

# BIG TREES: SOMETHING TO LOOK FOR<sup>1</sup>

by Dorothy McKee Behlen

**Abstract.** Each of the nearly 700 National Champion trees listed in the American Forestry Association's National Register of Big Trees has a story behind it. One champ in Virginia was loved to death by its misinformed owners. The largest overcup oak was saved by its champion status, and with the help of AFA. The champion Ohio buckeye is in Kentucky while the champion Kentucky coffeetree is in Ohio. More trees, and more stories, are needed; just 400 to go before we complete this list.

I am the director of the American Forestry Association's Big Tree Program. In examining a photograph of me peering from behind the world's largest sitka spruce, it became apparent that I don't direct big trees to do anything. What I do, is to maintain the Association's National Register of Big Trees.

The program began in 1940 when a letter from an AFA member, John Stearns, expressed concern over the loss of many large old trees across the country. Stearns wrote that unless something was done quickly, no big trees would be left. The letter was published in *American Forests* along with a list of 100 trees and the banner headline: *Wanted! The Location and Measurement of the Following American Tree Species*. It was hoped that the list of species would stir interest in big trees, their conservation, and conservation in general. Within two years over 500 nominations were received.

The Social Register of Big Trees in 1945 listed 218 champions. In the most recent printing of the list the name of the Register was changed to reflect the national scope of the program. It was printed in April, 1978 and contained nearly 700 champions. A complete listing of champions is published every five or six years with supplements containing changes in the Register, every two or three years.

Trees are eligible for inclusion on the list if they are listed in E.L. Little's *Checklist of Native and Naturalized Trees of the U.S.*, a U.S. Forest Service publication. The Checklist has more than

1100 species listed. The Register contains 700 champions, so there are more than 400 species without any champions.

The Big Tree program is designed so that everyone can participate. A nominator sends in the following information: common and scientific name of the tree, the circumference measured at 4½ feet above the ground, the height, and the average crown spread of the tree, the exact location of the tree, nominator's name and address, owner's name and address if known, condition of the tree, and if possible, a black and white photo or color slide of the tree.

The number of points the tree has is computed using a formula that gives a rough volume measurement: the circumference in inches plus the height in feet plus one quarter of the average crown spread are added. This places the emphasis on the circumference, the most accurate measurement. If it looks like a nominee is large enough to replace a current champion, or if the nominee is a species we don't have on the list, then an instruction sheet is sent to the nominator explaining how to take a specimen of the tree and where to send it.

Those specimens go to the National Arboretum in Washington, D.C. where the species of the tree is verified. Unfortunately, from time to time specimens cross my desk instead of going to the Arboretum. The Arboretum keeps the specimen on file in the herbarium. Once verification is received the tree becomes the new national champion. If a tree isn't large enough to replace a current champion, but is within 10 points of a champion, it is named a co-champion. If the tree is neither a new champion or co-champion it is called a challenger. Records of these are kept and they act as runners-up. Should anything happen to the reigning champion, they are in the line of succession.

Recently we have asked nominators to serve as protectors for their trees. They agree to keep an

<sup>1</sup>Presented at the annual conference of the International Society of Arboriculture in San Diego, California in August 1979.

eye on the tree and keep AFA posted on the tree's status. Some champions are deep in the forest and it might be years before we found out that it had blown over if the nominators didn't tell us. Last year we had a report from a nominator that the owners of a national champion had decided to give their tree special care. The tree had a circumference of 2'8" and stood 38' tall. The owners decided that the tree wasn't getting enough light. They dug it up and moved it to a 'better' location. The tree died.

Nominators may also buy signs for their trees to display the fact that the tree is the largest reported specimen of its species. The signs list the measurements of the tree, the nominator's name, drawings of a typical leaf, twig, and fruit, and information on the Big Tree Program.

In 1972 a remeasurement campaign was undertaken to relocate all champions, to verify their existence, and to record their measurements. Those

trees that were not found were removed from the list and new champions named. When the new edition of E.L. Little's *Checklist* is printed, I will go through the Register and take out any trees that should not be included. Also at that time a list will be prepared of those species for which we have no champions, and copies of that list will be available from AFA.

Hawaii has its own special list of champions since most of the native trees there do not grow on the mainland. Florida heads the list for the contiguous states, boasting 112 national champions. Michigan is second with 82. California, Oregon, and Texas are close behind. Some states have no champions at all, i.e., Connecticut, New Jersey, and Alaska. Although the American Forestry Association has no affiliates or chapters, we do coordinate state-run big-tree programs. I keep up-to-date state lists and the name of each state's program coordinator. This has two advantages:



**Fig. 1. National champion Elliottia in Tattnell, Georgia, 2'3" circumference (largest stem dbh) 50' tall, 11' crown spread.**



**Fig. 2. Former national champion quaking aspen (9'10") near Cedar City, Utah.**

we can find new champions on state lists, and if we get nominations that aren't large enough to become national champions but are large enough to become state champions, we can tell the nominators with whom to get in touch.

Often if a large number of champion trees are in a particular state or county it is because there is an active big-tree hunter in the area, rather than there being a great number of champion-size trees there. In 1947, nominator Kendall Laughlin had 42 different champions, almost all of them hawthorns. Mr. Laughlin was also interested in naming new hybrid hawthorns, and many of his champions reflect that interest.

One of the most important components of the Big Tree Program is publicity. Americans are known for their love of wanting to know the biggest and best of everything, and that includes trees. Often someone may find an unusually large tree and want to know how it compares to the largest tree. He may want to nominate the find but not know how to go about it. Over the years, though, word has gotten out that AFA keeps the list of big trees, and that people should write to us. *American Forests* magazine often has articles on the program. Charles Kuralt recently did a radio broadcast on the program, and many magazines

and the World Almanac have included information on the Big Tree Program. One of the most successful ways to spread the word about the program is through press releases and local newspapers. If you find a big tree, be sure to notify the local press; they love that kind of story.

From time to time we've had people use the list for research. Graduate students and professionals find in the Register, whose measurements go back 40 years, valuable information. The fact that we now cooperate with the National Arboretum lends authenticity to the Register as well.

The most interesting part of the program, though, are the stories behind the trees and the people who nominate them. One of our most prolific big-tree hunters is Maynard Dawson, a barber in Salem, Oregon. He cuts hair four days a week and takes off three. The three 'free' days are devoted to hunting, writing, or talking about big trees. Once he spoke to a group of prisoners at the Oregon State Penitentiary about the Big Tree Program. After his talk a prisoner told him that he knew of a large big-leaf maple and asked how large the champion big-leaf maple was. Maynard told him and expected the man to look disappointed. He wasn't. He told Maynard where a bigger tree was. Dawson measured the tree and, sure enough, it was larger than the champion. Maynard was determined to get the man out of prison for one day for the official measurement. The county judge threatened to lock Maynard up and throw away the key if the prisoner escaped, but Maynard won and the prisoner got to measure his tree. That tree is still the national champion big-leaf maple.

Some states have had rivalries over the years. The biggest rivalry is between Oregon and Washington for the Douglas fir championship. For years Oregon had the champion, but in 1963 it blew down and a Washington tree in Olympic National Park claimed the title. Several years later the governor of Oregon challenged the governor of Washington, saying that Oregon had a larger tree. A team was selected and a measurement taken. The Oregon tree, named Clat Sop, won. Two months later it blew down in a storm. The Washington tree became the champion a second time. Not to be outdone, Oregonians found another large Douglas fir and again there was a



Fig. 3. National champion white oak, Tomkinville, Kentucky, 20'7" circumference, 104' tall, 119' crown spread.

challenge and measurement, and again Oregon wrestled the championship from Washington, this time with the 'Finnigan Fir.' Six months later this tree too blew down and the Washington tree became the champion for the third time. The *Keep Oregon Green* Committee has offered a reward to see if anyone can find a new Oregon champion, but to date no one has been able to find one. The present champion is 45'5" in circumference.

Oregon has won one title from Washington in recent years. Maynard Dawson went to Washington to see the national champion sitka spruce and decided that Oregon's was bigger. The Oregon tree is owned by Crown Zellerbach and has been made the focal point of a park complete with walkways leading to the tree, a large sign in front of it, and a sign on the highway pointing to "The World's Largest Sitka Spruce." It is 52'6" in circumference and is just outside Seaside, Oregon.

Some states don't have contests, but they

should. The champion Ohio buckeye is in Kentucky, and the champion Kentucky coffeetree is in Ohio. Certainly someone in those states should be busy issuing some challenges.

The biggest of the big trees is the General Sherman, a giant sequoia in California. It has a circumference of 82'" at 4½' above the ground and stands 275' tall. When the Sherman tree was challenged in 1975 it created quite a stir. A team of specialists including engineers, foresters, and photographers was established to measure the two trees. The challenge came from the 'Bull Buck' tree in the Sierra National Forest. Using our formula, the General Sherman had 1300 points and the Bull Buck 1276. The measurements showed that the General Sherman was almost twice as large in volume. It had 57,803 cubic feet and Bull Buck had 29,090 cubic feet. Bull Buck has a normal taper, while General Sherman rises almost its entire height without any taper at all.

The smallest national champion is a gallberry



**Fig. 4. National champion Sitka spruce, Seaside, Oregon, Oregon's largest tree, 52'6" circumference, 216' tall, 93' crown spread.**

holly in Hardin County, Texas, which is 5" in circumference.

Sometimes the fact that a tree is a national champion has saved it from threatened destruction. When President Carter was Governor of Georgia he was alerted to the fact that the national champion cherrybark oak was going to be taken down so that a highway could be put in. He had the highway plans altered slightly, and the tree still stands.

In Maryland, long before the days of the snaildarter, a dam project was halted when a national champion was found growing in the area that would be flooded by the lake. Although work had already begun on the dam, it was stopped and the champion swamp white oak was saved. The state horticulturist stopped by the tree to show it to his children. It had finally produced a crop of acorns. They weren't swamp white oak acorns. They

were overcup oak acorns. The tree lost its title as the champion swamp white oak but was the largest overcup oak on record. That is the only tree in the Register that has been a champion for two different species.

Some champion trees grow out in the open, some are alongside roads in state parks or in national forests. Others are growing in someone's backyard. Keep your eyes open, and if you think you've found a champion, write in. Copies of the National Register are available from the American Forestry Association for \$1.00 each. Brochures explaining the program and nomination procedures are available for free, as are lists of the species for which there are no champions.

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## REVIEW OF GUIDE FOR ESTABLISHING VALUES OF TREES AND OTHER PLANTS<sup>1</sup>

by Dr. L.C. Chadwick

It has been 33 years since the National Shade Tree Conference, in 1947, first appointed a joint committee with the National Arborist Association to devise a method for establishing the value of shade trees. It required four years of work and lengthy discussion to formulate a basic method which was finally accepted by the Conference in 1951. It took another six years to prepare classified plant lists for the various regions of the country. While 'piece-meal' reports were published in the National Shade Tree Conference Proceedings from 1952 to 1956, it was not until 1957 that a booklet, *Shade Tree Evaluation*, was published.

Since that date, there have been four revisions of the publication, 1965, 1970, 1975, and the current revision, *Guide For Establishing Values of Trees and Other Plants* in 1979.

Throughout the four revisions, the basic method

has, essentially, remained unchanged. I think it is appropriate to note that without the knowledge, perseverance, and dedication to the task involved on the part of Norman Armstrong, now of Fort Myers, Florida, who served as president of this organization in 1949 and chairman of the Shade Tree Evaluation Committee from 1947 to 1960, we might not have a recognized tree evaluation guide today.

As indicated, the basic formula has, essentially, remained unchanged with the one major exception, that of adding the fourth factor of location to the procedural evaluation concept, in the third edition. Tree lists made up most of the 24 pages of the first revision and 36 of 44 pages in the second edition. For reasons that do not need to be discussed here, all classified plant lists were dropped in the third revision and the booklet consisted of 18 pages.

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