



North Carolina
**WILDLIFE
FEDERATION**

Journal

WILD LIVES □ WILD PLACES

Summer 2022



IT'S HERE

North Carolina's first case of chronic wasting disease has the state on high alert—and hunters wondering what it means for them.

TAKING A (REALLY LONG, REALLY IMPACTFUL) HIKE

BREAKING NEWS: WILDLIFE FUNDING ON THE BRINK OF A BREAKTHROUGH
NOTHING NEW: MARINE RESOURCES MANAGEMENT A TRAVESTY



The Caretakers

BY TIM GESTWICKI, NCWF CEO

The word “stewardship” can be traced back to origins in ancient Greece and the Greek word *oikonomos*, which translates to “manager.” This meaning is mirrored in the English language as far back as the Middle Ages, as a steward was often referred to as a guardian or caretaker of the household, and was viewed as a servant with the property overseen ranging from a sprawling castle to an estate to a simpler domicile. Either way, the connotation of a steward was of one who ran affairs and was entrusted, and mandated, with these management duties.

As the terminology of stewardship evolved, its meaning broadened further than managing affairs of the home and properties to include more facets of life, all within a highly favorable context. Responsible, thoughtful management and care across a range of activities became the commonplace reference for stewardship. One such example is from decades ago in air travel. Stewardesses, now an outdated term that has evolved to flight attendants, were hired by airlines to comfort and aid travelers in the new form of transportation. Initially, stewardesses were registered nurses hired to provide calm, reassurance, and safety to passengers during their flight. Similarly, the word is used today in reference to the proper care of monies in investments, or to guidance counselors helping students along their pathway to college or employment, and even to businesses that seek to earn money while favoring client and employee well-being and sustainable purposeful practices. The notion of stewardship permeates culture in regards to proper and responsible management by teachers, lawyers, doctors, bankers, courts, and theology. But perhaps it is most symbiotically associated with conservation.


It is safe to say that stewardship is related to or synonymous with the conservation of the environment and natural resources. Philosophers, writers, and theologians laud the wise, sustainable use of and stewarding management of the Earth. This stewardship premise permeates various religious texts from Judaism, Catholicism, Buddhism, Hinduism and Protestant faiths, commending that humans and the earth are inexorably woven together. A clear call to the reverence of and to the relationship between mankind and nature is without question and stewardship is a cornerstone of these faiths. Protecting and caring for all that has been created is the ethos among many religions. This spiritual guidance is often now referred to as “creation care.”

Stewardship is a foundational principle for NCWF. Along with science, inclusivity, partnering, and non-partisanship, stewardship is one of our core values. We seek stewardship, and strive for its underlying guidance as the basis for our vision statement: *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.*

In this Journal, stewardship in various forms, is the underlying theme. And throughout the Federation, as our vision statement attests, our understanding of stewardship is based on an active engagement. We focus on actions to restore habitat and remove invasive species. We cover natural resource agency proactive actions to combat and adapt to a deadly deer disease. This type of leaning-in stewardship you will read about, in actions to recover iconic species on the landscape, for solutions to quell declining species’ numbers, and through a selfless journey from the coast to the mountains. And we also announce our 58th Governor’s Conservation Achievement Banquet to celebrate stewardship in its finest expression.

As laid forth in this column, stewardship connotes positive care and management, now and for the future. However, breakdowns lead to poor stewardship and derail forward momentum. Causes can include resistance to change, lack of accountability, or an exclusive ownership mentality. Unfortunately, in these pages we describe examples of how and why marine fisheries are being poorly stewarded in North Carolina even though the guiding mission of the fisheries agency “is responsible for the stewardship of the state’s marine and estuarine resources.”

Stewardship is needed and evident at NCWF through our volunteers, staff, board and partners, all working for the betterment of the organization—its values, its culture, its commitment, and a willingness to evolve to ensure wildlife and habitat conservation now and for the future.

Wildlife has no voice, but NCWF accepts our stewardship responsibilities of being responsible guardians. Advocating for and conducting proper stewardship of our fish, wildlife and habitat resources is no small task, but it’s a task we commit to every day. And through your own stewardship investments and support, we will make responsible stewardship of North Carolina’s wild places and wildlife a reality. 

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ABOUT THE COVER

Cover photograph A doe white-tailed deer is on cautious alert—as are hunters and wildlife enthusiasts across the state with the news of North Carolina's first case of Chronic Wasting Disease. ©iStock.com / Camille Beatty. Contents photograph Outer Banks sunset / NCWF. Other photos, unless noted, courtesy of NCWF.

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NOW WHAT?

North Carolina has planned for the unwelcome arrival of chronic wasting disease in its white-tailed deer herd. Here's everything you need to know about the impacts, and how to react.

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ONCE IN A GENERATION

The passage of the Recovering America's Wildlife Act will be a game—and nongame—changer.

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ONE FOOT IN FRONT OF THE OTHER

Luke Bennett hiked across North Carolina—from the high tide line to the Great Smokies—to raise awareness of the state's rich natural treasures. The trail also led to a new career.

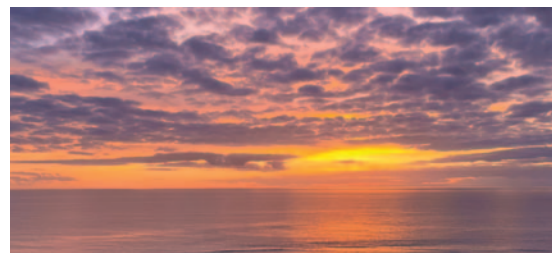
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NORTH CAROLINA WILDLIFE FEDERATION

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.



IT'S HERE

Chronic Wasting Disease has been detected in North Carolina. Here's what that means for deer—and for deer hunters.

USGS / JOHN J. MORESSO

by Robert D. Brown, Ph.D. and Liz Rutledge, Ph.D.

Brown is former department head and dean at Mississippi State University, Texas A&M, and NCSU; past president of The Wildlife Society; and a current NCWF board member. Rutledge is a certified wildlife biologist, NCWF's director of wildlife resources, and president of NC Hunters for the Hungry.

There is a new disease in our state. It's transmitted from individual to individual, with no treatment or cure, and it is 100 percent fatal to cervids. It's chronic wasting disease (CWD) and it infects species including white-tailed deer, mule deer, elk, and moose.

Since 1999, the North Carolina Wildlife Resources Commission (NCWRC) has tested more than 22,000 deer from road kills, taxidermists, meat processors, and hunters. All samples were negative for CWD prior to March of this year. On March 31, 2022, CWD was detected in a sample submitted for testing by a taxidermist from a deer harvested in December of 2021 from northern Yadkin County. This positive result was the first case

of CWD detected in North Carolina's deer herd and was confirmed by the National Veterinary Services Laboratory in Ames, Iowa. On April 12, NCWRC Director Cameron Ingram invoked "Emergency Powers" to put the state's CWD Response Plan into action in collaboration with the N.C. Department of Agriculture and Consumer Services (NCDACS).

In response to CWD in North Carolina, NCWRC established Primary and Secondary Surveillance Areas in parts of Surry, Yadkin, Davie, Forsyth, Stokes, Iredell, and Alleghany Counties to increase surveillance efforts to detect any additional cases of CWD in white-tailed deer. NCWRC developed a Cervid Health Cooperator Program, including taxidermists, meat processors, and stand-alone cooler sites around the state, so that hunters can deposit their hunter-harvested deer heads for CWD testing, free-of-charge. Fortunately, our state recognizes the need for in-state CWD testing to ensure all laboratory work is carried out efficiently, and test results can be conveyed to hunters in a timely manner. Therefore, in the future, some CWD testing will occur at the new Troxler Agriculture Center in Raleigh.

What Now?

Thankfully, the N.C. Wildlife Resources Commission and other agencies have worked diligently to prepare for the appearance of CWD in North Carolina. Clip along the dotted line for a handy info sheet you can stash in your vehicle or gear bag. From how to handle harvested deer to new regulations for the CWD era, you'll have what you need to know to hit the woods with confidence this fall.



Primary Surveillance Area (PSA): Those areas in Surry County east of U.S. 601, south of N.C. 268 and west of Quaker Church Road and the Ararat River; and Yadkin County east of U.S. 601, north of N.C. 67, west of Shoals Road to the intersection with Shady Grove Church Road and west of Fairground Road.



Secondary Surveillance Area (SSA): The entirety of Surry County, Yadkin County, Davie County, Forsyth County, Stokes County, Alleghany County east of U.S. 21 and N.C. 18, Wilkes County east of N.C. 18 and N.C. 115, and Iredell County north of I-40.



REPORT SICK DEER TO THE NCWRC HELPLINE AT 1-866-318-2401.

NCWRC / MELISSA MCGAW

Helpful Reminders for Hunters

1. When hunting white-tailed deer in the Primary or Secondary Surveillance Areas, be sure to read the NCWRC's guidelines as they differ from harvesting deer in other areas of the state (ncwildlife.org/CWD).
2. Know and follow deer carcass movement regulations to reduce accidental spread of CWD.
3. If you see a deer that looks sick, call your local state-agency District Biologist or the NCWRC Helpline at 1-866-318-2401.
4. Wear disposable gloves when processing hunter-harvested deer.
5. When boning out the meat, use a separate blade to remove the head since the spinal column is present.
6. It is best to dress the deer where it was harvested, and you may consider bagging the remains to dispose of at a lined landfill; however, any movement of infected remains creates a risk of spreading prions to a new location.
7. Clean your instruments, gloves, and boots in a half-Clorox, half-water solution and wash your hands thoroughly after processing the meat.
8. If you are having your deer processed commercially, request your deer be processed individually.
9. Do not consume the brain, eyes, tongue, spleen, tonsils, lymph nodes or spinal cord of the deer.
10. All hunters should consider submitting their hunter-harvested deer heads to the NCWRC for CWD testing. All CWD testing is free-of-charge and drop-off sites (head only) are listed on the NCWRC's website.
11. Wait until you receive negative test results before consuming the venison. If the test result comes back positive, do not consume the meat. You will be contacted by NCWRC staff with instructions on how to proceed with disposing of the meat. Also dispose of any instruments you used to process the deer.

NCWRC Special Regulations (NCWRC 2022)

Fawn Rehabilitation: All fawn rehabilitation within the PSA and SSA is prohibited. Fawns may not be transported out of these Surveillance Areas and cannot be accepted by fawn rehabilitators.

Wildlife Feeding: The placement of bait, food, food products, mineral or salt licks to purposefully congregate wildlife is prohibited from January 2 to August 31 in the PSA and SSA, except for:

- Bird feeders
- Hunting in urban archery seasons in participating municipalities
- Other activities specifically permitted by the NCWRC

Mandatory Sampling: All hunter-harvested deer taken within the 2022-23 season dates below must be submitted to the NCWRC for testing.

- Within the PSA, deer of either sex taken during the blackpowder season (Nov. 5–Nov. 18) and gun season (Nov. 19–Jan. 2).
- Within the SSA, deer of either sex taken during the blackpowder season (Nov. 5–Nov. 18) and the first nine days of gun season (Nov. 19–Nov. 27).
- Hunters may voluntarily submit a sample for CWD testing from deer harvested at other times and locations.

Samples for CWD testing may be submitted in a variety of ways, including at check stations, Cervid Health Cooperators, and Drop-off Stations. More details and locations for CWD testing options will be available September 1.

Carcass Transport Restrictions: The transportation of a deer carcass or parts of a carcass out of the PSA or the SSA is prohibited except for the following or as otherwise permitted by the NCWRC:

- Double-bagged carcass or carcass parts transported directly from within the PSA to a Cervid Health Cooperator in Surry or Yadkin County
- Meat that has been boned out such that no pieces or fragments of bone remain
- Caped hides with no part of the skull or spinal column attached
- Antlers, antlers attached to cleaned skull plates, or skulls free from meat or brain tissue
- Cleaned lower jawbones with teeth or cleaned teeth
- Finished taxidermy products and tanned hides

CWD Research and Management Act

Federal bipartisan legislation, which NCWF supports and is advocating for, has been introduced in the Senate to support research and management of CWD. Crucially important is the bill's funding for a research focus: methods to effectively detect CWD in live cervids and the environment; testing methods for non-live cervids; genetic resistance to CWD; and sustainable cervid harvest management practices to reduce CWD occurrence.

“As CWD spreads across the country, including North Carolina, we must support the collaborative work between federal, state, and tribal governments to research, manage, and respond to this fatal threat to wildlife populations. I am proud to join the bipartisan effort to combat CWD and preserve North Carolina’s wildlife for future generations to enjoy.” – NC Senator Thom Tillis

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CWD HAS NOW BEEN DETECTED IN 30 STATES.



MALE DEER HAVE THREE TIMES THE RATE OF INFECTION FROM CWD AS DOES.

ISTOCK.COM / RALPH NAVARRO

ORIGINATION AND SPREAD OF CWD

CWD is an insidious disease. It is believed to have originated in deer and elk at a research facility at Colorado State University in 1967. The deer and elk were likely infected by sheep in an adjacent pen that had scrapie, a similar disease. The disease “jumped” species, and when the asymptomatic deer and elk were sent to facilities in other states, the disease began to spread among penned and wild cervids. The first case of CWD in a wild cervid was detected in an elk in Colorado in 1981.

The disease has now been detected in 30 states and the transfer of cervids among breeding facilities and game farms has exacerbated the spread of the disease to free-ranging individuals across the country. Infected deer in farming operation facilities have escaped on occasion, may have nose-to-nose contact with wild deer at pens lacking double fencing, or be unknowingly transferred to other locations.

CWD was found in Saskatchewan in Canada and thought to have originated from a game farm in South Dakota. That Canadian game farm sent animals to 40 other facilities, and 21 of those eventually detected CWD. After officially closing its borders to cervid importation 10 years earlier, Texas detected CWD on a game farm (possibly brought in from illegally transported deer) which had shipped deer to 46 counties in the state. CWD has been detected in deer as far away as Norway and Korea—from deer shipped from Colorado and Wyoming. NCWF has adamantly opposed deer farming in North Carolina; however, the deer farms that currently exist are monitored closely under the purview of NCDACS. Thanks to advocacy efforts, there is an importation ban.

HOW DOES CWD IMPACT CERVIDS?

CWD is a self-replicating, mis-folded protein—not a parasite, bacterium, or a virus—that contains no genetic material. CWD belongs to the family of diseases called transmissible spongiform encephalopathies, and causes infected tissue associated with the nervous system to form a sponge-like appearance. It is similar to scrapie in sheep and mad cow disease in cattle, as well as to a similar disease in mink, and Kuru and Creutzfeldt-Jacob disease in humans. To date, there have been no occurrences of CWD in humans; however, mad cow disease was found in humans in England and 229 people died as a result.

Part of the difficulty in managing CWD is that its incubation period averages 18-24 months between initial infection and the presence of visible signs. During the incubation period the disease can spread to other individuals virtually undetected. Testing is imperative because it’s nearly impossible to tell if a deer has CWD by observation unless the CWD is in a very progressed form. The signs of CWD in cervids, after progression of the disease, include poor body condition, stumbling, and changes in behavior (such as reduced fear of humans), excessive drooling, difficulty swallowing, and excessive urination and thirst.

The infection is primarily found in the brain, spinal cord, eyes, lymph nodes and spleen, but can also be found in urine, feces, blood, saliva, and de-boned meat. It can be transmitted from one deer to another, mother to offspring, from cervids to soil and plants, and from soil and plants back to cervids. Plants can take up CWD prions in the soil through their root systems



ISTOCK.COM / GSAGI

CWD CAN BE TRANSMITTED FROM MOTHER TO OFFSPRING.

and once present, CWD prions cannot be destroyed by disinfectants, alcohol, formaldehyde, detergents, freezing, radiation, desiccation, protein enzymes or incineration at 1,100 degrees F (enough to melt aluminum).

Male deer have three times the rate of infection as does, most likely due to behavior during breeding and fighting—and thus more contact with other deer. On a positive note, CWD has not been detected in North Carolina's elk population; however, to keep CWD at bay, wildlife managers, conservation groups, hunters, and meat processors will need to remain vigilant and follow all state-issued regulations regarding CWD to protect the state's population of approximately 250 individuals.

The effect of CWD on cervid populations, hunters and wildlife agencies can be tragic once introduced; however, stringent management can reduce the impacts.

PERSONAL CONSUMPTION OF MEAT AND FEEDING THE HUNGRY

Currently, there is no evidence of transmission of CWD from cervids to humans through the consumption of hunter-harvested venison and hunting will be a vital management tool used to survey for spread of the disease. It has been estimated that hunters and their families consume venison from 7,000 to 15,000 CWD infected deer annually and none of those individuals has contracted the disease. Testing of hunter-harvested deer is an important tool for consumers and networks that provide processed venison for the hungry, underscoring the need for funding and for research into an effective live test. North Carolina is new to the list of states with positive cases of CWD; however, most previously infected states have continued to harvest cervids for human consumption.

In North Carolina, NCWRC proactively banned the use of commercial products containing any bodily excretions from cervids, without specific certification, for taking or attracting wildlife due to the potential for the spread of CWD, which was strongly supported by NCWF.

POTENTIAL ECONOMIC IMPACT TO WILDLIFE CONSERVATION

After the first three cases of CWD in wild deer were found in Wisconsin in 2002, hunting license sales dropped by 90,000, and the state's Department of Natural Resources lost \$3 million from the loss of license fees and federal Pittman-Robertson matching funds. Wisconsin lost over \$50 million from the loss of equipment sales, food and lodging sales and other hunting-related expenses. In addition, the state spent \$25 million a year from 2002-2006 on CWD-related control efforts. Other states have seen similar losses, and they continue. These figures are dramatic; fortunately, the NCWRC has implemented an effective Response Plan and tested over 7,200 hunter-harvested deer from the 2021-2022 hunting season alone, resulting in only one positive case.

What will happen to North Carolina's white-tailed deer and elk populations remains to be seen; however, with diligent work and continued testing, and future research, the hope is NCWRC's current CWD Response Plan will keep the disease as isolated as possible. If spread continues to occur, there will likely be additional regulations involving transport of live deer among breeding facilities, transport of carcasses, baiting and feeding of wild deer, and hunter harvest and testing. Continued partnership and cooperation between state agencies, conservation groups, and the public on awareness, education, and management of CWD will give North Carolina the best hope of minimizing the spread of this devastating disease. NCWF will provide our full support to the NCWRC as it will take us all, including hunters, processors, researchers, and wildlife advocates, to combat this disease. In addition, the science is moving forward daily to help increase knowledge of the disease and improve management strategies. NCWF advocates for awareness and education as our state focuses resources and management efforts toward this disease and encourages all hunters to continue enjoying outdoor recreation and consumption of wild game in a responsible and pragmatic manner. **NCWF**



In the General Assembly, NCWF fully supports the funding NCWRC and NCDACS needs to meet the challenges CWD presents including wildlife enforcement, testing, education, and resources for containment.

HUGE STEP for Wildlife

Recovering America's Wildlife Act Passes U.S. House

U.S. House members voted on June 14 to pass the Recovering America's Wildlife Act (RAWA), landmark legislation that will prevent extinctions and improve prospects for North Carolina's wildlife for generations to come. If it becomes law, the state will be eligible for up to \$25 million annually to help at-risk fish and wildlife. Affected species could include the Carolina northern flying squirrel, golden-winged warbler, zigzag

salamander, gopher frog and Appalachian cottontail.

"Recovering America's Wildlife Act is the most important piece of wildlife legislation in the past 50 years," says Manley Fuller, vice president of conservation policy for NCWF. "Wildlife in our state and across the country are in crisis, and this bold, bipartisan bill will tackle the problem at the necessary scale. We applaud the passage in the House and are optimistic of its passage in the Senate, thanks in great part to our two Republican senators, Thom Tillis and Richard Burr, who co-sponsored RAWA. The aye votes from representatives will be a proud part of their legacy."

IRONING OUT RAWA FUNDING SOURCES More members of Congress would likely have supported RAWA in the 231-190 final vote had there been clarity regarding offsetting funding sources. Currently, the Senate version of RAWA identifies all funding sources as coming from civil or criminal penalties, fines, sanctions, forfeitures, or other revenues resulting from natural resource or environment-related violations.

"For this bill to be viable for conservation and fiscal responsibility, the funding must be fully ironed out in the Senate version of the bill," Fuller says. "Once that happens, we believe the original co-sponsors in the House will support the final passage."

There may be an even more viable funding source through the Charitable Conservation Easement Program Integrity Act of 2021, whereby established easements allow landowners to claim tax deductions for donating property to nonprofit land trusts or other qualifying organizations. Entities known as syndicators, which establish partnerships to buy land, seek inflated appraisals and then agree to easements that can dramatically reduce the tax bills of the multiple owners. Those inflated appraisal monies are then bundled and sold to investors. "Closing this loophole or even capping it could provide more than enough funding for wildlife conservation while curtailing a less than savory practice," Fuller says. "This is a commonsense, cost-effective bill that will ultimately save taxpayers money. It's much cheaper to step in early, rather than waiting until we need bring wildlife back from the brink."

HISTORIC GAME-CHANGER FOR STATE'S WILDLIFE AND ECONOMY North Carolina is home to more than 1,500 nongame fish and wildlife species and more than 6,000 plant species. RAWA funding will be used to implement the congressionally mandated state wildlife action plans, which identify more than 12,000 wildlife and plants that need conservation assistance nationwide.

RAWA would dedicate \$1.4 billion annually toward efforts to help fish and wildlife species in decline, including \$97.5 million annually to fund proactive wildlife conservation efforts led by Native American tribes.

In North Carolina, RAWA would help prevent the decline of at-risk fish and wildlife species through efforts to restore habitat, remove invasive species, address wildlife diseases, reduce water pollution, and mitigate climate change. "The alarm bell is sounding for America's wildlife," says Fuller, "but the good news is that Congress is on the brink of passing historic legislation. We thank our members, supporters, and partners in conservation for heeding the call for action and asking their members of Congress to pass this vital investment." **NCWF**



USFWS / GARY JORDAN

If the Recovering America's Wildlife Act becomes law, there may be hope for the Northern long-eared bat, which spends its summers hanging out in tree cavities in the depths of old-growth forests. In the short time since this bat species was classified as threatened, population numbers have declined rapidly. The bat has long warranted endangered species protection, especially since there are promising signs that some Northern long-eared bats in warm climates such as North Carolina may be better able to withstand white-nose syndrome, which has devastated many bat species.

Northern long-eared bats generally follow the same annual life cycle as other bats. They hibernate in winter, migrate in the spring and fall migration, and roost in the summer. Unlike many species of bats, however, Northern long-eared bats are a forest interior species that uses closed, intact forest stands for both roosting and foraging. They need forests with large roost trees, dead snags, and live trees, and a high canopy. The bats forage for insects that are generally most abundant in closed forest stands or around streams under a dense tree canopy closure.

The U.S. Fish and Wildlife Service (FWS) is proposing to reclassify the Northern long-eared bat from threatened to endangered, a recommendation NCWF supported through formal comments and a commitment to work to recover the species throughout its range.



THE SHOES



HANGING ROCK
STATE PARK



JONES LAKE
STATE PARK



LUKE
BENNETT



EASTERN TIGER SWALLOWTAIL
(*Papilio glaucus*)



FALLS LAKE
STATE PARK



RAIN-LILY
(*Zephyranthes atamasca*)



BOX TURTLE
(*Terrapene carolina*)



GREAT SMOKY MOUNTAINS
NATIONAL PARK



LAKE BRANDT,
GREENSBORO NC



APPALACHIAN COTTONTAIL RABBIT
(*Sylvilagus obscurus*)

Worn Shoes, Full Heart:

Highlights from a 1,175-Mile Hike Across North Carolina

by Kristine Goodyear

The poet Emerson said when we've worn out our shoes, the strength of the journey has passed into our body. That's a sentiment that certainly applies to Luke Bennett.

This past spring, the 23-year-old hiked 1,175 miles from the Outer Banks to the Great Smoky Mountains to immerse himself fully in North Carolina's abundant natural resources. His 52-day trek ended with a well-worn pair of Saucony running shoes, renewed love and appreciation for our state's diverse wildlife and habitat, and \$8,315 raised toward their protection, conservation and restoration.

Luke's journey started getting its legs last October when he emailed the North Carolina Wildlife Federation after discovering our website while searching online. At the time, he wanted to use his goal of breaking the Mountains-to-Sea Trail record as a fundraising opportunity for a nonprofit working to preserve North Carolina's natural beauty.

"My name is Luke Bennett," he wrote. "I'm going to attempt the Mountains-to-Sea Trail's fastest known time in April. The trail is 1,175 miles and stretches from the Great Smoky Mountains to the Outer Banks. I've lived in every region of North Carolina and have fallen in love with the wildlife and the land I'm lucky to call home. In an effort to give back, I'd like to use this hike as a way to raise money for the NCWF. What would be the most effective strategy moving forward? Thank you for protecting this beautiful state."

Over the next couple of months, Luke weighed the logistical challenges of breaking a record against his desire to fully experience the sense of wonder and appreciation for the outdoors he's had since he was a child growing up in Durham. In the end, North Carolina's beauty and natural landscapes won, and Luke decided he'd instead go at his own pace rather than try and break a record. "It'd be a shame if I blazed through the MST without enjoying all the beauty and people along the way," he said. "Not to mention it would be incredibly difficult to shed light on issues threatening wildlife and habitat if I'm always in a hurry or too exhausted to care."

With hiking poles in hand, a backpack of provisions and sporting his new NCWF hat, Luke hit the Mountains-to-Sea Trail on March 23 on the Outer Banks. His first day was "a humble start," he said, and began atop Jockey's Ridge, the Atlantic Coast's tallest sand dune.

"I felt like I had been transported to the Sahara Desert or into the setting of Mad Max Fury Road. Sand is already working its way into everything. The sand along the Outer Banks is loose. My heel sinks in with every step and sand slowly fills my shoes."




In addition to sandy beaches, Luke traversed coastal swamps, bogs, marshes, barrier islands, paved roads, forest roads, commercial farms, backroads, highways, paved greenways, stream and river crossings, high elevation ridges, single-track trails, and rocks and roots. He spent most of his 52 days surrounded by flora and fauna while passing through 10 state parks, four national parks, three national forests and two national wildlife refuges.

On May 13, Luke reached Clingman's Dome—the highest point in Tennessee and the Great Smoky Mountains National Park—where his father was waiting to welcome him. Luke said he didn't have any sort of "great epiphany" when he completed the trail because it wasn't about the destination; it was about the experience. While the MST is still in its infancy, he believes it could become one of the premier hiking trails in North America with enough resources.

"The lessons and realizations are within the life of the journey itself, not in its ending," he said. "I will never forget the 52 days I spent walking across the state of North Carolina. Of course, there were challenges, but I never felt alone. Thank you to all the kind strangers who became friends and to all my friends and family who were with me every step of the way."

Throughout the journey, Luke offered daily observations and photos of the wildlife and habitat he encountered along the way. Once Luke made it back home to Oak Island and had a chance to catch up on sleep and showers, he reflected and shared more about his Hiking for Habitat experience.

"Thanks to the North Carolina Wildlife Federation for its efforts in protecting, conserving and restoring our state's wildlife and habitat," he said. "I'm eager to return the favor and pay forward all the generosity I received. The connection I have to my home is undoubtedly stronger, and the love I have for North Carolina wildlife will never fade."

Although he's crossed the finish line on Hiking for Habitat, Luke's partnership with the Federation, and love for North Carolina, continue to gain speed. NCWF hired him recently as its new Conservation Coordinator! 

ONLY in North Carolina



SGOODWIN4813

Is our home state also First in Failing its responsibilities to conserve marine resources?

The health of our public trust marine resources has been ignored for the sake of short-term economic gain. A review of how other states, particularly our sister states in the south Atlantic (South Carolina, Georgia, and Florida) and Virginia, manage their marine resources reveals that our archaic fishing practices and failures to follow basic scientific management principles has resulted in a textbook case study of declining marine fisheries.

Only in NC do we allow up to 220 feet of trawl nets, spread by doors that weigh hundreds of pounds, to operate in our estuarine nursery areas resulting in the wasteful killing of hundreds of millions of juvenile fish annually.

Only in NC do we have an oyster sanctuary program, yet allow shellfish to be harvested by dredging and clam kicking that destroy shellfish beds and compromise resource and habitat restoration efforts.

Only in NC does the most valuable fishery—blue crab, which is declining precipitously—have no limits on crab pots.

Only in NC is a federal Incidental Take Permit provided and required that allows commercial gill nets to catch endangered and threatened sea turtles.

Only in NC are commercial license holders allowed to harvest commercial quantities of fishes, often unlimited quantities, that do not have to be reported.

Only in NC are thousands of miles of gill net allowed year-round in estuarine waters.

Only in NC do we allow recreational fishermen to buy a Recreational Commercial Gear License in order to trawl in our estuarine nursery grounds and to harvest more fish than a simple recreational license allows.

Only in NC is trawling allowed within inshore nursery grounds.

Only in NC is there the highest amount of nets, trawls, and other gear allowed in estuarine waters than any other state in the nation.

Inherent Conflict of Interest in N.C. Fisheries Management?

Such a sorry situation is largely due to the out-of-balance makeup of the governing body overseeing marine fisheries resources. The Marine Fisheries Commission is a Governor-appointed nine-member board composed of commercial and recreational fishermen, commercial and sport fishing industry representatives, at-large members, and a scientist. It adopts rules and policies and implements management measures for fisheries.

N.C. General Statute 138A-15(e) mandates *that at the beginning of any meeting of a board, the chair shall remind all members of their duty to avoid conflicts of interest under Chapter 138. The chair also shall inquire as to whether there is any known conflict of interest with respect to any matters coming before the board at that time.*

The statute that mandates the MFC stakeholder seat composition intuitively would seem to be at odd or counter to conflict of interest. Special interests, be they recreational or commercial, are built into the decision-making process, which leads to status quo outcomes and leaves recreational and commercial interests to fight over the remaining crumbs of our fishery resources. The resource suffers with steep declines.

The impacts of mismanagement over the past two decades have included fisheries collapse, species listed as endangered, and harvest declines that in some species are in excess of 85 percent. Given the composition of the rule-making body, it is unsurprising that a stranglehold on science-based resource actions dominates North Carolina's fisheries policy-making commission and its guiding legislation. The effect is zero progress being made on declining fish stocks over the past decades.

CATEGORY	MARINE FISHERIES COMMISSION
Commercial Fisherman (2)	Individual currently or recently deriving at least 50 percent of annual earned income from taking and selling fishery resources in coastal fishing waters of the state. Spouses of qualified individuals may be appointed.
Commercial Industry (1)	Individual deriving at least 50 percent of annual earned income from activities involving the buying, selling, processing, or distributing of seafood landed in the state. Spouses of qualified individuals may be appointed if he or she is actively involved in the qualifying business.
Recreational Fisherman (2)	Individual actively engaged in recreational sports fishing in coastal waters of the state who does not derive more than 10 percent of annual earned income from sports fishing activities.
Sport Fishing Industry (1)	Individual deriving at least 50 percent of annual earned income from selling goods or services related to the sport fishing industry in the state. Spouses of qualified individuals may be appointed if he or she is actively involved in the qualifying business.
At-large	Individual having general knowledge of and experience related to subjects and persons regulated by the commission.
Scientist	Individual who is a fisheries scientist having special training and expertise in marine and estuarine fisheries biology, ecology, population dynamics, water quality, habitat protection, or similar knowledge. He or she may not receive more than 10 percent of annual earned income from either the commercial or sport fishing industries.



Catching Fish, Changing Lives



NCWF's Great Outdoors University introduces youth to the wonders of nature year-long. Happy smiles tell the stories!



Conservation Advocate Joins Board of Directors

ASHEVILLE RESIDENT Anne Harper has joined North Carolina Wildlife Federation's board of directors. The former executive director of the Delaware Nature Society (a National Wildlife Federation affiliate), Harper has held leadership roles with the Connecticut Audubon Society, New Canaan Nature Center, Heifer International, and National 4-H Council. "NCWF's mission and programs align well with my professional training and experience and my personal retirement priorities," Harper said. "I'm new to North Carolina and motivated to learn about the state's rich habitat, wildlife and biodiversity."

An avid gardener, Harper is currently taking courses in ecology, botany, geology, zoology, and plant identification through the North Carolina Arboretum's Blue Ridge Naturalist Certificate program. She also has a leadership role at Westwood, a multigenerational, eco-conscious cohousing community in West Asheville.

Throughout her 30-year career, Harper has worked primarily with non-profits focusing on educational program development, strategic planning, and engaging diverse communities.

"I'm eager to help support and implement environmental policies and management practices that are based on the best available science and backed by a network representing a variety of wildlife and outdoor interests," she said. "I look forward to developing a deep understanding of North Carolina's natural resources, wildlife, and habitat and the challenges to their successful conservation and management in this era of climate change."

CHRISTI LEESON, DELAWARE NATURE SOCIETY



NCWF'S
Big
Night



58th ANNUAL
Governor's
Conservation Achievement
Awards Banquet

Saturday, September 10, 2022 at 5:45 p.m.

EMBASSY SUITES-RTP IN CARY

*See award recipients
and registration at
www.ncwf.org*

CHAPTERS ON THE BOUNTY HUNT

We've all witnessed the carnage of kudzu, the leafy vine that climbs, coils, and trails over roadside forest while smothering any habitat in its path. But it's not the only invasive culprit guilty of compromising the health and sustainability of our native flora and fauna and rapidly decreasing our pollinator species. Not only do these species pose an increasing and significant threat to wildlife and habitat, but combatting them is a costly and burdensome responsibility for the Department of Transportation, utility companies, farmers, and foresters.

Land managers must earmark vast resources and personnel time to eradicate or minimize invasive plants on roadsides, rights-of-way, agricultural fields, and forest lands as birds and other wildlife spread the seeds of invasive species far and wide. Adding to the vicious cycle of invasive plant spread are unaware consumers, gardeners, landscapers, and builders who purchase and plant readily available invasive species.

BOOTING THE BRADFORDS One such meddlesome (and foul-smelling) invader is the Bradford pear, a so-called ornamental tree that threatens the balance of environmental biodiversity by competing with native grasses, wildflowers, shrubs and trees.

"Everyone initially believed Bradford pears wouldn't spread, but they did, and quickly," said Tara Moore, NCWF's director of conservation partnerships. "It wasn't long before they escaped into our natural forests and began to outcompete native species."

Bradford Pear Bounty NC is a partnership between NCWF, N.C. State Extension, N.C. Urban Forest Council and N.C. Forest Service to help control the spread of Bradford pears by removing the invasive trees from their communities and replacing them with native alternatives.

In April, NCWF and its Triad Wild! Greensboro community wildlife chapter helped facilitate the state's first Bradford pear exchange. Triad-area residents cut down 250 Bradford pear trees in their community and replaced them with native species. Urban Forest Council funded the bulk of native replacement trees with support from N.C. Native Plant Society, Guilford Garden Center, Maxie B's, Robin Davis and NCWF.

The next Bradford Pear Bounty NC exchange is this fall in Matthews with our Habitat and Keepers community wildlife chapter. Also in the works is a fall Bradford Pear Bounty NC exchange in Monroe, to be facilitated by the Union County Wildlife Chapter. To host a Bradford pear tree exchange in your area, contact Tara Moore at tara@ncwf.org.

THE DIRTY DOZEN: INVASIVE WOODY PLANTS OF NORTH CAROLINA While many invasive plant species across the state threaten and degrade native habitats, here are 12 offenders North Carolinians should avoid purchasing and planting.

- Tree of Heaven (*Ailanthus altissima*)
- Mimosa (*Albizia julibrissin*)
- Japanese Barberry (*Berberis thunbergii*)
- Paper Mulberry (*Broussonetia papyrifera*)
- Russian Olive (*Elaeagnus angustifolia*)
- Autumn Olive (*Elaeagnus umbellata*)
- Burning Bush (*Eunonymus alatus*)
- Japanese Privet (*Ligustrum japonica*)
- Chinese Privet (*Ligustrum sinense*)
- Princess Tree (*Paulownia tomentosa*)
- Bradford Pear (*Pyrus calleryana*)
- Multiflora Rose (*Rosa multiflora*)

For alternative native options that benefit wildlife and pollinators, visit ncwf.org and browse the *Restoring Habitat* section under the *Our Work* tab.

COMMUNITY CHAPTERS SPROUTING NCWF's statewide network of wildlife enthusiasts work hard for wildlife and habitat conservation—and have fun along the way. We are forming chapters in the following communities and we are looking for volunteer leaders:

► Edgecombe County ► Morehead City (Crystal Coast) ► Inner Banks (Plymouth area)

Interested in helping out? In an area that has a chapter already? Get involved with them! Find your local chapter and reach out to Tara Moore at tara@ncwf.org to connect.

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



EEDRC (ENFIELD ECONOMIC
DEVELOPMENT AND
REVITALIZATION COMMISSION)



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 Luck Finds You, *Share It with Others*

Some people search for hours for a four-leaf clover. For Pamela Judson, she's had luck finding them easily ever since she was a small child. She likes to give them to people who may need luck that day. Pamela also incorporates them into her handcrafted jewelry which she sells through her company, Cloverwing Studio.

"I believe the most beautiful art of all is found in nature," Pamela said. It inspires many of her handcrafted jewelry, fine art, and upcycled designs. "A butterfly, capable of flying thousands of miles, painted in a palette of bright colors, is magical art in motion," she writes on her Cloverwing Studio web site.

She donates all her profits, including labor, to North Carolina Wildlife Federation's Butterfly Highway. "The more I make, the more the butterflies gain, and it makes me want to create more," Pamela said. Her sales last year enabled her to join the Charlie Shaw Society, a group of donors giving \$1,000 or more in a calendar year to NCWF.

Pamela promotes Butterfly Highway on her website and displays a Butterfly Highway sign at her jewelry booth at arts festivals and fairs. "The sign piques curiosity in people," Pamela said. "It is fun talking about Butterfly Highway, pollinator and insects, and what people can do to help. People just come up to me and tell amazing stories about their experiences with bees and butterflies. The conversation is so much more engaging when we discuss pollinators."

Butterflies have a special place in Pamela's heart. Before her mom passed away, she told Pamela that she would send butterflies to visit after she was gone. Pamela has turned a hillside at her Webster, NC home into a native wildflower garden to guarantee their visits. Connecting with nature in this way makes her feel part of a larger community that includes creatures, not just people.

"The idea of service or giving to your community is an essential part of being human," Pamela said. "I don't feel like I am making a tremendous impact, but I feel that every bit helps. I hope that in sharing my art that I am also opening eyes to be aware of pollinators and their habitat."



"I hope that in sharing my art that I am also opening eyes to be aware of pollinators and their habitat."

—PAMELA JUDSON

If you would like to join Pamela as a Shaw Society donor, learn more at www.ncwf.org/ShawSociety or contact VP of Philanthropy, Kate Greiner, kate@ncwf.org or 704-332-5696.

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.

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

Interested?

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

THE Season

Jeff Beane's GUIDE TO
NATURAL NORTH CAROLINA

North Carolina Wildlife Federation
1024 Washington Street
Raleigh, NC 27605

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AUGUST

August 24: Purple false foxglove is in bloom.

August 25: Eggs are hatching for many snake and lizard species. American ginseng berries are ripe.

August 26: Here in the South, we are fortunate to see three broods of the beautiful luna moth each year; adults from the third brood are emerging.

August 27: Timber rattlesnakes are giving birth. Mercury is at its greatest eastern elongation from the Sun and should be at its peak visibility in the western sky just after sunset.

August 28: Most deer have completed their antler growth, although many bucks will still be in velvet.

August 29: Eastern gray squirrels are bearing their fall litters.

August 30: Green salamander eggs are beginning to hatch in the southern Mountains.

August 31: Goldenrod, asters, ironweed, Joe-pye weed, cardinal flower, and other late summer wildflowers are in bloom over most of the state.

SEPTEMBER

September 1: Hurricane season—a good time of year to watch for unusual seabirds driven inland by storms, as well as late-season-breeding amphibians.

September 2: Bull elk are bugling in Cataloochee Valley. That impressive and unmistakable sound was absent from North Carolina for many years, but now it has returned.

September 4: Peak birth time for the copperhead, our most common and widely distributed venomous snake.

September 5: Stick insects (walkingsticks) are mating. Kidneyleaf grass-of-Parnassus is blooming.

September 6: Hellbenders are breeding in our Mountain rivers. Unlike most salamanders, these Appalachian giants spawn in the same fashion as most fishes. A male prepares a breeding chamber under a large rock and defends it against rival males. If he can convince a female to deposit her eggs beneath his rock, he will fertilize them externally and guard them until they hatch. Never move large rocks in hellbender streams; it destroys their homes and breeding habitat!

September 7: Peak abundance for the little metalmark, an uncommon butterfly of our southeastern Coastal Plain.

September 9: Wild muscadine grapes are ripening. Summer farewell is in bloom.

September 10: Peak flight periods for several common and uncommon butterflies, including cloudless sulphur; Gulf fritillary; little yellow; and Aaron's, Dion, long-tailed, and Yehl skippers.

September 11: American beautyberry is fruiting—don't miss its beautiful color display.

September 12: Slender scratch-daisy is in bloom.

September 13: Whip-poor-wills and chuck-will's-widows have begun to depart for their wintering grounds. Most will overwinter in Mexico and Central America, but a few may spend winter along the Gulf Coast.

September 14: September is usually great for butterfly watching. Monarchs have declined in recent years, but their migrations can still sometimes be spectacular. The Blue Ridge Parkway is a good place for monarch watching, with Tunnel Gap at milepost 415.6 being an especially good spot.

September 15: Balsam Mountain gentian is in bloom. This North Carolina endemic occurs in only a few counties in our southwestern Mountains.

September 16: Possumhaw berries are ripe and will persist through the winter. Blue-winged teal are returning. Neptune will be at its closest approach to Earth—brighter than any other time of the year and visible all night long. This is the best time to view and photograph the giant blue planet.

September 17: BugFest, the North Carolina State Museum of Natural Sciences' huge annual educational expo, celebrating insects and other arthropods, returns in-person this year! This year's theme is myriapods (centipedes and millipedes)! For more information and updates, visit www.natural.sciences.org.

September 18: The Diana fritillary—a rare butterfly found only in our Mountains and Foothills—is flying, after its summer diapause. Tickseed sunflower and showy rattlesnake are in bloom.

September 20: Flowering dogwood berries are ripe. Watch trees for migrating scarlet tanagers, rose-breasted grosbeaks, and other birds that relish these berries. Threadleaf false foxglove is in bloom.

September 21: Hawk migration peaks. Thousands of broad-winged hawks and other species may be seen in migration at this time of year. Mahogany Rock in Doughton Park along the Blue Ridge Parkway is a good spot to witness this phenomenon.

September 22: It's fall, all y'all! Autumnal equinox is at 9:03 p.m. EDT (01:03 Universal Coordinated Time on Sept. 23).

September 23: In the Sandhills, pine snake nests are hatching and Sandhills blazing-star is in bloom.

September 24: It's National Hunting and Fishing Day and National Public Lands Day. Visit your favorite public lands, and/or take a kid (or adult) hunting or fishing.

September 25: Bog turtle nests are hatching in the Mountains and Foothills. Fern-leaf false foxglove is in bloom in the Coastal Plain.

September 26: Most white-tailed deer fawns have lost their spots. Marbled salamanders have begun moving to their breeding sites on rainy nights. Males usually move in first. This boldly patterned salamander was adopted as North Carolina's official state salamander in 2013. Females deposit their eggs under sheltering objects or surface litter on land in or along dry woodland pools, attending them until winter rains inundate the pools and hatch the eggs. This provides them a head-start on most winter-breeding amphibians. Jupiter will be at its closest approach to Earth—brighter than any other time of the year and visible all night. This is the best night to view and photograph Jupiter and its moons.

September 27: In the Mountains, most wildflowers are nearly done for the season, but a few goldenrods and asters, New York ironweed, and yellow ironweed are still in bloom. Carolina mantids are depositing their oothecae (egg clusters).

September 28: Fall warblers and other migrants are moving through. Watch the trees for an exercise in challenging birding.

September 29: The first frosts can be expected any time now in the Mountains.

September 29-October 2: The Carolina Bird Club will hold its annual fall meeting in Litchfield, SC. For information, visit www.carolinabirdclub.org.