



North Carolina
Wildlife Federation

SUMMER 2025

Journal



NOT A SWINE TIME

Growing wild pig numbers threaten North Carolina's natural and agricultural landscapes.

TRAWLING 2.0

THE BIRDS AND THE TREES

Into the Light

BY TIM GESTWICKI, NCWF CEO

Waterfalls, sunsets, mist on mountain tops, foamy waves breaking, starry skies. Hoot of an owl, grunt of a buck, honking of geese, gobble of turkey, big bass breaking top water, unbridled laughter of children.

Do these evoke fond memories? Do they inspire? For many, the answer is, unequivocally, yes! Inspiration stems from a myriad of sources. It could come from charismatic leaders, spirituality, art, music, or—and for our organization—the wonders of wildlife.

Inspiration differs for each of us. Just because I may derive inspiration in a duck blind as dawn is breaking over the marsh, doesn't mean my brother or wife would feel the same way. They wouldn't necessarily become motivated to ensure wetlands are protected or even find themselves captivated by the decoys or anticipation of ducks in flight. Each of us is inspired differently, but our reactions are similar. We become energized and driven. Joy and creativity follow, and how that happens, and when, can ebb and flow like the changing of the seasons. And just as the sources of inspiration differ for each of us, so does the amount required to drive action. Some people need less inspiration than others. But whether you are self-motivated or externally motivated, inspiration is crucial to well-being. It keeps us from getting bogged down in the mundane or even from drowning in confusion and chaos.

In my travel around the state on behalf of the North Carolina Wildlife Federation, I have gained great inspiration for the wildlife conservation job at hand. From all corners of the state, people have shared with me their stories of when they first really connected with the outdoors. I heard of catching that first fish with Grandpa, watching a nest of birds in a tree outside their childhood bedroom window, the old tree fort and rope swing across the creek, chasing fireflies with cousins, and many other first-hand encounters with nature that instilled deep connections. I've heard about memories that inspired individuals to learn more, care deeply, and explore the natural world around them. I've learned about people conserving their land forever, forgoing wealth, to ensure the family farm or mountain top remain intact for future generations. I've seen large areas protected from bulldozers and the pride folks had in their victories.

Along the way, I've learned of deer donation efforts and Wounded Warrior fishing trips being led, with no fanfare, completely under the radar just because people were committed and inspired to give back. I've met stalwart elected officials who stand tall for conservation and work to buck ever-present greed that leads to exploitation of natural resources without concern for the common good. I've met farmers who are utilizing native pollinator plants to support their crops and forest owners managing their land for the sole purpose of supporting wildlife. The passion and dedication of these hundreds upon hundreds of storytellers, and the work they are doing selflessly because of their early connections with nature, are what inspire me in this wildlife work.

There can't be too many of us loving and protecting the beautiful state of North Carolina and its wildlife.

North Carolina and its wildlife and wild places are threatened on many different levels. Habitat loss, changing climate patterns, increasing population growth, non-native flora and fauna crowding out our native species, and legislative agendas catering to exploitation of natural resources are all ever-present. It's more important than ever for those of us who enjoy our natural resources to share that passion

with others so they can be inspired to protect them. There can't be too many of us loving and protecting the beautiful state of North Carolina and its wildlife and wild places.

Summertime often stimulates fond childhood memories of being outside and out of school. As you read this *Journal*, you will learn about one of our Shaw donors and her early connections with nature, and about our ongoing work to engage youth and families with the outdoors. This work is to ensure that the next generation has opportunities to connect with nature and build their own memories of the first fish caught, the first tree planted, and the first time mucking in a creek looking for crayfish and salamanders. Because those first memories often lead to a lifetime of strong affinity with the outdoors. They are often the inspiration needed to nourish a new generation of conservation champions.

In this issue, we also cover the needless killing of hundreds of millions juvenile fish in our marine nursery areas and the inspiration our advocacy team derived from the thousands of you who acted with your elected officials to try and halt this practice. More inspiration—and more action—will be needed as we work on this righteous cause. Our new community wildlife chapters in western North Carolina are an inspiration, as well, as they work for wildlife and habitat restoration in the wake of Hurricane Helene.

We are thankful and continuously inspired by the philanthropic generosity you, our supporters, provide to work on these causes. Your generous resources enable us to push the boundaries for conservation impact and continue to challenge ourselves to make every day count for wildlife, constantly testing and stretching our capacity and resolve. The bottom line: wildlife amazes and evokes inspiration through its resilience, its survival, and its beauty and wonder. I'm inspired to accomplish great things for wildlife and wildlife habitat. And I pledge that the Federation will always work to inspire your support, your engagement, and your enjoyment of wildlife and wild places. **NCWF**

STAFF

Thomas Bell, *VP Government Affairs*
Luke Bennett, *Conservation Coordinator*
Julie Brown, *Member Services Associate*
Mary Bures, *VP, Outdoor Engagement*
Dr. Louis Daniel, *Senior Marine Scientist*
Laura Frazier, *Refuge Conservation Coordinator*
Manley Fuller, *VP, Conservation Policy*
Tim Gestwicki, *Chief Executive Officer*
Kate Greiner, *VP, Philanthropy and Communications*
Fred Harris, *Natural Resource Specialist*
Cameron Ingraham, *Conservation Specialist*
Lacy Kegley, *VP, Operations and Finance Manager*
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Page Turner, *Conservation Coordinator*
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DESIGN / PRINTING

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ABOUT THE COVER

Cover photograph Like a tiny fragment of the sky, a cerulean warbler brightens the day of any birder. Photo by ps50ace / © iStock.com. Other photos, unless noted, courtesy of NCWF.

CONTACT

NCWF Raleigh office: (919) 833-1923
1024 Washington Street, Raleigh, NC 27605
NCWF Charlotte office: (704) 332-5696
1346 St. Julien Street, Charlotte, NC 28205



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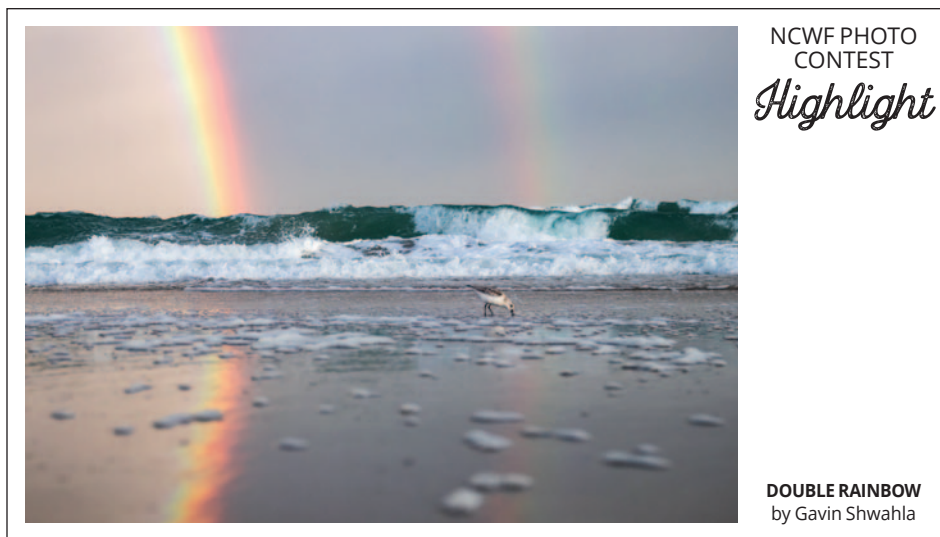
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DOUBLE RAINBOW
by Gavin Shwahla

NORTH CAROLINA WILDLIFE FEDERATION

- MISSION** To protect, conserve, and restore North Carolina wildlife and habitat for all.
- VISION** A North Carolina with healthy and diverse habitats and wildlife valued by all people and sustained for future generations.
- VALUES** Science-based decision making
Non-partisan approach to policy
Inclusive of broad interests and perspectives
Collaborative with diverse organizations and individuals
Committed to solutions and impact



It's Not a Swine Time

Feral hogs bring environmental damage, disease, and a loss of native species.

There are no easy answers.

by Bates Whitaker / NCWF Creative Content Manager

The story of feral swine is one of scarcity and abundance—of animals once prized and welcomed as livestock, but now an ecological menace. It's a story bound up in North America's hunting heritage, the introduction of exotic species, international trade, European colonization—and, surprisingly, even *The Great Gatsby*.

This is the story of feral swine in North Carolina.

What Are Feral Swine?

Feral swine are complex creatures. Even the term itself can be confusing; they're also known as wild pigs, wild boar, or feral hogs—terms often used interchangeably. All pigs fall under the species *Sus scrofa*, which also includes domestic pig breeds. Feral swine are free-ranging members of this species that have reverted to a wild state, descending from domestic pigs, Eurasian wild boar, or hybrids of the two.

Pigs have been part of human life for millennia. Ancient Greeks and Romans hunted wild boar, and pig domestication began around 8,500 to 8,000 BCE in the Near East. This long history is key to understanding their presence in the U.S. Pigs weren't native to North America; European settlers brought them as a food source in the 1500s, allowing them to roam freely.

According to author and environmental engineer Alice Outwater, hogs were considered by settlers to be “cattell for proffeit,” and, due to pigs being forest dwellers before domestication, were primed to prosper in the woods of the eastern U.S. Over time, some escaped or were intentionally released, quickly adapting to the wild and becoming feral. Wild pigs were often prized over the pigs kept in enclosures, with the early 1700s English explorer John Lawson noting that, “The Pork that runs wild is much better than the tame, being more juicy and better tasted, and a Belly of Wild Pork is a Dish for an Emperor.”

Within months, domestic pigs released into the wild begin to exhibit physical and behavioral changes, making the transition to feral swine remarkably fast. This initial introduction would go on to have profound impacts on North American ecosystems, agriculture, and culture. Even as early as 1709, Lawson noted in *A New Voyage to Carolina* that, “The Hogs are very numerous in [North] Carolina, running in great Drovers in the Woods, and feeding on the Mast of the Oaks.”

Notably, as it pertains to culture, hogs played a role in a cultural shift connected to Indigenous relationships to the land. The Narragansett sachem Miantonomo lamented and predicted in 1642, “You know, our fathers had plenty of deer and skins, our plains were full of deer, as also our woods, and of turkies, and our coves full of fish and fowl. But these English, having gotten our land, they with scythes cut down the grass, and their hogs spoil our clam banks, and we shall all be starved.”

This prediction resulted in just the expected outcome: hogs played a critical role not only in the destruction of native habitats, but also in the erosion of Indigenous foodways and culture.



in North Carolina

FERAL SWINE / 6381380 / ISTOCK.COM

Boar Hunting and the Spread of Feral Swine

While pigs first arrived with settlers, the modern feral swine problem is deeply tied to early 20th-century boar hunting culture. In the early 1900s, wealthy landowners began importing wild pigs for sport, often hunting them with dogs.

One notable figure in early 20th-century boar hunting was George Gordon Moore, a Canadian socialite believed to be the inspiration for F. Scott Fitzgerald's *Jay Gatsby*, linking feral swine history to a broader cultural narrative. In 1912, Moore established a European-style game preserve on 1,600 acres near Hooper Bald in western North Carolina, introducing 14 wild boar along with other exotic game.

This introduction near Hooper Bald marked the beginning of a persistent feral swine population in the southern mountain region of the state. That population remains today and is one of the most established populations in the state, illustrating how such introductions can have long-lasting persistence and ecological consequences. But such introductions were not the first to establish the species in the North Carolina landscape.

As early as 1733, North Carolina's governor George Burrington wrote that some "fifty thousand fatt hoggs are supposed to be driven into Virginia from this Province & almost the whole number of fatted Oxen in Albemarle County with many Horses, Cows and Calves, much barreled Pork is carried into Virginia." This illustrates the practice of moving these animals across the landscape, further dispersing them.

Similar boar transport occurred across the U.S., and populations were further protected when feral swine were legally designated as game species in several states. In North Carolina, legal protections began to emerge by 1969. In Jackson and

Transylvania counties, they were designated as game animals, with hunting seasons and bag limits. These protections expanded in 1979 when the North Carolina Wildlife Resources Commission (NCWRC) classified these animals as big game statewide—ironically helping populations grow.

A major shift occurred in 2011 when feral swine were reclassified as a nongame invasive species, lifting restrictions and allowing year-round hunting with no bag limits. The state soon permitted night hunting and later ended the formal wild boar season in western counties, moving from game management to eradication efforts.

Impacts on Habitat

Feral swine inflict serious ecological damage. Their rooting behavior destroys native plants, disrupts soil, and unearths insects, while wallowing damages wetlands and vernal pools. They compete with native herbivores like deer for food, and their omnivory contributes to the decline of ground-nesting bird populations and amphibians. They are opportunistic feeders, eating everything from plants and small animals to the young of ground-nesting birds like quail and turkey—and even the occasional deer fawn. Larger reptiles like snakes, lizards, and turtles are also subject to feral swine consumption.

In agricultural settings, swine destroy crops, erode streambanks, and contaminate water sources. By disturbing soil and defecating near waterways, feral swine increase sedimentation and introduce pathogens like *E. coli* and leptospirosis into streams and ponds. Nationwide, according to the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA APHIS), they cost an estimated \$1.5 billion



annually in damages and control efforts. This estimate is based on a conservative calculation of \$300 in damage and control costs per hog, applied to an estimated population of 5 million feral swine across the country. With current national feral swine numbers exceeding 6 million, annual economic losses could well exceed \$2 billion per year.

Beyond economic costs, feral swine reduce the aesthetic and recreational value of parks and properties, damage infrastructure, and displace native wildlife that rely on the same habitats.

Challenges in Managing Feral Swine

Feral swine management is notoriously difficult. These animals reproduce at an alarming rate—females can birth two litters per year, with up to a dozen piglets each, and reach sexual maturity before their first birthday. At this rate of reproduction, a single female may produce over a hundred piglets in her lifetime. Under favorable conditions, populations can double in just a few months, far outpacing most control efforts.

While recreational hunting traditionally played a perceived role in management, it's rarely successful enough to reduce or

eliminate swine populations. According to the USDA's National Feral Swine Damage Management Program, at least 70 percent of a local swine population must be removed each year to simply maintain current numbers, much less achieve a reduction. Hunting alone typically removes far fewer individuals, and may make pigs more elusive, driving them to become nocturnal or scatter into smaller, harder-to-catch groups.

In response, state and federal agencies use advanced tools like infrared drones, trail cameras, and remote-activated corral traps. These traps—designed to capture entire sounders (groups of adult swine with their young) at once—are currently the most effective strategy for reducing feral swine numbers. However, control delays often result in quick rebounds.

Recognizing the need to address issues related to feral swine, the N.C. General Assembly has proposed language in the 2025 Farm Act that charges a coordinated action by forming the N.C. Feral Swine Working Group. This group brings together state wildlife agencies, state agriculture agencies, scientists, landowners, policy makers, and others to share data for the hiring of personnel necessary to implement feral swine



WILD PIGS ROOT AND WALLOW IN FRAGILE WETLANDS, DESTROYING NATIVE WILD HABITATS AND FOULING WATERS.

PHOTOS BY WILLIAM MAYFIELD

damage control activities and provide outreach, education, and technical support. Future success of the removal of feral swine from the landscape depends heavily on landowner participation and adequate funding from the N.C. General Assembly for the program.

Despite efforts, feral swine continue to expand their range, threatening North Carolina's ecosystems, agriculture, and rural livelihoods. Long-term control will require consistent funding, public engagement, and a shared commitment to remove this invasive species from the landscape.

Disease Risks

North Carolina is the nation's third-largest pork producer, generating over \$10 billion annually and supporting tens of thousands of jobs, particularly in rural areas. Feral swine pose a serious threat to this critical industry. They are known carriers of more than 30 diseases and nearly 40 parasites, many of which can infect livestock, pets, wildlife, and even humans.

Of particular concern are brucellosis (which causes reproductive failure and can infect humans), pseudorabies (fatal

to cattle, sheep, and dogs), and African swine fever, a highly contagious and economically devastating disease not yet present in the U.S. but spreading globally. Feral pigs' rooting and wallowing behavior allows for easy contamination of water sources, farm equipment, and pastures. Infected wild pigs can also transmit diseases indirectly to domestic herds through contaminated feed, surfaces, or via boots and clothing.

Once disease enters domestic herds, containment is costly and challenging, potentially triggering trade restrictions, mass culling, and long-term damage to consumer confidence. The mobility, high reproduction rate, elusiveness of feral swine, and mixed support from private landowners make disease surveillance and management exceptionally challenging.

The future of feral swine in North Carolina remains uncertain but what is clear is their legacy—a potent combination of ecological destruction, economic disruption, and public health risk. Their presence is a cautionary tale about the consequences of introducing and failing to control nonnative species in new ecosystems. **WF**

Historic Milestone with Muddy Waters

Legislation HB442 was as hot as the summer temperatures. Bold and long overdue, the Senate amended a fisheries bill focused on flounder and red snapper to include a provision removing trawling in North Carolina inshore waters and waters within one-half mile from the coast. This language is identical to that of neighboring states Virginia and South Carolina, aligning NCWF with regional standards and finally ending North Carolina's long-standing isolation as the only state on the Atlantic and Gulf coasts to allow large-scale bottom trawling in juvenile fish nursery areas.

Large-scale, inshore bottom shrimp trawling has long been recognized as one of the most destructive fishing practices in coastal waters. The practice drags heavy nets, doors, and chains along the seafloor, stripping it of natural habitats—including seagrass meadows, oyster beds, soft corals, and sponges, and prevents those critical habitats from being re-established where they have been destroyed. This indiscriminate shrimping method results in significant bycatch, which is the unintended capture of non-target species. For every one pound of shrimp harvested, more than four pounds of bycatch are wasted.

Each year, hundreds of millions of valuable fish are needlessly killed due to large-scale, inshore bottom shrimp trawling. An estimated 80 percent of this bycatch includes essential juvenile fish like southern flounder, weakfish, spot, croaker, and blue crab. These fish never mature or spawn, directly contributing to the collapse of North Carolina fisheries—and dragging down the state's economy in the process.

Upon news breaking that the Senate was once and for all working to solve North Carolina's dismal, decades-long marine resource management failures and capitulations to the commercial industry, the opposition—led by the well-heeled commercial interests and the large-scale boat titans who control

the entire commercial fisheries community in North Carolina with iron fists—drudged up their decades-old playbook. Efforts that have in the past proven effective in scotching any changes in North Carolina were deployed to muddy the water, sow confusion, and deflect blame. Legislators were bombarded with an onslaught of hyperbole, emotional rhetoric, scare tactics, and unsubstantiated biological and economic claims.

The science is unequivocal and irrefutable. Bottom trawl fishing for shrimp has been studied around the world and shown to produce extraordinary amounts of bycatch. Moreover, those same studies show that the target species—shrimp—frequently makes up less than 20 percent of the total catch. Exhaustive research clearly shows that shrimp trawl catches in estuarine nursery areas are primarily comprised of juvenile fishes of economic value to North Carolina—not shrimp. The scientific data from all of those studies are clear and indisputable. In fact, the Atlantic States Marine Fisheries Commission (ASMFC), in its fishery management plans for spot and Atlantic croaker, states that North Carolina's shrimp trawl bycatch is the greatest source of fishing mortality on the East Coast. Despite bycatch reduction devices being required since 1995, these stocks continue to decline to a collapsed state.

As for bycatch reduction devices—the

go-to solution of the industry—these are openings in trawl nets designed to allow fish to escape. But they simply do not save fish, especially juvenile fish that are the same size as targeted shrimp. Industry estimates claim sweeping reductions in juvenile fish mortality from these devices—claims which are entirely unsubstantiated by any studies. ASMFC assigns a mortality rate of 100 percent to all trawl discards in its management plans. These data directly contradict the industry's narrative that juvenile finfish survive trawl encounters. If these devices were working, we'd expect fish stocks to rebound. North Carolina data shows the exact opposite: collapsing stocks continue.

Additionally, bycatch pulled from the nets onto the deck continues to show the same grim ratio—at least four pounds of dead finfish for every pound of shrimp harvested.

The opposition rallied friends and family, bringing shrimp to boil and give away to legislators as a protest against the legislation. False statistics and “sky is falling” rhetoric abounded. In the end, the House adjourned for summer recess without taking up the bill.

The legislation now sits in the House, awaiting action.

While the legislation didn't pass right away, the fact remains: removing large-scale bottom trawling from juvenile fish nurseries—just as every other coastal state has already done—is the key to rebuilding North Carolina's fisheries and ecosystems. Establishing clear protections for inshore waters while allowing sustainable fishing to continue must happen. The Senate's work represents a balanced approach, prioritizing scientific evidence to preserve long-term ecosystem health and the economic benefits that healthy coastal waters provide to North Carolina's tourism and all fishing sectors.

Now the opportunity lies with House members. They must wade through the muck and false innuendo, analyze the biological science, weigh the economic science, and move North Carolina out of the dark ages—once and for all.

WHO DID THE RIGHT THING? The Senate resoundingly voted to pass the bill, progressing historic legislation to prohibit large-scale, inshore bottom shrimp trawling in our estuaries. Citizens, anglers, and conservationists applauded the decisive action. After much debate, the Senate passed the legislation with a bipartisan, emphatic 41-4 vote.

"The North Carolina Senate has taken a bold and necessary step to protect our state's precious public trust resources on the coast," said Manley Fuller, VP of Conservation Policy at NCWF. "We thank them for demonstrating their commitment to preserving North Carolina's marine habitats for current and future generations, and urge their colleagues in the House to follow suit."

HB 442: How the Senate Voted (06/18/2025)

In favor (Democrat): Adcock, Applewhite, Batch, Blue, Chaudhuri, Chitlik, Everitt, Garrett, Grafstein, Lowe, Mayfield, Mohammed, Murdock, Robinson, Salvador, Smith, Waddell

Opposed (Democrat): None

Excused Absence (Democrat): Bradley, Meyer, Theodros

In favor (Republican): Alexander, Berger, Britt, Burgin, Corbin, Craven, Daniel, Ford, Hise, Hollo, Jackson, Jarvis, Johnson, Jones, Lee, McInnis, Measmer, Moffitt, B. Newton, Overcash, Rabon, Sawrey, Sawyer, Settle

Opposed (Republican): Brinson, Hanig, Lazzara, Sanderson

Excused Absence (Republican): Barnes, Galey



Our fish stocks are collapsing. Each year,
HUNDREDS OF MILLIONS
of valuable fish are needlessly killed
due to large-scale,
inshore bottom shrimp trawling.

It's time for North Carolina to take
action and protect tomorrow's catch.

PROHIBIT. PROTECT. PRESERVE.

THERESA DALTON AND DAVID DALTON / IMAGE CAPTURED FROM PBS NC'S FLAVOR NC / WILD CAUGHT SHRIMP EP. 401

TRAWLER OFF THE NC COAST / BEVERLY MEEKINS / NCWF PHOTO CONTEST





Across North Carolina, two very different birds face a shared threat—habitat loss. From the Coastal Plain to the Southern Appalachians, species that once thrived in abundance are now in decline, each telling a story of ecosystem change. North Carolina Wildlife Federation, alongside dedicated partners, is taking action to give these birds a fighting chance. Whether it's chimney swifts swirling above Wilmington or cerulean warblers flitting through Pisgah's canopy, their futures depend on what we do next.

From the high country to the coast, NCWF works to give two beleaguered birds a wing up on the future.

CHIMNEY SWIFTS IN COASTAL CAROLINA

With your eyes to the sky around sunset, you may see small, bat-like birds swooping and swiveling overhead. These are likely chimney swifts, *Chaetura pelagica*. With their torpedo-shaped body, they glide through the sky like part of the wind itself. They can reach altitudes of 8,000 feet, one of the highest airborne species. True to their name, chimney swifts hang out in chimneys, but chimney caps and gas heaters take what once provided a finite sanctuary and shut the doors, with no alternative.

Three chimney swift towers were built by NCWF, Cape Fear Audubon, and site partners across Wilmington, with funding from the Women's Impact Network of New Hanover County and Duke Energy, to provide alternative habitat for this species of greatest conservation need. Each tower reflects the community surrounding it. At the Longleaf Environmental Learning Center, nestled in an educational forest at the Friends School of Wilmington, sprawling wildflowers with signatures of hidden trinkets decorate the 14-foot, hollow pillar. The tower's shadow streaks across a bed of native larval host plants, a feast for both migratory and year-round residents.

The chimney swift tower at Willowdale Urban Farm is an extension of the murals, which capture the cultural significance and rich roots of the people whose families have tended to and cultivated the land for centuries.

Each chimney swift tower mimics the hollow, old-growth trees that swifts once used to roost and nest in before the centuries of logging, which have nearly cleared all old-growth forests from New Hanover County. Surrounded by native flora, these towers support the life cycles of our vital pollinators and allow birds to enjoy the security of resources: places to raise their young, food, and a community, including their human neighbors, which has rallied around their survival. In the fall, as the swifts head south to overwinter, we hope their flocks will find the towers and perfect their twister-like dive into the tight quarters of their new hollow homes.

rk

CERULEAN WARBLERS IN THE SOUTHERN APPALACHIANS

With the return of spring to the Southern Appalachians, the forest hums back to life. Mist clings to mossy ridges as sunlight filters through budding canopies. Reptiles stir under leaf litter, amphibians chorus from ephemeral pools, and mammals forage with newfound urgency.

Then, from thousands of miles away, the skies deliver brilliant passengers: neotropical migratory birds. They arrive in flocks, flashing vibrant plumage through branches and filling the hills with layered song. Among them, the cerulean warbler (*Setophaga cerulea*), a small, sky-colored songbird, returns from South America to breed in the Appalachian canopy it has depended on for centuries.

But that canopy is shrinking. The cerulean warbler has declined by more than 70 percent in the Appalachian region, due mainly to habitat loss across its migratory path—from wintering forests to stopover corridors and, most critically, its nesting sites in old-growth and mature hardwood forests. Once widespread, these forests now make up only a small fraction of the Southern Appalachians. In North Carolina's national forests, some of the last strongholds remain.

Recognizing this urgent need, a coalition of conservation groups—including North Carolina Wildlife Federation, National Parks Conservation Association, Defenders of Wildlife, MountainTrue, Southern Appalachian Highlands Conservancy, and the N.C. Wildlife Resources Commission—launched a collaborative survey in 2024 with support from the U.S. Forest Service. Their focus: the Craggy Mountains of Pisgah National Forest, where fragmented ridges still harbor potential habitat for ceruleans and a host of other vulnerable songbirds.

Using acoustic recording units (ARUs) placed high in the trees, teams captured dawn and dusk soundscapes across weeks, documenting songs and calls in otherwise unreachable terrain. These digital ears picked up not just ceruleans, but a chorus of species sharing similar forest needs—like the worm-eating warbler (*Helmitheros vermivorum*) and the Acadian flycatcher (*Empidonax vireescens*). Each recording is a window into the avian community and a step closer to understanding what remains—and what's been lost.

Volunteers played a vital role in this work, hiking into rugged, trail-less areas to deploy equipment, collect data, and witness firsthand the awe of old-growth still clinging to Appalachian slopes. In doing so, they helped fill critical knowledge gaps and supported long-term forest conservation efforts that will guide how public lands are managed.

While this spring's fieldwork has ended, the real work begins: interpreting hours of sound into insight. The project's urgency has only grown in the wake of Hurricane Helene, which left uncertain damage to habitat in Pisgah. What's been lost can't yet be measured—but this initiative offers a rare opportunity to compare species presence before and after the storm, helping shape future protections. **NCWF**



CHIMNEY SWIFT / ISTOCK.COM / MATTHEW JOLLEY



CERULEAN WARBLER / WIKIMEDIA COMMONS / LWOLFARTIST

NCWF's Youth Engagement Emphasizes Creek-Stomping, Woods-roaming, and Nature-Loving Fun



NORTH CAROLINA WILDLIFE FEDERATION is passionate about connecting kids and families with wildlife and the outdoors. Through Great Outdoors University (GoU) and other hands-on programs, NCWF offers unforgettable experiences such as paddling adventures, fishing trips, and stream explorations that get thousands of youth and families outside every year.

In a world dominated by screens, these moments are more important than ever.

"We love seeing kids outdoors smiling and laughing," says Mary Bures, NCWF's vice president of outdoor engagement. "Whether it's catching their first fish or splashing through a creek netting for salamanders, these experiences stick with them. They create lifelong memories and deep connections to nature."

So far this year, NCWF has delivered 4,920 outdoor experiences to youth and families—and we're not done yet.



"This field trip was better than Carowinds."

"I want to work here. Who should I ask?"

"I want to go canoeing again **one more time** before we leave."

"When can we come back again?"

"I never knew how much I love nature until I started coming to GoU."

"I love GoU!"

"I'm a great mushroom hunter!"

"I can't wait to visit GoU again next summer!"

"That's a pine tree. I can tell because of the pine needles at the top of it."

"Can we watch the turtle walk?"

"We like to go outside!"

"Those gum balls have seeds which start new trees."

"I thought the snake would be slimy, but it was soft and dry."

"I found a crawfish!" "I love learning about nature."

"This is my first time fishing, and I caught one!"

"It's great how you all use the field guides to help kids learn on their own, rather than just telling the answers."

"We didn't know we were going fishing today and we are so excited to be here!"

"I have been on these trips for five years now and look forward to them."

"I'd rather not leave. This is too much fun."

Lifetime of Memories



In what has become a much-anticipated tradition at the N.C. Wildlife Resources Commission's John E. Pechmann Fishing Education Center in Fayetteville, the North Carolina Wildlife Federation proudly awarded a Lifetime Unified Sportsman License to a deserving youth participant during the annual Fin-tastic Fishing Festival.

This special license provides a lifetime of access to North Carolina's rich fishing and hunting opportunities, opening the door to a future filled with outdoor exploration and conservation awareness. The moment was a highlight of a day filled with learning, laughter, and lines cast by more than 300 festival attendees.

"I want to express my heartfelt thanks for your generous support of the 2025 Fin-tastic Fishing Festival and the work we do at the Pechmann Fishing Education Center," said Tom Carpenter, fishing and aquatic education manager with the Commission's Wildlife Education Division. "The N.C. Wildlife Federation's donation played a vital role in helping us welcome and serve more than 300 participants this year. We are grateful for your partnership and commitment to our mission."

NCWF is honored to support events like the Fin-tastic Fishing Festival that inspire the next generation of anglers, conservationists, and outdoor stewards.

NCWF Welcomes New Staff



JOHN ANN SHEARER

THREE NEW CONSERVATION ADVOCATES HAVE JOINED NORTH CAROLINA WILDLIFE FEDERATION'S TEAM.

John Ann Shearer is a Certified Wildlife Biologist®. After 36 years with the U.S. Fish and Wildlife Service, John Ann retired in April 2025. She served as the state coordinator for the agency's Partners for Fish and Wildlife Program in North Carolina for 26 years, during which she provided technical and financial assistance to private landowners for wildlife habitat restoration on private lands. John Ann spent most of her restoration and management work focused on longleaf pine and prescribed fire. Earlier, she worked on several national wildlife refuges, including Wheeler National Wildlife Refuge in Alabama, Upper Souris National Wildlife Refuge in North Dakota, and Mattamuskeet National Wildlife Refuge in North Carolina.

John Ann grew up in a hunting and fishing family in Fayetteville, North Carolina. She has an undergraduate degree in biology from the University of North Carolina at Chapel Hill and a master's degree in wildlife management from West Virginia University. Away from work, she enjoys spending time with her husband and two grown daughters, faith-based volunteering, socializing, exercising, traveling, gardening, and participating in dog sports with her labs Zala and Sassy.



LISA SYNORADZKI

Lisa Synoradzki, foundation relations manager, joins NCWF from New York City, bringing extensive experience in raising funds for wildlife conservation, plant studies, and informal science education. Funded projects have saved habitat for wild cats, enhanced community gardens, and increased children's understanding of the natural world. As a long-time hiker, mostly in the Hudson Highlands, and an outdoor enthusiast, she is excited to explore the North Carolina mountains, woods, and waterways. Beyond foundation expertise, she has a certificate in botany and is a trained urban naturalist.

Lisa will secure funding from foundations, corporations, and government agencies for all of NCWF's programs, expanding both the portfolio of funders and the amount of funding received. Her goal is to ensure NCWF has the grant support needed to fulfill its ambitious plans to protect, conserve, and restore the state's abundant diversity of wildlife and habitat for years to come.



ZÖE PLAYE

Zöe Playe, senior major gifts associate, comes to NCWF with a lifelong love for wildlife and the outdoors that began in her childhood. Raised in Narragansett, Rhode Island, a town known for its natural beauty and coastal landscapes, she developed a deep appreciation for camping, outdoor exploration, and conservation from an early age.

With over 20 years of development experience working with nonprofits of all sizes, Zöe brings a strong commitment to community and connection. She values donors as true partners and believes that collaboration, open dialogue, and shared purpose are key to meaningful progress in conservation efforts. Passionate about protecting our natural world for future generations, Zöe is excited to contribute her expertise and dedication to NCWF's mission, fostering relationships that inspire stewardship and positive change.

NCWF WELCOMES TWO NEW COMMUNITY WILDLIFE CHAPTERS

North Carolina Wildlife Federation is excited to introduce two new Community Wildlife Chapters, each working to protect and restore wildlife and habitat in their unique corners of the state.



SWANNANOVA VALLEY WILD!

Serving the communities of Swannanoa, Black Mountain, and Montreat, Swannanoa Valley WILD! brings people together through habitat restoration, nature connection, and environmental education. One



of the chapter's main projects has been restoring Fox Creek Park, a beloved green space left damaged by Hurricane Helene and overrun with invasive species like kudzu and multiflora rose.

Thanks to a partnership with the Friends of Fox Creek Park and hundreds of dedicated volunteers, the park is being transformed into a thriving habitat filled with goldenrod,

jewelweed, elderberry, salamanders, birds of prey, fungi, and more. The workdays are about more than just digging and planting—they're filled with laughter, shared meals, and a sense of purpose.

The chapter isn't slowing down. From tree planting and streambank restoration to nature journaling and guided walks, Swannanoa Valley WILD! is creating ongoing opportunities for residents to engage in meaningful conservation.



HIGH COUNTRY WILD

Covering Ashe and Watauga counties, with plans to expand into Alleghany, High Country Wild is rooted in one of the state's richest ecological regions. Home to rare and vital habitats—spruce-fir forests, mountain bogs, and high-elevation rock outcrops—the



High Country supports species like the hellbender, bog turtle, northern flying squirrel, and spruce-fir moss spider.

High Country Wild focuses on restoration and education, especially for Species of Greatest Conservation Need. The chapter has already organized successful cleanups with the New River Conservancy and Keep Ashe Beautiful, removing

thousands of pounds of debris from local waterways, improving conditions for aquatic species like the hellbender.

Looking ahead, the chapter plans to lead habitat restoration efforts such as revitalizing spruce-fir forests and restoring bogs, and host educational programs to inspire a new generation of conservationists.

NCWF's Community Wildlife Chapters are grassroots movements powered by local passion and purpose. To get involved with either of these chapters, contact luke@ncwf.org.

CHECK OUT OUR CHAPTERS!
For more info, email us at info@ncwf.org.



CHARLOTTE
WILDLIFE STEWARDS



CONCORD WILDLIFE
ALLIANCE



DURHAM
WILDLIFE STEWARDS



HABITAT BUILDERS
(Western Union County)



HAWK (HABITAT AND
WILDLIFE KEEPERS)
(Matthews)



HIGH COUNTRY WILD



INNER BANKS
WILDLIFE
(Washington)



LAKE JAMES AREA WILDLIFE
AND NATURE SOCIETY
(Nebo)



LAKE NORMAN WILDLIFE
CONSERVATIONISTS



LOWER CAPE FEAR WILDLIFE



NEUSE RIVER HAWKS
CONSERVATIONISTS
(Wake Forest)



PAWS (GASTON COUNTY
PIEDMONT AREA
WILDLIFE STEWARDS)



SOUTHEASTERN
SWAMP STEWARDS
(Whiteville)



SOUTH WAKE
CONSERVATIONISTS
(Fuquay-Varina, Raleigh)



SWANNANOVA VALLEY WILD!



TRIAD WILD!



TRI-COUNTY CONSERVATIONISTS



UNION COUNTY
WILDLIFE CHAPTER



WILDLIFE HABITAT STEWARDS
(Northeastern NC)

Anne Harper: Stewardship Begins at Home

FOR ANNE HARPER, conservation has always been personal. Her story starts not in a classroom or a boardroom, but deep in the Connecticut woods, walking trails with her great-aunt Maisie—a woman born in the 1890s, tasked with running the family’s farm as the “son her father never had.” Maisie was a skilled tracker, a naturalist ahead of her time, and Anne’s first mentor in what would become a lifelong relationship with the land and with wildlife.

“She taught me to walk in the woods at night,” Anne recalls. “To find deer antlers, lady’s slippers, and to pay attention to the patterns of nature.” At just 12 years old, alongside Maisie, Anne helped draft the legal agreement to turn her family’s property into a land trust—permanently protected from development. “I didn’t know it then, but that was the beginning of everything.”

That early connection with the land set the course for Anne’s career in environmental education, nonprofit leadership, and conservation across the country—from protecting old-growth forests in Washington to regenerative farms in New England, from leading the Delaware Nature Society to serving on the Board of Directors for North Carolina Wildlife Federation.

Anne is also a proud member of the Shaw Society, NCWF’s community of legacy donors. For her, it’s not just a contribution, it’s a continuation of a lifetime of care. “Supporting conservation in this way is the most meaningful legacy I can leave,” she says. “We live in one of the most biodiverse places on the planet. Helping others observe, understand, and protect that is deeply important to me.”



CHARLIE SHAW SOCIETY
Donor Story

Whether she’s advocating for native plants and wildlife, mentoring the next generation of conservation leaders, or studying the habits of long-eared bats near her mountain home, Anne remains rooted in the values first passed down on those childhood walks. For her, stewardship isn’t a choice—it’s a legacy. One that began with a trail through the woods and a great-aunt who taught her to see.

Members in the Charlie Shaw Society are our most dedicated supporters—generous members who have made a commitment to the work and programs of North Carolina Wildlife Federation through an annual contribution of \$1,000 or more. Gifts can be made in one lump sum or in any number of smaller contributions within a calendar year, and can be directed to any Federation program that is of interest to the donor.

NORTH AMERICAN RIVER OTTERS / COLE BARLOW / NCWF PHOTO CONTEST



CREATE A BETTER FUTURE FOR WILDLIFE.

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Make a gift that lasts longer. Many people like to leave a gift to charity in their will because they care about causes that are important to their lives. A gift to NCWF in your will, retirement funds or life insurance ensures future generations can enjoy the wildlife and habitat that you care about in North Carolina.

www.ncwf.org/legacy



Interested?

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P: 704/332-5696
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The Season

Jeff Beane's GUIDE TO
NATURAL NORTH CAROLINA

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SEPTEMBER

September 16: Blue-winged teal are returning. Possumhaw berries are ripe and will persist through the winter. Balsam Mountain gentian—endemic to a few counties in our southwestern Mountains—is in bloom.

September 18: Female green lynx spiders are guarding their egg sacs. Tickseed sunflower and showy rattlebox are in bloom. Diana fritillaries are flying.

September 19: Threadleaf false foxglove is in bloom. Flowering dogwood berries are ripe—watch trees for migrating scarlet tanagers, rose-breasted grosbeaks, and other birds that relish these berries.

September 21: Hawk migration is peaking. Mahogany Rock in Doughton Park along the Blue Ridge Parkway is an especially good spot to witness this spectacle, which can include thousands of broad-winged hawks and other species.

September 22: Autumnal equinox is at 2:17 p.m. EDT (18:17 Universal Coordinated Time).

September 23: In the Sandhills, pine snake nests are hatching and Sandhills blazing-star is in bloom. Neptune will be at its closest approach to Earth, brighter than any other time of the year, and visible all night.

September 24: Cottonleaf golden-aster is in bloom.

September 25: Bog turtle nests are hatching in the mountains and foothills. Fernleaf false foxglove is in bloom in the Coastal Plain.

September 26: Most white-tailed deer fawns have lost their spots. Carolina mantids are depositing their oothecae (egg clusters).

September 27: National Hunting and Fishing Day and National Public Lands Day. Also, watch the trees for some challenging birding—fall warblers and other migrants are moving through.

September 29: The first frosts may be expected any time in the mountains.

September 30: Most turtle nests have hatched, but in some species, including sliders, cooters, painted turtles, and box turtles, hatchlings may sometimes overwinter in the nest and emerge the following spring.

OCTOBER

October 1: Brunner's mantids (aka walkingstick mantids) are active and depositing their oothecae. These unusual flightless native mantids reproduce by parthenogenesis—only females are known.

October 2: The last of the season's loggerhead sea turtle nests are hatching. Nodding ladies' tresses are in bloom.

October 5: Surface activity peaks for eastern and southern hognose snakes. Pine Barrens gentian is blooming. Fall runs of bluefish and red drum provide good surf-fishing opportunities.

October 7: Draconids meteor shower peaks. Best viewing will be early evening from a dark location.

October 10: Tail end of migration peak for many shorebird species.

October 11-18: National Wildlife Refuge Week. Visit a refuge you've never been to or contact your favorite one for special activities listings.

October 12: Surface activity peaks for the mimic glass lizard, a rare legless lizard dependent on big pine flatwoods in our southeastern Coastal Plain. Most ruby-throated hummingbirds are leaving for Central and South America (a few overwinter along our coast). Hummingbird feeders may be taken down and cleaned thoroughly for next year.

October 14: Yellow-bellied sapsuckers and other winter resident birds are returning to the Piedmont and Coastal Plain.

October 16: Eastern red bats are mating. These common, solitary, tree-roosting bats typically mate on the ground.

October 17: Chicken turtles and eastern mud turtles begin hibernating. Unlike most aquatic turtles, these two species usually leave their shallow pond habitats to overwinter terrestrially in adjacent uplands.

October 18: Fall hardwood foliage colors are peaking in the mountains.

October 18-19: 48th annual Woolly Worm Festival, Banner Elk, NC. For more information, visit www.woollyworm.com. The woolly worm, or woolly bear, is the larva of the Isabella tiger moth. The comparative widths of its orange and black bands do not predict the severity of winter, but it can be fun to pretend so.

October 20: The first frosts may be expected in the Piedmont. Kinglets and white-throated sparrows are returning. Sandhill chaffhead is in bloom.

October 26: Expect the first frosts in the Coastal Plain. Persimmons are ripening, providing important forage for opossums, raccoons, foxes, coyotes, and some humans.

October 29: Mercury reaches its greatest eastern elongation from the Sun. Look for it low in the west just after sunset.

NOVEMBER

November 1: The North Carolina Herpetological Society will hold its 45th annual Fall Meeting on NCSU campus in Raleigh. The theme will be "Herp Conservation." For more information, visit www.ncherps.org.

November 2: Most female marbled salamanders are guarding nests by now. There is good fishing for spotted seatrout on the coast. These popular food and game fish are actually not trout, but members of the croaker and drum family.

November 3: Peak deer rut in the Coastal Plain.

November 4-5: Taurids meteor shower peaks tonight (there's also a Supermoon the night of the 5th). Fall hardwood foliage colors are peaking in parts of the Piedmont and Coastal Plain. Uwharrie National Forest is a good place to view fall colors after most trees in the mountains have dropped their leaves.

November 6-9: Migration is peaking for some puddle ducks, including northern pintail, American widgeon, wood ducks, and green-winged teal.

November 14: Now is a good time to see a variety of waterfowl and other birds at Pea Island National Wildlife Refuge. To check on waterfowl arrivals, call the Pea Island Preserve at 252-987-2394.

November 15: Most reptiles have entered their hibernacula. Also entering their winter dormancy are our hibernating mammal species, like jumping mice, chipmunks, groundhogs, and some bats. Tundra swans are arriving down East.