



North Carolina
**WILDLIFE
FEDERATION**

Journal

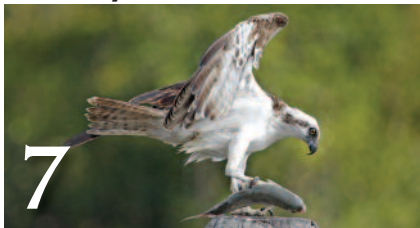
WILD LIVES □ WILD PLACES

Spring 2018



WORK THE PLAN
North Carolina's Wildlife Action
Plan Leaves No Species Behind.

Bird's-eye View



Conservation Awards Nominations



NCWF in the East





You Say “Cheater” Like That’s a Bad Thing

BY TIM GESTWICKI, NCWF CEO

Whether they fly, swim, burrow, hop, slither, scamper, or climb, wild animals are simply fascinating to me. Most of us have our favorites. I certainly do, but ask me to name my favorite wild creature and the answer I give you today might not be the one I would have given you a month ago. I’m a fickle wildlife lover. These days, I’m just getting over a pretty serious spring fling with wild turkeys. I’ve got a serious crush on lightning bugs going, but I know that it won’t last any longer than a summer vacation beach love because I’m a sucker for speckled trout come fall. I’ll be honest: When it comes to monogamy in wildlife love, count me out. I’m a serial cheater. I’ll dump a woodpecker in a skinny minute when I hear a barred owl sing at sunset.

Except for one wild thing—the loon. This is an ancient species, a large, heavy water bird that looks like a large duck but its belly floats below the water making it look a bit like a cormorant when swimming. Its summer plumage is black with beautiful white breast stripes and a white checkered back. Loons have webbed feet but they’re clumsy walkers, so they spend nearly all their time in the water, or they scooch back or slide onto shorelines, preferably islands, to nest away from predators.

I spent my growing-up summers on Maine ponds, where I was always around loons as they migrated back north to New England and Canada from their summers away—to coastal Carolina and Piedmont reservoirs, some of them. The pond where I grew up—and I truly did grow up during those summers, growing to love the wild, love the night sky, love the scent of pure water—was a small pond, only about 33 acres, and it interconnected with three other small ponds. The pond was an ideal home for a nesting pair of loons. The clear waters offered easy hunting for small minnows, crayfish, leeches, and frogs. I was fascinated by the loons’ ability to swim under water, often for a minute-and-a-half at a time, diving in front of our canoe and popping up half a football field away from my boat. This was in the 1970s, and loon populations had plummeted due to DDT and other pesticides. When the Endangered Species Act took DDT off the shelves, loons recovered. When they returned to our pond it was a big deal.

People around the pond would call each other when there was a loon sighting, and when the birds started nesting, that was the Big Story at the general store. When the eggs hatched the entire community beamed like proud parents. Or maybe grandparents. It still happens, and I still get to be a part of the fun when I return in the summers to our family place on the pond.

Who wouldn’t ooh and aah a bit when watching the young chicks on the mother’s back as she swims along? Who wouldn’t be impressed while seeing the parents dive for fish and feed their chicks until they learn to fish on their own? And we never tired of watching their display of flight. Loons have very heavy, dense bones—many traditional Outer Banks lures were made from loon bones because they sink so quickly—which helps explain another peculiar behavior. Loons need a long runway to flap along the water before lifting their heavy bodies into the air. Watching their clumsy, spasmodic take-offs is something you’ll never forget. And it’s hard to square that seeming lack of athleticism with the fact that, once airborne, they can fly up to 650 miles at a stretch!

The call of the loon is another signature trait. Loons often call to their mates to locate them at night in an unmistakable, trembling warble which will freak out a tourist who doesn’t know the maker of such a weird call. My wife and I chuckle regularly at the soundtrack of movies that use the common call of the common loon to provide a haunting background sound for a scary jungle or some other out-of-place setting. We don’t hear loons vocalize here in North Carolina during their winter migrations, as they aren’t mating, guarding nests, or protecting territory or young. It’s a summer sound. It’s the sound of my youth. It’s the sound of the dawn of my desire to work for the fragile, imperiled places that its maker called home.

A big-bodied, clunky, fish-eating bird with a voice used in horror movies—that’s one way to think of the loon. But not how I think of the loon.

In North Carolina, there are 457 species of plants and animals listed as species of concern. Most of these animals are not the iconic species that most of you might choose as your favorites. They are not prized for hunting and fishing. They are not among the strongest, the greatest, the fastest, the most beautiful. Tri-colored bat. Brook floater mussel. Grandfather Mountain crayfish. Not a prom queen or peregrine falcon in the bunch.

But every one of them is capable of fostering awe and wonder. But only if they remain in our streams and creeks and woodlands.

The North Carolina Wildlife Federation is going all in on a program called Recovering America’s Wildlife Act. This legislation is a proactive collaborative approach to funding and conserving our nongame birds, fish, mussels, pollinators, amphibians and reptiles. You’ll read about it in these pages.

This legislation can be a game changer, and you’ll be hearing lots more about it. At its very core, it’s important for NCWF members to understand something. Programs like the Recovering America’s Wildlife Act aren’t really about raising money. They’re about those loons on the summer ponds of your youth, and our obligation to keep the music on for coming generations. **NCWF**

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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 bountiful and diverse wildlife, including all species of wild flora and fauna, that is valued by its citizens and elected officials, 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.

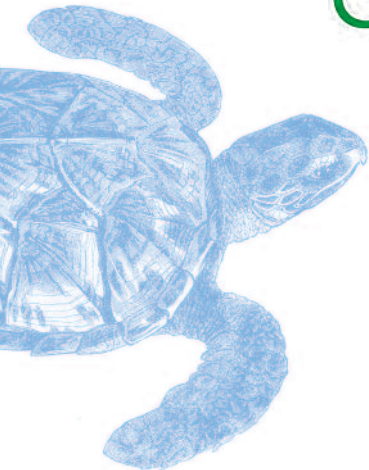


The **LITTLE-KNOWN**
RARELY *Seen*
UNDERAPPRECIATED
Stunningly Gorgeous
& (TOO OFTEN) **INCREASINGLY RARE**



**NORTH CAROLINA
WILDLIFE SPECIES**

**THAT
NEED
HELP** *Now*



Many of North Carolina's most beloved wildlife species are well known and pretty easy to spot. But many wildlife species are rarely seen, and are declining and of great conservation concern. There are 34 North Carolina wildlife species listed for protection under the Endangered Species Act, 109 listed as endangered or threatened in the state, and 129 listed as species of special concern in North Carolina. The state's Wildlife Action Plan seeks to give these species the helping hand they need to thrive in the future. Here are six species of Tar Heel wildlife that you may have heard little about. But they are every bit as worthy of conservation action—and human awe—as sea turtles and elk. (Thanks to the science staff of the North Carolina Wildlife Resources Commission for these reports.)



BROOK FLOATER MUSSEL *Alasmodonta varicosa*



PHOTOS COURTESY OF NCWRC

SOUTHERN HOGNOSE SNAKE *Heterodon simus*

The Little Piece of
STREAM CANDY:
BROOK FLOATER

No, that's not a Starburst fruit chew you see on the bottom of the river—it's the foot of the brook floater mussel, a.k.a. *Alasmodonta varicosa*. Although it's called the brook "floater," it actually

lives at the bottom of rivers and streams, burrowing into the substrate with its bright orange foot. The second part of its Latin name, *varicosa*, refers to the varicose ridges along the side of its shell. Like all mussels, it is a filter-feeder, meaning it filters nutrients and minerals from the water in order to grow.

One of 60 mussel species in North Carolina, the brook floater is found in cool, clean streams along the Atlantic slope from Georgia to Canada. Unfortunately, this mussel is in decline over much of its range due to habitat loss and degradation. In North Carolina, it's listed as State Endangered.

However, recent surveys in the Catawba, Yadkin-Pee Dee, and Cape Fear river basins have expanded the known range and population size of the brook floater in North Carolina. The Wildlife Resources Commission is also currently working on a captive breeding project to restore and enhance wild populations throughout its range in North Carolina. To accomplish this, NCWRC biologists must locate and collect pregnant (or "gravid") mussels in the wild and then raise the young in captivity. Like most native mussels in North America, the brook floater is parasitic during its larval stage. The larvae attach on to a fish's gills, get nutrients from the fish until they transform into juveniles, drop off, and begin life on the river bottom. (Don't worry—the fish doesn't even know the mussel is there!) Some mussels specifically parasitize only one or two fish species, but the brook floater is a generalist, meaning it is known to infest multiple fish species such as the margined madtom (*Noturus insignis*) and the longnose dace (*Rhinichthys cataractae*).

Because the brook floater has been in decline throughout other parts of its range in North America, the U.S. Fish and Wildlife

Service is deciding whether or not to grant the species increased protections nationwide under the Endangered Species Act. The WRC has contributed data on brook floater populations in North Carolina to help make a decision with the best, most up-to-date information possible in order to preserve the species for the future.

—Anakela Popp and Michael Perkins

The
Decidedly Peaceful
CAROLINA COBRA:
Southern
HOGNOSE SNAKE

The southern hognose snake (*Heterodon simus*) is a small, stocky snake, rarely reaching a length of more than two feet. Characterized by a sharply upturned snout, used for digging burrows and finding prey, this feature is what gives rise to their common

name. The uniform color of the belly distinguishes the southern hognose snake from the more common eastern hognose snake, which has a tail differently colored than the rest of the belly. The southern hognose ranges throughout the southeastern Coastal Plain, from North Carolina to southern Florida, and historically west to southern Mississippi and Alabama, though populations in the western part of their range appear to be extirpated. In North Carolina, this species is most abundant in the Sandhills, but populations occur in a few small spots along the southeastern Coastal Plain. Requiring very sandy soils, primarily within longleaf pine forests, the southern hognose spends most of its time either underground or within the leaf litter. Prey of adults consists primarily of toads and other amphibians, although juveniles also consume lizards.

Hognose snakes are known for several strange and fascinating behaviors. When first threatened, hognose snakes flatten their necks, somewhat like the hood of a cobra, hiss loudly, and repeatedly false strike. They don't open their mouths, but do go through the motions of a strike. If that behavior does not abate the threat, the

next trick is to feign death, where the snake rolls onto its back, writhes around, and gapes its mouth with tongue extended. If picked up and turned over, a hognose snake will immediately roll back over, continuing the death feigning behavior until the perceived threat is gone.

Southern hognose snakes are declining throughout their range because of development, mortality from road traffic, and a loss of large tracts of well-managed Sandhills and Coastal Plain forests (mainly due to a lack of prescribed fire). Red imported fire ants appear to also pose a substantial problem for this snake, with ants possibly attacking and killing eggs and hatchlings. Though southern hognose snakes are very secretive and relatively difficult to detect, researchers have documented dramatic declines in the range of the species, leading them to be listed as a threatened species in North Carolina.

The WRC, along with the North Carolina Museum of Natural Sciences and other partners, conducts annual surveys for southern hognose snakes to document occurrences and to gather long-term data on population trends. These surveys usually involve slowly driving roads during the day in autumn, a peak movement activity period for the southern hognose. Radiotelemetry surveys are ongoing in the Sandhills by N.C. Museum of Natural Sciences biologists to document movements, home ranges, and the life history of these snakes. A mark-recapture study has also been continuing in the Sandhills for five years, hopefully to provide some idea of the number of these snakes still living in the region. Other direct conservation actions include increased prescribed burning on managed landscapes, wetland restoration which increases prey abundance (mainly southern toads and eastern spadefoot toads), and the purchase and conservation of lands to provide more habitat for the species.

—Jeff Hall and Jeff Humphries

The VANISHING VICTIM: TRICOLORED BAT

The tricolored bat (*Perimyotis subflavus*) is one of the smallest, if not the smallest, bat in North Carolina with a wingspan of nine inches, a weight of 0.3 ounces, and length of barely 3.5 inches. It was formerly known as the Eastern pipistrelle, but studies showed that it was not related to the Old-World genus. Its thin, uniquely colored hairs are dark grey at the base, yellowish in the center, and brown at the tip—hence the tricolor moniker. Documented in more than half of North Carolina counties, it very likely occurs in every county of the state. The species occurs throughout the Eastern U.S. from Canada to eastern Mexico. In spring, tricolored bats emerge from hibernacula, such as caves and mines, and disperse to summer foraging and roosting sites. Summer roosts are often in trees, rock outcrops, and infrequently, buildings. They forage along waterways and forest edges, and eat small flying insects.

Before 2011, tricolored bats were one of the most common bats in North Carolina. Then the exotic fungal disease White Nose Syndrome (WNS) spread to the state. The tricolored bat is one of the most susceptible bat species to WNS.



TRICOLORED BAT *Perimyotis subflavus*

GARY PEEPLES / USFWS

The first step in any species conservation program is determining status and WRC does this through surveys and monitoring. There were hibernaculum and capture surveys in place before WNS spread to North Carolina, so there is a lot of data documenting declines. WRC reallocated staff to focus on bat surveys and WNS surveillance from 2009 to 2014. After WNS arrived in the state, the Commission implemented an acoustic monitoring program in the mountain region that uses ultrasonic detectors and volunteers to drive independent routes. This survey method to monitor bats, when added to the others, gives a clearer picture of trends for all bat species. WRC also incorporated WNS surveillance techniques and assisted researchers with gathering samples during our monitoring to further gain knowledge about the disease, its transmission and prevalence, and bat species-specific susceptibility. WRC expanded surveys to cover areas that had traditionally been concentrated in the southern mountains, but statewide coordination of bat surveys didn't occur in earnest until a new staff member, Katherine Caldwell, was hired in 2015.

Unfortunately, hibernacula counts of tricolored bats are down 96 percent from pre-WNS counts. Mist-net surveys of tricolored bats are down 66 percent. These declines occurred in the first few years after arrival to each hibernaculum. Current trends indicate stabilizing populations but abundance remains low. WNS has not been documented east of Stanly County and does not seem to have affected susceptible bat populations in the Coastal Plain, either because it is not there or, more likely, because the disease cannot get a hold on bats that likely hibernate a lot less than western bats. We are open to assisting with research on potential treatments of WNS, which is currently being researched.

—Kendrick Weeks





MARSH HABITAT FOR BLACK RAIL *Laterallus jamaicensis*

USGS
PHOTOS COURTESY OF NCWRC



GRANDFATHER MOUNTAIN CRAYFISH *Cambarus eeseehensis*

The Ghost of the
SALT MARSH:
BLACK RAIL

This small and most secretive of the secretive marsh birds, the black rail (*Laterallus jamaicensis*) is named for its overall dark coloration and short black bill. It also has a distinctive brown

coloration on the back of its neck. Black rails are short distance migrants, and they breed in high marsh habitats in North Carolina. Nesting habitat is within high marsh and generally within less than 6 cm of standing water. Their distinctive *kee-kee-der* call is generally only heard at night or very early morning, during the nesting season. Black rails use both estuarine and inland fresh water marshes or early successional wetlands for breeding, wintering and migration habitat, although they seldom winter in North Carolina. Early records of black rails in the state were almost exclusively in fresh water marshes, but most observations of them in the past 40 years have been in coastal marshes. The reason for that habitat shift is not well known. It could be due to changes in agriculture practices in and around fresh water marshes, or perhaps black rails are still using inland marshes, but their secretive nature has produced few detections within these inland fresh water systems.

There has been much concern over the status of black rails in recent years. Breeding Bird Survey and e-bird surveys are not good indicators of population levels. John Fussell is a local birder from the coast of North Carolina and published author on North Carolina birds. He knows more about black rails in North Carolina than anyone. He says black rails have disappeared from most of their former range on the coast. Other mid-Atlantic states have seen similar declines. In fact, the population is estimated to be declining at about 9 percent annually. Over the past four years, WRC has contracted with the Center for Conservation Biology, from the College of William and Mary to conduct surveys. Even over these last four years, black rails seem to have declined. In 2014–15, 7.6 percent of 262 survey points detected black rails, but by 2017, only

1.4 percent of 284 points detected black rails. In fact, the only breeding locations within North Carolina that black rails can regularly be found are on Cedar Island National Wildlife Refuge, and the Piney Island military bombing range in Carteret County, as well as the Swanquarter National Wildlife Refuge in Hyde County.

WRC will continue to contract for survey efforts during the breeding season, with a focus on what can be done to reverse the decline in populations. In 2018, The Center for Conservation Biology will conduct surveys in inland marshes and early successional wetlands to determine if these birds are still nesting at inland locations. We hold some hope that inland waterfowl impoundments may suffice as breeding habitat, as these birds have been found in impoundments in the past. WRC manages over 2,000 acres of impoundments and has several game lands with potential estuarine black rail habitat.

—David Allen

The
High Country
CRUSTACEAN:
Grandfather Mountain
CRAYFISH

The Grandfather Mountain crayfish (*Cambarus eeseehensis*) is a relative newcomer to the crayfish fauna of North Carolina. One of approximately 50 crayfish species that call the state home, it was named after the Cherokee word for the Linville River, *Eeseeh*, which

means “river of many cliffs.” Formally described as a species in 2005, the Grandfather Mountain crayfish was initially thought to be rare and found only in the Linville River upstream of Linville Falls in the mountains of Burke and Avery counties. Then surveys conducted by WRC and others in 2011 found the Grandfather Mountain crayfish in most streams throughout the Linville River and in the adjacent Watauga and upper Johns River watersheds.

This species is the most abundant crayfish in the Linville River

WACCAMAW KILLIFISH *Fundulus waccamensis*

LAKE WACCAMAW

and can be distinguished from other crayfish by its various orange, brown, and green camouflaged coloration, a variety of subtle characteristics on its claws or "chela," and by the distinct raised ridges along its nose or "rostrum." While the Grandfather Mountain crayfish is endemic to the mountains of North Carolina, meaning the species can only be found here, it is not particularly rare and can be found in small creeks around Linville and Pineola, downstream deep in the Linville Gorge, and all the way to the shores of Lake James.

Typical water quality threats of mud and over fertilization (which create sedimentation and eutrophication) can degrade crayfish habitat but do not appear to be currently affecting populations of Grandfather Mountain crayfish. Agriculture and industrial development are rare in the region of the Blue Ridge Mountains where the crayfish is found. Over 60 percent of the species' known range is managed through Pisgah National Forest, Grandfather Mountain State Park, the Blue Ridge Parkway, and The Nature Conservancy. These managed lands should protect most Grandfather Mountain crayfish populations for the foreseeable future. However, the greatest threat to this species and other native crayfish in North Carolina are introductions of exotic crayfish. Established populations of exotic crayfish such as the rusty crayfish and the red swamp crayfish are found in nearby watersheds and can out-compete native species for required resources. To protect unique native fauna like the Grandfather Mountain crayfish, we must strive to minimize introductions of non-native species. Because the region where this species and many other native and unique stream-dwelling animals are found is a popular coldwater fishery, it is important to remember to never release any live bait (such as crayfish) into any stream.

—T.R. Russ and Michael Perkins

The
Carolina Coral
REEF BEAUTY:
Waccamaw
KILLIFISH

What if I told you about a brilliantly-colored fish, sides washed in turquoise and purple, contrasting bold vertical zebra stripes, cruising the water with fins tinged in gold and orange, unique in all the world to only a single location?

You would probably ask me which coral reef it inhabited. But this beautiful animal is the Waccamaw killifish (*Fundulus waccamensis*), just one of several endemic species found in Lake Waccamaw, a 9,000-acre natural bay lake in Columbus County. Nestled in the heart of the Coastal Plain, the lake and its denizens are difficult to describe without resorting to clichés, for they truly

are hidden gems of scenic beauty and biological diversity. You can visit both by way of Lake Waccamaw State Park, which includes the southeastern shoreline of the lake, with hiking trails as well as swimming and boating access.

Waccamaw killifish are one of three endemic fishes residing in the lake and its immediate tributaries; the species is both a federal and state Species of Concern. Since 2009, WRC has conducted annual monitoring surveys in Lake Waccamaw to track the health and persistence of these rare species. The killifish, which mature to 3 to 5 inches long, school together in the shallow lake waters, hunting small invertebrates such as chironomid (non-biting midges) larvae. They also use adjacent canals and streams, including the equally beautiful Waccamaw River, which originates at the southern end of the lake.

According to biological survey data, Waccamaw killifish populations appear to be persisting and successfully reproducing in the lake, where they lay their sticky eggs throughout the spring and summer. However, their habitat has been threatened by the introduction of hydrilla, an invasive exotic weed found covering over 600 acres in 2012, which grows underwater and, left unchecked, could choke out most of this clear, shallow lake. Hydrilla will not only make conditions uninhabitable for the killifish and co-occurring rare fish and mussel species, but will also prevent navigation by boats and other recreational uses due to entanglement.

WRC and North Carolina's state parks, along with stakeholders such as N.C. State University, U.S. Fish & Wildlife Service, N.C. Division of Environmental Quality, and local citizens, have designed and implemented a management plan to attempt to eradicate the weed in an effort which enters its sixth year in 2018. While positive progress has been made, removal of hydrilla is extremely expensive and difficult, taking many years of treatment and with no guarantees of success. However, the most important and far more cost-effective step is prevention, which is up to each of us as citizens. Hydrilla and other aquatic invasive plants are most commonly transported on boats, trailers, live wells, and surfaces in contact with the water. It is critical that each time equipment is taken out of the water, before it goes anywhere else, it is thoroughly cleaned, drained, and dried to remove any hitchhikers in the form of plant fragments or other material which can lead to transport and introduction.

The striking Waccamaw killifish, its co-inhabitants, and their exquisite home in Lake Waccamaw are both unique and irreplaceable. With your help, generations to come will have the opportunity to enjoy these homegrown wonders just as we do. **NCWF**

—Brena Jones

Photo Ops

NCWF AND WILD TURKEY FEDERATION TEAM UP TO BUST POACHERS

The North Carolina Wildlife Resources Commission recently received 40 cellular game cameras donated by the North Carolina Wildlife Federation and its conservation partner, the North Carolina chapter of the National Wild Turkey Federation.

Game cameras have become a vital tool for wildlife law enforcement officers across the country in their quest to conserve wildlife resources and provide public safety. The N.C. Wildlife Resources Commission's law enforcement division has utilized these cameras over the past few years in various locations across the state with great success. Originally, cameras that were used required the officer to set up the camera on potentially unlawful activity and later return to the camera site frequently to pull memory cards to check for photographs. Newer cameras are now available that allow officers to set up the camera and receive real-time pictures sent directly to a computer or cell phone. This means officers are required to travel and access the cameras on site. This allows an officer to more effectively and efficiently utilize their patrol time. The technology is a force multiplier that can dramatically increase the effectiveness of an officer.

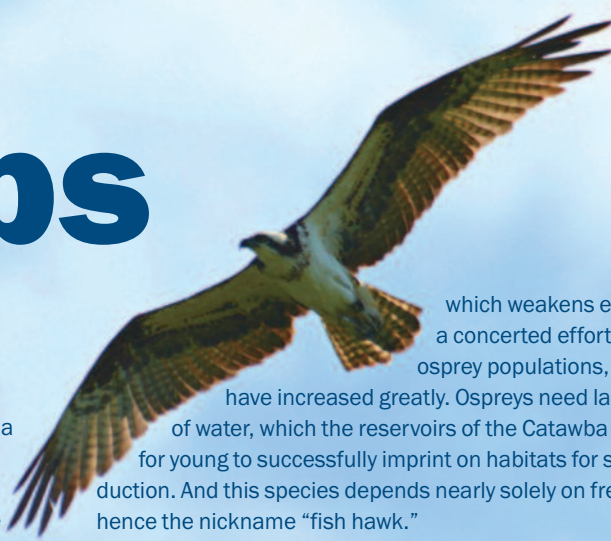
Dick Hamilton served as a former WRC director and is now one of the Federation's lobbyists and its Camo Coalition Coordinator. He believes that anything the Federation can do to support wildlife enforcement is worthwhile. "Enforcement is the foundation for conservation," says Hamilton. "These cameras will be a great asset to the officers as they go about their duties to enforce the fish and wildlife laws for us all. By providing and utilizing new technology, enforcement will keep pace with poaching and illegal wildlife activities in a more effective manner."

Enforcement officers tested and compared various cameras before choosing the Verizon HCO Spartan Blackout / Infrared GoCams to be the most effective for the necessary type of work. They had great success on a wide variety of cases dealing with everything from Landowner Protection Act cases to night deer hunting cases.

The Federation and the state NWTF's donation of the cameras will allow every patrol area across the state as well as the special assignment operations unit to have the cameras. "I am very thankful for the partnership with Wildlife Federation and the Wild Turkey Federation for their support of conservation law enforcement," says Colonel Jon Evans. "These cameras will allow us to better deter and apprehend individuals who may attempt to take our state's wildlife resources unlawfully. I firmly believe that this particular piece of equipment will be one of the most effective tools a wildlife officer can use in accomplishing our conservation mission."

OSPREY IN THE SPOTLIGHT: NCWF CHAPTER INSTALLS NESTING CAMERA FOR LIVE-STREAMING ACTION

The thriving osprey population at Lake Norman is a testament to the effectiveness of the mission of the North Carolina Wildlife Federation: To protect, conserve, and restore the wildlife and habitats of North Carolina. Osprey (*Pandion haliaetus*) are prevalent these days along the 225-mile long Catawba River which runs from western North Carolina down into South Carolina. This wasn't always the case as osprey populations on the Catawba River, like in many places, were non-existent or minimal at best as late as the early 1980s. This was due to environmental factors, most notably widespread usage of the pesticide DDT,



which weakens eggshells. Through a concerted effort to re-introduce osprey populations, their numbers have increased greatly. Ospreys need large open bodies of water, which the reservoirs of the Catawba provide, in order for young to successfully imprint on habitats for successful reproduction. And this species depends nearly solely on freshly caught fish, hence the nickname "fish hawk."

Now the details of an osprey's life history will be live-streamed. For a decade the Federation, through grants from the Catawba-Wateree Habitat Enhancement Program, has deployed osprey nesting platforms in Lake James, Mountain Island Lake, Lake Wylie, and Lake Norman, all reservoirs of the Catawba River. Long-lasting metal platforms with braces are constructed by volunteers from the Federation's Lake Norman Wildlife Conservationists and Piedmont Area Wildlife Stewards chapters and are then deployed by barge. Thirty-foot poles are driven into the water adjacent to island shorelines in sites vetted for biological and navigational suitability. Their unencumbered height is attractive to the birds while also protecting against predators like black snakes and raccoons. The program has proven highly successful as nearly all the platforms erected support nesting ospreys year after year. The young birds fledge in the summer and migrate to Central and South America in the fall. They return to their nesting sites every March.

Building upon the nesting platform project, we are excited to announce a live stream feed on one of the platforms. This EarthCam project highlights the work of NCWF's local chapter, the Lake Norman Wildlife Conservationists, a community-based organization established for the purpose of environmental education, appreciation of wildlife and natural history, and conservation of wildlife habitat and natural resources. This nesting platform, located in the shallow water surrounding a small wooded island, is one of over seven dozen platforms constructed by the LNWC over the past decade.

LNWC relied upon its vast network of people and organizations to bring a variety of skillsets and resources together to complete the project. The project was made possible thanks to the commitment and generosity of these valued partners:

Stutts Marina, sponsorship funding
Lancaster Docks, pole placement
Morningstar Marinas - Kings Point, for donating the use of a double-decker rental pontoon
All Seasons Marina, for providing staging area facilities
LNWC volunteers Terry Marr, Gene Vaughan, and Billy Wilson

Mother Nature made things a bit challenging as the ospreys arrived earlier than anticipated, and difficult March weather with high winds, waves, rain, snow and ice all rolled in. The volunteer team persevered, however, and completed the installation process despite the tough elements.

The opportunity to view an active osprey nest provides a unique educational experience to the public and helps foster awareness of NCWF's mission to protect, conserve and restore the wildlife and habitats of North Carolina. To view the osprey activity, go to www.ncwf.org, and then spread the word about our effort to share this bird's-eye view of North Carolina. **NCWF**

We're looking for Conservation Heroes!

2018 GOVERNOR'S CONSERVATION ACHIEVEMENT AWARDS



North Carolina **WILDLIFE FEDERATION**

Each year the North Carolina Wildlife Federation presents the prestigious Governor's Conservation Achievement Awards, an effort to honor individuals, governmental bodies, organizations, and others who have exhibited an unwavering commitment to conservation in North Carolina. These are the highest natural resource honors given in the state. By recognizing, publicizing, and honoring these conservation leaders— young and old, professional and volunteer—the North Carolina Wildlife Federation hopes to inspire all North Carolinians to take a more active role in protecting the natural resources of our state.

The nomination period for the Governor's Conservation Achievement Awards is open through July 5, 2018. These awards are presented each year at a gala banquet. Award recipients receive a handsome statuette and certificate. On the opposite page is the official nomination blank. Additional forms are available by request. For more details or to download a form, go to www.ncwf.org.

CONSERVATIONIST of the Year

Overall outstanding effort and achievement in any field of natural resources conservation.

WILDLIFE CONSERVATIONIST of the Year

Accomplishments in the management, study, or restoration of wildlife, fisheries, or habitat.

SPORTSMAN OR SPORTSWOMAN of the Year

Exemplary efforts by an individual to encourage good sportsmanship and/or outdoor ethics.

LAND CONSERVATIONIST of the Year

Outstanding effort by individual, organization, or agency in the arena of land conservation, such as private or public land acquisitions, management, or conservation.

WATER CONSERVATIONIST of the Year

Outstanding effort by individual, organization, or agency in the arena of water conservation, such as water pollution control, stream/river protections, wetlands and/or estuarine protections, or aquatic wildlife conservation.

FOREST CONSERVATIONIST of the Year

Outstanding effort by individual, organization, or agency in the arena of forest conservation or the conservation of forest wildlife.

ENVIRONMENTAL EDUCATOR of the Year

Outstanding environmental education effort by an individual or organization.

YOUTH CONSERVATIONIST of the Year

Outstanding conservation effort by a person under the age of 18.

CONSERVATION ORGANIZATION of the Year

Outstanding accomplishment by an organization in affecting a particular issue during the year, or for raising awareness about conservation and/or wildlife habitat.

LEGISLATOR of the Year

Outstanding effort by a member of the North Carolina legislature in support of conservation.

MUNICIPAL CONSERVATIONIST of the Year

Outstanding conservation effort by any federal, state, or local government entity, including efforts to aid the public's ability to enjoy natural resources.

BUSINESS CONSERVATIONIST of the Year

Outstanding effort by any firm, business, or industry that has displayed an unwavering commitment to conservation or the public's ability to enjoy natural resources.

HUNTER SAFETY EDUCATION INSTRUCTOR/ORGANIZATION of the Year

Outstanding accomplishment by an individual or organization in the state's Hunter Safety Program.

NATURAL RESOURCES AGENCY of the Year

Outstanding effort by any local, state, or national agency responsible for managing natural resources.

NATURAL RESOURCES SCIENTIST of the Year

Outstanding scientific effort by an individual working for governmental agencies, educational institutions, or related enterprise.

WILDLIFE VOLUNTEER of the Year

Outstanding effort by a citizen volunteer in the service of North Carolina's wildlife and wild places.

NCWF CHAPTER of the Year

Outstanding effort by member chapter in one or more of the following areas: wildlife habitat, environmental education, youth participation, and/or community involvement in conservation issues.

AFFILIATE of the Year

Outstanding support effort by NCWF affiliate.

OFFICIAL NOMINATION FORM

To make a nomination, send one copy of this form, with all supporting attachments and a resume of achievements, to the North Carolina Wildlife Federation, ATTN: Awards Committee, P.O. Box 10626, Raleigh, NC 27605. Deadline for receiving applications is July 5, 2018. Please print or type all data below. This form may be duplicated.

Nominee _____

Complete address _____

Daytime phone number _____ Email address _____

Award category* _____

(Nominees may be nominated for more than one category, but send a separate nomination blank for each award category. Multiple copies of supporting materials are not necessary.)

Nomination made by _____

Complete address _____

Daytime phone number _____

NOMINATION INSTRUCTIONS

1. Fill out Official Nomination Form completely.
2. Attach a resume of achievements or nomination essay explaining why the nominee deserves the award. Attach nominee's resume if available, and information about the nominee's affiliations, past recognitions, and other references for substantiation. Full documentation is needed by the Awards Committee—the only information the Awards Committee will have is what you provide. Please be particular about the specific acts on which the nomination is based.
3. Deadline for receiving nominations is July 5, 2018.

**The Awards Committee reserves the right to place nominations in the appropriate categories as the case may arise. In the case of insufficient nominations in any category the Awards Committee reserves the right not to name a category winner.*



NCWF Partnering for Red Wolves

The North Carolina Wildlife Federation is excited to enter into a cooperative conservation agreement with the U.S. Fish and Wildlife Service and the National Wildlife Refuge Association. NCWF will be working to increase public education and knowledge of Pocosin Lakes National Wildlife Refuge and the refuge system, wildlife and their habitats, ecology and land management, the value of restoring an endangered species like the red wolf, and the richness of the regional culture and outdoor activities the area offers. The Federation will staff a position based at Pocosin Lakes NWR and the Walter B. Jones Sr. Center for the Sounds Visitor Center to provide year-round educational programming, build and manage a volunteer corps, and form a sustained local NCWF wildlife chapter.

The Albemarle Peninsula is home to the only wild red wolves in existence. As such, fully

realizing the potential of the refuge's Red Wolf Education Center is critically important to red wolf conservation efforts. A recent study by the Wildlife Resources Commission revealed that many North Carolinians know little or nothing about red wolves or red wolf conservation efforts. The Walter B. Jones Sr. Center for the Sounds and the Red Wolf Education Center, both of which are Refuge facilities in Columbia, North Carolina, have been largely vacant for the last three years due to position vacancies and budget reductions. Creating opportunities at these facilities for visitation, environmental education, and interpretation is critical for garnering support local conservation efforts.

These goals align directly with NCWF's strategic plan, especially connecting people with nature, fostering awareness and appreciation for natural resources, conservation of iconic species, and increasing the conservation network. With

the new position's focus on education, red wolves will be brought from Alligator River NWR to the Red Wolf Education Center where public programs will be conducted. Mike Bryant, former USFWS Project Leader for six national wildlife refuges in eastern North Carolina, and current regional representative for the NWRA, states that "we are all pleased that such a capable, established conservation organization as NCWF is willing to partner on this effort. This wildlife-rich area has so many outdoor activities and opportunities for the visiting public and local communities, so being able to re-establish the Refuge's programming services is valuable for many reasons including expansion of local eco-tourism."

Red wolf programs and refuge wildlife tours and programming for waterfowl and black bear will be scheduled and promoted at the Federation's website www.ncwf.org.

Clean Up on Lake Rhodhiss



Lake Rhodhiss is a clean, clear reservoir of the Catawba River buttressed by Burke and Caldwell counties. Through grants from the Clean Water and Parks Trust Funds, the town of Valdese was able to protect 300 acres for a new Valdese Lakeside Park. River and lake currents wash large amounts of trash into several coves within the new park, however, and the Federation stepped in to help. In conjunction with the town and Friends of Valdese Park and Recreation, the Federation organized a clean-up with more than 65 volunteers. A full dump truck was filled with sorted recyclables and the rest of the garbage was bagged and hauled away. "The N.C. Wildlife Federation provided

tremendous assistance in helping us to organize a lake cleanup day," said Doug Knight, director of Valdese Parks and Recreation. "Thanks to their expertise, supplies, and a clear plan, we were able to do a large cleanup project in just about two hours. This was a tremendous project to introduce our community to the importance to volunteerism in keeping our lake shores clean." The Federation is working to form an NCWF chapter around Lake Rhodhiss, with plenty of opportunities for wildlife-related activities. Those interested in getting involved with the chapter should contact Tara Moore at tara@ncwf.org or (704) 332-5696.

NCWF NAMES NEW DIRECTOR

The North Carolina Wildlife Federation recently elected Snyder Garrison of Hickory to its board of directors.

Garrison earned degrees in economics and history from UNC-Chapel Hill and was employed by Valdese Weavers, LLC, a manufacturer of woven textiles used in the home furnishing industry, for 31 years. He was recently named chairman of the board of directors at the company.

In addition to his role at the Federation, Garrison serves on the board of the Hart Square Foundation and the Luke Garrison Foundation. He previously was an active board member for the Burke County United Way, Catawba Valley Science Center, Piedmont Council of Boy Scouts of America, and Lake Hickory Country Club. "This organization is uniquely positioned," said Garrison, "to help collaborate and help lead conservation efforts in North Carolina as the non-partisan, science-based organization that works to protect flora and fauna from the ocean to the mountains."



Reimagining Conservation Funding



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Investments produce results. Well-resourced programs and landmark conservation legislation drives remarkable conservation outcomes, whereas areas without such investment, such as conservation of non-game species, often founder. A century ago, prized game species like elk, wood duck, bighorn sheep, wild turkey, and striped bass were at risk of extinction. Today these species are largely thriving because license fees and excise taxes on gear paid by America's hunters and anglers have been dedicated to the conservation of their habitat.

Today, we face a new wildlife crisis. State fish and wildlife agencies have identified more than 8,000 animals and at least 4,000 plants in their State Wildlife Action Plans that are in need of proactive conservation efforts. Many species of pollinators, songbirds, turtles, frogs, mussels, fish, and bats, are among the wildlife in trouble. This growing wildlife crisis poses a threat to the vibrant outdoor economy of America and North Carolina.

The federal Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources, comprising industry and conservation leaders, recommended that the best way to recover these species of concern is to build upon the conservation model that has produced the remarkable successes for game species by invest-

ing a portion of existing energy revenues in proactive, collaborative, voluntary efforts at the state-level. Those recommendations were turned into The Recovering America's Wildlife Act (H.R. 4647) which will re-direct \$1.3 billion of existing revenue annually into state-led proactive, collaborative wildlife conservation efforts focused on increasing wildlife populations well-before they reach a crisis point and require more restrictive and expensive regulatory protections. Like so many things, an ounce of prevention is worth a pound of cure. Upon passage, this legislation will represent the most significant direct investment in wildlife conservation in a generation.

The Federation has fully seized this once-in-a-generation conservation funding opportunity. Education meetings and field trips to show how partnerships are working in the field for wildlife are taking place with members of Congress. NCWF coordinated a sign-on letter to the North Carolina members of Congress that was joined by nearly 100 state groups representing 120,000 members and supporters. At the time this issue went to press, Congressmen David Rouzer and Richard Hudson have already co-sponsored the legislation.

Seeing this legislation through to a successful resolution is a priority of NCWF.

Scholarship Deadline Approaches

Students committed to environmental and natural resource conservation and management may apply now for a 2018 North Carolina Wildlife Federation scholarship. For more than 50 years, the Federation's scholarship program has helped hundreds of North Carolina students pursue their dreams of studying and working in the conservation field, with many award recipients going on to achieve significant success.

The Federation will provide up to seven grants to students in the amount of \$1,000, plus a Conservation Leadership \$2,500 grant which may be awarded to a student of exemplary merit.

Candidates for scholarships must be enrolled full-time and attending an accredited North Carolina college or university. Scholarships are for both graduate and undergraduate students who are majoring in the areas of wildlife, fisheries, forestry, conservation or environment.

The 2018 scholarship application deadline is Friday, June 29. Applications must be received online by 5 p.m. to be considered. Visit the scholarship grants section at www.ncwf.org to learn more and apply.

For more information, contact Sarah Hollis at (919) 833-1923 or sarah@ncwf.org.

GARY PEEPLES / USFWS



CHECK OUT OUR CHAPTERS! For more information on how you can participate, contact Tara Moore at tara@ncwf.org.



Capital Chapter



Community Alliance for Wildlife



Concord Wildlife Alliance



CROWN (Charlotte Reconnecting Ourselves With Nature)



HAWK (Habitat and Wildlife Keepers)



Lake James Area Wildlife and Nature Society



Lake Norman Wildlife Conservationists



PAWC (Pamlico Albemarle Wildlife Conservationists)



PAWS (Gaston County Piedmont Area Wildlife Stewards)



River Hawks (Wake Forest)



South Wake Conservationists



The Albemarle Conservation and Wildlife Chapter



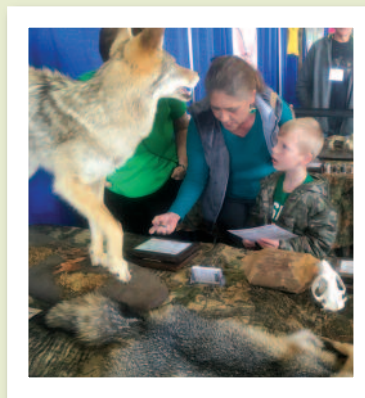
PAWS WILDLIFE BANQUET ► The Gaston County PAWS (Piedmont Area Wildlife Stewards) chapter held its annual wildlife fundraiser banquet in March, which was attended by more than 340 participants and grossed the highest amount of dollars for wildlife since its inception. The event featured hundreds of raffles, a live auction, and the opportunity to network with local wildlife enthusiasts. The chapter vice president, Jim Hoyle, was awarded the Bill Jarmon award for outstanding conservation efforts.




GREEN EXPO ALBEMARLE ► The Albemarle Conservation and Wildlife Chapter participated in planning the Green Saves Green Expo, the largest event ever held at the museum in Elizabeth City. The free expo brought together environmental non-profits, local representatives, renewable energy advocates, and dedicated citizens for interactive booths and public speakers. The event also featured excursions to the local Amazon Wind Farm and an ARC&D wetland project next to the wind farm.



LAKE JAMES CLEAN-UP ► The Lake James Area Wildlife and Nature Society organized its annual clean-up event at Lake James State Park, where over 250 volunteers gathered to clean-up various roadways and forest area throughout the park. An estimated 130 tires were collected, and three 5-foot by 40-foot dumpsters were filled with trash ranging from disposable baby diapers, TV tubes, bottles, cans, logs, sunken kitchen sinks and metal signs.



CAPE FEAR WILDLIFE EXPO ► South Wake Conservationists, based in Holly Springs, participated in the Cape Fear Wildlife Expo from March 16-18. More than 900 children participated in the chapters' Scavenger Hunt "Nature in a Nutshell," a STEM-inspired event. This scavenger hunt featured 14 interactive stations that encouraged discovery, problem solving and critical thinking skills, and addressed a variety of wildlife and North Carolina natural resource themes. NCWF provided a lifetime youth hunting and fishing license as the grand prize raffle drawing which was won by 12-year old Derek Ivey Ezzell of Autryville, NC. 

WILD ON THE WATER ► Make sure to register for the CROWN chapter's annual Wild on the Water event June 2nd on Mountain Island Lake. This event features a flat water paddle to learn about wildlife and conservation efforts while paddling to raise money for conservation. Lunch, t-shirts and prizes are provided. Boats available on first registration request basis. Details at www.crowncharlotte.org.



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You can control the future

Here are four simple ways you can leave a lasting legacy.

- Make a bequest to NCWF in your will or trust. Find out how easy it is to put wildlife in your plans.
- Realize the value of your retirement plan by making NCWF a beneficiary. You can consider full, partial or percentage options to benefit wildlife.
- Consider a gift of life insurance that your family has “outgrown” or making NCWF a partial or full beneficiary of your plan.
- Build your gift by using real estate and personal property.

If you or your attorney have questions, or would like NCWF to provide you with sample customized language for your will that is specific to your goals and interests, please contact NCWF’s Development Director, Dom Canavarro. All inquiries are confidential. He can be reached at 919-833-1923, or drop him a note at 1024 Washington St., Raleigh, NC 27605.

WHERE THERE’S A WILL, THERE’S A WAY... FOR WILDLIFE

Charlie Shaw Society



NCWRC

John Robbins, owner of Greathorn Properties in Concord, and a long-time philanthropist and sportsman is the current chair of the Charlie Shaw Society. He encourages others to join him in support of the North Carolina Wildlife Federation.



Current Members

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

To learn more about the Charlie Shaw Society and benefits of membership, please visit our website at www.ncwf.org, or Dom Canavarro, Development and Operations Director, at (919) 833-1923; dom@ncwf.org.

- | | | |
|-----------------------------|------------------------------------|------------------------------------|
| Jennifer Alligood | Roger Dick | David Knight |
| Ben and Jeanette Barker | Alex and Christa Dickey | Harry Lancaster and Jane Henderson |
| E.L. Avery Bates | Helen Eggers | Thomas S. Long |
| John A. Bishop | Scott and Ann Fletcher | Christa Milne |
| John M. Booker | Paul W. Foss | Patrick J. O’Leary |
| Frank Bragg | John Fuller | Perry Patterson and Joel Leander |
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| William S. Brown | Leonard Fumi and Lucy Quintilliano | Mark and Jane Ritchie |
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THE Season

Jeff Beane's GUIDE TO
NATURAL NORTH CAROLINA

North Carolina Wildlife Federation
1024 Washington Street
Raleigh, NC 27605

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MAY

May 15: Hardwood trees are in full foliage over most of the state. Southeastern prickly-pear is in bloom. Longnose gar are spawning.

May 16: Passion vine is in bloom. Mourning dove nesting peaks. Pine-devil moths are flying.

May 17: Ground skinks are nesting. Unlike our four other skink species, this tiny lizard (our smallest reptile) does not guard its eggs during incubation.

May 18: Least terns are nesting, mostly on our more remote beaches and barrier islands.

May 19: Diamondback terrapins, the world's only uniquely estuarine turtles, are nesting.

May 20: American alligators begin mating. Wild strawberries are ripening.

May 21: Grassleaf roseling, tread-softly, Sandhills dawnflower, and Pickering's dawnflower are in bloom in the Sandhills.

May 22: Yucca is in bloom.

May 23: Purple pitcher plants are in bloom.

May 24: Spider lilies are in bloom.

May 25: Loggerhead sea turtles begin nesting.

May 26: Coal skinks are nesting in the Mountains and Foothills. Like most of our skinks, these poorly known lizards guard their eggs during incubation.

May 27: Common mullein is in bloom.

May 28: Larvae of the marbled salamander—our state salamander—are transforming; juveniles disperse from ephemeral wetlands into terrestrial habitats on rainy nights. Snapping turtles are nesting.

May 29: Venus' looking-glass is in bloom. Cecropia moths—our largest moth species—are emerging.

May 30: Breeding is underway for green, Cope's gray, pine woods, and barking treefrogs, depending on favorable (rainy) weather. Wild turkey eggs are hatching.

May 31: Several species of dusky salamanders are nesting. Ruffed grouse eggs are hatching. Eastern box turtles begin nesting.

JUNE

June 1: Venus' flytraps are in bloom in the southeastern Coastal Plain.

June 2: Galax is in bloom in the Mountains and western Piedmont.

June 2-10: National Fishing and Boating Week (actually lasts nine days)—a national celebration highlighting the importance of recreational fishing and boating.

June 4: Flame azalea, columbine, and fire pink are in bloom in the Mountains.

June 6: Great-spangled fritillaries are flying.

June 7: Grass pink orchid and orange milkwort are in bloom in Coastal Plain savannas.

June 8: Rosy maple moths are flying.

June 11: Peak flight period for King's hairstreak, an uncommon butterfly found mostly in our Sandhills and southern Coastal Plain.

June 12: Japanese beetles are emerging.

June 13: Bluehead chubs are spawning. The large stone nests built by these abundant, stream-dwelling minnows are used by several other minnow species.

June 14: Rosinweed is in bloom. Ten-lined June beetles are flying.

June 15: Spotted salamander larvae are transforming; juveniles disperse into terrestrial habitats on rainy nights.

June 16: Gray's lilies are in bloom in the Mountains. Carolina gopher frog tadpoles and tiger salamander larvae are transforming in the Sandhills and Coastal Plain.

June 17: Five-lined, southeastern five-lined, and broadhead skinks are nesting. Unlike most reptiles, these lizards remain with their eggs, guarding them until they hatch.

June 20: Peak bloom for rhododendron and mountain laurel in the Mountains. Good places to admire this floral show include Roan Mountain in Mitchell County and Craggy Gardens on the Blue Ridge Parkway in Buncombe County.

June 21: Summer is here! The solstice is at 6:07 a.m. EDT (10:07 Universal Coordinated Time).

June 22: Sourwood is in bloom.

June 23: National Wildlife Federation's Great American Backyard Campout. Take a kid (or a grown-up) camping! Visit <http://www.nwf.org/Great-American-Campout.aspx> for more info. Eastern box turtle nesting peaks. Sandhills thistle, Appalachian mountain-mint, and Nash's meadow-beauty are in bloom.

June 24: Northern pine snakes are nesting. These uncommon snakes, found mostly in our Sandhills region, lay the largest eggs of any of our snakes. Females typically spend several days digging a long tunnel ending in a nest chamber, where they will deposit their small clutch of eggs. Their nests are sometimes used as refugia by other animals.

June 25: Chickasaw plums are ripe; you might have to compete with coyotes, foxes, and opossums if you want to make plum reserves. Redlip shiners and mountain redbelly dace are spawning in mountain streams. Eastern milkpea is in bloom.

June 26: Green June beetles begin to emerge. Emergences usually follow a rain that softens the soil so that the adults can dig their way to the surface.

June 28: IO moths are flying.

June 30: Loggerhead sea turtle nesting peaks.

JULY

July 1: Black skimmers are nesting on our more remote beaches and barrier islands. Fringed meadow-beauty is blooming.

July 2: Ox beetles are flying.

July 3: Northern bobwhite eggs are hatching.

July 4: Blackberries are ripe. Celebrate our nation's birthday with a cobbler (but leave some berries for all the wild things that need them).

July 5: Velvet ants, also known as cow killers, are mating. These beautiful insects are not ants at all, but terrestrial wasps (as many a curious child has learned the hard way). Females are wingless.

July 6: Eastern cicada killers are mating. These large, impressive wasps are often needlessly feared, especially during their mating aggregations, but they are harmless to humans (although not to cicadas).

July 7: Summer runs of white perch make for good fishing on the Chowan River.