others are empowering Master Naturalists to share their love of the outdoors. There are many more partners I have yet to meet!

Our Winter Wonder Blue-Blazed Hiking Challenge enticed new friends to explore our trails on the coldest days of the year, and our February Blue-Blazed News & Brews gathering was sold out.

For all of our great momentum, and promising future, we must stay vigilant and protect the gains we have made. The State's Passport to the Parks program creates equitable access to state parks for all people and is gearing up for another great season, but it faces threats from forces that would undermine it. My recent testimony to the General Assembly reminded me that we must not take these programs for granted. Your voice matters to our elected officials.

Throughout all of this, I've been reminded that a journey is not just what you accomplish, but who you bring with you. We are a community of caring supporters, dedicated volunteers, and talented professionals. I can't help but also mention Bo (one of our three well-mannered and handsome office dogs) who greets me daily and invites me to take the occasional noon-time walk in Highlawn Forest.

I am grateful for the warm welcome extended by many of you. CFPA is doing incredible work thanks to the remarkable leadership of our Board of Directors and my predecessor. Our path forward is clear, and the opportunity we share is one we must continue to nourish.

See you on the trail!

Andy Bicking is the Executive Director of CFPA.



Pachaug Trail: Green Falls Pond to Beach Pond

By Adam Heckle

n order for humans to create better relationships with the land and develop a sense of belonging to a place, they must have equitable access to natural spaces. Without that access, the lessons that nature can teach us are never learned. This is why I dedicate my time volunteering with the regular upkeep of the Pachaug Trail. Through this position, I feel a great sense of purpose and responsibility by granting others the opportunity to get outside, learn, and discover their own sense of belonging.

With the help of my partner, Catherine Hinojosa, I manage the Pachaug Trail from Green Falls Pond to Beach Pond, including the Nehantic Crossover and Laurel Loop side trails. The 24-mile Pachaug Trail is located within the Pachaug State Forest, the largest state forest in Connecticut. The word "Pachaug," an Algonquin term that loosely translates to "place where a

river turns or bends," refers to the river that slowly winds its way through the rugged land.

It is an outdoor enthusiast's dreamscape. In the spring, one can observe both migrating birds, like warblers and thrush, and resident ones, such as red-tailed hawks and barred owls. Early flowering spring ephemerals like trillium

and trout lilies cover the trail sides, soon to be replaced by the blinding white and pinks of mountain laurels. In the summer, huckleberries and blueberries offer a free, healthy snack, and on the hottest days, I enjoy finding large, moss-covered boulders along the streams for a picnic. Depending on the mood of the day, I might observe aquatic organisms, draw, play guitar, meditate, or simply take my shoes off and walk around, allowing the forest to take over my senses. One thing is for sure: I always bring my camera and an identification resource for plants and animals.

In the fall, I harvest sweet fern and sassafras leaves before they are lost to the winter freeze, and collect seeds for future garden and restoration projects. This is also my favorite time

to dip my kayak in Green Falls Pond or Beach Pond to observe the fall foliage. It is an explosion of colors and sensations.

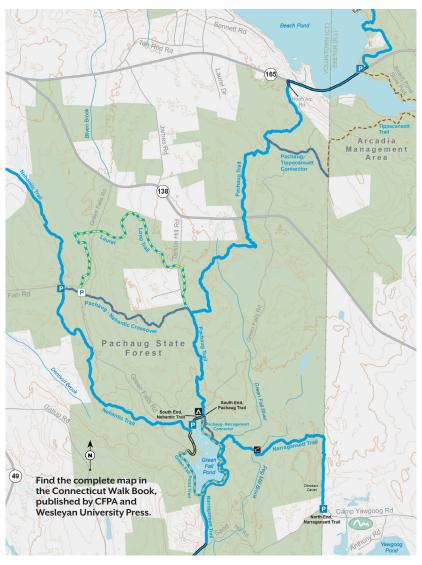
Other recreational opportunities include cross-country skiing and ice fishing. Unfortunately, these hobbies may soon be lost to a warming climate and become mere stories told around a campfire.

reen Falls Pond is located on the southeastern end of the Pachaug Trail. It's a serene reservoir created by the Civilian Conservation Corps in the 1930s. From the pond, the trail heads north over low elevation, uneven terrain layered with shallow rocky soil, countless glacial erratics, and exposed lichen-colored outcrops, all reminders of the last ice age. This unique environment creates a web of habitats and conditions suitable for many hardwoods, especially oaks, who, in recent years, have been under extreme stress. Several years of drought and a rise in spongy moths has led to serious defoliation and die-off. The loss of so many oaks is affecting birds and mammals who depend on the trees for food and shelter, and creates greater risk for wildfire. With the threat of falling trees, we urge everyone to take caution when recreating or camping in affected areas.

The nonprofit Friends of Pachaug Forest (FOPF) partners closely with CFPA and state agencies to help keep the Pachaug Trail in working order by clearing downed trees and informing the public of trail conditions. The loss of our oaks has kept them extremely busy. Last year, FOPF cut and cleared over 550 fallen trees, and as of January 2024, cut another 114. Without their consistent efforts, we Trail Managers would not be able to keep up.

Along with keeping trails clear of obstruction, some of my other favorite responsibilities include improving blazes for navigation, invasive plant removal, fixing and repositioning signage, and trail relocation.

CFPA is Connecticut's largest platform for community engagement in conservation. For almost 130 years they have worked to ensure our forests remain intact for future generations.



Without help from the public, their efforts would not be possible. Whether you are a conservation professional, a nature enthusiast, or someone who enjoys physical challenges or peaceful walks, I urge you to contact CFPA to find your niche in the forest.

Most of all, remember, it isn't just the organization that needs the help; it's our rivers, our forests, and our wildlife. But most of all, it's for you and the generations not yet born.

Adam Heckle is an artist and conservationist who holds a Bachelor of Science degree from the University of Vermont. A member of the Montville Conservation Commission, he is currently renovating a 100-year-old homestead with his partner, Catherine Hinojosa. Over the past decade, he's put in 1,000 hours volunteering for various conservation organizations.





e always knew we wanted to raise our family where there were deep forest trails to wander and access to brooks and streams; where children—and their grownups—could listen to quietness. We found that place when we discovered Avalonia Land Conservancy's Hoffman Evergreen Preserve. Back then, in the mid-80s, there were no cell phones or interactive maps, so we simply wandered the network of trails, observing, imagining. It quickly became our favorite.

As soon as we stepped into the preserve, we felt like we were in a different world—deep, dark, green, and quiet. Standing still we could pick out the songs of forest birds: wood thrushes, veeries, nuthatches, ovenbirds. The cushioning of needles along the trail made it easy to believe we were truly lone explorers; the rustle of leaves meant a squirrel or chipmunk was nearby.

This is exactly what Mr. Hoffman had envisioned decades ago when he planted acres of hemlock, spruce, and pine to remind him of his beloved northern evergreen forests. The groves were cool in summer, and in winter, we walked there when we craved some green.

As time passed, we became aware that the forest was changing. It was quiet, but it was a quiet consumed with emptiness. The hemlocks became thinner, under attack by the woolly adelgid. Gypsy moths, now known as spongy

moths, feasted on oak leaves. The forest was not thriving. Its trees were sick.

In 2010, I became more involved with Avalonia's Stonington Town Committee. Others on the committee shared my concern about Hoffman and agreed we needed some guidance. In 2016, a team from the Connecticut Audubon Society and the Connecticut Agricultural Experiment Station visited the preserve. We walked together, looking and listening. There were still some forest birds making use of the tall old trees and snags. Woodpeckers, including the pileated woodpecker, for example, were abundant, and we saw a scarlet tanager, but very little else. There was little or no understory growth beneath the hemlocks, which were tall, spindly, and crowded, with greenery only at the very top.

The team's recommendations were hard to read: the canopy needed to be opened to allow light to enter. This

We couldn't replant species that would be subject to the effects of climate change.



A cutaway reveals a dense, and unhealthy, hemlock stand.



It was a challenge to haul tools, plants, and water into the preserve.

would require acres of clearing, something a team of volunteers simply could not do. We needed professionals and it would be expensive. We hesitated. But over the next few years, we saw more death. Oaks, broken or uprooted, crashed onto the trails. Beeches developed diseases, their foliage decimated by various caterpillars. Drought stressed everything and windstorms toppled pines. Deadwood created fire hazards during summer. The forest looked terrible.

n 2018, we took a leap and engaged a forester who suggested a pattern of patch cuts and thinned areas. The harvested wood would pay for the project. It made sense to my head but not my heart. I couldn't quite envision what the outcome would look like. Still, the Stonington committee agreed to move forward, and the Board of Directors approved the plan. I knew there would be a lot of backlash, so I reached out to neighbors, contacted the media, and wrote blogs.

But I was not prepared for what followed. The cutting was heartbreaking. Seeing and hearing machinery in those quiet woods was jarring and painful. The preserve was closed during the harvest activity, but I was allowed to go in with the forester to observe the work. I wanted it to stop. When they were finished, there were five patch cuts, each about an acre-and-a-half. But the thinning and skid trails seemed to impact everything. It looked like a tornado had gone through.

The following winter was really hard. The trail didn't wander through green groves in quite the same way. When spring came, so did Covid and suddenly everyone was outside hiking. No one liked what they saw. I was accosted, sworn at, cursed. There were angry letters to the editor and to Avalonia. I tried to explain our goals to the media. In the meantime, we had to decide whether to let things regenerate naturally, or to be proactive and plant seedlings. If we did plantings, we knew we couldn't replant species that would be subject to the effects of climate change that had devastated the forest. We wanted species that would support wildlife for generations to come.

We thought about planting some mid-Atlantic species that would be more tolerant of warmer temperatures. Juliana Barrett, a UConn Extension Educator with the Connecticut Sea Grant program who had previously worked with me, suggested that this could be a good project for her Climate Corps students. Together, we began to research southern species appropriate for the varied sites at Hoffman. One student noted orientation and sunlight exposure, and consulted soil and hydrology maps; another researched appropriate plants. It was interesting to discover that the native ranges of some species were already moving northward. The students analyzed the strengths and weaknesses of potential tree and shrub species so we could make more informed decisions about what to plant. We chose sweet gum and persimmon, which are not common in this region but have been known to survive in our hardiness zone, and tulip and tupelo, already here at the northern edge of their zone. We speculated that trees sourced from mid-Atlantic stock might have a genetic preference for warmer temperatures, and selected evergreens with greater heat tolerance, such as Virginia, longleaf, and loblolly pine, to replace our beloved hemlocks. We chose native species of oaks and hickories, important food sources for wildlife, and redbuds for their beauty.

We also took forest succession into consideration, including shrub layers and edge habitats. For these areas, we chose fruiting, seed, and nut-bearing species such as viburnums, dogwoods, hazelnuts, and sumacs.

cientists call what we were doing "adaptive planting" or "assisted migration;" simply put, helping forests adapt to a warmer world. The migration of tree species is not comparable to bird or insect migrations. It might only take a decade for a population of birds to move northward and become established in southern Connecticut, but it could take hundreds of years for loblolly pine or persimmon trees to gain a foothold here. The Hoffman Preserve and its attendant wildlife could not wait centuries.

We wanted species that would support wildlife for generations to come.



We witnessed an explosion of diversity during the first growing season.

By planting species more resilient to our future climate, and planting numbers of the same species, we hoped that the trees would not merely survive, but reproduce. A true test of adaptation.

Over the next two years, we called on our amazing volunteers, from Cub Scouts to seniors, to help us. It was not easy work. The soil was rocky. We had to tote tools, plants, and water far into the woods on narrow, rooted hiking trails. Everyone felt a sense of accomplishment. We were trying to help save something we all loved, and planting trees symbolizes hope for the future. Even as we planted, bluebirds, a species that had not been present before, appeared in the clearing. They are nesting there now.

We monitored the sites and documented the location of each of our plantings. We encountered some challenges we had not expected. Black birch seedlings took advantage of the new light; invasive plants also liked the new openings. We've had work parties dedicated to managing the birch, cutting them back to give other young saplings room to grow. These days I always bring clippers when I walk through the various sites. I also take photos at designated areas for our records and for comparison over time. I walk through the patch cuts, locating our plantings and noting their condition. While we have experienced some losses, many trees are thriving.

Natural regeneration has amazed us. One patch cut is growing more meadow plants that attract pollinators; another is covered with native blueberries and huckleberries. The viburnums, dogwoods, and shadbushes we planted have started to bear fruit. The wildlife abundance is amazing. With more light, there are more flowering plants that, in turn, attract insects. Insectivorous birds such as flycatchers and warblers that nest in the woods come to the openings to forage. Eastern towhees sing from the thickets. Orioles nest in the tall trees at the edges. Bluebirds and finches are abundant. The local chickadee, titmouse, and nuthatch numbers have multiplied. There is a greater



Four photo points document the changing landscape. This photo was taken just after two growing seasons.

abundance of small mammals, and more predators and birds of prey have been sighted.

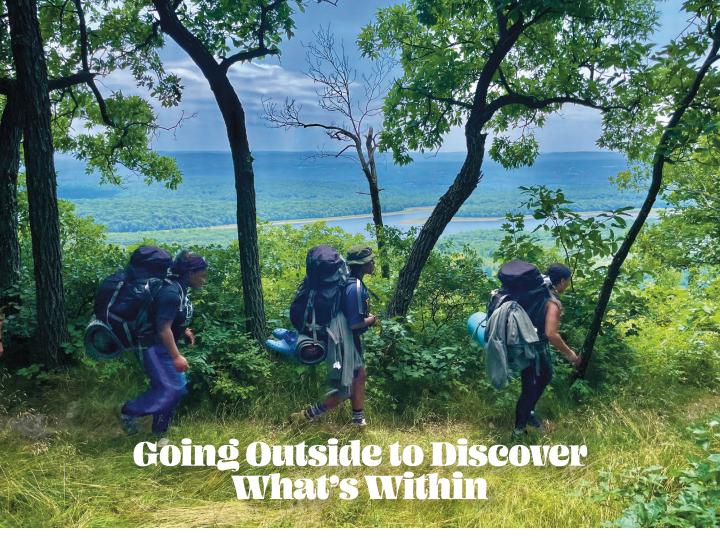
The skid trails no longer look like raw scars. The thinned areas have young native trees and shrubs coming in on their own. It is heartening to see the increased diversity. We left stumps and root systems so the mycorrhizae could continue to communicate underground, and the stumps are sprouting. We left large areas untouched so the deep forest habitat and "feeling" is still present, but now Hoffman has light!

It's particularly satisfying when I hear folks say the forest is much more alive. Hikers post wildlife sightings. Other land trusts have visited the preserve as they contemplate their own projects. Our volunteers go back to check on "their plants," and the Scouts will be able to watch the forest mature for decades to come. We have opportunities for long term research, such as studying the rate of invasive regeneration in a healthy young forest and will have students and interns monitor the plantings. We have also posted interpretive signs in the hope that visitors will become engaged in making their own observations over time.

Climate change is happening faster than scientists expected and with more far-reaching impacts. I feel a great sense of relief—and pride—that we have already witnessed a rebirth of sorts at Hoffman. While we had scientific evidence, and plenty of help, it was an act of faith that our efforts would lead us to where we are now. And hopefully the Hoffman Evergreen Preserve, with its abundant life and stands of green in winter, will be resilient to whatever the future brings.

Beth Sullivan is a nurse by training, but her passion is exploring and studying nature. She has taught natural science classes and led field trips for elementary students, and she is an active member of the Avalonia Land Conservancy where she's involved in education and stewardship. She especially loves cultivating children's innate love of nature in the hope that they will become future caregivers of the Earth.

It's particularly satisfying when I hear folks say the forest is much more alive.



The New Hartford-based nonprofit Outside Perspectives is transforming youth through wilderness adventures. For many participants, it's their first time in a natural setting, but will not be their last.

By Jennifer Sprague

s 14-year-old Jahnyah Lumpkin double-checked her gear and prepared to set off into the woods for her first overnight hiking trip, she was nervous, but also excited.

Tent. Check.

Sleeping back and sleeping mat. Check.

Two full Nalgene water bottles. Mess kit. Headlamp. Extra clothes. Check, check, check, check.

She also carried her share of group gear: food and cooking supplies, hygiene and first aid kits, and gear repair items. Lumpkin and a half-dozen of her teammates from Charter Oak Boxing Academy were about to embark on a 4-day hiking and paddling expedition with Outside Perspectives, or OP, a New Hartford-based nonprofit that offers wilderness experiences for youth in Connecticut and central Massachusetts. OP works to reduce barriers to the outdoors for young people, especially people of color and disconnected youth in middle and high school, through team building workshops; rock climbing, hiking, snowshoeing, and paddling days;

overnight backpacking trips; and multi-day backpacking and paddling expeditions.

Before joining the OP program, Lumpkin, a Hartford native, had never been camping, kayaking, or backpacking. Neither had most of her friends at the gym.

"We've known about camping, but how do we get there? What is the equipment? We had never been exposed to these experiences. If you don't have a history of your family doing these things, it won't translate to you," she said.

We get a lot of kids that say, I'm not outdoorsy; I'm a city kid. There is this history behind the question of where people belong.

Nicola Wood



They come back with greater self-esteem, greater confidence, and greater camaraderie.

Johnny Callas

The same is true for so many young people in Connecticut, particularly in urban areas, says OP Executive Director Nicola Wood. "Have you ever been to a gym for the very first time and it's so intimidating?" she asked. "In the wilderness, there is no front desk. Someone needs to show them the way."

As Lumpkin and her teammates reached the top of Bear Mountain, Connecticut's tallest peak and their first summit of the expedition, it didn't feel real. "None of us had seen anything like it," she said. "It looked like something off a calendar. I still have the picture."

By providing programming, instruction, gear, and transportation at no charge to participants, OP is overcoming many of the more obvious barriers to accessing the wilderness. Last year alone, they hosted over 330 kids from 37 towns. Still unspoken barriers and issues of inclusivity in the outdoors run far deeper. OP is committed to the long-term work of breaking down these barriers so more young people feel at home in nature.

"We get a lot of kids from urban areas that say, 'I'm not outdoorsy; I'm a city kid,'" Wood said. "There is this history behind the question of where people 'belong,' and these images that come to your head about what an outdoorsy person is. When you're in an unknown place, you don't feel

like you belong; it's almost an instinct that you have. It's going to be a long time before we can solve those really entrenched barriers."

umpkin's coach, Johnny Callas, founder and executive director of COBA, credits adventure-based learning with creating leaders and building trust in the ring at his boxing gym.

"I have a lot of really streetwise kids who can manage themselves in the concrete jungle of Hartford, but if you put them out into the wilderness, it's a whole different experience," he said. "I think what they can learn about themselves and their teammates in a 4-day trip would take a year in our program, and we have a comprehensive program."

Callas, Outdoor Perspective's first partner, estimates that 250 of his boxers have been on an OP-led outing or expedition over the past seven years. OP's unique model of bringing groups of kids from existing programs on expeditions together ensures they can lean on their shared experiences when they return.

"They come back with greater self-esteem, greater confidence, and greater camaraderie," Callas says. "They know

If you don't have a history of your family doing these things, it won't translate to you.

Jahnyah Lumpkin



they can rely on each other. They grow friendships and they elevate our program in doing so. It's a profound experience."

Just like in the boxing ring, in a wilderness setting, Lumpkin and her teammates knew they had to trust one another and their instructors.

"We always had to watch each other's backs, like making sure everyone got their food for dinner," she said. "It was small things, but it comes down to overall care for each other."

Youth aren't allowed to bring cell phones on the trip. With fewer distractions, Lumpkin and her friends were more engaged in the present moment. When they weren't hiking or paddling, they were setting up camp, cooking, playing games, holding singalongs, or journaling.

Not having a cell phone was "a struggle at first," Lumpkin admits. "But as the trip went on, we realized we didn't need them. Out there, we always had something to do, and we had each other."



On that first expedition, Lumpkin felt a passion ignite in her. She signed up for two more trips over the next two years, including an alumni trip in 2022. Now a freshman at the University of Connecticut, Lumpkin is a member of the university's outing club and intends to keep the outdoors as a central focus in her life. Her experiences with OP fostered her love of nature and provided opportunity for introspection.

"Without OP, I probably wouldn't have been able to reflect so clearly or so deeply," she said. "Every child should experience being outside. It has some kind of transformative power to see what's in yourself."

Jennifer Sprague is a marketing professional and freelance writer. She is the Secretary-Treasurer of the Meriden Land Trust. Her favorite outdoor activities are camping and snowshoeing.

Every child should experience being outside. It has some kind of transformative power to see what's in yourself.

Jahnyah Lumpkin









Top: Oyster larvae, or spat. Above: Chef Emily Mingrone at Fair Haven Oyster Company. Photo by Winter Caplanson.

always had an oyster bar in the back of my mind," says New Haven-based chef Emily Mingrone. "For years I wished there was a waterfront hole-in-the-wall where we could get really great seafood."

In 2022, that dream became reality when the award-winning restauranteur, who along with business partner Shane McGowan also owns the acclaimed Tavern on State and Provisions on State butchery, opened Fair Haven Oyster Company, an unassuming yet elevated seafood experience located in the city's Fair Haven neighborhood. Nestled amidst a working marina on the Quinnipiac River, it has a cozy, mid-century aesthetic, complete with wood paneling and round windows that give it a nautical feel.

"The location is really special," says Emily, the first woman to be named "Chef of the Year" by the







Left to right: Kris and Beth Simonds of Stonington Farms Shellfish. Cages protect growing oysters from predators. The finished product on the half shell.

Connecticut Restaurant Association. "This area was rich with oystering history for centuries. It feels like we are tapping into these roots that already existed."

The restaurant features a variety of seafood, but many patrons come for the oysters before moving onto other items. "Sometimes there's somebody who's never tried oysters before, and we'll lead them through the experience," Emily says. She recommends trying six different types to get a sense of the subtle differences between oysters.

Oysters have been part of the local diet for millennia. Historically, Indigenous people ate both fresh and smoked oysters; shells were used as tools. Piles of shells, what archeologists call *middens*, have been excavated along the shoreline from Greenwich to Stonington, with some dating back 3,000 years. Oysters continued to be a major food source during the colonial period and have shaped the state's economy and identity. Today Connecticut boasts a \$16 million shellfish industry that supports over 300 jobs.

Despite their popularity, some people have the misconception that raw oysters are unsafe to eat. The rare report of someone falling ill after consuming oysters can scare off many would-be customers.

For Chef Emily, it all comes down to responsible sourcing. "Taking care of your product and knowing where it comes from eliminates a lot of the possibility for those contaminants. Honestly, that feels like the biggest part of my job, and not only specifically oysters; I feel that way about

my relationships with all local farmers," she says. "Just don't be afraid and let us show you what a good oyster is like." Il Connecticut farmers raise eastern oysters (*Crassostrea virginica*), one of five species found in the U.S. Exactly where and how they're farmed determines the variety of sizes, tastes, and textures you'll find at your local raw bar. It usually takes between 18 months and three years to grow an oyster for market depending on specific farming practices, environmental conditions, and other factors.

While some farmers raise oysters entirely on the surface or along the ocean floor due to location or local regulations, the folks at Stonington Farms Shellfish use a combination of both surface and bottom culturing, handling each oyster roughly 40 times before harvest. The farm, located at the mouth of the Mystic River, is owned by husband-and-wife team Kris and Beth Simonds, along with Beth's best friend and business partner, Dana Hines. Even Kris' son, Jake, helps. "It's truly a family farm," Beth says.

They start by cultivating hundreds of thousands of oyster seed, each barely three or four millimeters in diameter, in silos at their waterfront home. In just four-to-six weeks, the oysters grow to roughly 25 millimeters, feeding on algae that is constantly pumped through the silos. Twice a week, they are run through a shaker, a large, round machine resembling an oversized lobster pot that grades, cleans, and sorts them by size. Oysters make their own shell, which will continue to grow throughout their life. The shaker, mimicking natural conditions, breaks off the fragile tip,

which, like pruning a tree, reshapes the oyster by forcing its energy elsewhere.

A mature oyster "All that g will filter upwards of ofte 40 gallons of water a day.

"All that growth is concentrated in the cup," says Beth. "Whereas wild oysters are often much longer and shaped like a shoehorn, ours are round and plump, and the shells are really hard. You're going to have a full nugget (and) a lot of liquor in there."

The growing oysters are then transferred into bags or cages where they're safe from blue crabs and other predators and relocated to lease sites downriver. For the next three-to-four months, they're moved between the bags and a large tumbler at the Noank Aquaculture Coop. As they grow, they oysters go into bigger bags, and then bigger ones still until they are two inches long and can be safely spread along the ocean floor.

At harvest, each one is inspected and hand counted. Most of their product ends up in Boston area restaurants, with the rest going to various locations throughout Connecticut, including Fair Haven Oyster Company.

"When Beth's are available, they're always on the menu," Chef Emily says.

ysters are considered a keystone species, meaning they have a disproportionate effect on their surroundings. Despite their modest size, a mature oyster will filter upwards of 40 gallons of water a day, removing biotoxins, bacteria, and algae from the water column. Like coral, oysters also create reefs that provide habitat for finfish and invertebrates and help to stabilize shorelines. This isn't just good for the environment, it's also good for people.

"When I first moved here in '93, there was a 'No Swimming' sign across the way," Kris says. "The difference then? There were no oysters. Now there's probably 25 million or so just in this river. I've noticed a difference in the clarity of the water."

But climate change is affecting Connecticut's oyster industry. When heavy rainfall overwhelms water treatment plants, untreated sewage is flushed directly into rivers. State regulations require farmers to cease operations until tests show there's no risk to public health. But shutting down operations, even temporarily, can be hard. "More testing is better," says Beth, "but these back-to-back rainstorms are brutal." Last year they were shut down for nearly two months as rain pounded the region.

Despite the challenges, the Simonds are passionate about their work and using their business to support the local community. They host field trips for students and fundraisers for charity. And they're advocating to increase diversity in aquaculture so that all kids can experience what it's like to be on the water.

"We need the next generation to get excited about preserving the watershed," Beth said. "We want everyone fall in love with the water. It belongs to all of us."

Tylen Stanley Jennette, class of 2019, poses with an oyster reef ball.

At one point, roughly 20% of the nation's oysters came out of New Haven and the surrounding

ack in New Haven's City Point neighborhood, students at The Sound School are contributing to Connecticut's oyster renaissance. The public high school now stands where many of the state's most iconic oyster houses once stood. From 1840 to 1925, the historic district, then known as Oyster Point, was home to one of the country's most productive oysteries.

"There's that real special history with this location," says Pete Solomon, a former biologist-turned-science teacher who serves as the school's Aquaculture Coordinator. "At one point, roughly 20% of the nation's oysters came out of New Haven and the surrounding rivers." But as the city grew, the reefs suffered from pollutive industry, excessive dredging, and untreated sewage. Today, Copps Island Oysters, a fourth-generation farm, is the area's only commercial operation.

While students are required to take traditional academic courses and many attend college after graduation, vocational aquaculture is the school's primary focus. In the fish lab, for example, students are raising and researching algae, finfish, coral, and shellfish. Ryan Tessitore, a senior who works in the lab, says oyster cultivation is one of their more ambitious projects. "We're rebuilding the hatchery," he says. "During Covid, we had to shut it all down." In addition to raising oysters for their own projects, the students hope to eventually sell juvenile oysters, or spat, to other Connecticut farmers. "We want to become one of those hatcheries that provides for all the others," he says.

Other students are constructing an artificial oyster reef using reef balls, a patented technology that has been used





The Sound School's fish lab where students research algae, coral, finfish, and shellfish.

in a variety of restoration projects, from coral reefs to erosion control. The balls are made from a mixture of cement, oyster shells, and gravel, and feature a flat bottom and holes in their sides that allows for natural colonization. "All of the substrate in the concrete helps the oysters to attach to the reef ball," said

In a hundred Kye Gerfao, a senior and years, the reef balls will be gone, and we'll just be left with an oyster reef.

master builder who's trained folks at New York's Billion Oyster Project and oversees the reef ball construction.

Student divers have already deployed 13 reef balls 15-to-20 meters

offshore, and another 17 are ready to go. The goal is to eventually deploy 100. Students use cameras to monitor the reef and have conducted dive transects to sample oyster density and size, and to measure biodiversity.

"The real goal is habitat restoration," says Pete, "that's why we like to call it 'the living lab.' There are a lot of studies we can do on the impacts that it has on water quality, turbidity, biodiversity. In a hundred years, the reef balls will be gone, and we'll just be left with an oyster reef."

he obvious question is: if you build it, will they come? Based on preliminary data from a five-year pilot study, Pete says the answer is 'yes.' "The data we got out of that pilot project showed that this could be an effective model for habitat creation and restoring oysters," he says.

Students are partnering with researchers at Yale and Southern Connecticut State University to better understand the effects of the oyster reef balls on their surroundings. They're currently building a solar powered logger to collect real time data and researching the erosion rates of different cement mixtures and their impact on water quality.

"Poor water quality affects our oysters, and the ecosystem in general," says Britney Xochipiltecatl, a junior and president of the school's Environmental Justice Program (EJP). "The eastern oyster is well adapted to different levels of salinity, but under too much stress, they stop reproducing; they can get hypoxia if they have insufficient oxygen in their tissues; ammonia damages their blood cells; nitrates prompt algae blooms; (and) high turbidity can smother the oyster reefs and kill them all." Last year, her classmate, Sofia Roberts, also a junior and EJP vice president, organized a science fair project to study how creek-source water pollution affects oyster populations.

EIP students lead workshops for middle schoolers on topics including physical chemistry and biodiversity. "I like teaching younger kids," Sofia says. "We can show them what Sound School is like. And we can teach them about why you can't just keep throwing stuff in the ocean."

Britney's hope for the future of Connecticut's oysters is palpable, and inspiring.

"I'm optimistic with how The Sound School program can grow," she says. "It's definitely going to be successful."

Timothy Brown is the editor of Connecticut Woodlands.



hen our family moved to Vermont in the 1990s, I received a stern warning from folks to keep our two small dogs inside so they wouldn't become "fisher cat food." I thought I knew all of New England's cat species and wondered if "fisher cats" were something locals invented to scare newcomers. But I soon learned that I had stumbled upon a real animal that is sometimes defined more by fiction than fact.

Although commonly known as "fisher cats," fishers, *Pekania pennanti*, are not cats. Rather, they are members of the *Mustelidae* family, along with weasels, mink, otters, and wolverine. Adding to the confusion, the fisher's name might suggest a fishy diet, but it turns out that fish are more the provenance of mink and otter. Fishers prefer to dine on rodents, snowshoe hare, birds, and carrion, and like other opportunistic predators, they supplement their diets with fruits and nuts, such as acorns, beechnuts, and mountain ash berries. Fishers are also one of the few predators that eat porcupines and have been introduced in some forested areas where burgeoning porcupine populations were causing significant tree damage.

Skunks and groundhogs, too, find their way onto the fisher's menu, which may fuel speculation that fishers prey on similarly sized pets, most notably cats—and perhaps the bichon and miniature poodle that shared our house in the 90s. But a study by Roland Kays, former mammal curator at the New York State Museum, found no evidence of cats

How You Can Help Connecticut's Fishers

Report any fisher sighting, whether alive or dead, to DEEP. FisherSightings@ct.gov. If possible, include the date, time, and location of the sighting, and note whether the animal was wearing a collar. If you find a dead fisher, try to include something for scale in a photograph and send it to DEEP.

If you are considering a rodent control program, abandon rodenticides that accumulate through the food web and are lethal to predators, including raptors and fishers.

among the 25 types of prey identified at fisher kill sites and in scat samples. And a Massachusetts study of fisher diet found cat hair or bone in just 2% of 226 samples. Even then, consumption of already dead cats could not be ruled out.

Once common in dense forests from Canada to the Carolinas, fishers were trapped to extinction throughout much of their range by the early 20th century. Here in the Northeast, fishers only survived in parts of central Maine, the White Mountains, and the Adirondacks. Region-wide farm abandonment in the 19th and 20th centuries led to reforestation, providing essential habitat for recovering fisher populations. Legal protections and reintroductions have also been important to their recovery. For example, during the 1950s and 60s, 124 fishers were brought from Maine to Vermont. But during the 1970s, pelt prices quadrupled to \$130 leading to another population crash. After years of closed seasons followed by shorter season trapping with bag limits, fisher populations again climbed.

s populations recovered, fishers migrated from Massachusetts south to forests east of the Connecticut River, but the river effectively isolated them and prevented further expansion of their range. In 1989 and 1991, the Department of Energy and Environmental Protection (DEEP) reintroduced fishers to northwestern Connecticut; 30 came from New Hampshire and four from Vermont. A recent genetic study indicated that today there are two distinct fisher populations in the state, a reflection of the history of natural colonization and introductions on opposite sides of the lower Connecticut River.

But over the past two decades, scientists say fishers have suffered close to a 90% decline on both sides of the Connecticut River. Unlike more visible species like bald eagles that can be tracked back to an obvious nest site and counted, fishers are elusive so biologists must rely upon indices of their population status rather than an actual census. According to DEEP wildlife biologist Brooks Pitman, the number of road-killed fishers reported in Connecticut fell from an average of 44 per year between 2002 and 2005 to fewer than five for the past several years. While less roadkill sounds great, it also indicates a significant drop in the state's fisher population. Similarly, the number of fishers trapped in Connecticut fell from an average of 216 per year from 2006 to 2009 to fewer than 10 per year in the last four years. It is important to note that the number of active trappers in Connecticut has also declined in recent years-most trapping in the state is done to remove beavers—and so roadkill numbers may be a better indication of the change in the fisher population than trapping records.

ocumenting fisher declines based on available indices is fairly straight forward, but nailing down its causes is more challenging, particularly for a small population of elusive mammals that yields few data points. For example, my students and I deploy 20 trail cameras for months at a time in northern Vermont where fisher populations are larger than in Connecticut. Yet for every 75 racoon photographs we get, there may be just one or two fisher images. If photographs of racoon fall by 30% measured across the 20 cameras, we feel confident we can say there has been a population change. But if one year we get four fisher images and the next year we get just one, there is not a lot we can conclude other than we got lucky the first year and less so the next.

Despite these limitations, it is clear that Connecticut has dramatically fewer fishers in recent years. A range of hypotheses have been proposed to explain the decline. For example, there is dietary overlap among fishers, coyotes, and bobcats, and numbers of these competing carnivores have climbed in the past two decades. But it's unlikely that competition for food alone is reducing the fisher population, particularly given the availability of carrion in the form of road-killed deer. Development has encroached on forests in recent decades; Connecticut's forest cover peaked in the 1970s and has been declining ever since. However, unlike martens, which require large stands of conifers, fishers are less picky and seem to thrive in forest patches and suburbanized areas such as Albany, N.Y., and the greater



Photo by Carol Belanger.

Over the past two decades, scientists say fishers have suffered close to a 90% decline on both sides of the Connecticut River.

Burlington, Vt., area. There is ample habitat for fishers in Connecticut and habitat loss alone does not explain their recent decline. It would also be a stretch to conclude that climate change is a major driver of the decline here. Fishers range as far south as West Virginia and populations are increasing in places like Pennsylvania.

DEEP recently initiated a study to examine why Connecticut's fisher populations are shrinking, including testing for quantities of rodenticide in blood samples and diseases such as distemper. Fishers will be trapped, weighed, and measured for other health indices; blood samples will be collected for analysis. The collared animals will be released. This study will take place over a period of three or four years and will yield a more complete picture of the population size, health of the animals, and causes of mortality.

Identifying the causes of fisher decline will provide a basis for population management strategies moving forward. Connecticut has enough suitable habitat to sustain a diverse community of carnivores. These predators play a vital ecological role, for example by controlling rodents that can carry tick-borne diseases and reducing overbrowse by white-tailed deer. It is well-established that more diverse communities are more resilient in the face of disturbance and change. Fishers are important native component of predator diversity in Connecticut that hopefully will once again thrive on our landscape.

Declan McCabe, professor of biology at Saint Michael's College, is the author of the forthcoming "Turning Stones: Discovering the Life of Water." An expert in aquatic invertebrates, he researches biological diversity in rivers, Lake Champlain, and the Saint Michael's College Natural Area.

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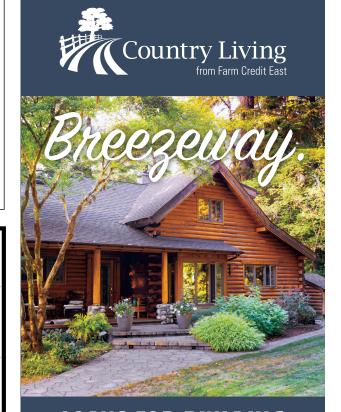
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CFPA Attends Annual "Hike the Hill"

CFPA Trails Director Clare Cain recently attend the 27th "Hike the Hill" in Washington, D.C., where she met with congressional legislative staff to advocate for the 235-mile New England National Scenic Trail, or NET. In 2023, the NET, which runs from the Long Island Sound to the New Hampshire border and includes the Blue-Blazed Menunkatuck, Mettabessett, and Metacomet trails, was designated as a National Park. CFPA is Connecticut's NET stewardship partner.

"Hike the Hill is a great opportunity to see fellow trail partners and connect with our congressional leaders on priorities, such as important funding, resources, and legislation that will benefit the New England Trail and our ongoing work," Cain said.

Hosted by the American Hiking Society and Partnership for the National Trails System, the annual event brings together National Scenic and Historic Trail agency and non-profit staff from across the country to advance trail priorities with congressional and federal agency leaders, including trails funding, public lands management and conservation, equitable access, and other issues that sustain trails and improve access to public lands.

Master Woodland Manager Program Wins National Award

The Connecticut Master Woodland Manager Program has won the 2023 Family Forests Education Award from the National Woodland Owners Association and the National Association of University Forest Resources Programs. The award recognizes "outstanding individual educational program to improve management of family-owned forests."

Now, in its third year, the program, designed by CFPA and supported by numerous partners, provides woodland owners and managers with the knowledge and skills to make decisions for their woodland and sustain forests for the future. There are currently 51 participants in the program. Applications are currently being accepted for the 2024-2025 cohort, which begins in September. For more information and to apply, go to ctwoodlands.org.

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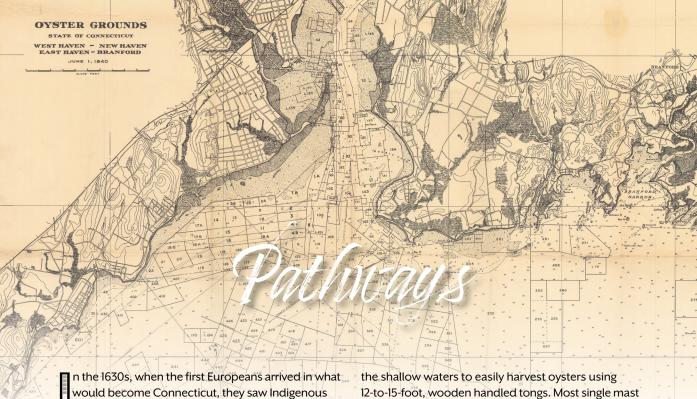
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n the 1630s, when the first Europeans arrived in what would become Connecticut, they saw Indigenous people harvesting oysters from dugout canoes. The early colonists eagerly adopted the technique. At the time, the small bivalves were so plentiful they could simply be collected by hand. But as the colonial population and its demand for oysters grew, their numbers began to decline, and by the early 19th century, local rivers were impoverished. Oystermen, who still commonly used dugouts, found themselves in need of a larger and heavier boat that could transport them to shallow beds far beyond the breakwater.

In 1848, James Goodsell, a resident of Fair Haven, invented the sharpie, a fast-sailing, flat-bottomed centerboard vessel that could also be sculled. Its rounded stern allowed the solo oystermen, or "tongers," who worked the shallow waters to easily harvest oysters using 12-to-15-foot, wooden handled tongs. Most single mast sharpies were 28 feet long and could hold 100 bushels of oysters. Larger 35-foot sharpies had two masts and could carry upwards of 175 bushels. Inexpensive and efficient, the New Haven Sharpie soon became the boat of choice for tongers from New England to the Gulf Coast.

By the late 1800s, thanks in part to new cultivation methods and steam-powered dredgers, New Haven was the oyster capital of New England, with some 50 companies operating along the Quinnipiac River. But unchecked pollution and dredging took a toll on local reefs, and by 1925, the boom was over. Today, a new generation of conservationists and farmers are restoring this iconic creature to Connecticut's waters.



The photograph at left shows two sharpies and a pile of oyster shells at the Ball Oyster Company on the Quinnipiac River in 1938. Photo courtesy of the Mystic Seaport Museum.





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