



North Carolina
**WILDLIFE
FEDERATION**

Journal

WILD LIVES □ WILD PLACES

Fall 2022



DOWN AND DIRTY

In eastern North Carolina, working on red wolf recovery is not for the faint of heart.

NCWF PHOTOGRAPHY CONTEST WINNERS ARE HERE!

CONSERVATION ACHIEVEMENT AWARD WINNERS INSPIRE



Conservation through Conversation

BY TIM GESTWICKI, NCWF CEO

In 1927, U.S. Supreme Court Justice Louis Brandeis wrote “if there be a time to expose through discussion the falsehood and fallacies, to avert the evil by the processes of education, the remedy to be applied is more speech, not enforced silence.” He encourages, by my take, fighting fire with fire when it comes to countering misinformation, inaccurate statements, and outright lies in order to ensure the best for society.

NCWF takes pride in being a consensus-building conservation organization. We welcome all into our big tent—from cowboys to hippies, city folk, suburbanites and rural North Carolinians alike. We welcome anglers and birders, young and old, farmers and gardeners. We’re a melting pot of conservation enthusiasts working together through NCWF’s umbrella to accomplish common conservation objectives. In today’s era marked by divisiveness, vitriolic language, and tribalistic insulation, how do we communicate our science-based decision-making processes in the ways Justice Brandeis urges us to?

When insane-but-influential half-truths and disinformation is spread within the social media sphere, do we exhaust precious time by presenting facts and data to these online purveyors of disingenuous materials?

Many may recall the original medium of weird and often titillating “news”—*National Enquirer* magazine, once found commonly at grocery store checkout lines. Some readers may have succumbed to the silliness of the extreme stories, but most realized it was just outrageous spoof. The difference between then and now was that there was no internet to swiftly spread such garbage around. Now, with a click of a keyboard, anyone can be a news messenger. Facts fade away as there is little to no recourse for social media spewing day and night. Echo chambers respond, providing incentives to each side to keep pushing out fodder—damn the facts—in a perpetual self-feeding information war.

I offer that, amid this, we continue doing what works for us—conservation through communication—and not succumb to the tactics and drama-filled rhetoric swirling around society these days.


When we talk, we learn we have much more in common than not. Our needs are more similar than we may think. We all want healthy air, clean water, and unspoiled lands—the same components wildlife need for

survival and reproduction. Certainly, debate can be held over best ways to manage natural resources, which regulations make sense, and exploitation versus sustainability. And there’s nothing wrong with celebrating, such as when fisheries management decisions take our concerns to heart.

The art of communications is important in order that we remain a trusted, credible source for science-based, nonpartisan information as we speak for wildlife and wild places.

Roadblocks to good communications abound these days. People are busy. We spend tons of time eyes fixated on screens.

Still, NCWF fosters conversation in many ways. Around the campfire, or at a lunch meeting, or a cup of coffee chat. We hold forums and support focus groups, and plan outings in the woods and on the water. It is amazing how much more congenial people are when conversing in person or through a medium such as a live webinar or presentation. And it’s amazing how much more agreement can be found among parties. Finding ways to communicate truths and opportunities is critical these days and we are working to improve our communications. I offered advice to my daughter when she went off to college. To make friends and meet people one simple way is to leave your dorm room door open when hanging out, so dorm mates walking by can stop in to introduce themselves. It works.

This Journal serves as sort of an open door to the North Carolina Wildlife Federation. I invite you to step inside as we feature the best of the best and shine a light on conservation award winners, provide imagery of nature with our photography contest winners, and share some of the next generation of conservationists through our scholarship winners. We celebrate conservation and pledge to keep working on conservation through communications. Our door is always open, so please stop by. 

The art of communications is important in order that we remain a trusted, credible source for science-based, nonpartisan information as we speak for wildlife and wild places.

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ABOUT THE COVER

Cover photograph Ginger Barger of High Point took this award-winning photograph of two black bears crossing a canopied road in eastern North Carolina. Contents illustration © iStock.com / Natalia Kunashova. Other photos, unless noted, courtesy of NCWF.

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North Carolina WILDLIFE Federation Journal

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NORTH CAROLINA WILDLIFE FEDERATION

MISSION To protect, conserve and restore North Carolina wildlife and habitat.

VISION Our stewardship will result in a North Carolina with healthy, bountiful and diverse flora and fauna that is valued by all its people, and sustainably managed for future generations.

Our strength is derived from values driven leadership – science-based decision making; non-partisan approach to policy; stewardship of North Carolina's natural resources; inclusivity of broad wildlife interests and perspectives; and partnering with organizations and individuals who share our vision and our passion for wildlife.

GOALS Toward that vision, we will:

POLICY AND PROTECTION – Strongly influence state and federal policy that affects wildlife and habitat in North Carolina using established conservation models to guide our positions.

NETWORK OF IMPACT AND INVOLVEMENT – Foster a diverse, robust network of chapters, members, affiliates and partners; a network fortified by a variety of wildlife and outdoor interests.

EXPERIENCE AND LEARN – Enhance and expand opportunities for youth and adults that foster awareness and appreciation of wildlife and the important role healthy habitat plays in sustaining wildlife and humanity.

SIGNATURE PROGRAMS – Sponsor and support programs for the enjoyment and conservation of wildlife and habitat, including ethical and sustainable outdoor recreation pursuits.



USFWS

The Long Journey Back

Recovering red wolves in the wild in eastern North Carolina requires hands-on science.

Efforts to recover the endangered red wolf in North Carolina reveal the enormity of planning that goes into managing such a species in the wild. The execution of these plans requires extraordinary time, effort, passion, and dedication of biologists, geneticists, wildlife population modelers, disease specialists, and many others. It takes an army of scientists, technicians, and partnerships to recover a species, and at the ground level—in the woods—the techniques used by trained field biologists are invaluable to saving the species.

Red wolves are federally listed as endangered under the Endangered Species Act of 1973 and managed by the U.S. Fish and Wildlife Service (USFWS). While this level of protection affords red wolves special considerations, it also makes the work of the biologists critically important because species recovery is dependent on the genetic diversity of a limited number of red wolves and the effectiveness of the methods used to increase population numbers. Literally, every red wolf counts.

Red wolf recovery utilizes management techniques such as captive breeding, island propagation, red wolf release, coyote sterilization, and pup-fostering. First, let's explore what it means to have a litter of pups born in the wild and how pup "fostering" contributes to population numbers.

A wild litter consists of pups born to parents that move freely across the landscape, and this can take place through propagation in an island setting or when young red wolves are born to red wolves occurring within eastern North Carolina's wild population. The Eastern North Carolina Red Wolf Population (ENC RWP), which is currently the only known population of wild red wolves in the world, consists of Beaufort, Dare, Hyde, Tyrrell, and Washington Counties, although like other wildlife red wolves do not identify county boundaries. Currently, there are an estimated 19 to 21 wild red wolves in eastern North Carolina.

Pup fostering is a technique used by biologists with the Red Wolf Recovery Program to augment population numbers. This process increases the probability of more red wolf pups surviving to adulthood, and improves red wolf numbers and genetic diversity in the wild. Captive-born pups are raised by adult red wolves in a natural setting, providing the opportunity to learn how to hunt, select future mates, and survive in the wild. To date, pup fostering is the most successful method of increasing red wolf numbers and genetic diversity in the wild. However, it requires a wild breeding pair to complete the process and the captive breeding population must have enough individuals and genetic diversity to provide pups.

To initiate the fostering process, biologists use radio telemetry to monitor wild female red wolves starting in early to mid-April to document when and where the females begin to utilize a single location for an extended period. This usually indicates they have denned and likely given birth. Once the den and existence of a wild litter of pups is verified by the biologists, captive-born pups of similar age can be inserted into the wild den.

Experienced red wolf parents are preferred for the pup fostering process, although it can be completed by younger, more inexperienced red wolves, as well. Also, the preference is to maintain a litter size that does not put stress for extra resources on the parents to ensure that all pups can be properly cared for by the adults. To further ensure acceptance of the pups by the adult female wolf, the fostered pups are nestled together with the wild pups to transfer the scent (including urine) of the wild pups to the fostered individuals. While in the den, biologists insert a Passive Integrated Transponder (PIT) tag under the skin of each pup so the red wolves can be identified and located in the future, and cheek swabs are collected from the wild pups to obtain their genetic profiles. Once the transition of pups is complete, the biologists leave the den and await the return of the adult female red wolf. The

fostering process is deemed successful if the adult female red wolf stays in the current den and continues to raise the captive-born pups with their wild counterparts or if the female moves to a new den and takes all the pups with her.

Source of the Wild Red Wolves More than 240 red wolves are held in captivity at 50 facilities across the country, either for future breeding purposes or to eventually release into the wild through the Saving Animals from Extinction (SAFE) Program. If the timing of the birth of a wild litter coincides closely enough with that of a captive litter, ideally while the pups are under two weeks of age, the pups may be deemed a good fit for fostering and the individuals are transported to North Carolina. The fostering process requires the timing of birth of the captive and wild litters to closely align and the insertion or switch to occur at a young age to provide the best chance for acceptance of the pups by the adult female red wolf. As the pups grow, they become more mobile and may potentially venture off before the female returns to the den.

In 2021, captive-born pups that were fostered were flown to North Carolina due to the distance and time constraints of the fostering process. When the red wolf pups are large enough to physically support a Very High Frequency (VHF) transmitter or Global Positioning System (GPS), they are trapped in the

wild and fitted with an orange collar with reflective orange material so biologists can track the red wolves' future movements and interactions with other red wolves. The orange collars with the reflective material helps identify these canids as red wolves to decrease accidental gunshot mortality from mistaken identity while also making the red wolves more visible to drivers on local roads.

For the release of adult red wolves, biologists must ensure that captive-born red wolves have minimal to no human interaction or conditioning. Once red wolves grow to adulthood in captivity, it can be increasingly difficult for the red wolves to adapt to life in the wild and survive, further limiting the ability to increase red wolf numbers and genetic diversity of the wild population. If red wolves are comfortable with or used to human interaction, they may not be as wary of people once released in the wild and may attempt to locate food or utilize roads to obtain resources from humans. This can have negative consequences such as human-wildlife interactions, unintended predation of livestock, or wolf-vehicle mortalities, all impacting long-term survivability of the species. Several methods are used to reduce human interaction with red wolves within the captive population and red wolves chosen for release are evaluated using several criteria to increase their likelihood of success in the wild.

How NCWF Supports NC's Endangered Red Wolves

NCWF and the USFWS Partners for Fish and Wildlife Program continue to work to voluntarily enroll private landowners in the Prey for the Pack habitat improvement cost-share program. NCWF recently received additional funding to support program efforts allowing for an increase in the amount of enrolled acreage. Please contact NCWF or USFWS if you own property in the ENC RWP and would like more information on the program. If you want to support red wolves but do not wish to enroll in the cost-share portion of the program, you can enroll your property in a zero-cost agreement to help build a collective network of public and private lands to support red wolves.

Also, NCWF is a partner in the Firebreak Project, a joint effort between Pocosin Lakes National Wildlife Refuge (PLNWR), the Coastal Wildlife Refuge Association, and NCWF. The project manages and maintains firebreaks on PLNWR to decrease the intensity of wildfires, with the added benefit of habitat improvement to numerous wildlife species. While fire is an important part of natural landscapes, sometimes habitat management is needed to reduce the intensity and ability of fire to spread. Hundreds of acres of early successional habitat, used as firebreaks on PLNWR, have been implemented and the work has employed local N.C. Forest Service staff.

Prior to mechanical treatment, the firebreaks were full of dense woody vegetation with little open space. However, after the dense vegetation was removed, a greater amount of early successional habitat, including ferns and smaller shrubs, was available for small mammals or other wildlife. The treatment of these areas also created edge habitat, which is excellent for the movement of red wolves and hunting of prey species. By increasing prey for red wolves and opening travel corridors, the red wolves are more inclined to utilize and thrive in the habitat.



Methods Used to Support Red Wolf Recovery



A WILD MALE RED WOLF (LEFT), TRANSLOCATED FROM ST. VINCENT NATIONAL WILDLIFE REFUGE, A RED WOLF ISLAND PROPAGATION SITE OFF THE GULF COAST OF FLORIDA, SUCCESSFULLY MATED WITH A LOCAL FEMALE RED WOLF (RIGHT) IN THE NORTH CAROLINA WILD PRODUCING SIX HEALTHY PUPS.



RED WOLF PUPS FOSTERED IN A DEN IN THE WILD IN 2021.



THE RED WOLF PUPS BEING PLACED IN THE DEN IN THE WILD AS PART OF THE FOSTERING PROCESS

A STERILIZED COYOTE BEING
OUTFITTED WITH A WHITE COLLAR



ALL PHOTOS BY USFWS

The Coyote Conundrum With a limited number of red wolves on the landscape, finding a mate can be challenging. When a red wolf mate isn't available, red wolves may breed with coyotes, negatively impacting red wolf recovery efforts. One method biologists use to limit hybridization of red wolves with coyotes is to sterilize coyotes within the ENC RWP. The Placeholder Theory provides evidence that sterilized coyotes will hold their territories without reproducing, resulting in a reduction in local coyote numbers as well as reducing their food needs since they will not produce litters of coyote pups. Male coyotes receive a vasectomy and females undergo tubal ligation, and the sterilized coyotes are released back to their original capture site. This ensures that the coyote's hormones are left intact, motivating the coyotes to continue protecting their territories from other coyotes and preventing the birth of hybrid pups. Sterilized coyotes will maintain their territories as placeholders unless red wolves eventually displace them.

USFWS partners with a local veterinarian in eastern North Carolina for coyote sterilizations and biologists place white VHF collars on these individuals for identification and monitoring purposes once they are returned to the wild. Any coyote, including sterilized individuals, can be harvested by hunters or landowners. When left on the landscape, however, sterilized coyotes can be beneficial to landowners wanting to manage coyote numbers or reduce their take of desired game species.

NCWF encourages the protection of red wolves by providing monetary assistance to trappers who unintentionally capture red wolves or canids when trappers are unsure if they are red wolves or not, ensuring the safe transfer of these individuals to USFWS and back into the wild. During the 2021-2022 trapping season, 20 canids were captured by USFWS staff, including 12 coyotes that were sterilized, collared, and released back into the wild through the Red Wolf Recovery Program. While pup fostering and coyote sterilization successfully increase red wolf numbers in the wild, the hope is that extensive human intervention won't always be needed to grow and maintain the population once sustainable numbers are achieved.

Predator-Prey Relationships Understanding how predator and prey species influence each other through their presence and behavior on the landscape is important for management and conservation efforts, and the overall environment. The Lotka-Volterra model evaluates these relationships by focusing on the cyclic patterns of predator and prey populations over time using pre-defined mathematical equations. For example, a predator species like red wolves can keep prey such as rabbit, deer, raccoons, and rodents in check. When predator populations increase, prey populations decrease, which then decreases predator numbers in subsequent years due to decreased food availability. When predator numbers decrease, prey numbers rebound. This creates a cycle of population fluctuations and ecosystem balance that depends on the success, abundance, and presence of predators and prey, which can reduce disease transmission and help maintain suitable habitat.



USFWS

“USFWS staff are working directly with landowners to mitigate potential human-red wolf issues and concerns on private lands.”

Predator and prey interactions influence natural food chains. Energy that begins in the form of sunlight is transferred up the chain through trophic levels with plants at the bottom and large predators at the top. This transference of energy is important for maintaining a healthy ecosystem. The more complex a predator's role is in the environment, the more impact they have on prey behavior and available resources. However, indirect effects of having an apex predator on the landscape occur as well, which can be seen in the video *How Wolves Changed Rivers*, detailing the result of reintroducing Yellowstone's gray wolves to the environment. The video explains the introduction of an apex predator, the gray wolf, and the resulting impacts on the environment through newly introduced pressures on prey species. For example, the pressure from gray wolves changed elk foraging habits, which allowed for vegetation on riverbanks to flourish. The increased vegetation reduced potential erosion and supported other species of wildlife like beaver and other small mammals. This chain reaction is known as a trophic cascade, explaining the indirect effects a species can have on an ecosystem. As the red wolf population grows in eastern North Carolina, we should begin to see positive ecosystem benefits from the presence of this apex predator. **NCWF**

WILD WONDERS CAPTURED IN *4th Annual Wildlife Photo Contest*

Shutterbugs perfectly captured the beauty and diversity of our state's natural resources for North Carolina Wildlife Federation's 4th Annual Wildlife Photography Contest. We received more than 1,000 submissions from professional, amateur and youth photographers highlighting North Carolina's nature, wildlife and recreational opportunities – from the coast to the mountains. Categories included Carolina Critters, People in Nature, Scenes of North Carolina and Pollinators & Insects.



CRITTERS AMATEUR: JUMPING SPIDER / SELLERS HILL (WILMINGTON)



PEOPLE YOUTH: PIER FISHING / MCKENNA MILLAR (HAMPSTEAD)



CRITTERS PROFESSIONAL: EASTERN TIMBER RATTLER / GENEVIEVE RUDECK (BOSTIC)



POLLINATORS AMATEUR: BEE & HUMMINGBIRD / MARK GALLERANI (GREENSBORO)



CRITTERS YOUTH: SNAIL / MATTHEW RAMSEY (CHAPEL HILL)



POLLINATORS YOUTH: BUTTERFLY ON FLOWERS / ROHAN YADAV (MORRISVILLE)

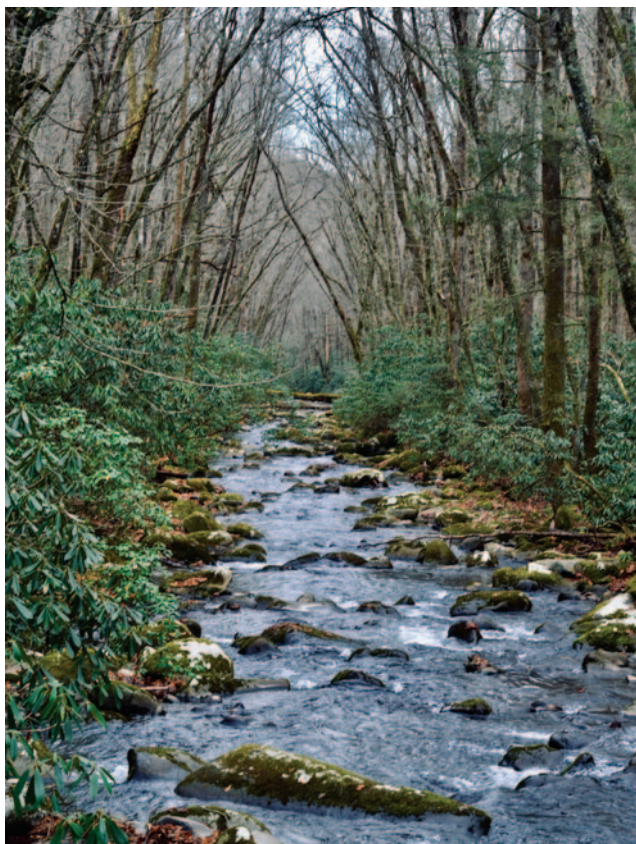
PEOPLE AMATEUR: HIKER, WHITESIDE MOUNTAIN, NC / COLE BARLOW (ELIZABETH CITY)



SCENES AMATEUR: TWO BEARS IN EASTERN NC FOREST / GINGER BARGER (HIGH POINT)



SCENES PROFESSIONAL: HUMP MOUNTAIN, NC / KATY PERRY (TROUTMAN)



SCENES YOUTH: RIVER IN CHEROKEE, NC / ROMAN PAOLUCCI (WINSTON SALEM)



POLLINATORS HONORABLE MENTION: METALLIC GREEN SWEAT BEE / SUJATA ROY (MORRISVILLE)



SCENES HONORABLE MENTION: VIEW OF BILTMORE GROUNDS / WALTER BALLARD (CARY)



CRITTERS HONORABLE MENTION: EASTERN BLUEBIRD / JARED HESTER (GREENSBORO)



POLLINATORS PROFESSIONAL: HUMMINGBIRD & BEE / GENEVIEVE RUDOCK (BOSTIC)



Conservation Achievement Awards Banquet HIGHLIGHTS

Conservation works, but it takes work to turn issues into stewardship and stewardship into meaningful action. At the 58th Annual Governor's Conservation Achievement Awards banquet, NCWF honored 19 notable citizens of all ages and backgrounds who have done just that. First presented in 1958, the Governor's Conservation Achievement Awards are the highest natural resource honors given in the state. The annual program brings together diverse conservationists to highlight wildlife conservation achievements and inspire others to take a more active role in protecting North Carolina's natural resources for future generations.

Marine Patrol Officer of the Year **Neil Kendrick** | Onslow County

Officer Kendrick patrols Onslow County, where he trains newly hired officers and mentors officers through the North Carolina Training and Standards division. He's also pursued instruction to become a tactical, medical first responder to train other officers in the future.

Wildlife Enforcement Officer of the Year **Brandon S. Lyon** | Stokes County

Last year Officer Brandon Lyon helped work a 20-year-old major cold case investigation in Stokes County, and helped rescue five children who had gone missing on paddleboards after dark.

NCWF Affiliate of the Year **Mainspring Conservation Trust** | Franklin

Mainspring is dedicated to conserving land, forest and farms and connecting people to the heritage and natural resources of the Upper Little Tennessee and Hiwassee River Valleys. The group has helped conserve more than 29,000 acres in this nationally significant region.

NCWF Chapter of the Year **Island Wildlife** | Wilmington

Earlier this year, chapter volunteers broke ground at Carolina Beach State Park on a carnivorous bog garden to restore Venus flytrap habitat, educate visitors about the federally threatened species, and reduce plant poaching. Chapter members also helped restore the shoreline around the lake through native planting and trash removal projects.



Public Lands Conservationist of the Year **Gretchen Smith** | Chapel Hill

For the last six years, much of the success of turning the Haw River into a sort of long, thin Central Park for the Piedmont has been due to the tireless work of Gretchen Smith. After retiring from a 37-year career in healthcare management, Smith turned her attention to protecting and improving public lands conservation in Chatham County's Haw River corridor. As co-founder and president of Friends of Lower Haw River State Natural Area and an active member of multiple conservation organizations, she has written grants resulting in infrastructure improvements at public river access sites, kiosks with educational signage, shade shelter with nature murals, and improved pathways. Recently, Smith was the catalyst for forming the Haw River Trail Steering Committee, representing town and county governments, state agencies, land trusts, and trail and paddle organizations. She helped secure a grant for a trail corridor feasibility study and economic impact analysis, which will lay the groundwork for constructing a Haw River Trail in Chatham County that connects to a regional Haw River Trail network.

Wildlife Volunteers of the Year **Dr. and Mrs. Herb and Pat Amyx** | Wake Forest

As Preserve Stewards for the Friends of Plant Conservation, Dr. Herb Amyx and his wife, Pat, monitor five rare plant preserves owned by the N.C. Department of Agriculture around Durham.

Natural Resources Scientist of the Year **Todd Douglas Ewing** | Fuquay-Varina

Former head of the N.C. Wildlife Resources Commission's Aquatic Wildlife Diversity Program and assistant chief of the Inland Fisheries Division, Ewing is now program coordinator for the Southeast Aquatic Research Partnership.

Business Conservationist of the Year **Robin Davis** | Greensboro

At Maxie B's, Davis transformed the bakery and dessert cafe's patio into a Certified Wildlife Habitat to connect customers to the natural world. Davis donates baked goods to dozens of conservation organizations, and serves on a task force to divert food waste away from landfills.

Legislator of the Year **Sen. Jim Perry** | Kinston

Jim Perry grew up in Kinston, a city that nurtures strong ties to both farm country and the nearby Neuse River. So, when Perry came into legislative office in 2019 as an appointee, it wasn't long before the Senator made his mark as one of the go-to voices to help people understand rural regions' needs and benefits.

Conservation Organization of the Year **North Carolina Urban Forest Council** | Raleigh

By focusing on advocacy, education and tree planting programs, the North Carolina Urban Forest Council supports the sustainable development of urban forests. The council's efforts help ensure communities have healthy trees that will survive for decades, benefiting people and wildlife.

Young Conservationist of the Year **Lauren Zuravel** | Fayetteville

Lauren Zuravel is a conservation-minded teen dual-enrolled at Terry Sanford High School and Fayetteville Technical Community College. She's already working on university-level studies with a research team at Fayetteville State University, studying how to engineer hard bioplastic materials to make disposable cutlery rapidly and safely degrade in water and landfills.

Environmental Educator of the Year
Lauren Daniel | Swansboro

As water education program manager for the N.C. Division of Water Resources, Lauren Daniel is state coordinator and facilitator trainer for North Carolina Project WET; state coordinator for the 'It's Our Water' high school curriculum; state coordinator for NC Stream Watch; co-coordinator of the N.C. Climate Education Network; creator and coordinator of N.C. Water Education Virtual Coffee Talks; and coordinator and contact for North Carolina Creek Week Network.



Forest Conservationist of the Year
Alton Perry | Aulander

Alton Perry spent 40 years with the N.C. Forest Service, and retired in 2012, but he wasn't quite ready for the golden years. That same year he started work as director of sustainable forestry and land retention for the Roanoke Electric Cooperative. Perry now helps African-American families and landowners in a seven-county service area manage their woodlands to enhance quality of life and build family legacies. He also serves on the boards of several conservation organizations, including the North Carolina Tree Farm Program, Sustainable Forestry Initiative and American Forest Foundation. Perry represents and advocates for North Carolina families with natural resources locally...across the state through board leadership at Conservation Trust for North Carolina and as part of the North Carolina Heirs Property Coalition...nationally in the Forest Climate Working Group...and even internationally through his role in the U.S. Council of a Trillion Trees. Alton Perry has never forgotten how a piece of farmland molded and shaped who he is and what kind of legacy he wants to leave.

Marine Conservationist of the Year
Tom Roller | Beaufort

The owner of WaterDog Guide Service, Roller has dedicated his career to fighting for North Carolina's beleaguered marine resources. Since 2013, he's been on advisory committees focusing on bluefish,

cobia, mackerel, flounder and blue crab, and has served on both the Mid-Atlantic and South-Atlantic Fisheries Management Councils. Next year he will begin his second term on the North Carolina Marine Fisheries Commission.

Land Conservationist of the Year
Eric Hiegl | Boone

As Director of Land Protection & Stewardship for the Blue Ridge Conservancy, Eric Hiegl hunts for the unprotected vistas, the corridors that connect wild land parcels, and the possibilities of protecting North Carolina mountain land forever. And then, he searches for ways to convince landowners that they can nurture unique places that will only grow in value if they remain special forever.

Wildlife Conservationist of the Year
Jeff Hunter | Burnsville

Jeff Hunter spent 20 years in telecommunications before an Appalachian Trail thru-hike inspired him to follow a new career path in wildlife conservation. As a senior program manager with the National Parks Conservation Association, Hunter uses road ecology projects and wildlife mortality research to create wildlife passages and corridors that preserve the integrity and connectivity of Western North Carolina's natural landscapes.

Conservationist of the Year
Dr. James F. Parnell | Wilmington

Now Professor Emeritus at the University of North Carolina-Wilmington, Dr. James Parnell has spent six decades studying, marveling, protecting and educating about the nesting waterbirds along North Carolina's coast. From the University of North Carolina at Wilmington, his reputation has spread globally. And his research on the incredible value of coastal islands—natural

and manmade—for a vast community of nesting waterbirds has literally reshaped the North Carolina coast to be a more bird-friendly landscape.



Sportsman of the Year
Wes Seegars | Goldsboro

Wes Seegars has worked tirelessly to ensure that North Carolinians without access to a farm or land have places to hunt and fish. Seegars has spent 25 years as a North Carolina Wildlife Resources Commission commissioner. He's served two terms as chairman, three terms as vice chairman, and has either chaired or vice-chaired the Executive, Big Game, Rules, Fisheries, Legislative and Endowment Fund committees. Beyond his efforts as a volunteer civil servant, Seegars donates time, funding and hunt access to organizations from Cross Trail Outfitters to Seymour Johnson Air Force Base to The Independence Fund, which empowers catastrophically wounded or ill veterans to overcome physical, emotional and mental wounds incurred in the line of duty. He has served on the local and state chapters of Ducks Unlimited, hosts Youth Day duck hunts, and more. Seegars knows that a future of abundant wildlife and wild places doesn't come from wishful thinking, but hard work and commitment.

Event Sponsors Support Conservation Heroes

Thank you to the following partners, businesses and individuals for helping us honor and celebrate North Carolina's top-notch conservation leaders of 2022.

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Fisheries Fight Continues

THE LAWSUIT TO HOLD THE STATE OF NORTH CAROLINA accountable for mismanaging its coastal fisheries will proceed without an appeal to the North Carolina Supreme Court. A Wake County trial judge previously rejected the State's request for immunity from the lawsuit brought in 2020 by 86 North Carolinians and the Coastal Conservation Association.

Plaintiffs contend the State has allowed unsustainable fishing practices that have depleted coastal marine fisheries. These practices violate North Carolina's obligations to its residents under the public trust doctrine, a centuries-old legal concept incorporated into the State's laws. The State argued it couldn't be sued and asked the trial court to dismiss the case. After the trial court denied that motion, the State appealed the North Carolina Court of Appeals decision. The Court of Appeals unanimously rejected the State's motion to dismiss in early September.

"The upheld court decision clearly

conveys that the State of North Carolina is obligated to protect and preserve our public trust resources, including marine fisheries. And when it fails to do so—either through action or inaction—it can't hide behind sovereign immunity and must be held accountable," said Tim Gestwicki, CEO of North Carolina Wildlife Federation.

According to the Court of Appeals opinion, the State has an obligation "to preserve the people's right to fish and harvest fish." This includes a "duty to preserve fisheries for the benefit of the public" and a "duty to keep fisheries safe from injury, harm, or destruction for all time."

With all its arguments rejected by the court, the State confirmed this month it wouldn't bring the lawsuit dismissal appeal to the North Carolina Supreme Court. The lawsuit will return to the trial court, proceeding to pre-trial discovery. At that time, plaintiffs will have a chance to outline the merits of their claim.

Protection of public trust resources, including restoration of coastal fisheries, has long been a top Federation priority. In addition to filing an amicus brief with the North Carolina Court of Appeals, North Carolina Wildlife Federation, Southern Environmental Law Center and Sound Rivers submitted a letter to Attorney General Josh Stein strongly encouraging him not to appeal the decision to the State's highest court.

"North Carolina's public trust doctrine protects trust lands, waters and resources, including fisheries and wildlife. If residents can't use the courts to ensure the State meets its stewardship obligations for these public resources, our keystone legal component of fish and wildlife conservation becomes meaningless," Gestwicki said. "Trying to hold the State accountable for mismanaging our marine fisheries has been a long journey, so we're happy the appeals are over and this important case can finally move forward in the courts."

Wind for Wildlife

With North Carolina in position to be a leading state in offshore wind production on the East Coast, NCWF is helping ensure that the development of this unparalleled clean energy resource includes protections for the state's valuable marine resources. In 2021, Gov. Roy Cooper signed an executive order establishing offshore wind development goals of 2.8 gigawatts (GW) by 2030 and 8.0 GW by 2040. The Energy Solutions for North Carolina Act (HB951), signed in October 2021, commits North Carolina to reduce greenhouse gas emissions from the electric sector to 70 percent below 2005 levels by 2030. Through that bipartisan legislation, North Carolina is accelerating its transition from fossil fuels to clean energy to address climate change and participate in the clean energy economy. Energy efficiency, solar, battery storage, and onshore and offshore wind energy are all expected to feature prominently in the state's renewable energy portfolio.

North Carolina is positioned to play a key role in meeting the country's ambitious offshore wind energy goals. The Bureau of Ocean Energy Management's recent lease sale of 110,091 acres in the Carolina Long Bay area, coupled with the 2017 lease sale of 122,405 acres offshore Kitty Hawk, marks a significant milestone towards achieving the current administration's goal of deploying 30 GW of offshore wind energy capacity by 2030. Once these lease areas are fully

operational, NC has the potential to be one of the largest producers of offshore wind power on the East Coast.

Harnessing offshore wind power can significantly guide North Carolina's transition from fossil fuels while addressing climate change, creating jobs and generating an economic boost for the state. As such, the Federation is working to ensure stringent wildlife-friendly measures are in place every step of the way as leasing, permitting and development advances. "Advancing offshore wind development will help fuel North Carolina's economy," said Manley Fuller, NCWF's vice president of conservation policy. "But we must minimize its potential impact on our vulnerable marine ecosystems and ensure wildlife and habitat are protected throughout the process."

Over the coming months, the Federation will work to advance responsible, wildlife-friendly offshore wind development. The policy team will collaborate with stakeholders on recommendations to avoid, minimize and mitigate impacts on wildlife, including marine mammals, sea turtles, birds, bats and fish. Policy team members will also help identify and proactively address risks and ensure continuous monitoring is incorporated into future energy facilities, development and transmission operations. "As stewards of North Carolina's natural resources, NCWF incorporates the best available fish and wildlife data and methodologies into our policy efforts," Fuller said.

NCWF Joins Fight Against Legislation Threatening Sporting Excise Tax

NORTH CAROLINA WILDLIFE FEDERATION, in partnership with National Wildlife Federation and dozens of affiliate organizations, is opposing misguided legislation undermining the backbone of wildlife and fish conservation funding across the country.

The perplexingly titled RETURN Our Constitutional Rights Act 2022 (H.R. 8167) proposes eliminating excise tax on firearms, ammunition and archery equipment distributed to state fish and wildlife agencies for on-the-ground wildlife conservation efforts and programs to retain and recruit the next generation of hunters and anglers.

In the early 1900s, when many wildlife species were declining or disappearing, hunters, anglers, sport shooters and other conservationists asked Congress to impose an excise tax on firearm and ammunition sales to help fund wildlife conservation.

State wildlife agencies apportioned revenues from these excise taxes for their conservation efforts, hunter-education programs, and archery and shooting range operation. The resulting Pittman-Robertson Act passed in 1937 and is now known as Federal Aid in Wildlife Restoration.

Similar legislation—the Dingell-Johnson Sport Fish Restoration Act—was passed in 1950 to support recreational fishing. An excise tax on fishing gear and equipment provides funding for marine fisheries and boating access areas.

The “user-pays” model is central to what’s known as the American System of Conservation Funding. These funds are returned to state fish and wildlife agencies, which rely on them as a primary funding source for their work to manage fish, wildlife and natural resources. The funding is also used to recruit, educate and provide opportunities for current and future outdoors people.

The hunting and sport shooting community supported this funding mechanism



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ism 85 years ago, and sportsmen and women widely support it today. H.R. 8167 would repeal those popular law provisions, some established more than a century ago, and sever the connection between natural resources and their recreational users. “We must prioritize expanding the conservation funding pool for fish and wildlife species and habitat, not eliminate a program that has helped build our nation’s outdoor heritage by providing more than \$15 billion to conservation and recreation initiatives since its inception,” says Dr. Liz Rutledge, director of wildlife

resources for the Federation.

Rutledge noted the National Wildlife Federation, state affiliates, agencies, and other conservation groups are working hard to expand funding for wildlife and habitat through The Recovering America’s Wildlife Act, which has passed the U.S. House and awaits floor action in the Senate. “Maintaining the current ‘user-pays’ system of funding for wildlife and fish resources is a crucially important piece of addressing America’s wildlife crisis,” she said, “and highlights the greater need for dedicated, broad-based funding for conservation.”

SCHOLARSHIP RECIPIENTS:

The Future of Conservation

Seven undergraduate, graduate and Ph.D. students attending North Carolina State University, Duke University, Eastern Carolina University, and Appalachian State University received 2022 NCWF scholarships to support their goal of studying and working in conservation.

"As North Carolina's oldest and largest wildlife conservation organization, we appreciate the opportunity to identify and recognize future professionals working to protect our state's wildlife and wild places," said Tim Gestwicki, N.C. Wildlife Federation CEO.

Jonathan Choi, a Ph.D. candidate from Durham, is attending Duke University's Nicholas School of the Environment, studying marine science and conservation. He is the recipient of the \$2,500 Conservation Leadership Scholarship for "standing out as an exemplary student, peer and community leader." He hopes to use his hybrid legal-ecological background in non-profit advocacy or government to advance policies for the best interests of migratory species and the human communities they touch.

Six students were awarded \$1,000 NCWF scholarships.

Michelle Kirchner, from Raleigh, is a graduate student attending North Carolina State University. She studies entomology and biology, and hopes to teach ecology at a primarily undergraduate institution to foster and mentor the next generation of diverse, engaged scientists.

Bailey Kephart, from Greenville, is a graduate student at East Carolina University, studying entomology and biology. Bailey hopes to contribute to conservation by working with the state and/or federal government to maintain land and preserve endangered wildlife, with a particular interest in coastal systems.

David (John) Brooks, Jr., of Harkers Island, is attending North Carolina State University and studies marine science as a graduate student. With deep roots in a commercial fishing family, he plans a career focusing on researching, understanding, and protecting estuaries.

Chase Spicer, of North Wilkesboro, is attending East Carolina University as a graduate student in biology. On a trout fishing trip, Chase ran across fisheries biologists with N.C. Wildlife Resources Commission working on a survey of trout populations. He's wanted to be a fisheries biologist ever since.

Jesus Lovaton, of Mount Airy, is a rising senior at Appalachian State University studying biology. He plans to use his interest in data and map design using GIS software to protect natural areas through the National Park Service or U.S. National Forest system.

Alexa Murray, of Raleigh, is attending North Carolina State University as a graduate student in wildlife and conservation biology. She has worked several field technician positions that cemented her love for this field, and found her passion working to manage and conserve wildlife.

CHECK OUT OUR CHAPTERS!

For more information on how you can participate, contact Tara Moore at tara@ncwf.org.



ALBEMARLE CONSERVATION
AND WILDLIFE CHAPTER



CATAWBA RIVER
WILDLIFE COALITION



CHARLOTTE
WILDLIFE STEWARDS



CONCORD WILDLIFE
ALLIANCE



HAWK (HABITAT AND
WILDLIFE KEEPERS)



INNER BANKS
WILDLIFE



ISLAND WILDLIFE



LAKE JAMES AREA WILDLIFE
AND NATURE SOCIETY



LAKE NORMAN WILDLIFE
CONSERVATIONISTS



MARSH (MARVIN AREA
FOR THE RESTORATION
AND SUSTAINABILITY
OF WILDLIFE HABITAT)



MOUNTAIN WILD!



NEUSE RIVER HAWKS
(WAKE FOREST)



NEW BERN
WILDLIFE CHAPTER



PAWS (GASTON COUNTY
PIEDMONT AREA
WILDLIFE STEWARDS)



SOUTH WAKE
CONSERVATIONISTS



SOUTHWEST RENEWAL
FOUNDATION



TRIAD WILD



UNION COUNTY
WILDLIFE CHAPTER

When Fireflies Were *Everywhere*

"I remember when fireflies were everywhere growing up," said Pat Holder. "I took a Mason jar to watch them up close and then let them go."

Pat's connection with wildlife and the outdoors was just a part of growing up on a tobacco farm in what was then a rural part of North Carolina. But Millbrook, between Raleigh and Wake Forest, is much different today.

Connecting with nature wasn't a thing you did on the weekends, rather it was part of your livelihood. Pat's family hunted and grew their own food, but Pat was drawn to reading and loved school. "When I didn't have chores, I would sneak away to read," Pat said. "I read all the time and enjoyed it."

She grew up poor but never knew there was a lack of anything because there was love, kindness, and community. And there was plenty of contact with the natural world. "It was part of what life was for me," she said. Her family also shared what they had. "My grandmother would tell me to pick some green beans and take them down to the older neighbor," she recalls. And sharing and giving back is a value Pat holds dear and practices to this day. "That is just what you do," she says. "You help your neighbor, whatever the circumstances might be."

Helping your neighbor includes pollinators and other wildlife "neighbors" that visit her yard. Having completed several satisfying careers that kept Pat at a distance from nature, she often read about the plight of the Monarch butterfly and decided to help. Pat and her husband, Gene Holder, dedicated their property as habitat for wildlife by keeping the trees, leaving the leaves, and habitually nursing a lush and ever-growing pollinator garden.

Milkweed, Scarlet bee balm, black eyed Susan, phlox, and many other native pollinator plants in the Holder Garden feed Red-banded Hairstreaks, Notched Flower Long-Horned Beetles, Syrphid Flies, Monarch Butterflies, and other pollinators, including fireflies.

If Pat won the lottery, she would plant more native plants for the butterflies, bees, beetles, and fireflies. You don't have to look far to wonder why. Habitat is being eaten up by development because of North Carolina's fast-growing population. But just as people need places to eat, live, and raise a family, so do pollinators. In fact, they are essential to our survival. You can thank a pollinator for one out of every three bites of food you eat. Without pollinators, humans and all of earth's terrestrial ecosystems would not survive.



By donating an annual gift of \$1,000 or more, you can join Pat, Gene, and other members of the Shaw Society. Contact NCWF VP of Philanthropy Kate Greiner at kate@ncwf.org to learn about opportunities to invest in wildlife, habitat, and connecting people to nature.

GRIFFIN NAGLE



CREATE A BETTER FUTURE FOR WILDLIFE.

It's easier than you think.

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.

Interested?

Kate Greiner, CFRE
VP of Philanthropy
P: 704/332-5696
E: Kate@ncwf.org



ncwf.org/membership-giving/leave-a-wildlife-legacy/

THE Season

Jeff Beane's GUIDE TO
NATURAL NORTH CAROLINA

North Carolina Wildlife Federation
1024 Washington Street
Raleigh, NC 27605

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DECEMBER

December 4: Scaup migration peaks. Pine Barrens gentians may still be in bloom in the Sandhills.

December 9-11: Wings Over Water Encore, a follow-up to the annual Wings Over Water Festival held in October, offers a variety of coastal birding field trips. For more information, visit <https://www.wingsoverwater.org/>.

December 10: Most reptiles are hibernating below the frost line, but a few species, including green anoles and several aquatic turtle species, may be seen basking on sunny days throughout the winter.

December 11: Hairy white oldfield aster is often still blooming (hence another of its common names—frost aster).

December 12: Hummingbirds seen in North Carolina during late fall and winter are often vagrant individuals of species other than our usual rubythroats. The rufous hummingbird is the species seen most often, but others turn up occasionally.

December 13-14: Geminid meteor shower peaks. Bundle up and find a dark, open spot for this shower, which usually produces a good show. The best viewing should be after midnight.

December 14-January 5: Christmas Bird Counts will be held around the state for the 124th year. For information on how you can participate in the world's largest and oldest organized wildlife survey, contact your local Audubon chapter or the Carolina Bird Club, www.carolinabirdclub.org.

December 15: Eastern tiger salamanders and Mabee's salamanders—two of our rarer ephemeral-pond-breeding amphibians—begin breeding with the first warm or heavy winter rains at scattered locations in the Sandhills and Coastal Plain.

December 16: Black bears begin their winter dormancy, but they may be active during warm periods. In some places where food is plentiful, such as several of the large coastal wildlife refuges, bears may remain active throughout the winter.

December 18: Migration peaks for Canada geese and snow geese.

December 21: Winter is coming! Solstice is at 4:48 p.m. Eastern Standard Time (21:48 Coordinated Universal Time). The planet Mercury reaches its greatest eastern elongation from the Sun. This is the best time to view Mercury since it will be at its highest point above the horizon in the evening sky. Look for it low in the western sky just after sunset.

December 21-22: Ursid meteor shower peaks. Best viewing should be just after midnight.

December 25: Most herbaceous ground cover plants have gone dormant or been killed by frost, but Christmas fern and running-cedar are still adding festive holiday green to the forest floor. Likewise, there's mistletoe in the otherwise bare hardwood tree canopy; might not hurt to stand under it and see what happens.

December 27: The impressive flocks of double-crested cormorants along the Outer Banks and other portions of our coast are a wildlife spectacle worth witnessing.

December 28: Mink and muskrat fur is prime. Yaupon holly berries are ripe.

December 29: Black bear cubs are being born.

December 30: Striped bass fishing can be good in the larger reservoirs like Kerr and Lake Gaston.

December 31: Flocks of yellow-rumped warblers frequent the red-cedar and wax-myrtle thickets along the coast. Check these carefully for overwintering warblers of other species that might be mixed in. And in those coastal dunes, hardy wildflowers, such as Indian blanket and a few species of aster and sundrops, are often still blooming.

JANUARY

January 1: Consider New Year's resolutions to spend more time outdoors and learn more about the natural (= real) world.

January 2: Most butterflies have migrated, hibernated, been killed by freezing temperatures, or are overwintering as pupae, but on warm winter days, especially in the Coastal Plain, adults of several hardy species, including common buckeye, variegated fritillary, monarch, red admiral, and American lady, may be seen flying.

January 3-4: The Quadrantids—the year's first major meteor shower—peaks tonight. Best viewing should be after midnight.

January 5: Watch for rare visiting winter finches like red crossbills and common redpolls.

January 6: Waterfowl populations are peaking along the coast; Pea Island and Lake Mattamuskeet National Wildlife Refuges are especially good waterfowl viewing areas. The Swanquarter and Cedar Island ferries provide good viewing opportunities for sea ducks.

January 7: Bald eagles are laying eggs.

January 8: Harbor seals (and occasionally other species, including hooded and gray seals) may be seen along our coast, more regularly in recent winters. Oregon Inlet is often a good place to encounter these small marine mammals, either swimming or hauled out on beaches or spoil islands.

January 9: Many small mammals sleep during the cold months, but shrews are active all winter in tunnels underground or beneath surface litter or snow. Their high metabolism requires these tiny predators to eat more than their weight in insects, earthworms, and other food daily.

January 10: Migration is peaking for mallards and black ducks.

January 11: White-tailed deer are shedding their antlers.

January 12: Great horned owls are nesting.

January 12-15: The Carolina Bird Club will hold its winter meeting on the Outer Banks of NC. For more information, visit www.carolinabirdclub.org.

January 14: Barred owls begin nesting.

January 15: Chicken turtles are nesting. These unusual turtles are our only reptile known to sometimes deposit their eggs in January.

January 16: Mourning doves are beginning their courtship flights.

January 17: Snow goose flocks along our coast are a not-to-be-missed wildlife spectacle. The Pungo Unit of Pocosin Lakes National Wildlife Refuge is often a good place to see that show. Watch the flocks carefully for the smaller and much less common Ross's goose, which is often mixed in.

January 20: Most flycatchers and other heavily insectivorous birds winter in the tropics, but the eastern phoebe sticks around all year, supplementing its usual diet of insects with berries. Pay attention to flycatchers in winter—reports of rare winter visitors like Say's phoebe and ash-throated flycatcher have increased in recent years.