TREE CITY USA®
BULLETIN
No. 64
Dr. James R. Fazio, Editor • $3.00

Saving Our Heritage Trees

'Extinction is forever!' The disappearance of plant and animal species from the face of the Earth is an alarming situation. So is the disappearance of special trees right in our own communities. When heritage trees succumb to storms or old age, that is one thing. When they are destroyed by neglect, development or other human causes, it is quite another. Saving our heritage trees is a job for tree boards everywhere, but it is also a job for every individual who reveres the past and cares about the future.

The English poet William Blake observed, "The tree which moves some to tears of joy is in the eye of others only a green thing which stands in the way." The truth of this statement is especially tragic when it comes to heritage trees.

Heritage trees are those that are important because of their great size, notable longevity, unusual form, location at the extreme of their natural growing range, or association with history. Some, like those at Mount Vernon planted by George Washington are of national importance. Others have local significance and these are found in virtually every community.

What happens to these trees is often a sad story and one that is all too common. For example, there was an old Bartlett pear tree growing on the campus of a state university. It was the last remnant of what had been a farm before expansion of the campus. Bartlett pears are known for their long life and this one was still in fair condition. It provided shade, species diversity, a little wildlife habitat and luscious pears enjoyed by the students. One day the campus planners decided that its little spot along the street would make a good pull-off bus stop. Despite some objections and opportunities to place the bus stop elsewhere, the tree was cut down. With it went a link with the past and opportunities for interpreting history to the current generation of students. By contrast, we are heartened by stories like the cucumbertree magnolia saved essentially by the actions of a single individual as reported on page 6.

Saving heritage trees extends a link across generations. It helps develop values for things beyond the material, values almost of a spiritual nature. It also reminds us, as expressed by Arbor Day Founder J. Sterling Morton, "Each generation takes the earth as trustees." Passing along a community's special trees is part of that responsibility as temporary stewards.

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The lives of heritage trees are often prolonged because concerned individuals, civic groups and tree boards appreciate what they have to offer in the way of inspiration, education and scientific value. Here Rod Covey of North Canton, Ohio, speaks to a group called The Wanderers that came to visit this champion cucumbertree magnolia.

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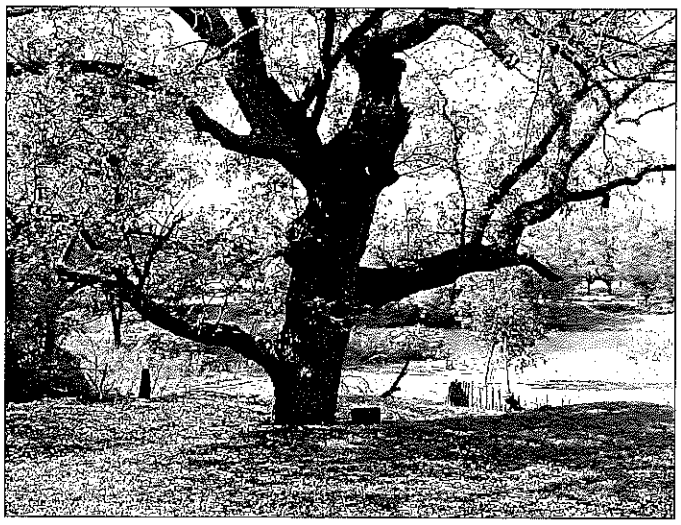
What is a Heritage Tree?

The nature of heritage trees varies widely. Great size is easy to recognize and appreciate. Historical events associated with a tree also qualify it as a heritage tree. Less recognized features may be something like the northern-most palm tree on the Pacific coast, or a tree with genes that somehow enabled it to escape an introduced pest that claimed others of its species. It may be simply a blaze that marked an ancient trail or as subtle as Montana's medicine tree that serves as a sacred shrine to Native Americans.

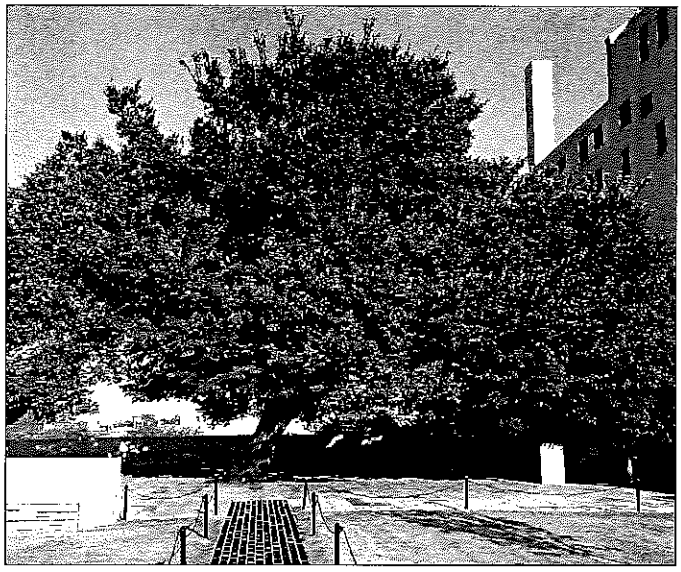


Famous Trees of Texas, Texas Forest Service

This special tree that grows in San Saba, Texas, was once featured in Ripley's 'Believe it or Not.' Named the Jumbo Hollis, it once produced the largest pecans in the world. In 1919 Jumbo Hollis produced 1,015 pounds of them! Grafts from the tree were budded to other pecan trees throughout the South.

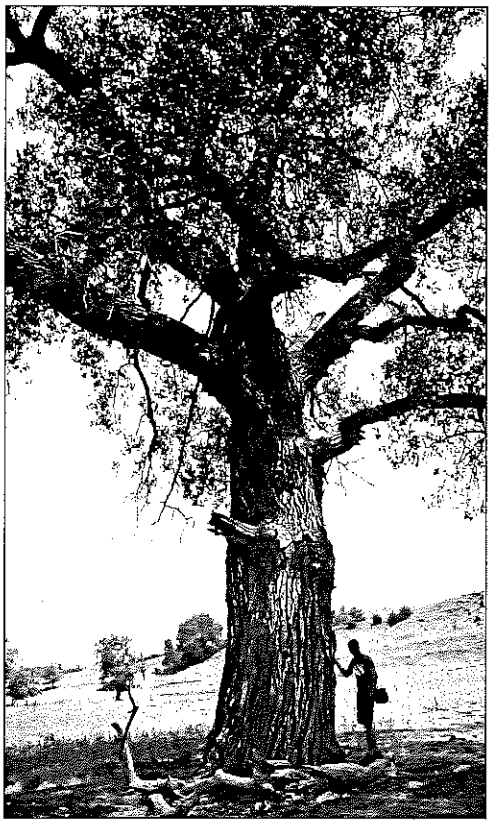
Famous Trees of Texas, Texas Forest Service

Eight Texans lie in a common grave next to the tree where they were hung by the Confederate cavalry during the Civil War. The Hangman's Tree stands as a living symbol of this unpleasant page in America's history.



Oklahoma City National Memorial & Museum

Oklahoma City's Survivor Tree witnessed the tragic events of April 19, 1995 when a bomb killed 168 innocent people in the Alfred P. Murrah Federal Building. In the days that followed, alert citizens saved the tree from removal and arborists nursed it back to health. The tree stands as symbol of human resilience and an inscription reads: "The spirit of this city and this nation will not be defeated; our deeply rooted faith sustains us."



Arbor Day Foundation

Trees of unusual size are not only an inspiration but may contain genes that contributed to their longevity. Cuttings are sometimes made to provide progeny for research or commercial cultivation. This recently discovered cottonwood near Lindy, Nebraska, may qualify as a state champion for its species.

Gaining Public Support

Regardless of the reason for being identified as a heritage tree, its survival in the community is dependent on public understanding and support.

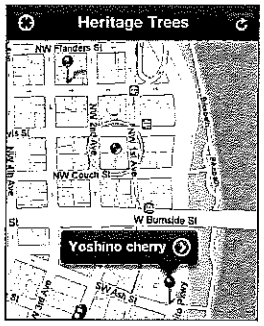
Identifying Special Trees

Some heritage trees are well known. Others are yet to be found or named. In some communities, the street and/or park tree inventory is a way to earmark the largest or most unusual trees. Another method is to sponsor a contest in which residents can nominate a tree and explain why it should be listed as a heritage tree. Except in extreme cases, heritage trees on private property require voluntary recognition of the tree. This usually implies the owner does not mind people visiting or observing it from the street. Sometimes it means granting the tree board permission to help with treatments to preserve the tree's health or even granting a conservation easement to legally protect the tree and the space around it. Methods vary, but identification is the first step toward protection – and the more citizen involvement in this process, the greater the chance for long-term support for protection.

Informing the Public

Trees deserving heritage recognition need to be made known to local residents and visitors. It is akin to the biblical teaching of not hiding one's candle under a bushel. The result is not only enjoyment and education, but the power of public opinion can be a strong deterrent to a tree's destruction. Brochures and printed maps are the most common way to share information about local heritage trees, but the electronic age has provided some new approaches.

The Coeur d'Alene (Idaho) Urban Forestry Committee and Parks Department, with support from the Washington Water Power Company and the U.S. Forest Service, produced a handsome booklet and location map. Following a general map and introduction, each heritage tree has a page devoted to it. This includes a more detailed location map, a picture of the species' leaf, and information about the tree. The name of the person who nominated it is also shown.

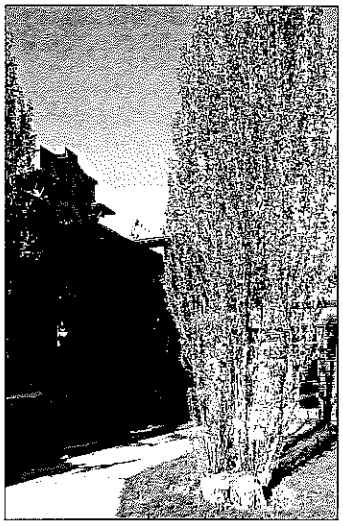


Technology now makes it faster to update heritage tree information and make it available in formats the current generation finds convenient. These include websites and even apps for mobile devices. For example, more than 281 heritage trees have been identified in Portland, Oregon. Using a free app developed by Portland resident Matt Blair, it is possible to:

- *Search for heritage trees and see them on a map.*
- *Tap a pin to see the name and view details for that particular tree.*
- *Take and upload a photo of a heritage tree you are visiting.*
- *View photos of the tree taken by other tree enthusiasts.*
- *Email a friend about the tree.*
- *Read more about the species at Wikipedia, without leaving the app.*

Explanations Can Defuse Trouble

No tree lives forever and eventually it may become so unsafe that there is no alternative to removal. And while this may be obvious to tree people, the thought of removing a heritage tree is often a red flag to the general public. Rather than simply placing a red X on the trunk or making an announcement about a tree's impending removal, it is far better to provide an explanation of why it must go, what might be done to make good use of its wood, and – when possible – how and when the tree will be replaced.



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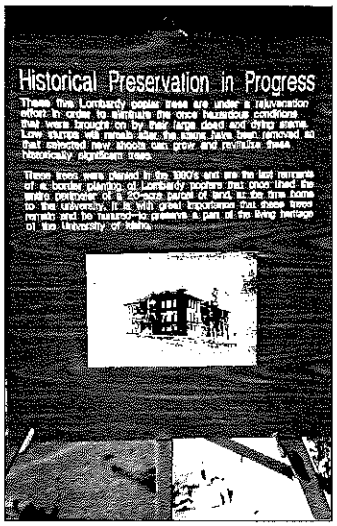


David Rauk

Campus arborist David Rauk knew there would be an outcry when it became known that several historic trees were to be removed. In an exemplary move from the standpoint of public relations, David made a weatherproof sign and placed it in the lawn near the trees. The sign acknowledged the trees' historic importance, explained that their dangerous condition made removal necessary, and promised that regeneration from the stumps would be used to 'rejuvenate' the historic trees. Not a word of protest was expressed by students or faculty!

Protecting Our Heritage

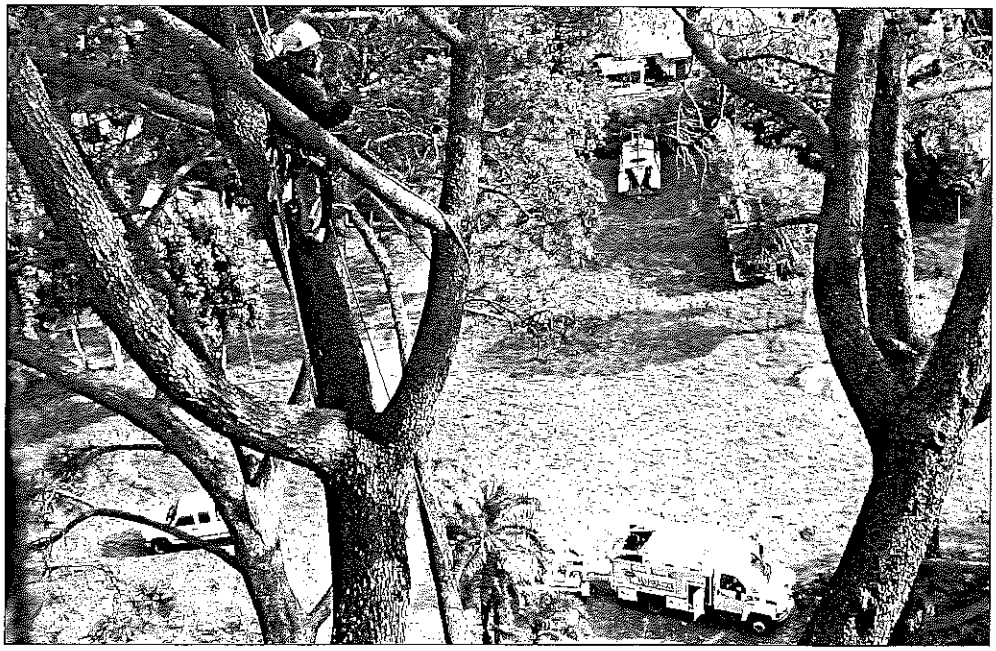
'Leave it alone' is not the approach that will save heritage trees. Instead, it is important to identify them, document the reasons they are special, and then provide protective care.

Maintenance Needs

The first step in maintenance of a mature tree is to have it inspected by a qualified, certified arborist. He/she can then prescribe treatment that is either corrective or preventative. Some of the common problems and treatments include:

Soil Compaction	Preventative action includes fencing and/or organic mulch. Correcting compacted soil is more difficult but is possible with aeration or 'vertical mulching' (holes drilled at intervals and filled with gravel).
Dead Branches	Broken stubs are like 'candy sticks' for wood-decaying fungi. These need to be pruned off using proper cutting techniques to facilitate sealing that enables the tree to compartmentalize the wound and prevent the inward spread of decay organisms. Similarly, unbroken dead branches should be removed with pruning saws.
Special Pruning Needs	Expert help should be enlisted if pruning is needed for line clearance or if the tree is in conflict with nearby buildings, walks, etc.
Competition	Sometimes understory shrubs or grass need to be controlled in order to reduce competition for soil moisture and nutrients. In some cases, shade-tolerant trees may be thriving and may eventually overtake and out-compete the heritage tree. Removal must be done carefully to avoid chemical or mechanical damage to roots of the tree being saved.
Insect and Disease Pests	Expert inspection is needed to determine when and if control action is necessary.
Lightning	Lightning protection is expensive but warranted in the case of special trees. Installation is a job for arborists who have training and experience in this procedure. Periodic inspection and adjustment of installed devices is also necessary.

An arborist works in the top of Santa Barbara, California's 130-foot Torrey pine. After a large branch failure, deadwood was removed and large thinning cuts were made to reduce branch weight. This local heritage tree was planted in 1888 in what is said to have been a contest to see who could grow the most unusual plants. The pine has certainly won, now the tallest of its species anywhere in the world. Torrey pine is a rare species, native only to a small portion of California.



© Bartlett Tree Experts

Protective Ordinances

As with any provision in a tree ordinance, one that addresses heritage trees must be written to be compatible with the needs and the public will of the community. Nonetheless, the identification and protection of heritage trees should be considered by tree boards and city officials in municipalities of all sizes. Below are examples from two of the more restrictive ordinances.

Definition/Designation

Menlo Park, California

- ...historical significance, special character or community benefit...designated by city council.
- Native oaks 10" dbh or more.
- Other trees 15" dbh or more.

Portland, Oregon

- The City Forester must annually prepare a list of trees that "because of their age, size, type, historical association or horticultural value" are of special importance to the city.
- Upon recommendation of the Urban Forestry Commission, the City Council may designate a tree as a Heritage Tree provided the tree's health, aerial space, and open ground area for the root system have been certified as sufficient.

Protection

Any person who owns, controls, has custody or possession of any real property within the city shall use reasonable efforts to maintain and preserve all heritage trees located thereon in a state of good health...Any person who conducts any grading, excavation, demolition or construction activity...shall do so in such a manner as to not threaten the health or viability or cause the removal of any heritage tree. Any work performed within an area ten (10) times the diameter of the tree...shall require submittal of a tree protection plan for review and approval by the director of community development...prior to issuance of any permit for grading or construction. The tree protection plan shall be prepared by a certified arborist and shall address issues related to protective fencing and protective techniques to minimize impacts associated with grading, excavation, demolition and construction. The director of community development or his or her designee may impose conditions...

No tree on private property can be designated without the consent of the property owner. This consent binds all successors, heirs, and assigns. The ordinance further states that it is unlawful for any person, without a prior written permit from the Forester, to remove, destroy, cut, prune, break or injure any Heritage Tree. No Heritage Tree can be removed without the consent of the Urban Forestry Commission and the Portland City Council.

Safety First

A difference between a traditional forester and an arborist is that a forester prescribes harvest cuts at an economically optimal period in the life of a stand of trees. The job of an arborist is to extend serviceable life of individual trees as long as possible. This means that arborists and others who care for mature and over-mature heritage trees have an added duty to protect people and property from falling limbs or failure of the entire tree. It is often a delicate balancing act of trying to preserve aged trees while at the same time safeguarding the public. In addition to regular risk monitoring and pruning and other proper maintenance of the tree itself, some common practices to achieve public safety include:

- Fencing
- Landscape design that keeps walkways and vehicles away from the tree
- Landscaping with hedges or plants that discourage foot traffic
- Warning signs (ideally in combination with another technique)

James R. Fazio

Heritage trees are precious, but so are people and their property. Supports beneath aged branches or leaning heritage trees may sometimes be needed, but should be used in combination with fencing or other methods to keep people from climbing on or going under the tree.

Setting a Good Example

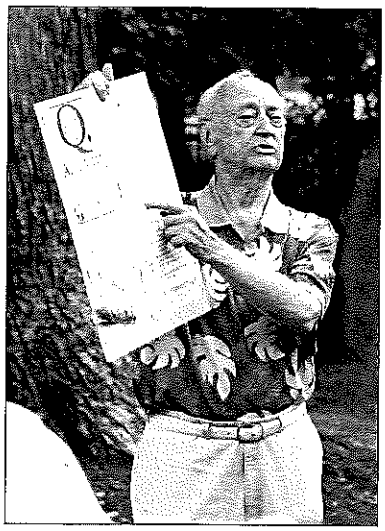
Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has. **– Margaret Mead**

One Man's Story – And a Tree Saved

Rod Covey was shocked when he received a one-page notice that a large cucumbertree magnolia was to be removed "within the next few days." Rod lived about 75 yards from the old tree in a corner of the 34-acre Auburn Knolls development in North Canton, Ohio. He soon learned that condominium association officials were nervous because two limbs broke off during a storm. They claimed the limbs were "mushy" and promised to leave the stump "as a memorial" to the deceased giant.

That was in September, 2000. Today, more than a decade later, hundreds of visitors have come to admire the old giant that has more than 400 birthdays under its bark. In addition, more than 2 million people have heard about the tree through mass media coverage. It is recognized in the *National Register of Big Trees* as the largest of its species in the entire world. And with every additional year that the tree survives, visitors and media audiences learn not only about the tree's impressive statistics, but also about the benefits of trees in general and why they deserve to be protected.

None of this would be possible had it not been for the quick and forceful action of Rod Covey. At a meeting of the condominium association, Rod pleaded for the tree to be spared. To make his point that the fallen limbs were not "mushy," he brought one to the meeting and pounded it on the podium. No mush issued from the solid wood! "Sometimes a little theatrics work," he later told a reporter. And they did. The removal order was rescinded and a symbolic representation of the tree now adorns the Auburn Knolls logo. Advertisements feature the harmony of luxury condominiums and the trees that surround them, a place 'Where you make a statement without saying a single word.' It is because of people like Rod Covey who do speak up that many of our wooded neighborhoods and our nation's heritage trees still exist.



© The Repository / Scott Heckel

Rod Covey provides information about North Canton's cucumbertree magnolia (Magnolia acuminata) that he saved from premature destruction. The ancient tree is 79 feet tall with a diameter of nearly 8 feet. It was alive as a sapling when the Pilgrams landed at Plymouth Rock.

Savannah's Candler Oak – A Witness to History

Savannah, Georgia, has a long history of protecting its special trees. It all began with the city's founder, General James Oglethorpe, in 1733. This good gentleman from England was a humanitarian who sought a better life for the downtrodden in his homeland. When he came to America, he laid out a street pattern in the new colony that made Savannah one of the first planned cities in the new land. There were 120 residents at that time and the struggles of settlement in the wilderness must have been intense. Nonetheless, the town trustees set aside a 10-acre central square and open spaces in each quarter of the new city. But they went even further. It is said that they carefully left old trees in their midst and started a nursery to provide trees for the future. And they had a motto: "Not for themselves, but for others."

The city's Candler Oak is evidence that the founding spirit lives on in Savannah. This live oak (*Quercus virginiana*) is not the largest of its species, but it is part of local history. It was already a large tree in 1791 when the land around it was dedicated for use as a seaman's hospital. The Savannah Poor House was also built there and this evolved into a medical college. During the Civil War, the site was captured by General Sherman and a barricade was constructed around the tree to confine wounded Confederate prisoners. In 1930, the Warren A. Candler Hospital was constructed and operated for the next 50 years. By 1982, the old tree was showing the effects of stress and neglect. It was that year that the Savannah Tree Foundation came forward to make saving this oak its first preservation project.

In 1982, the land was in private ownership but the developer generously donated a 6,804 sq. ft. conservation easement around the tree now known as the Candler Oak. That was the first step toward saving it from the path of development. Next came rehabilitation. Asphalt was removed from the root zone and a comprehensive schedule of maintenance was developed by tree experts. Included were soil tests, watering, mulching and fertilizing. With care and monitoring by the Savannah Tree Foundation, the tree rebounded and continues to charm tourists and provide eco-benefits to the residents of Savannah.

The Live Oak Society

In 1934, Dr. Edwin Stephens, president of what is now the University of Louisiana in Lafayette, had a novel idea. To promote the culture, distribution, preservation and appreciation of the South's iconic live oak trees, he founded the Live Oak Society. But this group is made up only of trees! To be nominated, the tree must have a circumference of 8 feet or greater. The largest one is president. Only one human is permitted in the Live Oak Society, according to the bylaws. That person is the chairman and is responsible for registering and recording the Live Oak Society members. There are currently over 7,000 members in 14 states. Long live the Live Oak Society!

© Louisiana Garden Club Federation, Inc.

Dr. Edwin Lewis Stephens with wife, Alice, in 1936. His good idea is carried on today by the Louisiana Garden Club Federation.

Adopt Your Own Heritage Tree

Is there a special tree on your property? Perhaps it was planted by a departed parent, or was a favorite place to play in your youth. Why not adopt it as your own heritage tree. See that it receives good care to preserve its health. Consider adding a small sign or plaque. By all means, record its story as part of your family history.

A good way to help save heritage trees of community-wide importance is to call them to the attention of your city officials and the media. If your city or state has a listing of heritage trees, request that it be added.

Tree boards that create heritage tree programs or publicity can qualify for points toward the Tree City USA Growth Award.

Growth Award

TREE CITY USA®

Elizabeth Lynch

Historic Candler Oak was added to the Georgia Landmark & Historic Tree Register in 2001. Its 107-foot spread sheltered wounded Confederate soldiers and today is under the watchful care of the Savannah Tree Foundation.

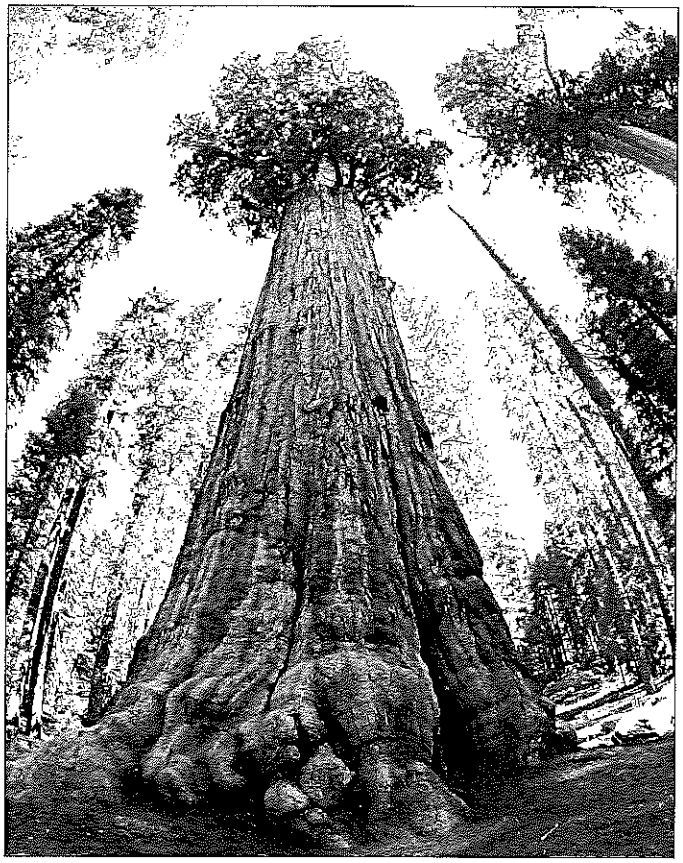
The National Register of Big Trees

The nonprofit organization, American Forests, has long been a champion for champion trees. In 1976, it published the milestone *Famous and Historic Trees* by Charles Randall and Henry Clepper to help commemorate our nation's bicentennial. Even earlier, in 1940, it began keeping an official record of the country's largest trees. Today, nearly 900 species and varieties are in *The National Register of Big Trees* and most states and many communities have followed this model with official records of the largest trees in their state or city.

To be eligible for the register, a tree must be native or naturalized, i.e. introduced and now established, reproducing and spreading naturally. Norway maple would be a good example. Hybrids and minor varieties are not included.

Anyone can find and nominate a big tree. If it is larger than the current champion, it takes its place. Due to mortality or lack of nominations, there is usually a list of trees currently without champions. Determining the 'biggest' is based on total points in the following formula:

Trunk circumference (in inches) measured at 4 ½ feet above the ground.	+	Height (in feet)	+	1/4 average crown spread (in feet)	=	Total points



Wikimedia Commons

The "General Sherman" is the National Champion of giant sequoias located in Tulare County, California.

For More Information

For additional sources of information about heritage trees, please visit **arborday.org/bulletins** and click on No. 64.

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