

Documentation and Conservation of Champion Big Trees in Urban Forests

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COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT
**FOREST RESOURCES AND
ENVIRONMENTAL CONSERVATION**
VIRGINIA TECH™

NC Community Tree Webinar • November 14, 2023

Quercus muehlenbergii **

Rockingham Co.

66'

113'

287"

381 pts.



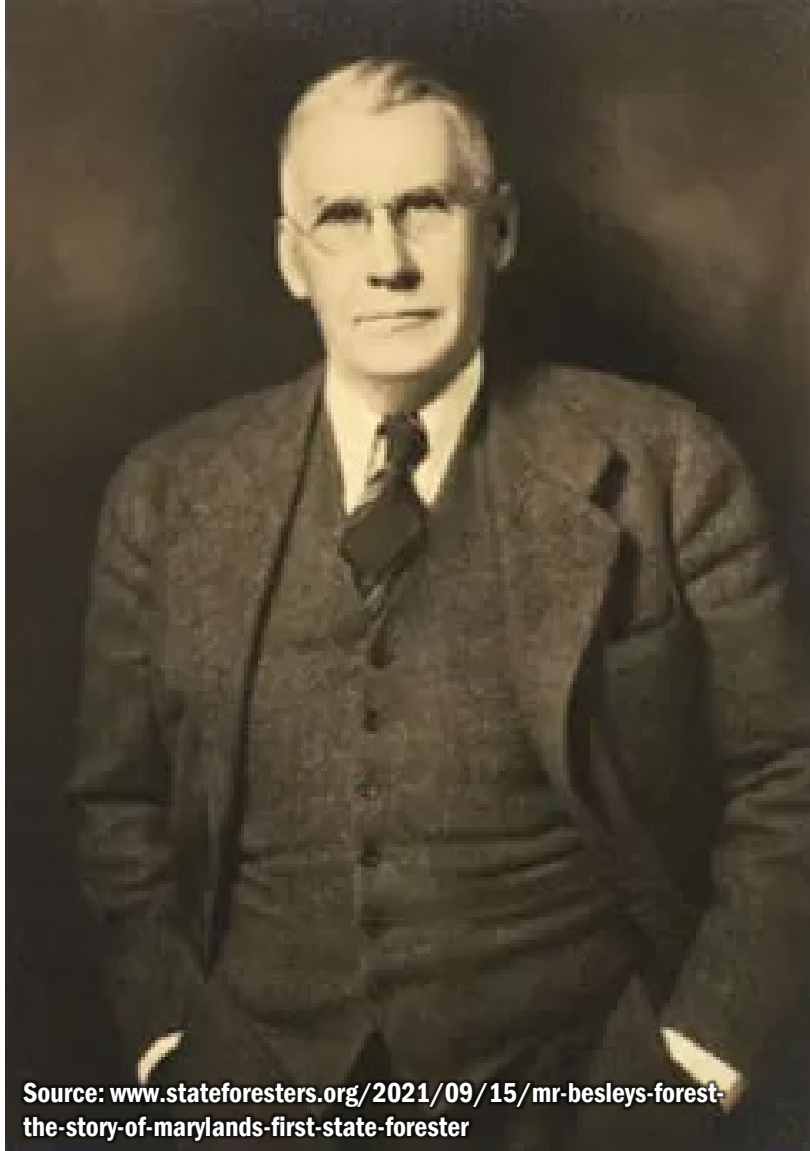
Presentation Outline

Goal:

Improve your knowledge of champion big tree documentation and conservation.

- **Background on champion big tree programs**
- **Methods of measuring and scoring big trees**
- **Common threats to big trees in urban areas**
- **Arboriculture for big tree conservation**



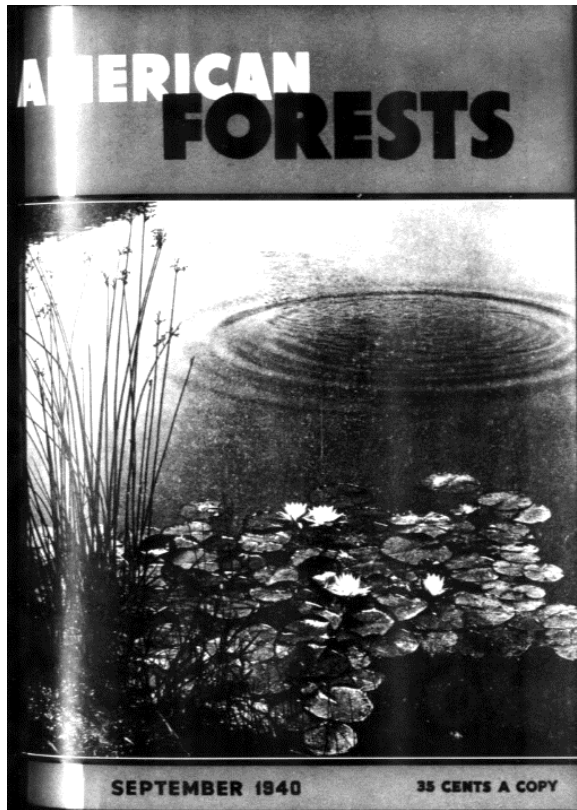


Frederick Wilson Besley

- Maryland's first state forester
- Graduate of Yale School of Forestry and mentored by Gifford Pinchot
- Led creation of Maryland's Roadside Tree Law in 1914
- Led creation of Maryland's Big Tree Program in 1925
- Invented the measurement and scoring system used today nationally for crowning champion big trees

Source: www.stateforesters.org/2021/09/15/mr-besleys-forest-the-story-of-marylands-first-state-forester

Background on champion big tree programs



WANTED!

The Location and Measurement of the Largest Specimens of the Following American Tree Species

Ash	Dogwood, flowering	Larch	Pine
Mountain White	American Slippery	Eastern Western	Digger Jack Jaffery Linber Loblolly Lodgepole Longleaf Northern white Pine Pitch Ponderosa Red Sugar
Aspen, trembling	Fir	Locust	Honey
Basswood	Alpine Balsam Douglas Lowland white Red Silver Western white	Maple	Engleleaf
Beech, American			Silver Sugar
Birch Black Paper Yellow			
Buckeye	Gum	Magnolia, laurel	
Butternut	Black Red	Oak	Shorleaf Slash Sugar Virginia Western white White bark
Catalpa	Hackberry	Bar California white Chestnut Eastern live Oregon white Fir	Sassafras Spruce Black Blue Engelmann Red Sika White
Cedar Eastern red Eastern white Incense Port Orford Western red	Carolina Eastern Mountain Western	Pin	
Cherry, black	Hickory	Post	
Chestnut, American	Bitternut	Scarlet	
Cottonwood	Pignut	Swamp white	
Eastern Western	Slingbark Holly, American	White Willow	
Cucumber	Horse Chestnut	Orange orange	Sycamore, American
Cypress	Juniper	Pecan	Tulip
Arizona Southern	Alligator Western	Forsyman	Walnut, black

The American Forestry Association heartily endorses the appeal by Mr. Joseph L. Stearns, on the opposite page, for the discovery and preservation of the largest specimens of outstanding American tree species. Such a conservation activity, it is believed, will have incalculable benefits, not only in stimulating greater tree appreciation, but in establishing a nation-wide laboratory for tree and forestry studies by future generations. Furthermore, these old monarchs, protected from fire, disease and the ax, will stand to the end of their natural lives as cherished landmarks in the saga of America.

The Association, therefore, gladly takes leadership in a national program to locate and preserve the largest specimens of the most important American trees. [To the hundred specified trees listed above others may be added.] Permanent records of these specimens will be compiled and maintained for this and future generations; these records will be made immediately available to the public through the pages of AMERICAN FORESTS. Furthermore, every effort will be made to gain the active cooperation of landowners, lumbermen, and professional foresters and other conservationists, as well as national, state and local conservation agencies.

But the success or failure of this undertaking will rest largely upon the active participation of tree lovers everywhere. Therefore, if you know of a very large tree make it your business to see that its full and accurate record is sent to The American Forestry Association; its identity as to species, its diameter or circumference four and a half feet above the ground, its height, its state of preservation, and, particularly, its location and ownership. If professional assistance for accurate identity and measurements is needed, solicit the aid of your state or local forester, or an experienced lumberman. Also, be sure to send the Association a photograph of the tree and nominate it as a candidate for "Biggest Tree" of its species.

In this way, and with your assistance, it is hoped to establish and preserve not only the largest specimens of our most important trees in the country as a whole, but also in each individual state. When the largest specimens of each species have been definitely determined, the American Forestry Association will issue appropriate certificates both to their discoverers and to their owners. Act now to save the largest specimens of America's trees. Send records and pictures to The American Forestry Association, 919 - 17th Street, N. W., Washington, D. C.

THE GENERAL SHERMAN TREE
Largest and oldest living thing, 36 feet 6 inches in diameter at the base. (Sequoia gigantea)

National Park Service

"The American Forestry Association heartily endorses the appeal by Mr. Joseph L. Stearns for the discovery and preservation of the largest specimens of outstanding American tree species." - September, 1940

LET'S FIND AND SAVE THE BIGGEST TREES

By JOSEPH L. STEARNS

ONE OF THE most tragic stories in the history of American forests is now in the making. It hasn't been written in its final form, but our children will live to see that day unless something is done. I refer to the gradual disappearance of our most magnificent remaining tree specimens. The giants I have in mind are not necessarily the big redwoods of the West Coast; nor are they the well known famous and historic trees. Such trees are in the main well protected. I refer to the giants scattered throughout our remaining virgin forest stands, most of which are now inaccessible to the public because they are in private ownership.

At this moment I can think of several unusually large oaks, gums, sycamores, and pines that should be given special protection. In one restricted location in south-east Georgia I came across a mill that is, to my knowledge, now cutting the last original growth red bay trees in the United States. When logging operations have been completed there will be no red bays in the country worthy of classification above shrubs. Shall we sit idly by while this is being done? I believe that a few of our biggest specimens of each tree species should be singled out, marked, plotted on timber maps, and preserved. All lumber company employees should be notified that such trees are not to be cut, damaged by felling adjacent trees, or seared by careless axmen. Railings should be erected around them; the ground should be cleared of fire hazards for a reasonable distance in every direction, and, when possible, a plowed strip of ground should be maintained as a further fire protective measure. This done, many of our finest specimens could be preserved for their natural lives. Then future generations would be able to see matured specimens of each tree species. If things go on as they are now this will never be possible.

Let me relate the story of a grand old tulip, or yellow poplar tree that fought for its existence for hundreds of years and, finally, through the carelessness of man, crushed to the ground in a fiery blaze one night in 1934.

Back in 1792, when the first settlers made their way into western North Carolina, the mountains were covered with an endless jungle of massive hardwood trees. The principal occupations at first, of course, were clearing land and making houses. But soon the sawmills came—small, crude affairs in those early days. Transportation of logs was by oxen, and the strength of these beasts, contrary to the popular expression, "strong as an ox," was pitiful in comparison to a modern tractor. For this reason the largest trees were left standing. Equipment then could not handle the big logs. As time went on larger mills made their appearance. These operations brought in overhead skidders and donkey engines, and most of the hardwoods up to six feet in diameter were easy prey.

But up on the steep slopes of Craggy Mountain, fifteen miles northeast of Asheville, there was one lordly yellow poplar that towered above all the great trees around it. No sawmill in the South could have handled such a log without blasting it in quarters, for its trunk was more than twelve feet in diameter, broad high, and not a limb emerged from its straight, massive shaft for a hundred feet above the ground.

Lumbermen in the early days passed this tree by because it was too big to handle. Those in later years would no doubt have cut it, even though they would have found it necessary to (Continuing on page 416)

Benjamin Hardwood Products, Inc.

All that remains of the world's largest tulip, or yellow poplar. Located near Weaverville, North Carolina, it was killed by fire in 1934

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Source: archive.org/details/sim_american-forests_1940-09_46_9

Background on champion big tree programs



Lillian M. Cromelin

- Associate editor of American Forests Magazine
- Created the program for registering big tree champions in 1940

REPORT ON AMERICAN CHAMPION TREES

In September 1940, The American Forestry Association launched a campaign to locate the largest living specimens of American trees. After four years of diligent search on the part of cooperating individuals, the following "champions" were on record as of January 1, 1945. Common and botanical names listed conform to "Standardized Plant Names" issued by the American Joint Committee on Horticultural Nomenclature. Identification and measurements are by nominators. The challenge is to locate trees larger than those listed, if they exist, and also giants of species not listed. Send all reports to The American Forestry Association, 919 Seventeenth Street, N. W., Washington 6, D. C.

Species	Circumference at 4 1/2 feet	Spread	Height	Location of Tree and Nominator
ALDER Red, or Oregon, <i>Alnus rubra</i>	157"	—	—	On Nehalem River, Clatsop County, Oregon. Oliver V. Matthews, Salem.
Sierra, or White, <i>Alnus rhombifolia</i>	98 1/2"	—	—	Salem, Oregon. Oliver V. Matthews, Salem.
Speckled, <i>Alnus incana</i>	1'4"	20'	31'	Dunes State Park, Indiana. Kendall Laughlin, Chicago.
ARBORVITAE Eastern, or Northern White Cedar, <i>Thuja occidentalis</i>	15'6"	50'	125'	Natural Bridge, Virginia. Fred C. Pederson (Deceased).
Giant, or Western Red Cedar, <i>Thuja plicata</i>	62'8"	—	100'	Olympic National Park, Washington. F. W. Mathias, Hoquiam.
ASH American Mountain, <i>Sorbus americana</i>	3'9"	—	—	Wassataquoik Lake, Maine. Miss Elisabeth G. Weeks, Providence, R. I.
Biltmore, <i>Fraxinus biltmoreana</i>	9'5"	55'	80'	Madisonville, Ohio. Miss Emilie Blome, Madisonville.
Black, <i>Fraxinus nigra</i>	17'4"	—	—	Sparkhill, New York. Dexter B. Dawes, Englewood, N. J.
Blue, <i>Fraxinus quadrangulata</i>	9'6"	—	—	Piqua, Ohio. John Pickin, Dayton.
Green, <i>Fraxinus pennsylvanica lanceolata</i>	10'6"	18'	72'	Baltimore, Maryland. F. W. Besley, Baltimore.
Oregon, <i>Fraxinus oregana</i>	10'6"	85'	—	Near Burlington, Oregon. T. J. Carlson, Corvallis.
Red, <i>Fraxinus pennsylvanica</i>	8'9"	49'	62'	Riverside Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
White, <i>Fraxinus americana</i>	19'9"	—	—	Near Glen Mills, Pennsylvania. H. Gleason Mattoon, Philadelphia.
ASPEN Bigtooth, or Largetooth, <i>Populus grandidentata</i>	2'11"	22'	59'	Dunes State Park, Indiana. Kendall Laughlin, Chicago.
Quaking, <i>Populus tremuloides</i>	10'2"	—	—	Manti National Forest, Utah. J. W. Humphries, Ephraim.
BALDCYPRESS Common, <i>Taxodium distichum</i>	42'	—	126'	Near Sandford, Florida. Devereux Butcher, Washington, D. C.
BEECH American, <i>Fagus grandifolia</i>	15'10"	—	55'	Cannon, Delaware. William S. Taber, Dover.
BIRCH Gray, <i>Betula populifolia</i>	4'3"	31'	58'	Near Catonsville, Maryland. F. W. Besley, Baltimore.
	18"	—	—	East Northfield, Massachusetts. William P. Wharton, Groton.
	9'7"	78"	77'	Near Easton, Maryland. F. W. Besley, Baltimore.
	11'	87"	80'	Near Port Deposit, Maryland. F. W. Besley, Baltimore.
	13'9"	63'6"	88'	Green Mountain National Forest, Vermont. Devereux Butcher, Washington, D. C.
	14'8"	90'	95'	Near Spring Brook State Park, Ohio. O. E. Files, Toledo.
	12'9"	40'	35'	Olema, California. R. H. Menzies, San Francisco.
	8'1"	60'	90'	
	15'8"	—	—	

Background on champion big tree programs

In 1941, 77 champion big trees were registered in the inaugural 'American Big Trees Report' of American Forests

Source: www.americanforests.org/article/75-years-of-champions

BIG TREES

The American Forestry Association is sponsoring a national hunt for the discovery and preservation of the largest specimens of the different species of typical American trees. Locate, measure and nominate your candidates in this competition. ACT NOW to make known and save the largest specimens of America's trees. For further details, see page 412 of the September issue or send for special announcement of this Big Tree hunt. Mail your nominations with records and pictures to The American Forestry Association, 919 17th Street, Northwest, Washington, D. C.

Is This the Largest Alligator Juniper?

A MOST unusual challenger is this tree, nominated by Mr. C. W. Zumwalt, an assistant range examiner in the Soil Conservation Service at Salt Lake City, Utah. It is an Alligator Juniper (*Juniperus pachyphloea*) and is located in the north end of the Fort Bayard Military Reservation, eight miles from Silver City, New Mexico, in the Gila National Forest.

A magnificent specimen, and nominated as the largest of its species in the Southwest, it is sixty-six and a half inches in diameter, breast high, seventeen feet five inches in circumference and seventy-two feet in height.

Its beauty and grace are obvious, and while there is no exact knowledge of its age, it is estimated to be not less than one thousand years old. Many people have photographed this grand old tree, but the best known photograph is the one shown here, made by Ray Holzman, who is a photographer in the Soil Conservation Service.



New Mexico's giant Alligator Juniper

AMERICAN FORESTS

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Source: archive.org/details/sim_american-forests_1941-05_47_5

BIG TREES

GIANT RED GUM SOUTH CAROLINA'S CHALLENGER

The American Forestry Association is sponsoring a national hunt for the discovery and preservation of the largest specimens of the different species of typical American trees. Locate, measure and nominate your candidate in this competition. ACT NOW to make known and save the largest specimens of America's trees. For further details, send for the Association's special announcement of this Big Tree hunt. Mail your nomination with records and pictures to The American Forestry Association, 919 17th Street, Northwest, Washington, D. C.



THIS red gum—outclassing all others so far reported—has been nominated by Mr. H. A. Smith, State Forester of South Carolina, as the challenger in its class for that state.

The tree stands on the lands of the Hoffman Lumber Company at Columbia, S. C., and was called to Mr. Smith's attention by Virgil Miller, manager of the Company, and Mr. Stearns, of the National Defense Committee of the Southern Hardwood Association.

Measurements made by local officers of the United States Forest Service and the State Forester's office, with Mr. Clyter of the Hoffman Lumber Company, who visited and photographed the tree recently, show it to have a circumference of twenty-five feet six inches at breast height, and a diameter of six feet ten and a half inches. Its overall height from ground to tip,—as nearly as could be determined because of the dense foliage—is 200 feet; its clear length to the first important limb by Abney level is fifty-two feet. According to Doyle scale, the first three logs would have a total content of 8,766 board feet. Counting limbs and small logs in the top, the tree should scale 9,500 feet.

It is interesting to note that the tree stood on land formerly owned by Horace L. Tighman, who for the first ten years of the life of the State Commission of Forestry of South Carolina was chairman of the Commission.

AMERICAN FORESTS

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Source: archive.org/details/sim_american-forests_1941-10_47_10

Background on champion big tree programs

1940:
American Big Trees Report

1961:
The Social Register of Big Trees

1978:
The National Register of Big Trees

2014:
The National Register of Champion Trees

1980 Supplement to the NATIONAL REGISTER OF BIG TREES

Forester Doug Cruikshank checks measurements that nominator John Woolcott made of a new champion golden chinquapin tree on a farm in Cottage Grove, Oregon

Exactly two years ago, the old Social Register of Big Trees became the National Register. This reflected a serious effort at AFA to make an interesting list of "champion" trees into a comprehensive symbol of successful conservation.

The list has come a long way since 1940, when AMERICAN FORESTS first sent out a call for nominations. The Social Register was published in 1945 with 100 species; we now have more than seven times that number. The inauguration of the National Register marked a new effort toward generating more participation in big-tree programs on the state level. We contacted representatives of all 50 states, and we now have big-tree coordinators in all but nine states. (Those nine without coordinators are Arizona, California, Colorado, Kansas, Nevada, North Dakota, Washington, and West Virginia.)

The biggest recent change in the National Register was sparked by the long-awaited publication last year of Ebert L. Little's *Checklist of United States Trees (Native and Naturalized)*. With the new *Checklist* in hand, we have weeded the Register, pulling out those species that are not considered native or naturalized in the U.S. This process should make the National Register more representative of American trees.

We have sought out champions for those eligible species that are not yet represented in the Register. Included in this supplement, for the first time, is a list of those species. We hope people will go out and find the champions.

LIST I
These are the changes to the 1978 National Register. The entries are in three categories: new species listings, corrections to the last Register, or new champions for a species previously recognized.

LIST II
These species—all recognized as native or naturalized in the United States—are those for which no champion has been nominated. In order to have a representative for every recognized tree, we need your help in finding champions for these trees.

LIST III
These species are, for one reason or another, no longer considered eligible for inclusion in the National Register. Some species, such as the Boynton hawthorn (*Crataegus boyntonii*), are no longer considered separate, distinct species. The Boynton is now considered a variation of the Biltmore hawthorn (*Crataegus inbriata*). The former champion Boynton and all its challengers will be listed under the Biltmore hawthorn. The largest tree, of course, will be the champion.

Some trees, such as the Bender oak (*Quercus benderi*), are simply no longer considered species; their champions have not been listed under another species.

Other trees, such as the flamboyant tree (*Dolichopanax regia*) were accepted originally in the Register because they were included in Mary Franklin Barrett's *Common Exotic Trees of South Florida*. We are no longer using that book to determine the eligibility of exotic species.

In his most recent *Checklist*, Dr. Little does not consider some species naturalized in the U.S. But some species may in fact be naturalized in specific areas of the country. We are willing to recognize those trees in the Register if an authority can be cited stating that the species is naturalized in the area from which the tree is being nominated.

AFA's Big Trees office will send you a free brochure that tells how to measure and nominate a potential champion. For a complete list of the National Register, send \$1.40 (this includes postage) to AFA. You may also want a copy of E. L. Little's *Checklist of United States Trees*. It's available for \$10 from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Request stock number 001-000-03846-0.

Dorothy Behlen

Reprinted from AMERICAN FORESTS, April, 1980. Magazine of The American Forestry Association, 1319 18th Street N.W., Washington, D.C. 20038

AMERICAN BIG TREES

THE AMERICAN FORESTRY ASSOCIATION'S
Social Register of Big Trees

Locations reported up to March 1 in The American Big Trees Report. Preserve the giant specimens of America. Locate and report trees larger than those listed are also desired. Send all information to: American Big Trees, 1319 18th St., N. W., Washington, D. C.

Location of Tree and Nominator

Nantux National Forest, Utah. J. W. Humphries, Supervisor.

Albert Merrill Property, Albemarle County, Virginia. G. M. Dillard, Scottsville.

Fountain Park, Piqua, Ohio. John Pickin, Dayton.

Hockessin, Delaware. William S. Taber, Dover.

Cannon, Delaware. William S. Taber, Dover.

Consent of the Visitation, Washington, D. C.

Near Caldwell Corners, Delaware. William S. Taber, Dover.

Near Lake Quinsault, Olympic National Park, Washington. F. W. Besley, Hoquiam.

Worton, Maryland. F. W. Besley, Baltimore.

Old Postage Trail, Akron, Ohio. Fred Smyser, Akron.

Near Clyde Cover Ranch, Thermopolis, Wyoming. O. F. Ludlow, Thermopolis.

Near Sanford, Florida. Duverex Butcher, Washington, D. C.

L. F. Ventres Property, Woodville, Mississippi. J. R. Hamilton, Woodville.

The Wetherfield Elm, Middletown, Connecticut. Dr. Nelson W. Barker Property, Rochester, Minnesota. Dr. Nelson W. Barker.

Near Madison, Alabama. Thomas Z. Atkeson, Jr., Washington, D. C.

Near Elbe, Washington. Charles Lutkins, Elbe.

Priest River Experimental Forest, Idaho. Elers Koch, Missoula, Montana.

College Park, Maryland. F. W. Besley, Baltimore.

Near Easton, Maryland. F. W. Besley, Baltimore.

Near Vinton, Maryland. F. W. Besley, Baltimore.

Kaniku National Forest, Idaho. Elers Koch, Missoula, Montana.

Wisconsin County, Maryland. Harry Erickson, Haddonfield, New Jersey.

Near Collington, Maryland. F. W. Besley, Baltimore.

Stanislaus National Forest, California. J. R. Hall, Sonora.

Logan Canyon, Utah. R. P. McLaughlin, Logan.

Near Hickory, Maryland. F. W. Besley, Baltimore.

Lolo National Forest, Montana. Elers Koch, Missoula.

Broadkill Neck, Delaware. William S. Taber, Dover.

Fell Property, Baltimore, Maryland. F. W. Besley, Baltimore.

Trinity National Forest, California. A. G. Brenner, Weaverville.

H. H. Carter Property, Hampton, South Carolina. Cleary M. Haincock, Badin, North Carolina.

S. C. Mason Property, Baltimore, Maryland. F. W. Besley, Baltimore.

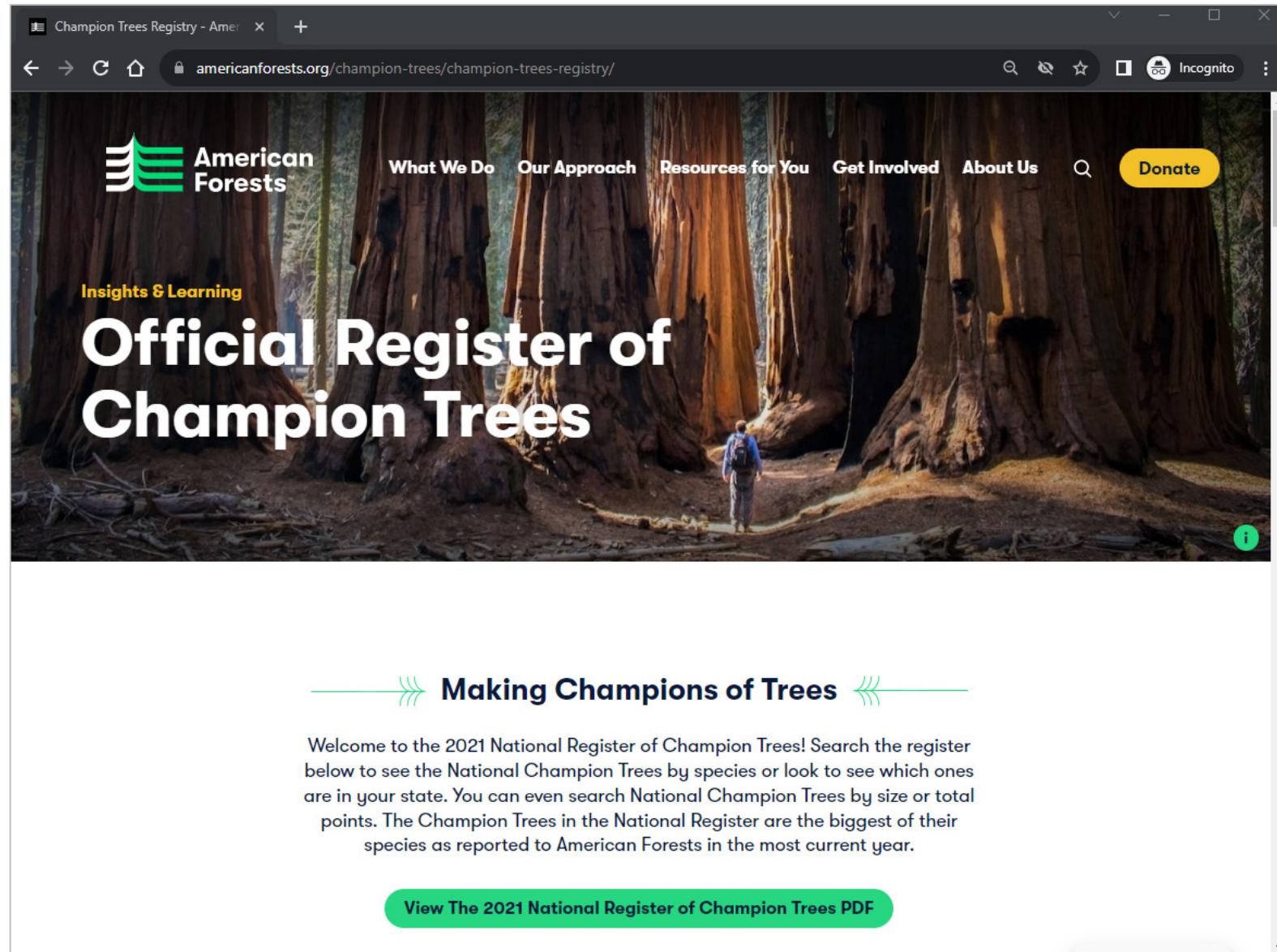
AMERICAN FORESTS

Background on champion big tree programs

2021 National Register

- 563 champion and co-champion trees
- 491 native and naturalized species
- 40 states have at least one champion tree
- Top-5 states:
 - Virginia (93)
 - Florida (86)
 - Texas (63)
 - Arizona (47)
 - California (44)

Source: www.americanforests.org/champion-trees/champion-trees-registry



Background on champion big tree programs



September 9, 2022

Hello Champion Trees Coordinators and enthusiasts,

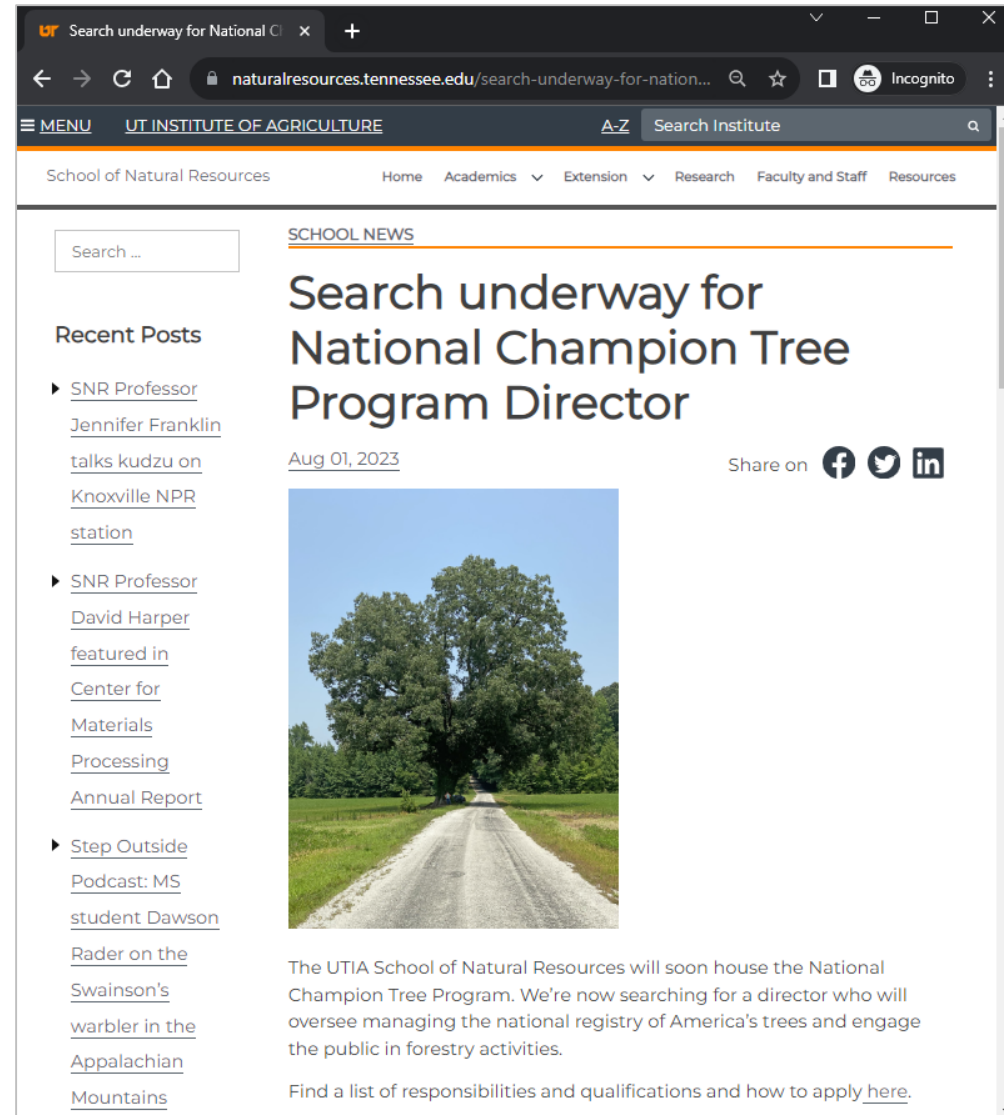
Apologies for the limited communication as we've been undertaking a significant transition in the National Register of Champion Trees. American Forests made the decision this year to find a new home for the National Register. As our organization has grown, our workload and mission focus today are just no longer the right fit for this storied program.

Our commitment is to find a new home or strategic partnership between organizations where Champion Trees can really thrive and continue for decades to come. To that end, we have been in discussions with various organizations and key program advisors to find the right fit. No decisions have been finalized yet, so to ensure a smooth transition and allow enough time for the new managers to get settled in we have decided to cancel the nomination process for 2022's National Register. We are working to have the Register up-and-running again in its new home in 2023.

This was not an easy decision for American Forests after more than 80 years, but we feel it is the best path forward for the Register and the community that gives it life.

Thank you for your patience with this process and we will be responsive to any feedback or questions you might have, please email info@americanforests.org.

Sincerely,
Ian Leahy
Vice President of Urban Forestry
American Forests



Source: naturalresources.tennessee.edu/search-underway-for-national-champion-tree-program-director

Virginia's big tree program

Maclura pomifera**

Charlotte Co.

65'

93'

328"

416 pts.



To promote the care and appreciation of trees – big and small.

Document the largest trees in the state and provide resources to aid in their protection and care.

Photo credit: A. Cassell

Virginia's big tree program

July 10, 1969

Mr. William A. McElfresh
Extension Specialist, 4-H
Virginia Polytechnic Institute
Blacksburg, Virginia

Dear Mr. McElfresh:

Having just returned to VIRGINIA FORESTS, Inc., from the Army, I have been assigned the project of working with you and 4-H Club workers on "Virginia's Big Trees." From the May '66 issue of "American Forests" magazine I learned that out of some 385 National Champion trees, Virginia has only two listed - post oak in Charlotte County and loblolly pine near Ammon, Virginia; so it does look like we have plenty of room to grow!

I have quite a few questions to ask and some ideas how VIRGINIA FORESTS, Inc., may be of some help in initiating the program. I'm wondering if you will be attending the Conservation and Forestry Educational Conference in Charlottesville July 21. If so, I will try to see you there, or if more convenient, I will try to get in touch with you sometime during the week before or following the meeting.

Looking forward to meeting and working with you.

Sincerely yours,

VIRGINIA FORESTS, Inc.

Charles F. Finley, Jr.
Assistant Director

CFF, Jr.:cfs

Cooperative Extension Service
Virginia Polytechnic Institute
Extension Division
Blacksburg, Virginia 24061

March 2, 1970

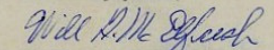
Mr. E. E. Rodger
Virginia Division of Forestry
Alderman & McCormick Roads
Box 3758
Charlottesville, Virginia 22903

Dear Ed:

As a follow-up on the "Big Tree Search program" discussed with you by Charlie Finley in the late fall, I am enclosing 20 informational releases that went to some 500 extension agents in mid-February. I thought you might want to make distribution of these to the district offices along with a note of explanation. Charlie is following through with contacts with consulting foresters, industrial foresters, U. S. Forest Service and Park Service. Charlie has also arranged a news article in Chapter Chats that will reach most FFA members and Mr. Myers is planning to send 20 of the nomination blanks to each Vo-Ag Instructor. Forms and information were sent to 5,500 volunteer 4-H Club leaders. A news article and separate pictures of the largest loblolly pine in the world in Dinwiddie County will be featured in the March 4-H Club newspaper which reaches about 90,000 4-H Club members in the state. In addition to these prior contacts, we hope to schedule local radio programs through VPI release service. These will probably be of an interview type discussing the program carried on by an announcer, myself and Charlie. Through our news bureau we are also planning news releases to reach daily and weekly papers about the April 1st kick-off.

If you have any suggestions or comments, we would certainly appreciate them. I have additional copies of the nomination blank if you would like more for distribution to district offices. Thanks for your help in making this a worthwhile project in getting young people into the out-of-doors.

Sincerely yours,


William A. McElfresh
Extension Specialist, 4-H

efp
Enc.
cc: Mr. Charlie Finley

An Educational Service of the Virginia Polytechnic Institute, Virginia's Land-Grant University,
with U. S. Department of Agriculture and Local Governments Cooperating

Virginia's big tree program

Spring, 1970

VIRGINIA FORESTS Magazine



Dogwood is the symbol of spring—the loveliest season of the year in Virginia.

Membership Directory Issue




Virginia's largest loblolly pine, located in Dinwiddie County on the farm of S. S. Reames is 16' 6" in circumference, 128' tall, with a crown spread of 64'.

Photos by: W. A. McEfresh

Big Tree Search

A cooperative project between
VF, Inc., and the VPI Extension
Division

John Belshan, Dinwiddie County Agent, and Paul Cassell, Nottoway County Agent, gaze upward at Virginia's largest pine tree. It is a co-champion nationally.



VIRGINIA FORESTS, Inc., in cooperation with the Extension Division at VPI, is launching a new project to be known as the Big Tree Search. Aimed primarily at the members of FFA chapters and 4-H clubs, the purpose of the program will be to find and record Virginia's largest trees, by species—that is, the largest white oak, the largest red maple, and Virginia pine, etc. Any trees within the State are eligible for nomination as a big tree, and all 4-H and FFA members are encouraged to search out the woods, trees in their front yards, and even trees planted long ago around court houses and other public buildings as potential "big trees."

To nominate a big tree for the Virginia Register, young people should obtain a nomination form from their 4-H club leader, or Vo-Ag instructor, fill it out and send it to VIRGINIA FORESTS, Inc., in Richmond. One of the most important items, of course, is identifying the species of tree being nominated. Both the common name and scientific name should be given, because all nominations will be classified by species. The next step is measuring the height, circumference, and crown spread of the tree. Some helpful sketches and directions for taking these measurements are found on the back side of the nomination form.

All nomination forms should be sent to VIRGINIA FORESTS, Inc. We will separate the trees, the "big" from the "biggest," and upon selection of the biggest, will notify the nominator and a local forester who will then help verify the tree's measurements. All big trees must be verified by a forester before they can be included in the Register of Big Virginia trees. In this way, we hope to prevent wasting excessive professional time, but still provide the contacts for some of the foresters in Virginia to "teach and preach a little forestry" to these young people.

From time to time VIRGINIA FORESTS, Inc., and the VPI Cooperative Extension Division will publish a list or booklet of the Big Trees; also included will be the location of the tree, its measurements, and the name and address of the nominator.

All trees that make it into Virginia's Register of Big Trees will also be considered for submission to the National Register in Washington, D. C., which is kept by the American Forestry Association. At the present time, Virginia lays claim to two of America's biggest trees: the loblolly pine and the osage orange. The loblolly pine, in Dinwiddie County, measures 16½ feet in circumference and 128 feet high. The osage orange tree is more than 300 years old and is located at Red Hill Plantation near Brookneal where Patrick Henry spent his retirement years. It measures 23 feet in circumference and 50 feet high.

Virginia's big tree program



50TH ANNIVERSARY | VIRGINIA BIG TREE PROGRAM



Big Trees Forever



In 1970 Virginia Forestry Association started to engage youth in the search, identification and nomination of the biggest trees in Virginia. These champion trees would be listed in the state and, possibly, national registers. Fifty years later the hunt still continues for Virginia's big trees.

By Charlie Finley, Edited by Sarah Gugercin



The famous Bedford tulip-poplar—one of the two national champions from Virginia in 1972. IMAGE COURTESY OF VIRGINIA FORESTS

It all started as a 4-H project—to get young folks interested in trees, *BIG* trees.

The first Earth Day was celebrated April 22, 1970, and we at the Virginia Forestry Association (VFA) thought a state-wide big trees contest would be a great follow-up activity to that monumental day. It would be simple: find and measure the biggest tree of each species in Virginia, and tell us where it was located.

I was still new at VFA and was put in charge of developing the program. I turned to my friend, Dr. Will McElfresh, an Extension specialist at Virginia Tech in the School of Forestry, and we got the program underway. One of the joys of working with Virginia's Extension Service, Dept. of Forestry, Dept. of Game and Inland Fisheries, and Dept. of Conservation and Recreation was that they all worked to get the job done and didn't worry about who got the credit.

We really had two contests going—first, we wanted to document the biggest trees of each species in Virginia, and then we would send those winning nominations to compete with the other 49 states for the status of national champion. We adopted the American

Forestry Association (known today as American Forests) measurement guidelines and point system for big trees to be sure our trees met the national criteria.

With some press releases and magazine articles, we were off to a moderate start. To serve as a baseline, we asked several Dept. of Forestry foresters to submit the measurements of large trees in their working areas. This way our 4-H big tree hunters could see what was considered "big" for a given species and work to find something bigger. Of course, what was big for one species—a dogwood, for example—would not compare to a larger stature species such as hickory or pine. We wanted them to say, "You call that [particular species] big? I know one just down the road that is way bigger than that."

Because trees don't live forever, we kept every tree nomination we received so that when the largest one died due to insects, disease, development or other cause, then the second-largest nominee became champion.

After a few years we realized it would be prudent to have a local

forester or botanist verify each nomination. What if the finder of the tree misidentified a shagbark hickory (*Carya ovata*) for a mockernut hickory (*Carya tomentosa*)? That would throw everything off! Also, foresters had instruments that could accurately measure tree height—a measurement that is often difficult to estimate (and can sometimes be exaggerated).

After an initial flush of interest, we began to notice that it was the parents of the 4-H kids who were most excited to hunt big trees. Several years later it also was apparent there were three or four avid tree searchers who had abandoned golf, fishing, hunting, or other hobbies, and were working to set and break Virginia's big tree records. In our first published "Official Social Register of Big Trees" that appeared in the 1971 Fall issue of *Virginia Forests*, our list of 42 trees was credited to only about 11 people, and only three of them were 4-H youth.

Periodically we featured an updated register of big trees in *Virginia Forests* magazine. Each time it would generate more interest in the program and good publicity for VFA and Cooperative Extension. In addition, towns began to pay more attention to their trees, create publicity, and strive to protect and preserve

—continued on page 9.

Source: www.vaforestry.org/virginia-forests-magazine

Virginia's big tree program



Big Tree Interns

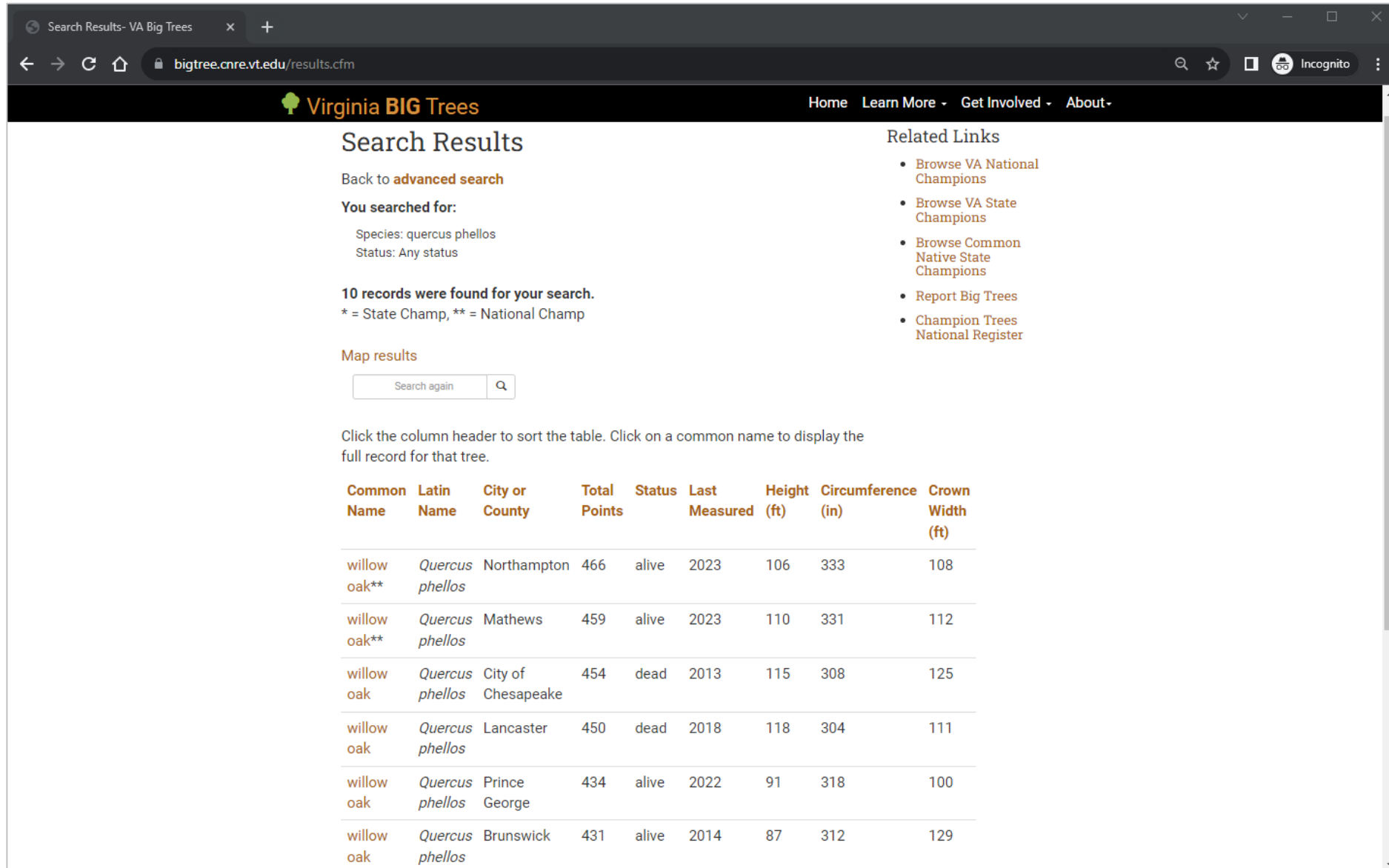


Big Tree Volunteers

Virginia's big tree program

The screenshot shows the Virginia Big Trees website interface. At the top, the browser address bar displays "bigtree.cnre.vt.edu". The website header includes the "Virginia BIG Trees" logo and navigation links for "Home", "Learn More", "Get Involved", and "About". Below the header is a grid of four large photographs of trees, each with a semi-transparent overlay containing a navigation option: "Search Big Trees...", "Browse Big Trees...", "Measure Big Trees...", and "Report Big Trees...". Two large orange arrows point from the bottom of the page up to the "Search Big Trees..." and "Browse Big Trees..." buttons. Below the navigation grid is a section titled "Our Partners" which features logos for Virginia Tech, Virginia Cooperative Extension, TREES VIRGINIA (Virginia Urban Forest Council), VIRGINIA FORESTRY ASSOCIATION, and American Forests.

Virginia's big tree program



The screenshot shows a web browser window displaying the search results for 'Virginia BIG Trees'. The search criteria are 'Species: quercus phellos' and 'Status: Any status'. Ten records were found. The results are presented in a table with columns for Common Name, Latin Name, City or County, Total Points, Status, Last Measured, Height (ft), Circumference (in), and Crown Width (ft). The table lists six records for Willow Oak (Quercus phellos) in various counties, with total points ranging from 431 to 466.

Search Results

Back to [advanced search](#)

You searched for:

Species: quercus phellos
Status: Any status

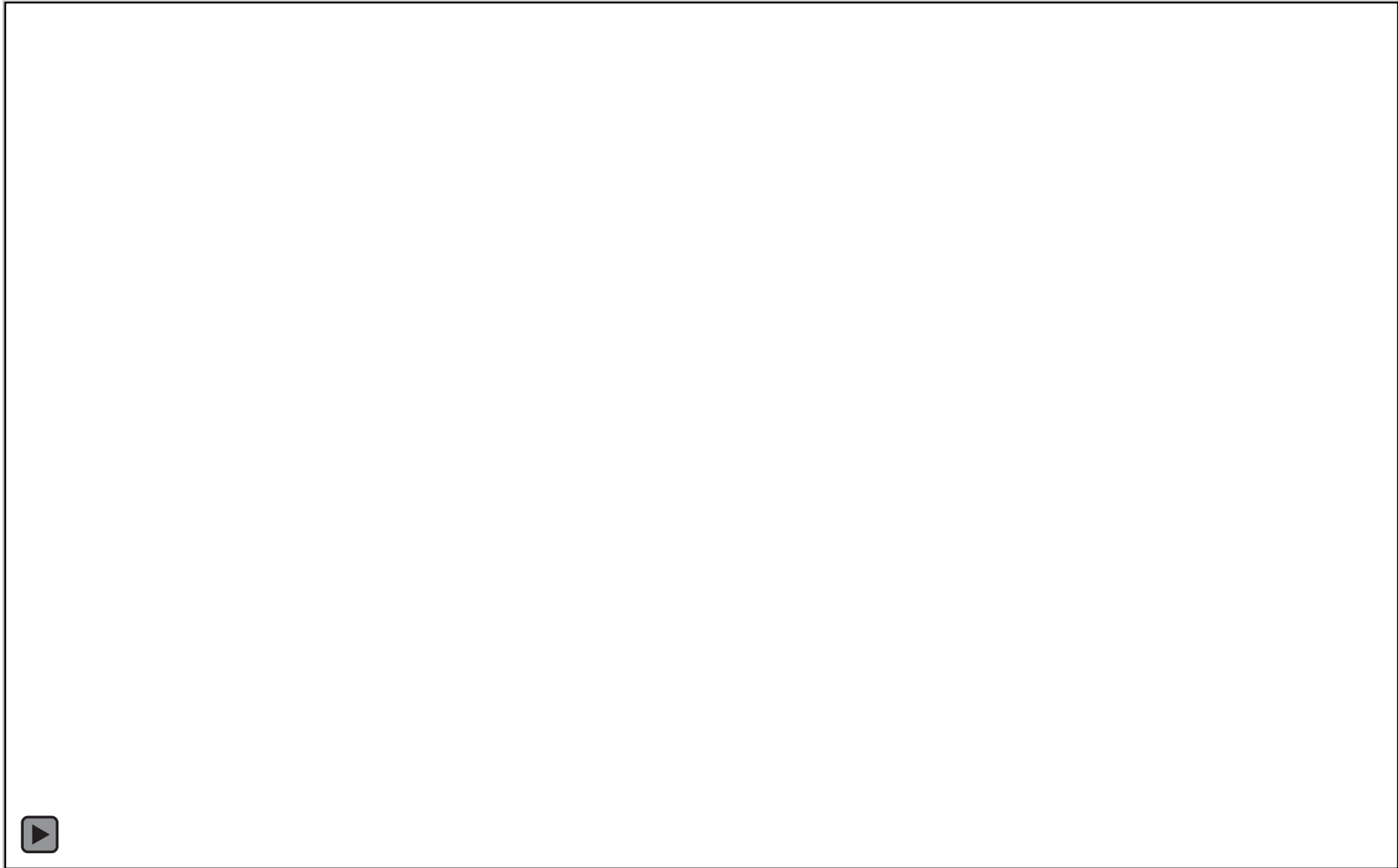
10 records were found for your search.
* = State Champ, ** = National Champ

Map results

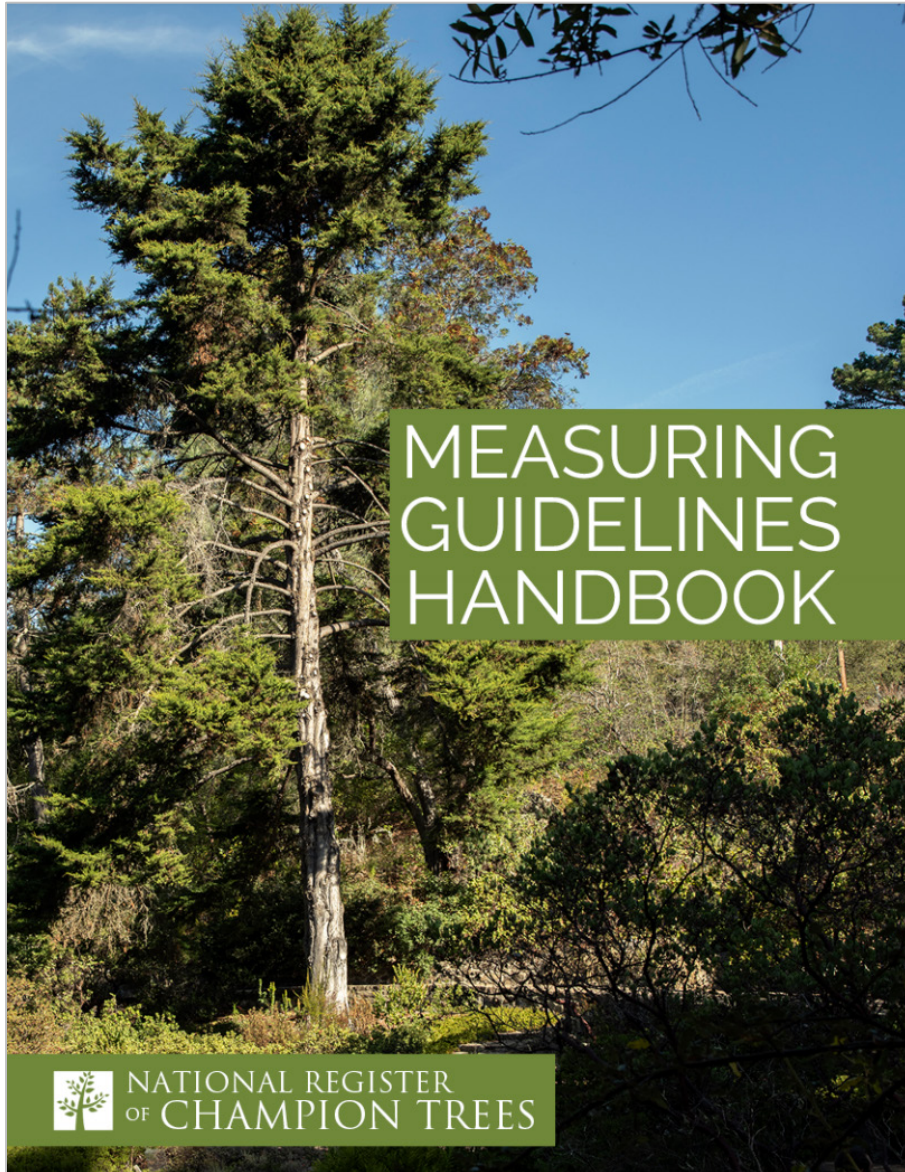
Click the column header to sort the table. Click on a common name to display the full record for that tree.

Common Name	Latin Name	City or County	Total Points	Status	Last Measured	Height (ft)	Circumference (in)	Crown Width (ft)
willow oak**	<i>Quercus phellos</i>	Northampton	466	alive	2023	106	333	108
willow oak**	<i>Quercus phellos</i>	Mathews	459	alive	2023	110	331	112
willow oak	<i>Quercus phellos</i>	City of Chesapeake	454	dead	2013	115	308	125
willow oak	<i>Quercus phellos</i>	Lancaster	450	dead	2018	118	304	111
willow oak	<i>Quercus phellos</i>	Prince George	434	alive	2022	91	318	100
willow oak	<i>Quercus phellos</i>	Brunswick	431	alive	2014	87	312	129

Virginia's big tree program



Measuring and scoring big trees



1. It's living
2. It's an eligible species
3. It's the largest of its species
4. It's been verified by an expert

Champions: one tree with the most total points

Co-Champions: two trees that are within 3 points or 3% of each other

Measuring and scoring big trees

Virginia Big Tree Program Nomination Form

- Name and address of nominator/measurer: _____ Date: _____
Phone and email of nominator/measurer: _____
Is the nominator/measurer or the owner the contact for this tree? _____
Name and address of tree owner: _____
- Kind of tree (common name): _____ (scientific name): _____
- Comments about tree (is it healthy, is it endangered by development, does it have historical significance?):

- Dimensions of tree (measurement guidelines on page 2):
Trunk circumference: ____ (inches) Measurement height: ____ (ft) Trunk circumference: ____ (1 pt. per inch)
Vertical tree height: ____ (feet) (if other than standard 4.5') + Height: ____ (1 pt. per foot)
Average crown spread: ____ (feet) + Avg. crown spread: ____ (¼ pt. per foot)
Method of vertical height measurement: _____ = Total points: _____
- Directions to tree (describe using major roadways or landmarks that are nearby):

- County or city where tree is located: _____
- GPS coordinates (please use decimal degrees):
N _____ W _____
- May this nomination be shared publicly?
Yes: _____ No: _____
- Sketch map of tree location on owner's property:
North: ↑
- Mail nomination to:
Virginia Big Tree Program

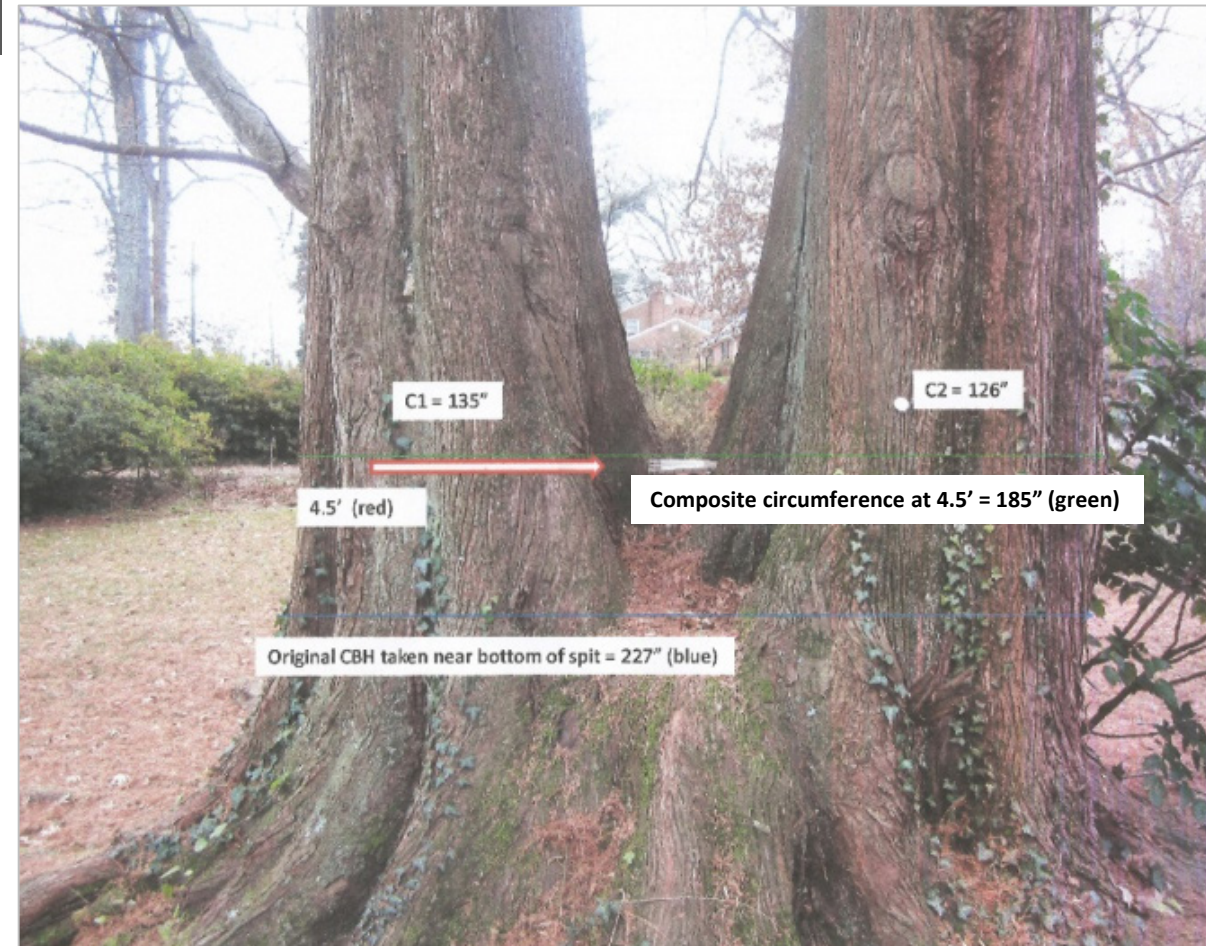
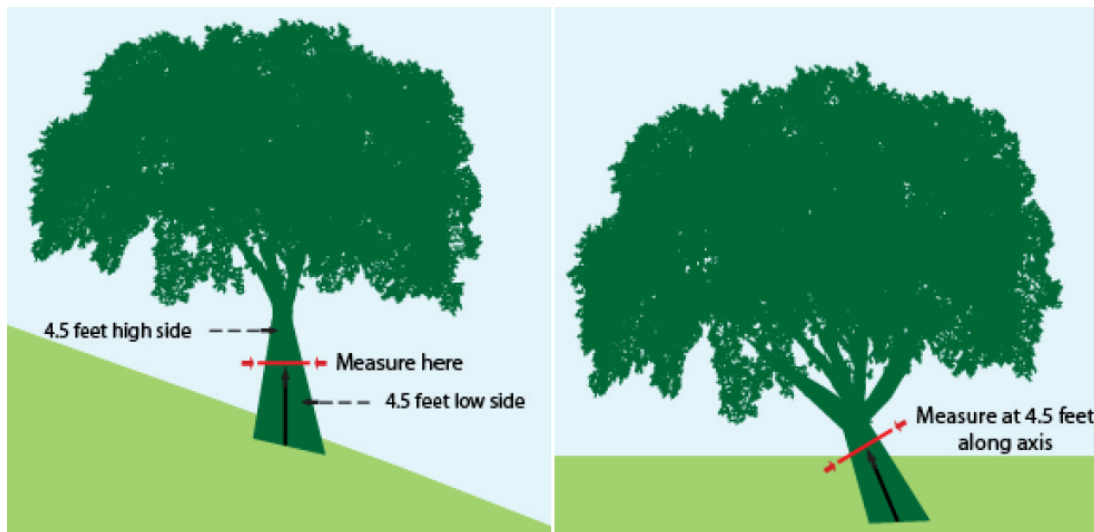
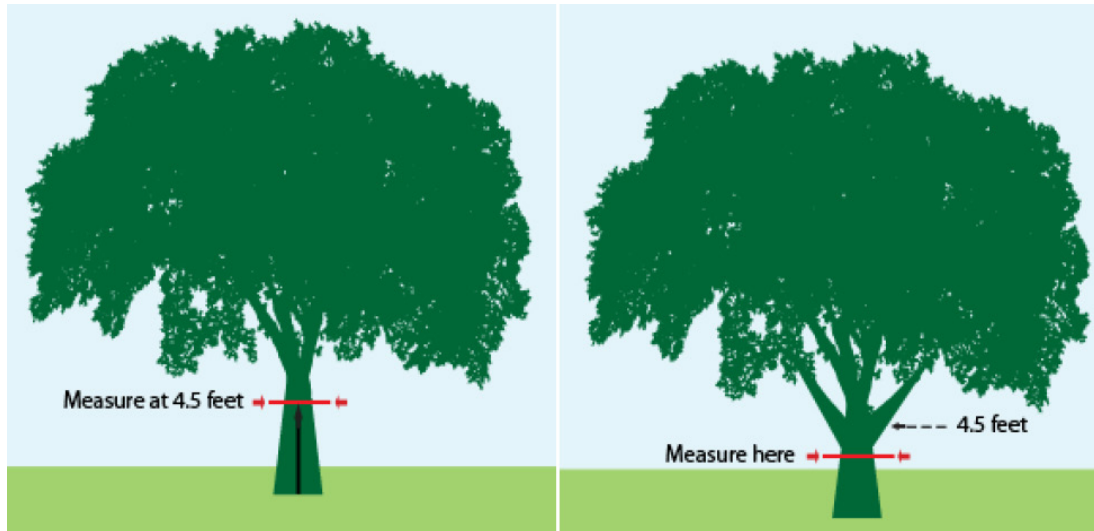
WHAT TO TAKE WITH YOU

- Reel tape
- Pin flags
- Plumb bob
- Yard stick, clinometer, or laser hypsometer
- GPS unit
- Camera



Measuring and scoring big trees

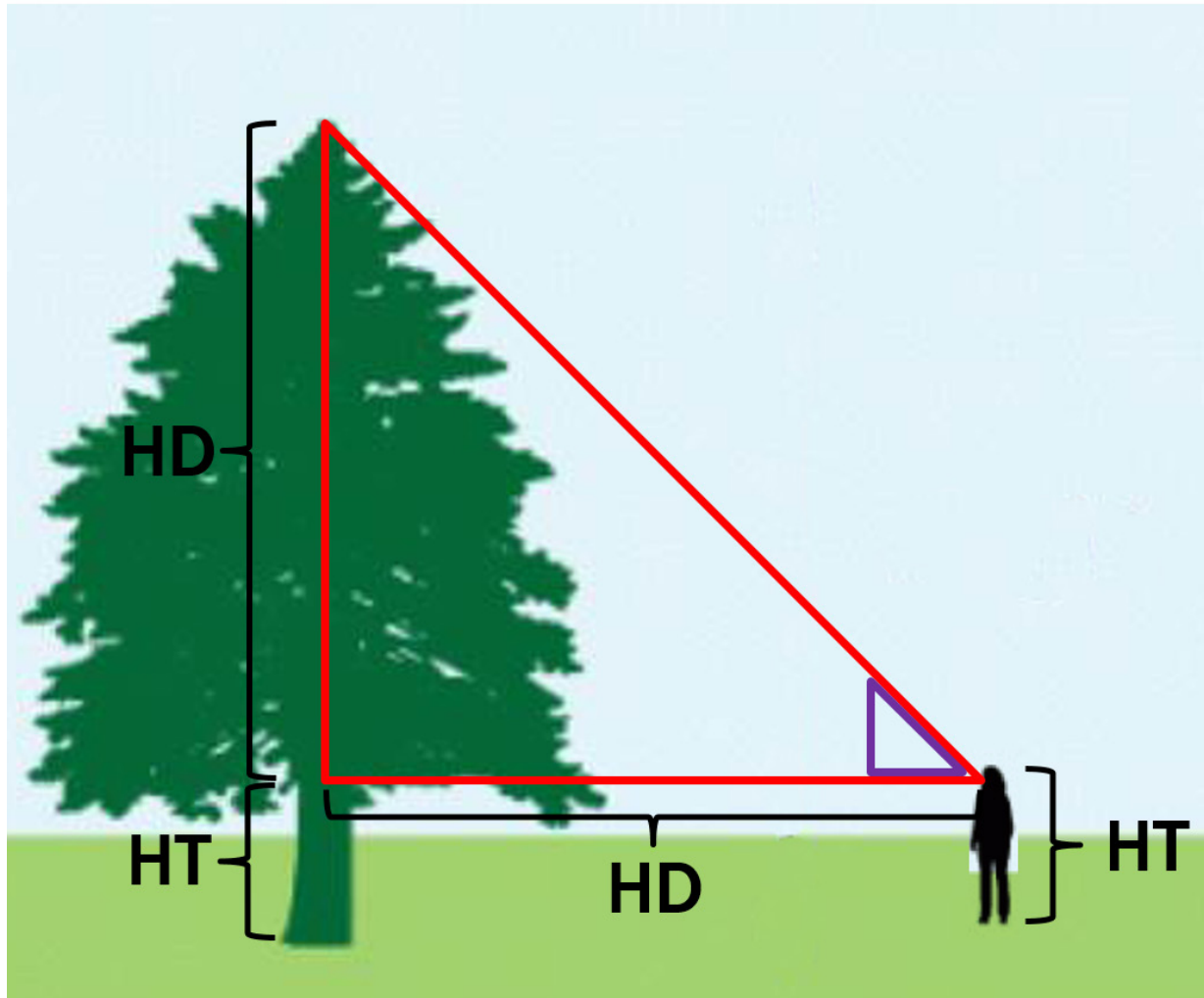
TRUNK CIRCUMFERENCE



Composite functional circumference measurement on multi-trunk form when it is atypical for the species

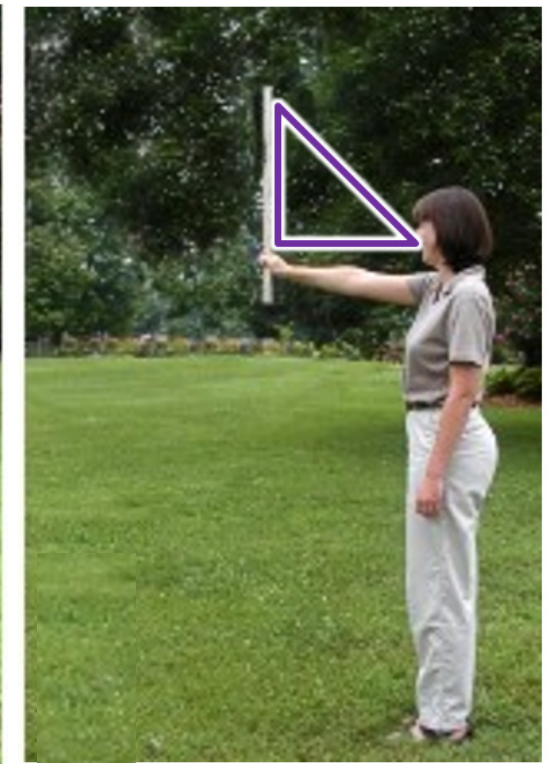
Measuring and scoring big trees

TREE HEIGHT



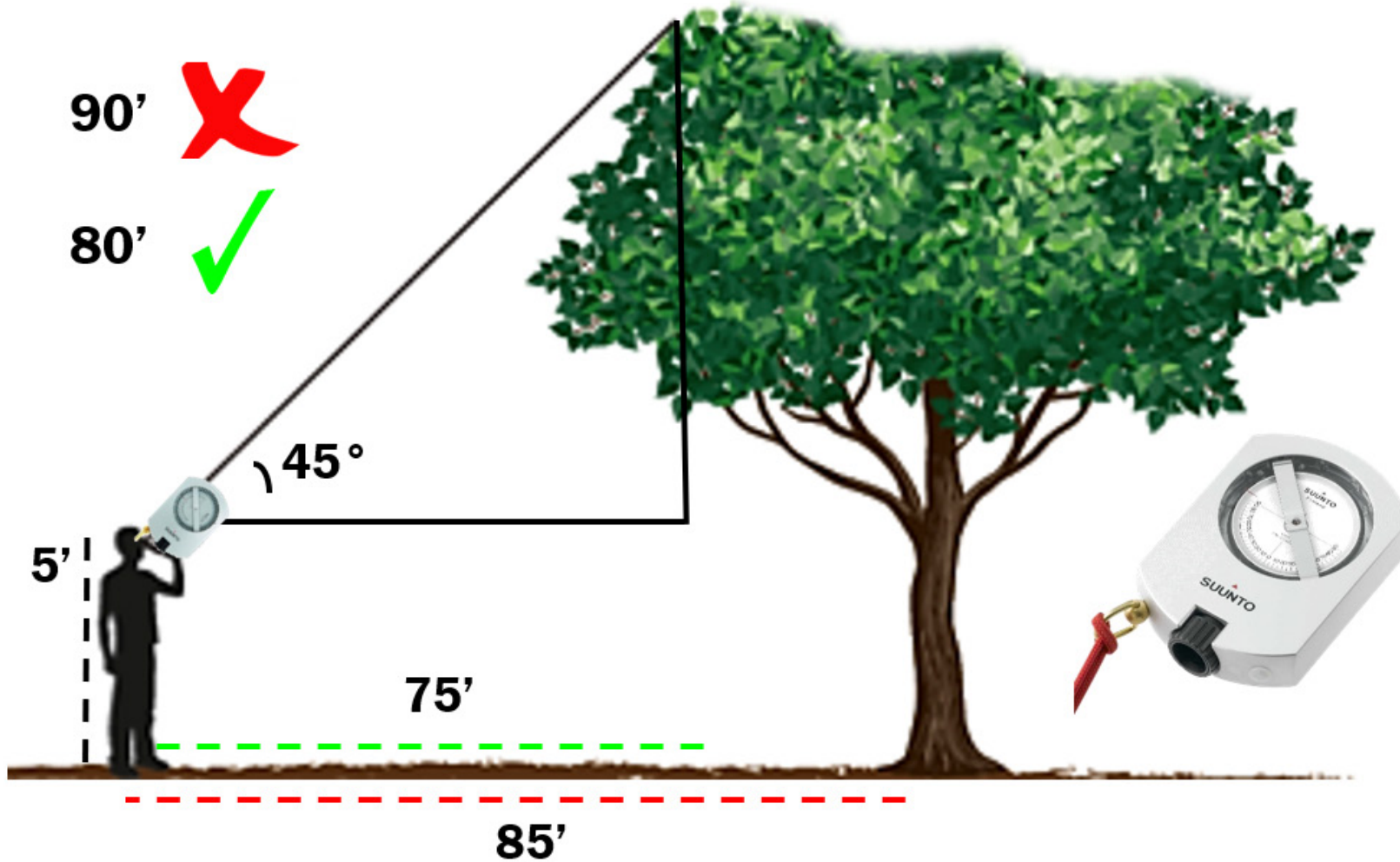
Law of Similar Triangles

The tree height equals your horizontal distance (HD) from the tree plus your height (HT)



Measuring and scoring big trees

TREE HEIGHT

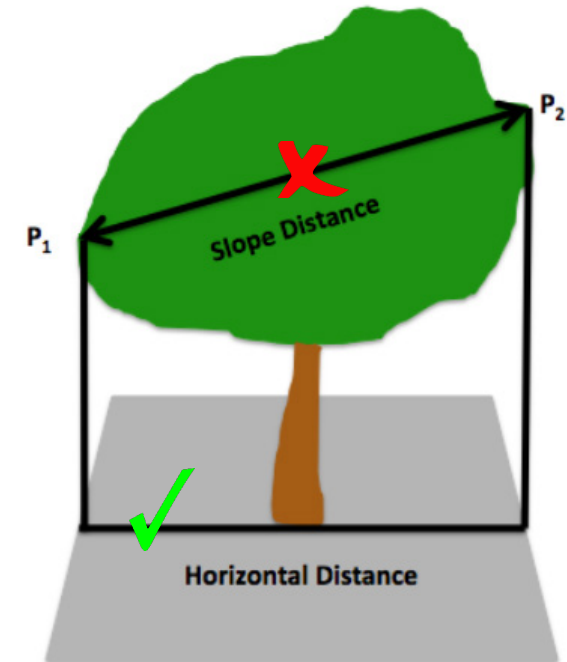
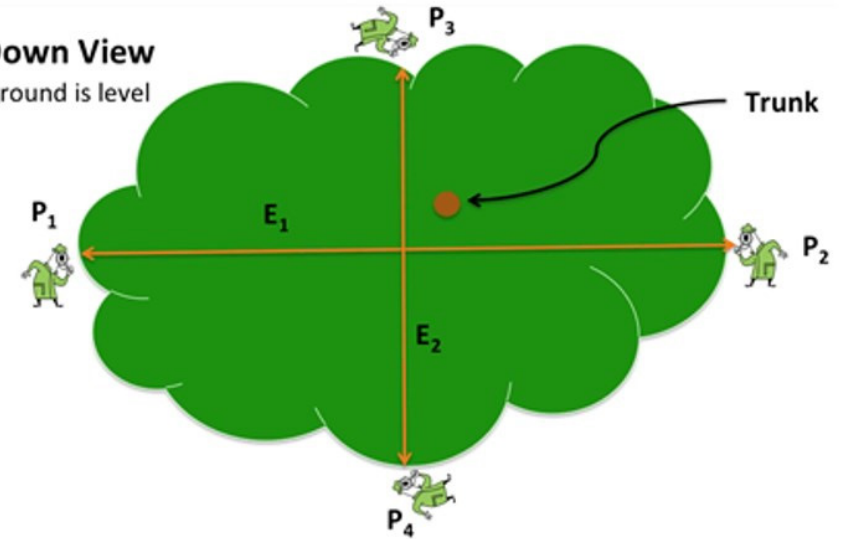


Measuring and scoring big trees

AVERAGE CROWN SPREAD



Top Down View
When ground is level



Measuring and scoring big trees

SCORE CALCULATION

- Is it an eligible tree? Eligible species, Eligible trunk form
- Measure trunk circumference at 4.5' above ground line*: **150** (inches)
- Measure tree height from ground line to highest branch: **100** (feet)
- Measure average crown spread (1st max. ⊥ 2nd max.): **(90'/70') 80** (feet)

Circumference	(1 point per inch)	150 points
+ Height	(1 point per foot)	100 points
+ Crown spread	(1/4 point per foot)	20 points

Big Tree Score Total	270 points
-----------------------------	-------------------

Threats to big trees in urban areas

The Ravages of Time



Threats to big trees in urban areas

Extreme Weather

*Quercus falcata***

Sussex Co.

92'

114'

321"

442 pts.



Threats to big trees in urban areas

Pests and Diseases



*Fraxinus pennsylvanica***

Fauquier Co.

73'

72'

252"

343 pts.

Threats to big trees in urban areas

Neglect and Indifference

Quercus alba**

Brunswick Co.

86'

113'

337"

451 pts.



Threats to big trees in urban areas

Arboricultural Malpractice

Quercus laurifolia

City of Chesapeake

79'

70'

247"

344 pts.



Arboriculture for big tree conservation



- Alert the community to champion tree distinction
- Entrust qualified arborists for big tree care
- Frequent inspections and health check-ups
- Minimize disturbance and landscape change
- Protect a large critical root zone
- Lightning protection
- Tree support systems
- Judicious crown reduction for managing loads on decayed branches, trunks, and roots

Documentation and Conservation of Champion Big Trees in Urban Forests

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