

# NORTH AMERICAN LAND TRUST

ANNUAL REPORT

2024



we protect beautiful places





# The North American Land Trust

## OUR MISSION

to permanently conserve and steward natural and cultural resources through innovative land preservation partnerships

## SUPPORT LAND PROTECTION AND STEWARDSHIP IN 2025

As a non-profit land conservation organization, we rely on contributions from our supporters to not only conserve more land, but to steward that land in perpetuity.

[www.northamericanlandtrust.org/donate](https://www.northamericanlandtrust.org/donate) for ways to contribute\*



## CONTENTS

04	Who We Are
06	Our Focus Areas
08	Land Protection
12	Brinton Run Preserve
14	Conservation Management
18	Stewardship & Monitoring
20	Planning and Design
22	Research and Education



# LETTER FROM THE PRESIDENT

As we approach the middle of the decade, I am able to look back with pride seeing all our team at North American Land Trust has been able to accomplish over the past several years. I am truly excited to see what the future holds for this impactful organization.

Much of NALT's recent success can be attributed to the foundation outlined by our board and staff's strategic vision and commitment to establish NALT's first public preserve in 2021. Located in the heart of the Brandywine Battlefield, Brinton Run Preserve has led to a waterfall of new organizational initiatives, public and private partnerships, and meaningful community engagement opportunities. The preserve has quickly become an anchor in the Chadds Ford community and provided a blueprint for future conservation efforts NALT's talented staff is actively working on. It has provided an opportunity to establish important relationships within the philanthropic community which provide critical support to advance NALT's conservation mission. We are grateful for our community's support and are committed to growing our network of dedicated supporters and advocates in the coming years.

NALT's board also made the important strategic decision in 2020 to work toward the Pennsylvania Association of Nonprofit Organizations (PANO) rigorous Standards for Excellence® accreditation program. After 4 years of intensive preparation, NALT received the prestigious accreditation distinction in May of 2024. This monumental achievement demonstrates our commitment to the highest quality nonprofit governance and operational management, while remaining focused on our mission to conserve and steward our natural and cultural resources.

Looking ahead, we have many exciting announcements already queuing up including new land acquisition initiatives, conservation management programming, and strategic partnerships that will help advance NALT's mission. I invite you to join us for this journey as we share regular organizational updates through our communication channels. In the meantime, please enjoy this edition of NALT's 2024 annual report.

Steve Carter, NALT President



*NALT staff at our annual retreat in Chadds Ford*



# WHO WE ARE

## We are a partner for life

North American Land Trust (NALT) is a 501c3 conservation charity whose mission is to permanently conserve and steward natural and cultural resources through innovative land preservation partnerships. Since its start in 1992, NALT has permanently preserved more than 139,000 acres of natural land in 24 states, mostly through permanent conservation easements.

NALT partners with landowners, municipalities, the real estate community, and other groups to protect environmentally and culturally significant landscapes that otherwise may be lost to alternative uses. Once a property is under NALT's permanent stewardship, our experienced team of conservation professionals regularly monitor the land to ensure the integrity and longevity of the conservation resource.

With roots in Chadds Ford, Pennsylvania, we have an established focus area right here in Chester County, one that we are continually growing with the help of our dedicated landowners and partners, and our first public preserve, Brinton Run Preserve. Our reach extends across the United States and continues to grow every year.



*Our home is in Chadds Ford, PA with field staff around the country, giving us a national perspective on a variety of conservation needs.*



*In 1992 Andrew L. Johnson (right) and a small group of professionals established North American Land Trust (NALT) with the primary purpose of preserving and managing open space with ecological, agricultural or historical significance.*

# OVER OUR 32 YEAR HISTORY

In 2024, NALT was honored to engage in a number of meaningful projects that we were proud to add to our growing portfolio. We are excited to introduce you to these projects in our 2024 annual report. Over time, NALT continues to deepen and strengthen our vision of protecting as much land as possible. We are only able to meet our goals because of the dedication and passion of our donors, partners, and colleagues in the conservation world and beyond. Together, we have continued to grow and expand our reach across North America, to help landowners and community members come together toward a shared goal; protecting the open space that matters to them.



139,000+  
TOTAL ACRES  
PROTECTED



>\$2 MILLION  
IN GRANTS  
AWARDED IN 2024

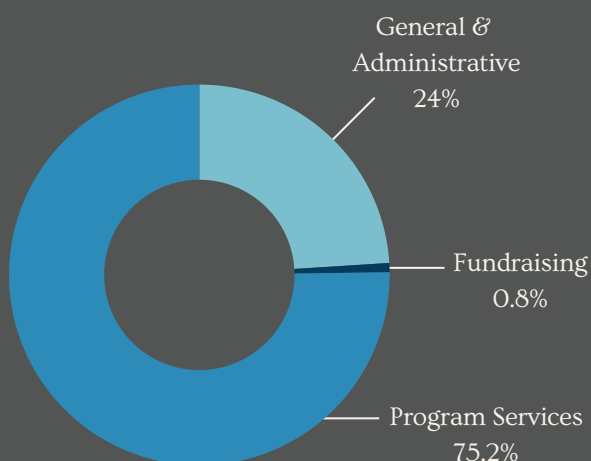


580+  
TOTAL  
PROJECTS

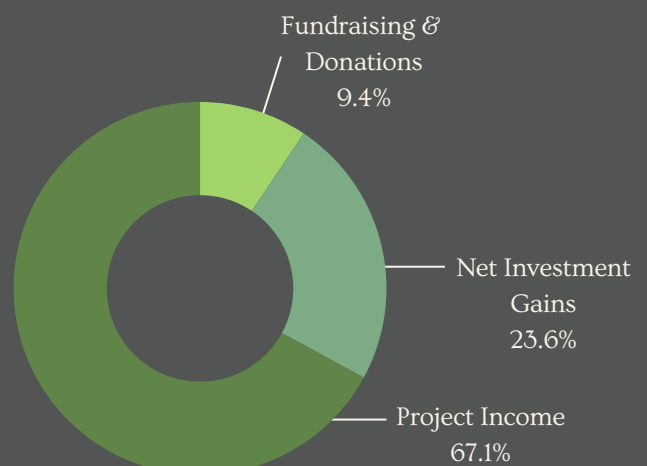


13 PARTNER  
ORGANIZATIONS  
AND GROWING

## 2024 EXPENSES



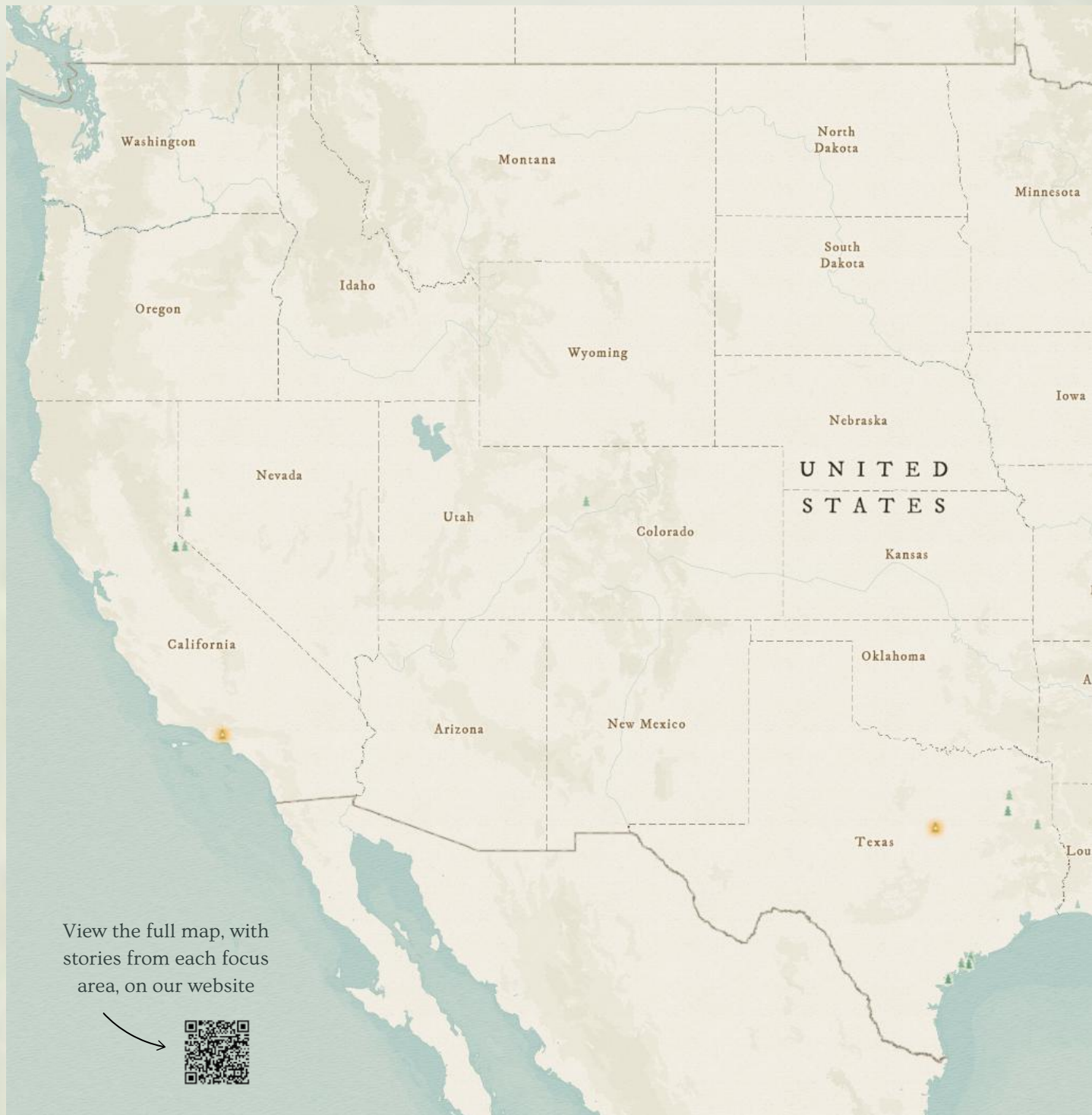
## 2024 REVENUE





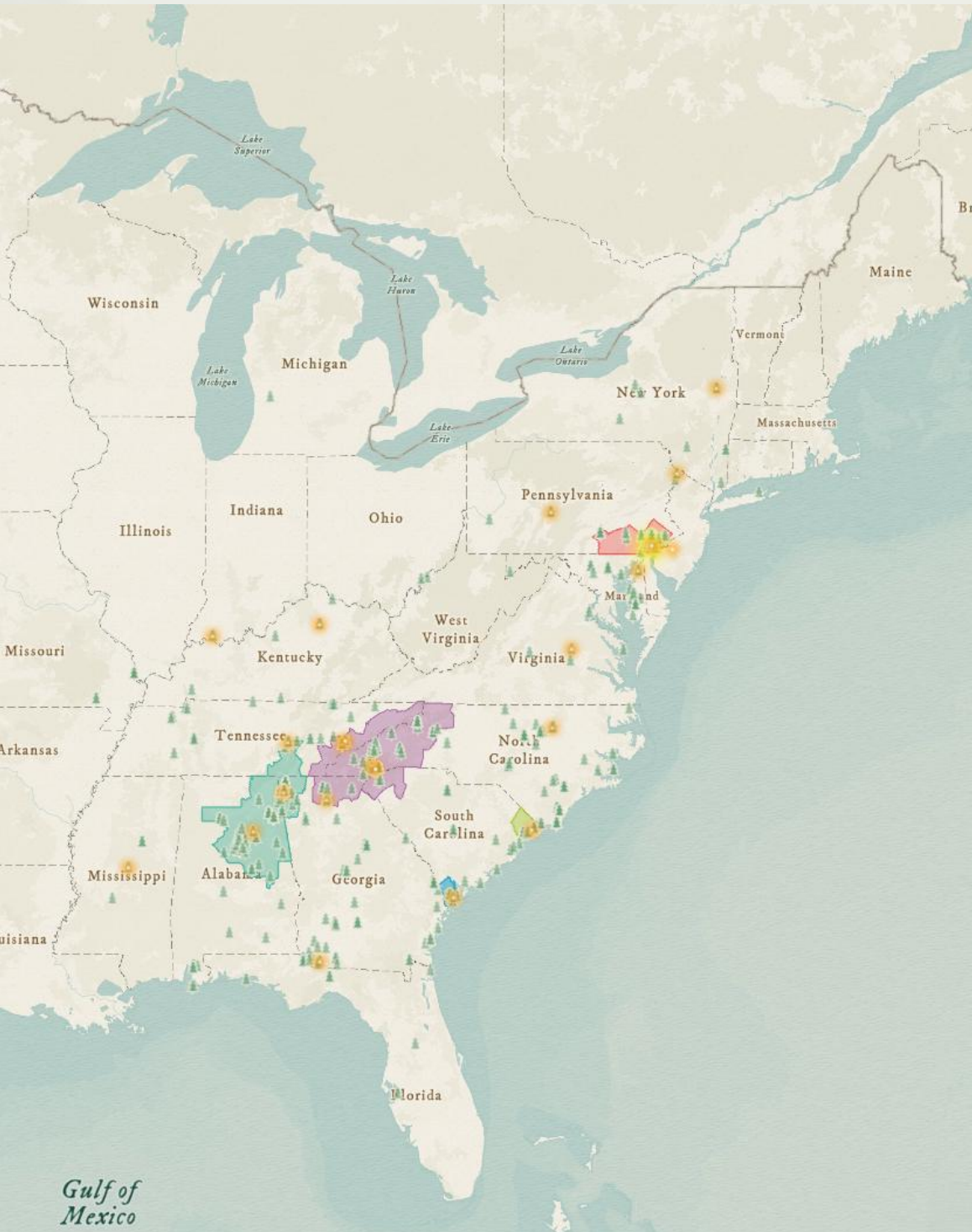
# Our goal is to preserve as much natural

We accomplish land preservation through a variety of strategies, utilizing our experience and expertise to tackle complex conservation and management challenges. NALT has expanded to 24 states across North America, but our origins and home base remain in the heart of Southeastern Pennsylvania.



# land as possible....

The concentrated impact NALT provides is highlighted by our focus areas; areas with a high density of protected areas and a network of landowners and partners. These areas are not only rich with biodiverse habitats and ecosystems, they are also most at risk from land use change and development pressure.



## Our Focus Areas



**NALT Protected Lands**  
A total of 139,000+  
Acres Protected



**Southeast Pennsylvania**  
NALT's headquarters and  
core partnership base, and  
the home of our first public  
preserve, Brinton Run.



**Myrtle Beach**  
NALT protects 3,700+  
acres of land in Horry  
County, SC alone



**Great Swamp New River**  
The home of our  
supporting organization,  
Palmetto Bluff  
Conservancy



**Southwest Appalachia**  
A biodiversity hotspot  
where NALT protects  
16,500+ acres



**Far West Appalachia**  
A rich region of the South  
experiencing growth,  
where NALT protects  
21,600+ acres



# LAND PROTECTION

North American Land Trust (NALT) is 501c3 conservation charity whose mission is to permanently conserve and steward natural and cultural resources through innovative land preservation partnerships. NALT is in its 33rd year of operation and has permanently preserved more than 139,000 acres of natural land in 24 states, mostly through permanent conservation easements.

NALT partners with landowners, municipalities, the real estate community, and other groups to protect environmentally and culturally significant landscapes that otherwise may be lost to alternative uses. Once a property is under NALT's permanent stewardship, our experienced team of conservation professionals regularly monitor the land to ensure the integrity and longevity of the conservation resource.

We conserve land through:

- Charitable Conservation Easements
- Mitigation Conservation Easements
- Municipal Conservation Easements
- Preserves and Land Acquisition

A conservation easement is a legally binding agreement wherein a landowner donates certain development rights associated with the land to a land trust. The donated property's use is permanently limited to protect its conservation attributes and values.



*Alabama azalea (Rhododendron alabamense) in our Far West Appalachia Focus Area*



*Creeping phlox groundcover in a protected area within our Southern Appalachia Focus Area*



*Coastal Community protected in Virginia*



# RECENT PROJECTS



## 01 JOSEPH DAVIS TRACT NATURE PRESERVE

Building from NALT's first successful battlefield acquisition project, Brinton Run Preserve, NALT's vision is to acquire and permanently conserve the [Joseph Davis Tract](#), transition NALT's permanent headquarters to the historic house, create public connector trails, and open the property for passive recreation, historical interpretation, and community engagement.

We also hope to restore and enhance open areas of the property by transitioning lawn areas to native warm season grasses and pollinator meadows among other natural resource and habitat improvements.



## 02 PROTECTING OPEN SPACE ON FLORIDA'S GULF COAST

When the City of Naples was looking for an experienced land trust to work with City Council and a developer on a conservation easement, they reached out to the North American Land Trust. As part of the redevelopment plan for the former Naples Beach Hotel and Golf Club, ~100-acres will now be protected as community green space, accounting for ~85% of the property, protecting the area from future subdivision or development.

Read the full story on our [Stories From the Land blog](#)



## 03 WETLAND RESTORATION AND MITIGATION

Development that impacts water resources and endangered and threatened species habitats must be offset by government regulated mitigation projects to abate the loss of these important resources. Mitigation projects often require a permanent conservation easement and specific long-term management to ensure their success. NALT has partnered on over 45 mitigation projects as a conservation easement holder and long-term steward.



# LAND PROTECTION IN NALT'S SOUTHWEST APPALACHIA FOCUS AREA

## Bear Lake Conservation Area Protecting Appalachian Forests

BY WILL GANDY

The 2024 Bear Lake III conservation area is contiguous with and expands the Bear Lake I conservation easement that was donated to NALT in 2023. The contiguous properties, which total ~ 238 acres, are located in an undeveloped section of the “Bear Lake Reserve” community; southeast of Tuckasegee, North Carolina. The conservation areas share many of the same conservation purposes and values, including the preservation of relatively natural habitat in an area with exceedingly rich biodiversity and the protection of high value riparian corridor habitat. The Conservation Area also ranks moderate to high on many governmental and non-governmental agency’s conservation priorities, conservation rankings, conservation model’s etcetera. These third-party concurrences are a powerful agreement between differing schools of thought and/or agency missions, which make for a robust argument for conservation.

The Conservation Area contains at least four forest types, of which two are of particular interest. The Rich Cove Forests are particularly biodiverse and spectacular in early spring when the early-season ephemeral plants are in bloom (see photos below). Foamflowers, liverleaf, violets, bellworts, trilliums, meadow-rue, Solomon’s seals, bloodroot, cohosh, orchids, and fairybells all abound in the rich sheltered sites of the tract. These forests are also projected to serve as important refugia as the effects of climate change intensify in the future.

The Montane Alluvial Forests are inherently sparse in southern Appalachia as small stream floodplains are not frequent in mountainous topography. This scenario makes for infrequent assemblages of biota due to the uncommon abiotic conditions. The Conservation Area contains at least 9 State Vulnerable (S3, [NatureServe](#)) plant species and over 120 additional plant species, as well as important game species such as whitetail deer, American black bear, and wild turkey. This project protects the western slopes of Robinson Creek for almost 1 mile; a State of North Carolina designated trout stream.







## The Longcliff Community

BY MIKE DUUS

Since 2019, NALT has embarked on an ambitious project that will serve as a vibrant town center for Lake Toxaway, North Carolina, and its surrounding communities. The Village at Longcliff is set to be a dynamic mixed-use development, featuring residential, commercial, and hospitality elements spread across 62 acres of land, complemented by an adjacent 44-acre nature preserve.

NALT already protects the 44-acre nature preserve through a conservation easement. Additionally, NALT will establish a supporting organization under its nonprofit designation to manage the nature preserve while offering programming and outreach to the public. This project highlights NALT's innovative conservation strategies, including the creation of satellite organizations that cater to local or regional populations.

### WHY FORM A SATELLITE CONSERVATION ORGANIZATION?

A dedicated conservation organization demonstrates a commitment to the long-term management and stewardship of resources.


Here are some examples of baseline programmatic offerings:

- Management of natural areas and preserves for outdoor recreation and ecological health
- Documents historical and cultural resources
- Coordinates scientific research on site
- Education and outreach programs like hikes, lectures, camps, scientific research projects, hunts, bird watching
- Conducts community outreach to local groups and schools
- Participates in development land planning to incorporate, connect and/or preserve natural or cultural resources
- Accepts land and/or conservation easement donation
- Environmental liaison to governmental groups and other conservation groups
- May augment/support/replace property owner associations (depending on the model) or design review boards
- Promotes sustainability and resiliency within the community
- Branding and Marketing Assistance



### Palmetto Bluff Conservancy

Supporting organizations aren't new for NALT. We have been acting as a 509c3 partner organization for over 20 years, starting with the Palmetto Bluff Conservancy in Beaufort County, SC.

Learn more about this partnership on our website: 







# SPOTLIGHT ON: BRINTON RUN PRESERVE



## Protecting Cultural and Natural Resources

Located at 6 Oakland Road in Chadds Ford Township and within the Brandywine Creek Greenway, Brinton Run Preserve's 71 acres support a variety of wildlife habitats, including woodlands, fields, streams and a pond. The preserve is also one of the most important tracts on the Brandywine Battlefield.

The former owner, Mrs. Frank Baldino, approached NALT to help find an alternative to development and to create a shared conservation solution. Through local partnerships with the Brinton 1704 House, Chadds Ford Township, and other groups, NALT hopes to create a community space where everyone is welcome to enjoy nature and appreciate the unique history of Brinton Run Preserve.

Through the dedication of staff and volunteers, the preserve has grown and evolved from farm fields to rich pollinator habitat, and the woodlands have been conserved to provide habitat for local wildlife.

Brinton Run Preserve is open to the public, and to ensure the property is never developed, the property has been placed under a Conservation Easement, held by Chadds Ford Township. This is NALT's very first public preserve.





2024 was a great year at Brinton Run Preserve.



>140  
volunteers



625  
hours



>350  
trees planted

- Hosted intern Nino Tomlin for a second year
- Distributed 350 free trees to surrounding easement holders and community members
- Established the Bluebird Trail & Bluebird Monitoring Program at Brinton Run Preserve, with 12 nest boxes to date, including two new American Kestrel boxes donated by the [Birding Club of Delaware County](#)
- Created 17 acres of meadow habitat (see page 16 for more)
- Created ~1 mile of new trails for a total of over 3 miles to enjoy
- Continued to work with our conservation partners and local community partners (e.g. [East Bradford Township](#), [Chadds Ford Township](#), [Chadds Ford Residents Association](#), [Chester Co. Planning Commission](#), the [Lenape Nation of PA](#), and more) to collaborate and share our mission



*Special thanks to our local SEWA chapter for countless hours beautifying and enhancing Brinton Run Preserve*

We have accomplished so much, but there is still work to do! As always, thank you for your continued support and we hope that you are enjoying your public preserve.



*Stay tuned for updates on our future Education Center*



Learn about our  
Bat Monitoring  
Program at  
Brinton Run  
Preserve





# CONSERVATION MANAGEMENT



Photo Credit: Chris Wilson

For the last 10 years, NALT has managed properties across the southern U.S. At one point, NALT managed 64 properties from Texas, through Kentucky and Tennessee over to the Southeastern states. This service was provided to landowners who wanted to maximize biodiversity and implement practical recreational agendas.

## Every property is unique.

Landowners have varying objectives. NALT worked with landowners to create and implement a plan to achieve all outcomes. Interestingly, it also addressed the basics: roads, water, trespassing, and fencing.

## OUR APPROACH:

Understand what's there, then make it better.

1. Utilize the baseline documentation to understand both physical and habitat characteristics for each property.
2. Initiate biological inventories to further document species and habitat usage.
3. Identify habitat enhancements.
4. Layout property infrastructure (roads, fencing, water sources, etc.) to facilitate management or to coincide with objectives.
5. Develop management tactics, such as prescribed fire, rotational grazing, targeted herbicide for invasives, wetland enhancement, and more.
6. Get to work.



Photo Credit: Matt Candeias



# BRINGING LIFE TO A HIDDEN NATURAL GEM IN WILMINGTON, NC

BY PATTY KENNEDY

In 2024 NALT partnered with the Compass Pointe development in Leland, North Carolina to create a plan for its 700 acre Preserve. This property was permanently protected in 2014, but has largely sat unmanaged for the last few years.

NALT worked to create a habitat management strategy for these tracts to enhance Pine Savannah habitat, particularly relevant as Bachman's Sparrows have been documented on these tracts. Moreover, these properties are full of carnivorous plants in wet areas which should be identified and further protected.



NALT Southeastern Program Director Patty Kennedy with a patch of Yellow Pitcher Plants in an open wet pine savannah habitat in the Compass Pointe area.

Habitat management planning is, of course, the bread and butter of any land trust. What made this partnership particularly interesting was the vision NALT staff saw for engagement with the community as an opportunity to educate a disconnected audience. NALT's management plan included recreational trails, destinations and learning stations for use by the community. NALT has also proposed an educational series and personalized engagement by its staff.

Because of NALT's expertise in partnering with private landowners on management and education, NALT was able to create a budget and funding path for Compass Pointe to help facilitate these activities. We are excited to see where this partnership can go.

## CONSERVATION IN 2024

- In Coastal Texas, wetland enhancements helped to attract a flock of overwintering endangered Whooping Cranes.
- Prescribed fire converted overgrazed pasture into globally ranked Tall Grass Prairie habitat.
- Plugging of timber ditches restores hundreds of acres of natural wetland habitat.
- In Horry County, SC, 30 acres of cornfields were converted into pollinator meadow habitat.
- Partners for USFWS in Tennessee helped to assist landowners with site assessments, timber stand improvements, and prescribed fire to improve habitat for the endangered White Fringeless Orchid (*Platanthera integrilabia*).



White Fringeless Orchid (*Platanthera integrilabia*). Photo Credit: Lee Echols.



# MAKING MEADOWS: OUR POLLINATOR MEADOW INITIATIVE

North American Land Trust (NALT) has converted more than 50 acres of lawn or fallow fields to pollinator habitat throughout southeastern, Pennsylvania on municipal, HOA and private open space. This endeavor began with the acquisition of NALT's 71-acre Brinton Run Preserve, which provided the NALT team with a platform to employ innovative land management practices. One of those practices included the creation and management of pollinator friendly habitats.

NALT's first meadow conversion project started at Brinton Run Preserve in 2022 and will be entering its third year of growth in 2025. These meadows are bound by walking trails and interpretive content to promote pollinators and native plants. Creating pollinator habitat has been a rewarding and impactful endeavor to our mission and the communities that we work in, which is why we decided to expand our meadow conversion work beyond Brinton Run Preserve.

NALT successfully empowered communities to seek alternative land management practices by presenting lawn conversion opportunities. Meadow conversion projects have yielded a significant increase in pollinator species presence and available nectar resources by creating pocket habitats throughout the built environment that are rich in diversity.

We assess all angles of meadow conversion when designing or implementing a project by taking a layered approach to conservation planning. Our layered approach includes additional project options, such as the creation and implementation of bluebird boxes, bat boxes, American kestrel boxes, interpretive signage, trail mapping, and more. The layered opportunities support the overall habitat, and the educational values provided to our community.

NALT plans to continue expanding our meadow conversion efforts through our messaging, partnerships and active land management practices. This endeavor is easily achieved as NALT was awarded a grant from the







NALT's Brinton Run Preserve meadows in Year 2 Post Planting

Department of Conservation and Natural Resources (DCNR) Community and Watershed Forestry program in the amount of \$276,000 to support pollinators by restoring native habitat. This grant will ensure the long-term sustainability of NALT's Meadow Conversion initiative by providing the financial resources needed to create and manage quality habitat.

NALT has plans to convert an additional 20 acres of habitat in 2025 with financial support from the DCNR. These opportunities are possible thanks to dedicated staff and forged pollinator conservation partnerships with the Bee & Butterfly Habitat Fund (BBHF) and the Monarch Joint Venture (MJV).

BY WYATT MOYER



NALT's Brinton Run Preserve with a meadow full of blooming common milkweed.



# STEWARDSHIP & MONITORING

## Working together to improve stewardship of our land

Conservation easement monitoring and stewardship are fundamental responsibilities for every land trust. NALT is devoted to annually overseeing each conservation area it manages, with our stewardship team dedicated to cultivating and sustaining harmonious relationships with landowners. These monitoring visits not only provide a chance to assess each conservation area but also present an opportunity to collaborate with landowners in realizing their conservation goals, examining restoration endeavors, check on rare plant populations, and discover new, breathtaking landscapes. We take great pride in fostering uplifting connections with our landowners, and we revel in the joy of our shared exploration.



(from left to right, top to bottom) Wetland enhancements in New York Conservation Area, NALT field vehicle in a central Georgia, Native Paw Paw fruit in Pennsylvania, Intern Nino Tomlin checking nest boxes at Knights Island Preserve, MD, Biologists surveying in North Carolina, Stream Restoration in Maryland, Swamp Sunflower growing in Central Alabama.





(from left to right, top to bottom) NALT biologists meet for field surveys in South Carolina, North Carolina forest in Autumn, NALT biologist Sara Johnson meets the rare Boynton Oak in Alabama, Deer at Brinton Run Preserve, NALT staff goofin' at the Joseph Davis Tract, Alabama botanist Al Schotz joins NALT for a day in the field, Cows grazing in Tennessee, Turtlehead in bloom in North Carolina, NALT biologist Will Gandy and Betty smile for the camera.



# PLANNING & DESIGN

NALT has over 30 years of experience assisting landowners, government agencies, municipalities, developers, corporations, and the real estate community at large with planning for land protection, habitat enhancement, and developing customized conservation strategies for their properties. Like many land trusts, natural resource planning and design is an important service we provide to landowners.

This is never a one-size-fits-all approach, but NALT has a proven track record of protecting and stewarding extraordinary places by “reaching across the aisle” to help conserve important land.

NALT’s planning and design teams can provide:

- Natural resource documentation and mapping
- Assistance with the planning of appropriate development areas
- Management strategies compatible with a limited development vision
- Advocacy and promotion of the conservation story
- Creation of partner organizations dedicated to long-term stewardship of the resource and to engage the ownership and community base



*Partnering with communities like Compass Pointe to customize and design a trail and management plan helps us improve habitat for wildlife and the community to thrive.*

## Coastal High School & North American Land Trust: Outdoor Learning Park

BY PATTY KENNEDY

In 2016, two adjacent properties in Horry County, SC were protected by a conservation easement. These tracts, totaling 100 acres, are in the heart of the fastest growing corridor in Myrtle Beach. NALT managed the properties as a passive public park, constructing a mile of walking trails, and managing the habitats to create native warm season grass prairies.

In 2024, a small charter high school purchased the properties as a location for the school. Coastal High School’s mission is experiential learning, and its thoughtful approach aligned as a perfect fit for this unique site.

With the school as an anchor and the North American Land Trust as a partner, the vision and hope is to create nature-based education experiences for students at Coastal High School and other interested Horry County schools.







“The best place to learn about nature is in nature.”

The plan is to understand and integrate South Carolina science curriculum requirements to drive seasonal activities that both meet the guidelines and create and define engaging outdoor classroom opportunities. These plans will include featuring habitats, wildlife, guest speakers, weather and climate, photography, sculpture and so much more.

Patty Kennedy, NALT’s SE Program Director and Sherri Oskin, CHS’s Principal have spearheaded an initiative to connect teaching staff, natural resource planners and partners to build an outdoor learning park.

#### Efforts:

1. Document learning and curriculum goals for the school.
2. Evaluate the Preserve for nature based learning opportunities (trails, destinations, geographic features, habitats, etc.)
3. Define various program areas: birding, arts, weather, habitats, life cycle, pollinators, etc.
4. Develop a wish list of teaching experiences, using land trust experience on implementation.
5. Create a park plan and layout new trails and learning destinations.
6. Initiate a calendar for guests speakers/guides.
7. Identify engagement opportunities and partnerships.
8. Explore grant and funding opportunities.



Coastal High School and NALT first collaborative planning meeting attendees (top), Teachers walking the new trails for the first time (bottom)



NALT’s biologists and mapping team works with Coastal High School on iterative designs of the park plan and trail system to incorporate inherent features of the natural and built areas of the conservation area.



# RESEARCH & EDUCATION



## Uncovering Biodiversity through eDNA

BY WILL GANDY



Rich Eisenhart, Richland Trust Board Member



NALT Biogeographer Will Gandy showed the crew around Richland Trust

NALT has been the grateful recipient of several grants over the years from The Broyhill Family Foundation, Inc. based out of Lenoir, North Carolina. The most recent grant has afforded NALT the opportunity to reassess the biodiversity at The Richland Trust conservation lands; a 509-(a)(c3) supporting organization that privately protects approximately 275 acres of land adjacent to the West Fork French Broad River in Transylvania County, North Carolina. Through collaboration and field inventories conducted by the North Carolina Natural Heritage Program, Tangled Bank Conservation, and Joe Pye Ecological LLC, an updated species list was amassed approximately 25 years after the recording of the original easements in the late 1990's and early 2000's.

Environmental DNA (eDNA) is genetic material (mucus, feces, or tissue particles) shed by organisms, that is sampled from water features. Employing eDNA, Tangled Bank Conservation out of Asheville, North Carolina documented 53 taxa (48 species-level and 5 genus-level) from across the property during a spring sampling event in 2024. These include:



11

AMPHIBIANS



10

BIRDS



11

MAMMALS



2

REPTILES



19

FISH





Amongst these are seven state-listed species, including two critically imperiled (S1), two imperiled (S2), and three vulnerable (S3) species.

These species are:

Critically Imperiled (S1)

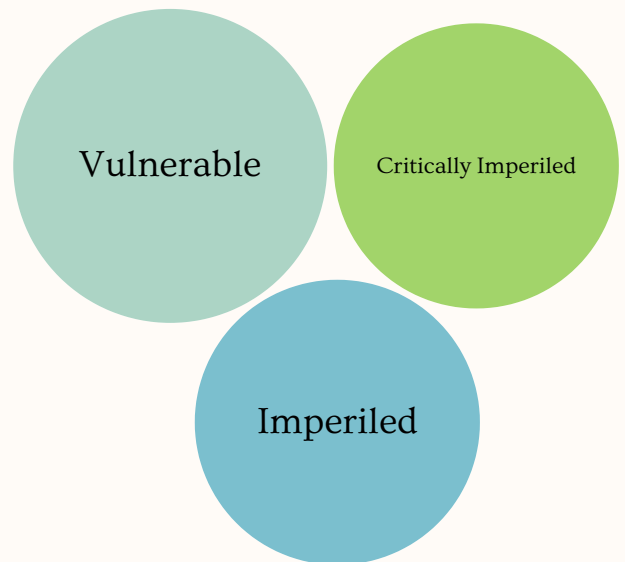
- Double-crested cormorant (*Phalacrocorax auritus*)
- Prairie warbler (*Setophaga discolor*)

Imperiled (S2)

- Quillback (*Carpionus cyprinus*)
- Flathead catfish (*Pylodictis olivaris*)

Vulnerable (S3)

- Greenfin darter (*Etheostoma chlorobranchium*),
- Eastern fox squirrel (*Sciurus niger*)
- Eastern hellbender (*Cryptobranchus alleganiensis*).



The eastern hellbender (*Cryptobranchus alleganiensis*) is a species proposed for federal protections as endangered under USFWS, and was previously known to be present on the property. Its presence within the conservation areas over the last 25 years is a testament to the importance of conservation on these lands. The 2024 eDNA sampling revealed a total of 53 additional animal taxa, bringing the total to 75 across the Conservation Areas.



Eastern Hellbender - Photo by Jason Ondreicka (Getty Images)

Joe Pye Ecological LLC identified 192 plant species during 2024 botanical surveys, including several features of significance. These include observations of the North Carolina species of special concern, Cuthbert's turtlehead (*Chelone cuthbertii*), North Carolina significantly rare purple beebalm (*Monarda media*), significantly rare Pennsylvania ground-pine (*Dendrolycopodium hickeyi*), and watch list butternut (*Juglans cinerea*). As of 2024, a total of 415 vascular plants have been identified on-site with the efforts of both Joe Pye Ecological LLC and the North Carolina Natural Heritage Program. This number is up from 276 species identified circa 2002.

With the updated baseline of the Conservation Areas and the remaining funds from The Family Broyhill Foundation, NALT and The Richland Trust will be able to assemble a management plan for the Conservation Easement Areas to protect the historical and newly found conservation values on-site. NALT also hopes to secure additional funds to bolster the conservation values' vitality by habitat improvement and land management.



The Richland Trust is a 509c3 supporting organization of North American Land Trust, enabling an enhanced partnership for land protection



# Documenting the Big and the Small

BY PATTY KENNEDY

NALT routinely conducts biological investigations on protected land to understand habitats and species connections across the landscape. In 2024, work continued on inventories on over 25 different properties in Texas, North Carolina, and South Carolina.



Carolina Bay Wetland within the Ocean Grove Conservation Area.



NALT staff conducting surveys at the Hickory Preserve Conservation Area.

## eDNA research

Environmental DNA (eDNA) refers to genetic material that organisms leave behind in their surroundings, like water in ponds. Instead of taking DNA directly from animals, scientists can collect it from water samples. Different creatures, such as fish, frogs, and even insects, contribute to this eDNA through their waste, skin, or other materials. Studying eDNA can help researchers find rare species that might be hard to spot using traditional methods, which is important for conservation efforts.

In this study, researchers aimed to identify vertebrate species from eDNA collected from various freshwater locations—like pools, ponds, and streams—in South Carolina. The samples were taken from five conservation areas managed by EcoVest Capital in early 2018, during the winter months. To avoid contamination, the team wore sterile gloves while collecting twelve 1-liter samples, which were quickly cooled and then frozen for later analysis. The winter season was chosen for sampling because eDNA breaks down more slowly in cooler temperatures, making it easier to detect.

The samples came from two locations in Chester County, where there are mature forests along the Rocky River, as well as from three properties in Horry County near North Myrtle Beach, which included cypress swamps and creeks.

Forty-four species were detected with various confidence levels, including 4 amphibians, 19 fish, 16 mammals, and 4 reptiles. Ten are listed as Priority Species under the South Carolina State Wildlife Action Plan, including 3 State Threatened and one Federally Threatened species.

There was a moderate confidence detection of Four-toed salamander on the Azalea Bay property, which is promising as the habitat looks ideal and there are records known from the neighboring county in North Carolina. Direct field surveys in the spring can help confirm and detect the species, as this is when nesting females can be found under sphagnum moss along the edge of small pools. If confirmed, this might be a first county record for the species.

The most surprising finding was the identification of five bat species, which included the Federally Threatened Northern Long-eared bat and the State Threatened Southeastern bat, albeit with low and moderate confidence levels. The detection of the Northern Long-eared bat is particularly intriguing, as this species has recently been observed over-wintering in southeastern North Carolina and along the South



Carolina coast. The findings of the Eastern Red Bat and Big Brown Bat align with mist-net captures conducted on-site during the summer of 2018. Similarly, the identification of the Southeastern Bat at Magnolia Bay is supported by mist-net captures from the adjacent Azalea Bay property.

Another noteworthy observation was that the two sites with the highest number of bat detections were located near running water creeks. To our knowledge, this study may have been one of the first at the time to utilize freshwater eDNA samples for bat detection, a method that may prove to be more cost-effective than traditional techniques like mist-netting.

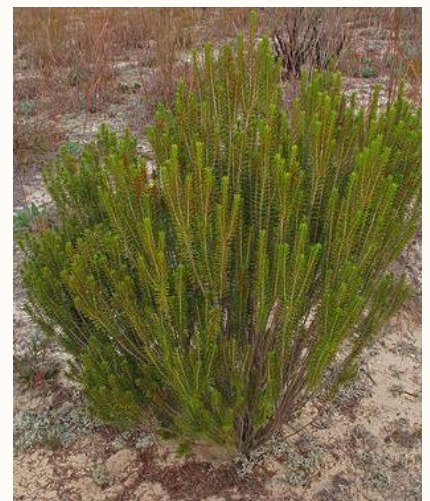
The eDNA surveys yielded new detections of priority species on EcoVest properties and demonstrated potential as a budget-friendly sampling method for elusive wildlife. We aim to continue eDNA sampling, focusing on bats and rare amphibians while employing new techniques specifically designed to target these species groups, which should enhance detection rates and improve overall confidence in our results.



Bat House installed on the Azalea Bay property, full of mud dauber nests.



Upland Sandhill ecosystem transitioning into a depressional wetland.



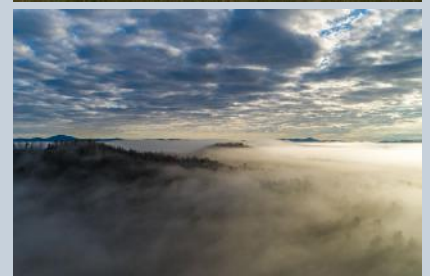
Sandhill rosemary growing on the Magnolia Bay property.

## IN MEMORY OF CHRIS WILSON: FOREVER PROTECTOR OF NATURE

BY PATTY KENNEDY

The world lost a staunch defender of nature as Chris Wilson, Conservation Ecology LLC, returned to the stars. Chris dedicated his life to his passion; documenting the biggest and smallest species in the US and making a plan to protect them. He was the first conservation ecologist for the North American Land Trust, where his pragmatic approach to understanding the importance of protecting all species and landscapes was honed. His life's work was a quiet but steady pursuit of knowledge to understand habitats and the common and rare species that lived in them, and pragmatically connect the dots of management, human impacts, and protection.

For the last seven years, we were honored to have Chris working across NALT preserves throughout the southeast where he greatly expanded his mission by adding eDNA surveys, bat acoustic monitoring, and stunning photography of protected areas. He was the best of the best. He will be missed, but will be remembered when we see flocks, slithers, and footprints in the wild, or calls and cries from the forests. Thank you, Chris, for your dedication and love of wild things.



Chris Wilson, Conservation Ecology, LLC





*Whooping Crane in Coastal Swamp (steverts via Getty Images)*

## Bird and Bat Surveys: Utilizing new tech

BY PATTY KENNEDY

As part of ongoing wildlife inventories, 22 conservation areas were visited in Spring 2024 to evaluate the use of passive acoustic methods for birds. The use of newly available passive audio recorders and automated bird sound identification software presents a novel method to inventory and monitor bird species on conservation properties. To evaluate its efficacy, a Wildlife Acoustics Song Meter Micro audio recorder was deployed adjacent to a small wetland. The recorder was programmed to record 1 hr before and after sunrise, and 1hr before and after sunset. Recordings were analyzed and assigned an automated identification and confidence index using the BirdNet GUI desktop software, a tool for the detection and classification of avian sounds using machine learning. Recordings were saved in 1 hr increments and BirdNet created separate spreadsheets for each hour. To streamline review of the auto-ID spreadsheets, a customized Microsoft Excel VBR script was created using ChatGPT4 to consolidate the multiple spreadsheets into one. The auto-IDs were then sorted by species and confidence level and manually reviewed using Raven Lite 2.0.5 software, a tool for the visualization and measurement of audio recordings.

BirdNet assigned hundreds of auto-IDs to segments of the recordings for totals of as little as 18 species per tract up to 59 species per tract. The majority of call segments classified by the software were of species physically observed at the recording location during the site visit, or previous visits, and a handful were of potentially new species for the properties. However, upon manual review many of the Auto-ID segments were rejected. Thus, manual review then focused on species of particular interest.



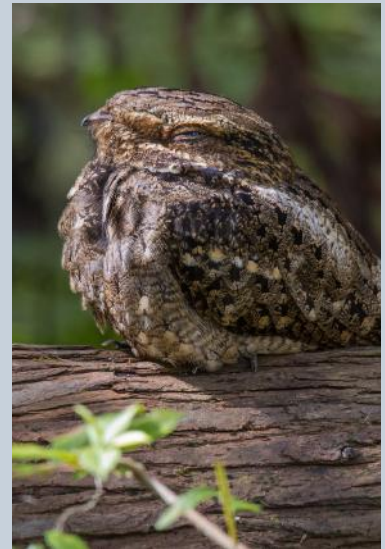
The most significant manually confirmed detection was of the Common Pauraque and Barn Owl in Texas, and the American Woodcock, Palm Warbler, Swamp Sparrow, Chuck-Wills-Widow and Common Nighthawk were confirmed in South Carolina. These species are primarily detectable in the winter and early spring, before traditional bird surveys take place or at night.

This new approach to the inventory of bird species holds much promise, despite the low accuracy rate of the BirdNet software. Going forward, passive acoustic bird surveys are likely most useful for the targeting of individual significant species and those that are less frequently detected during traditional daytime bird surveys, such as species that vocalize at night (owls, nightjars) or roaming species that only occasionally forage on a property (such as Red-cockaded Woodpeckers or Whooping Cranes). BirdNet classifications will become more accurate with the release of new versions, potentially allowing for the monitoring of bird diversity, as opposed to simple target species detection.

Currently, passive acoustic bird surveys should serve as a supplement to traditional bird surveys, not a replacement. Passive acoustic surveys can also target the detection of vocalizing amphibians. In the present survey, recorders were placed near ponds to target the detection of frogs, specifically the Strecker's Chorus frog which is a Texas Species of Greatest Conservation Need and is known to occur in the vicinity. While the BirdNet software doesn't currently auto-ID many frogs, it can be "trained" using existing recordings of target species. However, this requires the user to search out, compile, and edit existing recordings of target species to meet the requirements of BirdNet.



Barn Owl (Getty Images)



Chuck-Wills-Widow (Getty Images)



Wetland enhancement in our Coastal Texas Conservation Areas has brought in overwintering Whooping Cranes, an endangered species.



## OUR BOARD

Our Board of Directors includes professionals from diverse backgrounds and regions of the country, but they are all committed to one thing – ensuring that NALT remains a vibrant and creative force for land conservation.

W. Tred McIntire, Chairman of the Board  
Steve Carter, President J. Paul Haldeman  
Jack Butler, Vice Chairman Jeff Waldon  
Karen Mazza, Secretary John D. Snook  
Barb McIlvaine Smith, Treasurer William Harbeck  
Jeffrey Somers, Assistant Treasurer

## OUR TEAM

NALT is based out of Chadds Ford, Pennsylvania and has remote offices in Alabama, Georgia, North Carolina, and South Carolina, enabling our staff to travel near and far to offer ecological insight, land planning expertise, sophisticated mapping and innovative conservation strategies. Each individual on our team is a valued member of the NALT family. Learn a little bit more about each of us.



STEVEN CARTER

President

Steve brings more than 20 years of conservation planning and non-profit management to NALT and has spearheaded NALT's expansion of over 500 conservation projects in 24 states.



SUSAN CHASE LEVIN

Assistant to the President

Susan grew up right here in Chadds Ford and has been with NALT for over 20 years, ensuring the successful operation of our headquarters and as a liaison for contacts all over the country.



GEORGE ASIMOS

General Outside Counsel

George has worked for over 35 years in real estate and land use law and has represented NALT since its founding.



MIKE DUUS

Director of Stewardship

Mike coordinates NALT's extensive monitoring and stewardship program and provides support to the President for the development and implementation of new conservation initiatives.



AMY BRUCKNER

Project Director

Amy has more than 20 years of experience in technical project management at NALT and leads our database management, reviews property data, and leads grant writing for acquisition and project funding.



JEFF SOMERS

Director of Finance & Administration

Jeff has over 30 years of experience with financial management and business operations and provides improved efficiency and support to our conservation team.





**LAURA SYLVESTER**  
Legal Manager

Laura brings experience as a project manager to help coordinate and implement conservation projects, particularly pertaining to the legal aspects of our easements. She also helps facilitate acquisition and baseline documentation.



**MATT STUTZMAN**  
Northeastern Program Manager

Matt has been assisting with stewardship, baseline assessments, and bio-inventories at NALT for almost 10 years, and oversees management at Brinton Run Preserve. He is our lead drone pilot, and facilitates conservation management projects across the country.



**WYATT MOYER**  
Environmental Scientist

Wyatt assumes a variety of roles with NALT to include monitoring and stewardship, facilitating conservation management projects with easement holders, including our meadow conversion projects, and as a lead at our public preserve Brinton Run.



**ADRIAN GATEWOOD**  
GIS / CAD Manager

Adrian leads our mapping teams efforts to document our baseline and survey data, and also assists with an abundance of technical needs for NALT.



**STEVE DISIPIO**  
GIS / CAD Specialist

Steve provides both stewardship support, conducting monitoring at our northeast conservation easements, and mapping expertise, using GIS and CAD to assist with various conservation projects.



**PATTY KENNEDY**  
Southeastern Program Director

Patty brings over 20 years of experience in environmental planning and stewardship and sustainability implementation to NALT, assisting with project development throughout the Southeast and beyond.



**WILLIAMS GANDY**  
Southeastern Program Manager /  
Biogeographer

Will has over 15 years of experience with the onboarding of new conservation projects at NALT, conducting inventories and biological assessments, and assisting NALT with geodatabase management and mapping.



**ALEX LLEWELLYN**  
Stewardship and GIS Specialist

Alex facilitates stewardship and monitoring for our Southeastern team and works with landowners to meet their conservation goals. She is engaged in project development and works with our mapping team to improve our existing database of conservation projects.



**SARA JOHNSON**  
Conservation Biologist

Sara assists with a number of conservation projects including stewardship and monitoring of conservation easements in the Southeast, project development and conservation management services, and also acts as the communications lead for NALT, producing content for all of our social media outlets.





## CONTACT US

100 Hickory Hill Lane,  
Chadds Ford, PA, 19317  
610-388-3670  
info@nalt.org  
@north.american.land.trust

North American Land Trust is a non-profit 501(c)(3) organization that conserves and stewards more than 139,000 acres at 582 conservation areas in 24 states. Based in Chadds Ford, PA, North American Land Trust is proudly Accredited under [Pennsylvania Association of Nonprofit Organizations](#) and as such is recognized as having met all the requirements of The Standards for Excellence®: An Ethics and Accountability Code for the Nonprofit Sector. For more information, go to our website.

**[www.northamericanlandtrust.org](http://www.northamericanlandtrust.org)**