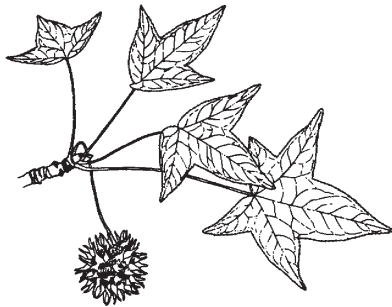


What is a champion tree?

A champion tree is one that is judged to be the largest of its species according to a standard formula. The formula is a point system based on trunk circumference, height and crown spread. To be eligible, trees must be native or naturalized to the United States. The authority for champion trees in South Carolina is Dr. Vic Shelburne at Clemson University. The authority for National champion trees is American Forestry Association. These organizations can be contacted at the web sites listed below. Both web sites can be used to obtain champion tree lists, tree nomination forms, learn how to measure trees, and determine how to identify trees.



Sweetgum

A National list of champion trees can be found at: http://www.americanforests.org/downloads/bigtrees/2008_NB_Tree_Reg.pdf

A South Carolina State list of champion trees can be found at: <http://www.clemson.edu/champtree/SouthCarolinaChampionTree.htm>

Why are there so many big trees in the park?

Congaree National Park has a recipe for big trees. The first ingredient is a relatively long and warm growing season. Next, add moisture and nutrients, which are provided annually by flooding from the Congaree River. Because there has been little human disturbance over the past hundred years, the result is a natural, old-growth bottomland forest. This natural forest has trees ranging in size from seedlings to champions. Because there are 11,000 acres of old-growth forest, there is plenty of room for champion trees. Some experts estimate there is an average of one "big tree" per acre in the Park. That means there could be 11,000 "big trees" out there! Currently 25 champion trees have been documented in the Park. No area in North



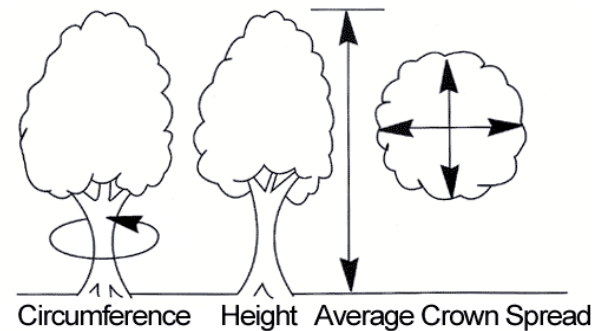
Bald Cypress

America has a larger concentration of champion trees. Congaree National Park is noted for being one of the tallest temperate, hardwood forests in the world. Loblolly pines can be as tall as a 17 story building. Sweetgum trees may be 15 stories high. Check the program schedule if you would like to join a ranger for a "Big Tree Walk".

How to score a champion

The formula for scoring a tree is:

$$\begin{aligned} &+ \text{Circumference (inches)} \\ &+ \text{Height (feet)} \\ &+ \frac{1}{4} \text{ Average Crown Spread (ft.)} \\ &= \text{Total Points} \end{aligned}$$



The trunk circumference is measured 4.5 feet above the ground. Height can be measured using a number of devices, the simplest being a right triangle. If you are viewing the top of the tree at a 45 degree angle, the distance between you and the tree is the same as the height. The average crown spread is determined by measuring the widest and narrowest dimensions of the "umbrella" formed by the upper branches.

State champion trees scoring within 5% of one another are considered co-champions. National champion trees scoring within 5 points of one another are considered co-champions.

Are there more to be found?

Congaree National Park was first surveyed for Champion Trees in 1977, by Dr. Chick Gaddy. He found 30 champion trees. The next survey was conducted between 1993-95 by Dr. Robert Jones. He found 29 champions, but only 2 of those were among the original champions found by Gaddy. Most of the Champion Trees found by Gaddy had vanished. That's because Champion Trees are typically at the end of their normal life-span and, being the largest trees in the forest, are subject to storm damage. According to Dr. Jones, less than 50% of the "big trees" in the Park were visually inspected in past surveys. The last survey was conducted 13 years ago. So there are likely many more out there waiting to be discovered. Perhaps you would like to help us find more champion trees. If so, please check with the volunteer coordinator at the Park.



Laurel Oak

Champion Trees in Congaree National Park

Updated July 25, 2009
 **National Champion Trees

Common Name	Species Name	Circumference/ Height in Feet	Total Points
American Elm	<i>Ulmus americana</i>	16.8 / 130	354
American Holly	<i>Ilex opaca</i>	8.2 / 78	191
Baldcypress	<i>Taxodium distichum</i>	26.1 / 127	453
Bitternut Hickory	<i>Carya cordiformis</i>	10 / 127	266
Boxelder	<i>Acer negundo</i>	8.4 / 85	197
Cherrybark Oak	<i>Quercus pagoda</i>	23.2 / 162	465
Common Persimmon	<i>Diospyros virginiana</i>	7.3 / 122	219
Deciduous Holly**	<i>Ilex decidua</i>	3.1 / 38	87
Green Ash	<i>Fraxinus pennsylvanica</i>	15.1 / 143	348
Laurel Oak**	<i>Quercus laurifolia</i>	22.08 / 130	415
Loblolly Pine**	<i>Pinus taeda</i>	14.66 / 167	361
Overcup Oak #1	<i>Quercus lyrata</i>	17.4 / 136	371
Overcup Oak #2	<i>Quercus lyrata</i>	18.2 / 122	368
Pawpaw	<i>Asimina triloba</i>	1.45 / 42	63
Red Maple #1	<i>Acer rubrum</i>	13.6 / 125	297
Red Maple #2	<i>Acer rubrum</i>	11.95 / 123	275
Shumard Oak	<i>Quercus shumardii</i>	23.5 / 145	444
Silver Maple	<i>Acer saccharinum</i>	6.9 / 78	172
Sugarberry	<i>Celtis laevigata</i>	13.5 / 120	298
Swamp Chestnut Oak	<i>Quercus michauxii</i>	17.5 / 120	356
Swamp Tupelo**	<i>Nyssa biflora</i>	15.7 / 162	384
Sweetgum**	<i>Liquidambar styraciflua</i>	16.95 / 160	384
Water Hickory**	<i>Carya aquatica</i>	16.16 / 143	349
Water Tupelo	<i>Nyssa aquatica</i>	19.2 / 121	362
Water Elm	<i>Planera aquatica</i>	8 / 62	169

Remember!

In Congaree National Park, ALL PLANTS & ANIMALS ARE PROTECTED! Please feel free to observe and photograph, but do not handle or disturb them.

In this wilderness area, the Park Service is tasked with managing this unique resource in a natural condition, while still providing access for visitors to enjoy its wonders. Boardwalks have been built and are maintained to allow access while minimizing adverse impacts. The backwoods trails are maintained but may be blocked by fallen trees or debris washed in during floods.

As you enter this wilderness, keep in mind that nature can be tranquil and beautiful, risky and dangerous, and unpredictable all at the same moment.

Information on temporary closures, water levels, and other visitor and safety information may be obtained at the Harry Hampton Visitor Center, by calling: (803) 776-4396, or visiting www.nps.gov/cong



EXPERIENCE YOUR AMERICA!

National Park Service
 U.S. Department of the Interior

Congaree National Park BIG TREES!



Congaree National Park
 100 National Park Road
 Hopkins, SC 29061
 (803) 776-4396
www.nps.gov/cong