

— GONE WITH THE —
WIND

The loss and discovery of a champion tree

written and photographed by Todd Pusser

The champ was dead. For centuries, the longleaf pine tree stood majestically among the gently rolling hills of Montgomery County near Ether, its distinct flattop crown towering high over the landscape. The tree had been a survivor. Its thick trunk, 12 feet in circumference and standing over 100 feet tall, bore numerous scars of past lightning strikes. Without a doubt during its long life, this tree withstood some mighty powerful storms, including two of the largest hurricanes to hit North Carolina, Hazel in 1954 and Hugo in 1989, both of which passed right over or near its crown and destroyed much of the surrounding area.

The tree was never cut down by its property owners. Perhaps its sheer size inspired a sense of wonder, as large trees frequently do. Or perhaps the old tree held sentimental value. Local newspaper accounts about the tree described how children would take breaks and hang out beneath the giant on their walks to and from school.

A strong thunderstorm in May 2016 finally brought down the immense longleaf, snapping its massive trunk some 30 feet off the ground and sending its crown crashing to the forest floor. The tree had been designated a national champion by the American Forestry Association in 2004, meaning it was the largest longleaf pine standing anywhere in the United States, taking over the title that was previously held by a longleaf in Alabama, itself a victim of a strong storm.

I first visited the pine tree in 2015 when it stood proudly against the Carolina blue sky, dwarfing everything else within eyesight (see “The Last Giants” in the March/April 2016 issue of *Wildlife in North Carolina*). Longleaf pines were once the dominant tree over much of eastern North Carolina. Nineteenth century turpentine for naval stores and decades of rampant logging reduced the estimated 11 million acres of longleaf pine forest in the state to just 255,000 acres today.

In early 2018, nearly two years after its collapse, I returned to Montgomery County to pay my respects to the fallen champ. There is something inherently sad about witnessing the end of an era. The grandiose longleaf laying on the ground before me was likely several hundred years in age, maybe even as much as 500 years old.

Normally, one could cut a cross section from the trunk of a tree and count its growth rings to determine its age. Old

longleaf pines, however, suffer from red-heart disease, which is a fungal infection that weakens their heartwood. The disease does not kill the pines but often leaves them hollow, making them impossible to precisely age, as was the case with the fallen champion. It is possible the longleaf had sprouted around the time of the founding of the first English settlement in North America on Roanoke Island in 1585. The giant’s hollow trunk likely contributed to its eventual demise by making it more susceptible to sudden gusts of wind associated with strong thunderstorms.

Hunting Big Trees

In 1940, the American Forestry Association (now called American Forests) created the National Register of Champion Trees to encourage the public to find, document and preserve the largest specimens of American trees. Still going strong after 79 years, the program (americanforests.org) currently lists 763 champion trees spread throughout North America and Hawaii. North Carolina joined the program in the 1970s and, as of this writing, has 19 national champion trees on the list, the largest of which (at least by total points) is a Darlington oak, with a cumulative score of 362 points, located on a private property in Edgecombe County.

Somewhat like the Boone and Crockett Club calculations for record white-tailed deer antlers, there is a scoring system to determine if a tree qualifies as a champion. The formula is straightforward: take the trunk circumference (in inches) at breast height, add the height of the tree (in feet) and then add one-quarter of the average crown spread (in feet) for a total point score.



Big tree hunters Gary Williamson (left) and Byron Carmean examine the former national champion longleaf pine that was toppled by a strong thunderstorm in 2016. The tree, likely centuries old, is impossible to precisely age due to its hollow center.

It is important to remember that a champion tree may not be the tallest of its species, have the thickest trunk or the widest crown spread; it is the combination of all three measurements that determines its status.

Aside from the National Register of Champion Trees, North Carolina maintains its own champion list of 220 native and naturalized trees found within its borders. Naturalized trees are exotic species from another country that have been introduced into North Carolina, often planted as ornamentals in suburban yards, gardens or arboretums, and are growing in a natural or wild state. Examples of naturalized trees on the current state list are the champion Japanese pagoda tree and Chinese parasol tree found within the city limits of Charlotte.

However, in recent years, the North Carolina Forest Service has determined that only native species of trees can be potential champs. Exotic, non-native species are no longer accepted for nomination, and for those that are currently grandfathered in on the list, once they die, they will not be replaced.

No one has nominated more champion trees in the state than native Virginians

Byron Carmean and Gary Williamson. Over the past two decades, the big tree hunters have crisscrossed North Carolina by foot, kayak and car, exploring dense Coastal Plain swamps, remote mountain coves and old historic townships in search of champion trees. Among their finds are the largest tree currently on the state champion list, a 558-point bald cypress growing along the banks of the Roanoke River in Martin County and the largest possumhaw (a native holly) found in Jackson County that scores a mere 33 points. Our state champ bald cypress is well shy of the 739-point national champion growing in Louisiana. However, the 33-point total for the possumhaw, one of the state's smallest native trees, crowned it a national champion for the species on the 2019 National Register of Champion Trees.

Over the last four years, I have joined Carmean and Williamson on numerous excursions throughout the Coastal Plain, Piedmont and Sandhills in search of superlative trees. Among our most memorable finds were a huge shagbark hickory (107 feet tall and 10 feet in circumference) and an American cottonwood (107 feet tall and 15 ½ feet in circumference) growing near

each other along the banks of the Pee Dee River in Richmond County. Though neither tree qualified as a state champion, both were remarkable, not only for their sheer size but for their symmetrical beauty.

A massive white oak, standing 99 feet tall, on private land in Montgomery County is also worth noting. The tree scored a total of 359 points, 44 points shy of the 403-point state champion in Chatham County, but its average crown spread of 136 feet is among the largest ever seen by Carmean and Williamson.

The big tree aficionados keep a notebook for the simple reason that all champion trees eventually fall down due to old age, the chainsaw or are toppled by storms, like the former national champ longleaf and the former state champ water oak from Elizabeth City that was pictured in the 2016 *WINC* story. When this happens, Carmean and Williamson frequently have another tree in mind to replace the fallen champion, unless of course someone else beats them to the punch.

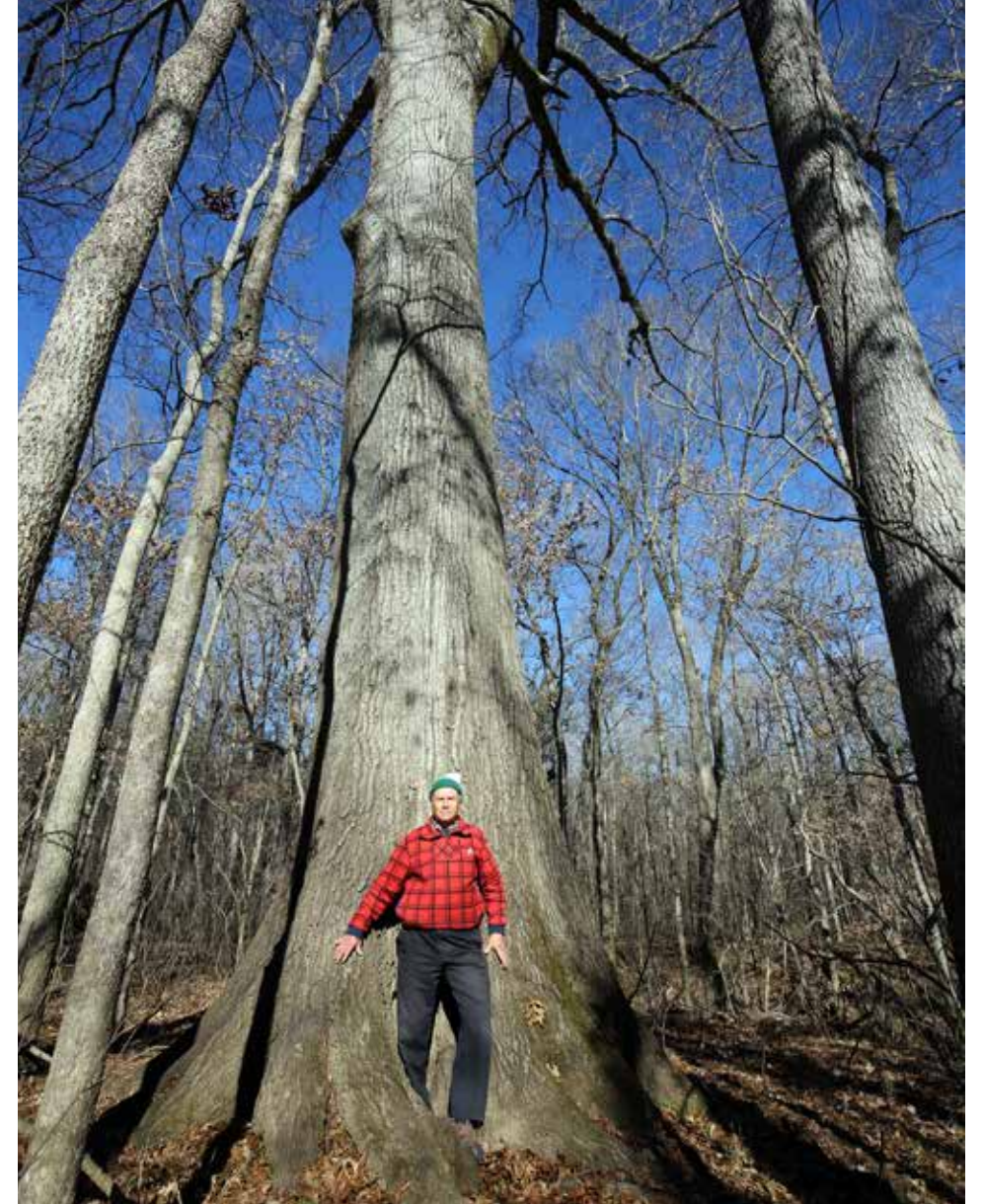
Carmean and Williamson are often successful in their quest for new champions. Recently, acting on a tip from a steward with the Sandhills Area Land Trust, they found and measured the new state champion Shumard oak on a tract of land bordering the Deep River. The tree is so large (nearly 20 feet in circumference, 142 feet tall and with an average crown spread of 110 feet) that it can easily be seen on Google Earth.

In the town of Duck along the northern Outer Banks, the pair discovered the new state champion of one of North Carolina's most unusual species of tree, the Hercules' club. With a restricted range in the state, growing only along the coast, this small species of a tree has a trunk covered in large spines and was once used by Native Americans and early settlers for medicinal purposes. Alkaloids released by chewing on the leaves and bark cause a numbing of the mouth, teeth and gums; a characteristic that gives the species its other common name: the "toothache tree."

Crowning a New Champ

When word reached Carmean and Williamson about the loss of the national champion longleaf, the pair immediately set about trying to locate another large specimen to replace it. Weymouth Woods-Sandhills

The massive crown of a white oak (below) covers a rural backyard in Montgomery County. Over the past year, the big tree hunters have discovered many champion trees, including a Shumard oak (opposite top) growing in Moore County and a Hercules' club (opposite bottom) in the Outer Banks.



Nature Preserve in Moore County seemed like the most obvious place to start. Along the sandy trails of the park's Boyd Tract stand North Carolina's last remaining old-growth longleaf pines, including the oldest known specimen in the United States at 468 years of age.

Old-growth forests have never been commercially logged. It is estimated that less than one half of one percent of all the forests in the eastern United States remain as old-growth. Where old-growth does occur, the trees typically are very large and very old. An old-growth stand of bald cypress growing along the Black River in southeastern North Carolina recently made national headlines when one of the trees was found to be 2,624 years old, making it the oldest living tree in eastern North America.

Carmean and Williamson made the trek from Virginia down to the Sandhills of North Carolina last February. In one afternoon, they walked the Boyd tract measuring several longleafs, the largest of which scored 202 points and had a height of 90 feet with a circumference of just over 8 feet. Large trees for sure, but nowhere near the size of the fallen champ.

Around this time, I received a tip about a large longleaf on private property near the community of Black Ankle, just a few miles as the crow flies from the fallen national champion lying on the ground near Ether. Within a few weeks, we visited

the site and encountered one of the most unusual looking and largest longleaf pines any of us had ever seen. Its massive trunk, covered in thick furrowed bark, was twisted and distorted along its entire length all the way up to its flattop crown, making the tree look like an Ent from Tolkien's "Lord of the Rings" novel.

The longleaf had an astounding circumference of 14 feet but was somewhat stunted in its height which was just over 77 feet. After tallying its average crown spread of 42 feet, the tree scored an impressive 256 points, qualifying it as the new national champion and setting off an enthusiastic round of high-fives and congratulations. In discussing the tree with the property owners, we learned it had been in the family for generations and held sentimental value. Couple that with the fact the trunk was so gnarly and knotty, it held little commercial value.

A few days later, Carmean submitted the longleaf's point total to the state's big tree coordinator and learned that we had been scooped by another person who had nominated the tree months before, soon after the collapse of the previous champ. Despite not having our names associated with the pending national champion, it is good to know that such a spectacular tree will be recognized and appreciated for generations to come.

The wonderful thing about nominating a tree for consideration on the state champion list or the National Register is that anyone can do it. You do not need to be a forester, professional arborist or botanist. Amateur naturalists, citizen scientists and general tree buffs are encouraged to explore the natural areas of their home state to locate and nominate potential champions. It is a great way to get kids off their computers and iPhones for an afternoon outdoors. Standing next to the trunk of a truly massive tree is sure to inspire a sense of wonder and appreciation for the natural world in young minds. ♦

Todd Pusser is a marine biologist and a frequent contributor of articles and photographs to Wildlife in North Carolina. To view the current list of state champion trees and to see which native trees are eligible for nomination, or to nominate a tree, visit the North Carolina Forest Service website at www.ncforests-service.gov/Urban/nc_champion_big_trees_overview.htm.



Gary Williamson and Byron Carmean measure the circumference of the new national champion longleaf pine, found just a few miles from the fallen former champion. Its strange, twisted trunk is unlike any other pine the big tree hunters have seen in three decades of searching for champion trees.



Where to Find Fantastic Trees

Want to see enormous trees, including some champions? Many North Carolina champion trees are located on private lands and require permission from property owners to visit them. However, many outstanding examples of champion trees and old-growth forests are found on public lands that are readily accessible. Here is a list of spectacular trees in North Carolina. Pack up the family and take a road trip to see some of this state's great natural wonders.

1. Longleaf Pine (*Pinus palustris*) Once the dominant forest of the Southeast, a mere 5 percent of its total historic acreage remains. Only a few hundred acres of old-growth longleaf pines remain standing. One such forest can be found in the Boyd Tract of the Weymouth Woods-Sandhills Nature Preserve near Southern Pines. Here, one can walk among some of the largest longleaf pines in the state—many measuring nearly 10 feet in circumference and over 90 feet in height—and visit the oldest known longleaf pine—468 years old—in the United States. Visit the park's main office at 1024 Fort Bragg Road in Southern Pines and pick up a park map for trails to the Boyd Tract.

2. Flowering Dogwood (*Cornus florida*) The former national champion and current state champion resides in Mathis Cemetery near Clinton. To get there, take Hwy 24 east 2.2 miles from its intersection with Bus 701. Just beyond Mathis Road on the left (north) side of Hwy 24, look for the tree in the middle of a cemetery next to an old white church. Pay a visit in mid-April when the tree is in full bloom.

3. Joyce Kilmer Memorial Forest This 3,800-acre old-growth forest near Robbinsville, named for the poet whose poem "Trees" should be required reading for elementary school kids, boasts some of the largest examples of tulip poplars, red and white oak, basswood, beech and sycamore trees in the state. Many are over 400 years old, stand over 100 feet tall and have circumferences greater than 20 feet. Directions: From Robbinsville, take Route 143 west for about 12 miles and turn right onto SR 1134 (Joyce Kilmer Road). Go 2 miles and turn into the forest. It is well marked. Take the upper three-quarter mile Poplar Cove Loop Trail to see most of the large trees.

4. Bob Padgett Tulip Poplar (*Liriodendron tulipifera*) Named for forest ranger James "Bob" Padgett, this tulip poplar stands 127 feet tall and has a circumference of 20 feet, making it the current state champion for the species and one of the largest trees in North Carolina. Directions: Take Horse Cove Road at the end of East Main Street in the mountain town of Highlands. The road winds downhill for 37 curves into Horse Cove. On the right is Rich Gap Road. Hike approximately 67 yards up Rich Gap Road to the tree. You know you are there when you see a plaque honoring the late ranger.

5. Turkey Oak (*Quercus cerris*) Scoring an amazing 200 points, the current state and national champion can be found along the left (north) side of Hwy 211 at its junction with East Indiana Ave. just outside of Aberdeen (Moore County). Look for the tree growing beneath a powerline and next to a metal fence on the edge of a gas station parking lot.

6. Shortleaf Pine (*Pinus echinata*) The current state champion stands in the historic coastal town of Bath (Beaufort County). Look for the tree growing in a park at the southwest corner of Front and King streets across from Hardy Point Lane.

7. Live Oak (*Quercus virginiana*) The largest specimen in the state with a 411-point total grows in the historic Airlie Gardens in Wilmington. The "Airlie Oak" dates to 1545 and is located just 2 miles from Wrightsville Beach at 300 Airlie Road. A small admission fee is required to enter the park, which is open from 9 a.m. to 5 p.m.

