

benefit all involved.

*AF HAS TWO WORKING GROUPS
ONGOING...BOB LEVERETT AND I ARE IN THE
MEASURING GUIDELINES WORKING GROUP.
THERE'S ALSO AN ANALOGOUS ELIGIBLE
SPECIES WORKING GROUP. AF RECOGNIZES
THE SIGNIFICANCE OF THIS OPPORTUNITY,
AND BOB AND I ARE PRIORTIZING OUR
EFFORTS TO SUPPORT THIS.*

*TO PARAPHRASE WHAT ROSS PEROT STATED
SOME TIME AGO, 'WE ARE ALL EARS'. PLEASE
CONTINUE TO PROVIDE US WITH YOUR
SUGGESTIONS AND CONCERNS. THEY ARE
HELPFUL!*

Don Bertolette

[Re: Group progress of AF measuring group](#)

by **Larry Tucei** » Tue Jul 23, 2013 7:59 am

Matt you really hit the nail on the head with all those questions. Don- I really liked your answers and if they do this-" THE USE OF THE ABOVE TRIAGE MATRIX HELPS ACHIEVE THAT IN THIS WAY...THE GENERAL PUBLIC (LAY) ARE ABLE TO USE AVAILABLE EQUIPMENT TO ALERT THE STATE COORDINATOR TO A POSSIBLE NOMINATION. STATE COORDINATOR USES THE TECHNOLOGY HE(SHE) HAS AVAILABLE PERSONALLY OR BY EMPLOYER TO MORE ACCURATELY JUDGE THE TREE FOR STATE LEVEL REGISTRY, AND IF REASONABLY CLOSE, SUBMIT THE CANDIDATE FURTHER TO THE NATIONAL REGISTRY LEVEL WHERE THE NATIONAL CHAMPION CANDIDATES ARE MORE CAREFULLY/ACCURATELY MEASURED. THIS ACHIEVES ALL AF GOALS LISTED EARLIER, USES APPROPRIATE TECHNOLOGY AND SKILL LEVELS TO

OBTAIN ACCURACY APPROPRIATE TO THE CERTIFICATION LEVEL".

It will be fantastic. Don you Bob and others are really helping get the AF to rethink how to correct the State, National Listings.

Larry

[Re: Group progress of AF measuring group](#)

by **Will Blozan** » Tue Jul 23, 2013 11:16 am

Bob, The pith trace test works and should be used to weed the current list. I have no interest in multi-trunked trees out pointing the legitimate champions.

Don, The Tree-age system is a good idea provided the SINE based/pith trace determination is the final word, and is reflected back to the state level. This will really piss some state coordinators off but may in time inspire them to see the light.

How about the national champion paw-paw?



Really??? --- Will Blozan

[Re: Group progress of AF measuring group](#)

by **bbeduhn** » Tue Jul 23, 2013 12:12 pm

Wow, that paw paw shouldn't have even been nominated. How do they list something like that? Truly unbelievable.

I have a little comment on measuring certain spreading trees such as live oaks. It seems to me that this species in particular should be given full points for spread as opposed to height (or a different formula which takes into account excessively spreading, huge crowns). There are certainly other exceptions as well. Live oaks grown in open or semi-open areas are almost always larger by spread compared to height. Sorry to throw another wrench into things but they get short shrift in points, and as we know, there is tremendous volume in live oaks that doesn't get due credit from the AF formula.

Some other oaks are in the same category when open grown.

Brian Beduhn

[Re: Group progress of AF measuring group](#)

by **Will Blozan** » Tue Jul 23, 2013 4:10 pm

Brian,

TDI SYSTEM!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Bob, Don,

Any thought being given to the AF formula itself? Also, I like the lists that have multiple trees listed; largest, tallest, widest, and highest point total. This gives more opportunity for listings and would include the superlatives for height that we in NTS are so good at finding! This of course would be the perfect

basis for implementing the TDI system...

Will

[Re: Group progress of AF measuring group](#)

by **Matt Markworth** » Tue Jul 23, 2013 9:27 pm

Don,

Thank you for your replies, that information is extremely insightful and very much appreciated.

As these additional goals are uncovered, the next step is to drill down with more specific questions to begin to determine the best possible solutions to meet the stated goals. In this example dialogue that we have going, it's still too early to present recommendations. If there are answers to these more specific questions, then a proposal can be created with the confidence that it accomplishes the needs of AF and matches up with their stated objectives. At that point, there will likely be objections by some, however that is to be expected and provides another opportunity to explain how the proposal solves the issues that they are facing.

Here are some of the more specific questions I had in mind:

- Documenting these exceptional examples of big trees has served many purposes throughout the years and the program should be applauded for the various educational and conservation efforts that it has promoted. To ensure that the program continues this legacy and maintains support from tree lovers of all experience levels, are you open to requiring stricter standards of both technique and measuring equipment for the individuals that certify the measurements of the tree?

- Here are 10 examples of National Champions that

clearly have multiple stems at ground level (provide 10 of the most egregious examples) and their inclusion has been the biggest reason why more and more individuals have lost faith in the list and have stopped participating. This is also a major reason why the list cannot be relied upon by professionals for species comparisons. Are you open to tightening the standards so that these multi-stem specimens can be replaced by single-stem specimens, as long as a way can be found to recognize these impressive multi-stem specimens?

- In addition to the state coordinators, what are your thoughts on allowing properly trained individuals be involved with the certification process?

- Are any of the current guidelines completely set in stone and off the table entirely for discussion?

I believe that if answers can be obtained on the first set of questions and this second set of questions, then a proposal can be created that will be very agreeable to AF. If their answers are extremely rigid, then it's going to be an uphill battle to solve the major problems that everyone has been discussing.

- Matt

[Re: Group progress of AF measuring group](#)

by Don » Wed Jul 24, 2013 1:47 am

Thanks Matt for your time to comment! I'll respond further below, *in the body of your text*:

Matt Markworth wrote: Don,

Thank you for your replies, that information is extremely insightful and very much appreciated.

As these additional goals are uncovered, the next step is to drill down with more specific questions to begin to determine the best possible solutions to meet the stated goals. In this example dialogue that we have

going, it's still too early to present recommendations. If there are answers to these more specific questions, then a proposal can be created with the confidence that it accomplishes the needs of AF and matches up with their stated objectives. At that point, there will likely be objections by some, however that is to be expected and provides another opportunity to explain how the proposal solves the issues that they are facing. *Exactly Mark, we're now in the middle of the process trying to encourage forum members input, gathering the breadth of opinions, suggestions, ideas.*

Here are some of the more specific questions I had in mind:

- Documenting these exceptional examples of big trees has served many purposes throughout the years and the program should be applauded for the various educational and conservation efforts that it has promoted. To ensure that the program continues this legacy and maintains support from tree lovers of all experience levels, are you open to requiring stricter standards of both technique and measuring equipment for the individuals that certify the measurements of the tree? *Currently, simultaneously, AF has established two working groups to upgrade the Big Tree Program, one the MGWG (Measuring Guidelines Working Group) and the ESWG (Eligible Species Working Group). I'm an ex officio member of the MGWG, and as AF's Alaska Big Tree Coordinator, I have organizational insight to offer to the process. Bob and I are actively encouraging higher standards of 'technique and measuring equipment' and promoting national level expertise for national level champion tree candidacy. A similar team is working with the ever changing botanical scene in the ESWG.*

- Here are 10 examples of National Champions that clearly have multiple stems at ground level (provide 10 of the most egregious examples) and their inclusion has been the biggest reason why more and more individuals have lost faith in the list and have stopped participating. This is also a major reason why the list cannot be relied upon by professionals for species comparisons. Are you open to tightening the standards so that these multi-stem specimens can be replaced by single-stem specimens, as long as a way

can be found to recognize these impressive multi-stem specimens? *In a way, yes, although my suggestion will be to provide a logical progression that resolves the single- versus multi-stemmed issue. I will likely advocate for some means of lauding both the single-stem champs and the multi-stemmed champs, but I'm no where near knowing how that will take place.*

- In addition to the state coordinators, what are your thoughts on allowing properly trained individuals be involved with the certification process? *That's a pretty loaded question, eh? Whoever is involved at the national registry level, needs to have national level expertise, skills, equipment and methodology, to do the job proper. I'll be advocating that.*

- Are any of the current guidelines completely set in stone and off the table entirely for discussion? *In general, little is 'set in stone', although I think that AF will continue valuing the participation of the general public in the process, as much as possible, much as they have in the past.*

I believe that if answers can be obtained on the first set of questions and this second set of questions, then a proposal can be created that will be very agreeable to AF. If their answers are extremely rigid, then it's going to be an uphill battle to solve the major problems that everyone has been discussing. *There are members of this forum that have been involved in these issues longer than I, but very few longer than Bob Leverett. The fact that NTS has a small role in the MGWG speaks well for AF's willingness to address some of the issues we've identified over the years. I think you should feel optimistic. I do.*

Don Bertollette

Re: Group progress of AF measuring group

by **Don** » Wed Jul 24, 2013 2:11 am

Will

I'm like Ross Perot, I'm all ears! I wasn't a part of earlier Dendromorphology efforts (which is where I'm guessing TDI system is from?). Would you mind fleshing it out for us?

Re AF formula, we have given thought to the AF Formula, along with a list of bigger and smaller issues. What are your thoughts (like Brian's thoughts that Live Oaks should have full evenly weighted crown spread points?)? My current thinking that KISS probably rules (whatever we end up with, needs to be simple and equally applied across the board, I'd think).

Re how do we list the champs, single and multi-stemmed, that is a dog that don't easily get off the porch. We're working on how to properly deal with it.

Largest, tallest, widest and highest point total?

Hmm, define large (2D, diameter and height; 3D

volume based on circumference and height?). Or?

For those with computer skills, having a interactive database that allowed you to sort, based on height, circumference, crown spread would provide that. But not everybody is, as they say in Alaska, skookum on database manipulation, that would be the con there...

TDI, huh? You've captured my interest, brag on it some, will ya?

Thanks!

-Don

Re: Group progress of AF measuring group

by **Will Blozan** » Wed Jul 24, 2013 8:13 am

Don,

Several older posts are on the archived on the ENTS website. Any criterion could be used but for AF the standard three would be appropriate. The TDI does not weight any single attribute (like CBH), is independent of units (why does AF mix feet and inches?), and allows ALL trees to score on the same board. Here is the gist:

Tree Dimension Index

The Eastern Native Tree Society has proposed the use of an index with which to compare relative sizes of trees, both within the same species and against others. The index, named the Tree Dimension Index (TDI) is highly adaptable and can be tailored to reflect the attributes of an individual tree and how they compare relative to the largest known specimen. The premise is that the specific dimensions of the tree are given a value (percentage) that reflects its relative rank against the maximum known for the same dimension. For example, the tallest known eastern hemlock would get a value of 100 for height since it represents 100% of the maximum value known for the species. A shorter tree that was 75% of the maximum known height would get a value of 75 for its height. Likewise, the values of diameter and volume would be determined by the relative value when ranked against the known maxima. With three ranked attributes the maximum TDI value would theoretically be 300. However, this would represent one tree exhibiting all three maxima- an unlikely possibility. However, the apparent size of a tree can be realized by ranking the cumulative values against the theoretical maximum. A tree scaling close to 300 would suggest that it was nearly the largest specimen theoretically possible based on currently known maxima.

Will

Re: Group progress of AF measuring group

by **Don** » Wed Jul 24, 2013 10:27 pm

Will-

Thanks! I like it. To make it REALLY valuable, having a compendium of all species with their ACCURATELY measured maxima would be great. Currently I know of no known single listing that has accurately measured maxima, for all 772 eligible species. I'm not sure that even a collection of different list sources could do this. (OLD list not complete, AF's list is most complete, but has too many inaccurately measured maxima to be acceptable currently (but could get there within 9 years, if MGWG is successful!)).

If I read your post correctly, three fields would be tree height, girth, and crown spread, but there could be more fields in a TDI list, for example 'volume', one that I very much like, but recognize it's a challenge to accurately measure? Volume might be a way to find parity between single- and multi-stemmed trees, at least at the registry champ level?

Any ideas? It would be a list that would have to be constantly updated, perhaps workably on an annual basis?

I gather you're an advocate of no 'unweighting' of crown spread? There's a little bias both ways when you have both open grown and forest grown trees in the list?

Just brainstorming, I'd be interested in your comments!

Don Bertollette

Re: Group progress of AF measuring group

by **edfrank** » Wed Jul 24, 2013 11:27 pm

Don, I am a big supporter of the TDI concept. It is how I think the trees should be measured. However it is too drastic of a change and perhaps too conceptual for the AF to consider at this time. If you are going to rank trees by summing the physical measurements of three main parameters, then the current system is reasonable. No matter what you do there will be some trees helped and some trees hurt by the application of those particular criteria.

Remember as it stands it isn't just crown spread that is weighted. All three parameters are measured using different scales: Height= feet, Girth = inches, and CS = four foot segments. All of the parameters are weighted with respect to the others.

The problem I am most concerned with is the mixing of multitrunk and single trunk trees indiscriminately on the list. They are different growth forms and can't fairly be mixed. The pith test is easy to apply and straight forward. Sure there will be the exceptional cases where it is hard to tell if a tree has one or multiple piths at ground level, but these can be left to the judgement of the measurer and the discretion of the coordinator based upon photographs. An occasional mistake will not invalidate the entire list as does the present lack of any multi or single trunk distinction at all.

Bob, you should not deal with the question, nor even bring up the argument about whether a multitrunk tree is a single tree or not. That is a rabbit hole (Go ask Alice) that you don't want to fall down. Skip that completely. Make the argument that a champion tree is the one with the largest single trunk. Don't talk about shared root masses, genetic clones, functional single tree or separate trees. Those have nothing to do with the main proposition. Run away from these arguments and bring the discussion back to the primary point. A champion tree is the largest tree with a single trunk as defined by the pith test. No more no less.

Edward Forrest Frank

Re: Group progress of AF measuring group

by **DougBidlack** » Thu Jul 25, 2013 8:50 am

Will, all,

I've often wondered about the origin of the AF point system. I have no knowledge of who developed this system or how they did it but I'm going to provide my best guess. I've been growing quite a few trees in Michigan over the years and I try, unsuccessfully, to measure them every year. If I compare a tuliptree growing in the open to one growing in a woodland type of situation, the open grown one was putting on 2.5' of height growth per year and 3.5" of girth growth per year while the woodland grown one was putting on 3.5' of height growth per year and 2.5" of girth growth per year. In other words they are averaging 3' of height growth per year and 3" of girth growth per year. I doubt that this 12:1 ratio and the AF 12:1 ratio is a coincidence. The problem, of course, comes with the changing ratio as the trees age. Tree height growth slows fairly quickly and then reaches a plateau while the tree is still relatively young, but girth growth continues to power on, sometimes even picking up speed, and even after 100 or 200 years many trees can have a girth growth as high or higher then when they were young. This especially applies to open grown trees under good to excellent growing conditions and much less so for forest grown specimens. So it seems to me that somebody tried to apply a formula that appears to indicate that 1" of girth growth is about equal to 1' of height growth on young, fast growing trees to fairly old trees where the formula broke down many years earlier. I'm wondering what others think.

Doug

[Re: Group progress of AF measuring group](#)

by **dbhguru** » Thu Jul 25, 2013 10:59 am

Doug,

The 12 to 1 ratio is in the ballpark for some some trees that we monitor in MTSE, but not others. For example, the Jake tree grew at an average rate of .5 inches per year in girth over the last 21 years. Its height growth has averaged 0.8 feet per year over the last 21 years.

I expect we would get very different ratios for a wide range of big/old trees if we were conducting lots of independent tests.

Robert T. Leverett

[Re: Group progress of AF measuring group](#)

by **tsharp** » Thu Jul 25, 2013 11:43 am

Doug, NTS:

The first Maryland State Forester, Fred Besley (06-42), instituted a big tree contest in 1925. I believe he came up with the point system as it stands today. He was a protege of Gifford Pinchot and always looked for ways to engage the public. I believe the big tree point system as he designed it was a conscious decision to favor open grown trees because they generally were more accessible and the general public would better relate to them. In other words he was a good PR forester. The predecessor to American Forests took his idea over and went national with it in 1940 and kept his point system. Besley's grandson is a WV state legislator from the Eastern Panhandle of WV and finances a big tree contest in his district every year for the past five. He gives a cash prize and one year I had to help settle a dispute over a single stem vrs multistem tree. Of course I came down on the side of a single stem tree. There is a lot of info about Besley on the internet.

[Re: Group progress of AF measuring group](#)

by **M.W.Taylor** » Thu Jul 25, 2013 4:25 pm

I think there should be a list of both single bole champions and multi-stem fusion trees. In the case of many trees, they have basal sprouts that merge with the main trunk much later in life. This by no means dismisses the tree as being significant. But when you compare a multi-stem tree to a single bole giant in terms of volume, you are comparing apples and oranges. The champion tree list is partially a representation of volume.. i.e. the girth contribution which usually accounts for more than 50% of the total points. Therefore in order for the champion tree list to be consistent, there should be two categories for champion trees. Single bole and multi stem fusions.

Also, when determining height of a tree on a hill, I strongly feel the lower ground level and higher ground level should be averaged. This is more reflective of the total water column height the tree must draw to get water to its highest leaves. To consider a tree's height to start at high point of ground level is generally how a logger would approach tree measurement. That part of the tree which is round and suitable for log measurement and eventual harvesting at the mill.

Michael Taylor

[Re: Group progress of AF measuring group](#)

by **Don** » Thu Jul 25, 2013 6:30 pm

Michael-

I couldn't find a single flaw in your reply, although the manner in which the single- or multi-stemmed tree gets listed is currently up in the air...I personally believe that both forms deserve recognition, but

because they "are apples and oranges", they should be some how differentiated/credited/asterisked...this won't get settled overnight I'm thinking, but I'm optimistic that some solution will emerge that will pith off both side equally.... > }
-Don

PS:Knowing my age, its not surprising that my background in forestry goes back far enough that I've measured many, many, many trees standing on the top side, convenient twice because swinging a weighted D-tape or Loggers tape around a tall tree it just works better, and by the time you've left the tree, the duff/etc. has been smushed enough that you can better see the location for measuring height from. In earlier years, you allowed a foot from that, for stump height...then measured to a 4-6" commercial top. The stump was always left, and nobody worried about including a part of it in the measuring. Not saying it's right, just saying...

[Re: Group progress of AF measuring group](#)

by **JohnnyDJersey** » Thu Jul 25, 2013
10:29 pm

Wow, a lot of information I've just digested there. What a great read.

I'm my opinion two categories are a MUST when it comes to multi stemmed and single trunks. I don't think that big multi stemmed trees should be totally discounted. There are some amazing multi trunked trees that DESERVE recognition. That being said, I don't think they deserve to be champions. List them with an *. You can have two different trees of the same species, both the same size, and both with multi-trunks and still have one be way more impressive due to where and how the split takes place.
Also, mid-slope in my opinion is the only way to measure. I don't think that should be open to a debate.

John D Harvey

[Re: Group progress of AF measuring group](#)

by **Matt Markworth** » Sun Jul 28, 2013
6:06 pm

Hi All,

I reread my two posts on this thread and just want to add some clarifications that are displayed in (***BOLD ITALICS***). My purpose for posing these sample questions is to draw a comparison between the proposal that will be made to AF and a "sales proposal", if you will. My thinking is that a "sales proposal" starts with getting to know the goals/needs of your "customer" in depth. When the proposal is presented, the solutions can be tied back to the answers that were given and the "customer" will be much more receptive. I'm sure that these types of discussions have been going on, but I thought that some of these hypothetical open-ended questions may also help.

I believe that NTS measuring methods are far superior to anything else. The real challenge is coming up with creative ways to convince others, in hopes that they will see the value in accurately measuring single stems.

Here are some questions/requests that may help them (***AF***) contemplate/decide what they want to accomplish with the future direction of the list:

If some direction (***FROM AF***) can be uncovered on these major underlying issues, then the other members of the group (***THE PRINCIPAL MEMBERS AND ADVISORS IN THE MEASURING GUIDELINE WORKING GROUP***) will be willing to accept change. This opportunity may not present itself again for years to come and I hope that the current decision makers (***AF***) have the foresight to ensure that the list can serve both educational and scientific purposes that will benefit all involved.

(continued)

[Lin Hall grounds - Ohio University, OH](#)

by **tsharp** » Thu Jul 25, 2013 11:50 am

NTS: On a previous visit to the area I spied some interesting trees surrounding an interesting building on the Ohio University campus in Athens, Ohio. I had a chance to return on 12/28/2012 to measure some trees. After a circumnavigation of the building and measuring along the way the results are listed below with the heights arrayed in descending order.

Sweet Gum (*Liquidambar styraciflua*) 108.0' x 13.6' x 100.5' (maximum spread)

Eastern Hemlock (*Tsuga canadensis*) 106.6' x 11.3'

Pacific Silver Fir (*Abies amabilis*) 103.3' x 8.6' x 27' (maximum spread)

Yellow-poplar (*Liriodendron tulipifera*) 97.6' x 8.8'

Norway Spruce (*Picea abies*) 96.5' x 10.5'

Maidenhair Tree (*Ginkgo biloba*) 94.5' x 13.4'

Green Ash (*Fraxinus pennsylvanica*) 92.8' x 13.2'

White Pine (*Pinus strobus*) 85.4' x 10.4'

Shellbark Hickory (*Carya laciniosa*) 81.3' x 9.5'

London Plane (*Platanus hybrida*) 69.8' x 13.0'

Arborvitae (*Thuja occidentalis*) 50.8' x 5.2', 46.7' x 5.3'

Chinese Chestnut (*Castanea mollissima*) 36.9' x 6.5'

Two trees are on Ohio's big tree list. The Sweet Gum and Pacific Silver Fir.

The Rucker indices are: The RH10 = 93.6', RG10 = 11.2'

A complete list of trees measured can be found on the Trees database at:

<http://www.treesdb.org/Browse/Sites/1612/Details>

Below is a picture of the "interesting" building. It is presently known as Lin Hall in the Ridges section of the campus. The building is at 700' elevation and overlooks the Hocking River and other parts of the campus and the city of Athens.



In its earlier incarnation it was known as the Athens Lunatic Asylum and operated as such under more benign names until 1992.

The building was under construction from 1867 - 1874 and the 18 million bricks required were fired on site. It is 853 feet long. A landscape architect, Herman Haerlin of Cincinnati, Ohio was hired to design the grounds. He was a student of Frederick Law Olmsted of Central Park fame. Groundsman George Link carried out the original plan over a period of thirty years and it is likely some of the trees I measured were his efforts. Judging from older pictures it appears that much of the landscaping effort was along the river bottom and has disappeared because of highway construction and a major channelization of the Hocking River.

Sweetgum to the right of entrance to main part of the Lin Hall. The crown of this tree is visible to the right and towards the back of the first picture



13.6' x 108.0'

Pacific Silver fir. It appears the tree on the left lost one of its iterations and the one to the right had its top blown out probably as a result of the 6/29/12 derecho

Shellbark Hickory



9.5' x 81.3'



8.6' x 103.3' on left, 7.9' x #####

All pictures by Turner Sharp 12/28/2012 with occasional appearance of Tee Sharp- son.

Turner Sharp

[Re: Doodling in Math: Spirals, Fibonacci, and Being a Plant](#)

by **EMorgan** » Fri Jul 26, 2013 12:27 pm

You might also check out Design in Nature by Adrian Bejan. He's a giant in thermodynamics (Duke University) and has some interesting things to say:
<http://www.amazon.com/Design-Nature-Constructal-Technology-Organization/dp/0385534612>

[Iowa Big Tree Guy Conquers Colorado](#)

by **dbhguru** » Fri Jul 26, 2013 3:18 pm

Hi Folks,

I a write this, Mark Rouw is heading back in the direction of Iowa. He will check out a few more sites today, but then it is just sit back and enjoy his success. Mark has been an incredible asset to big tree hunting in Colorado. He's been coming out here since in the 1970s and knows a heck of a lot.

After I broke the white fir height record with a 132.5-footer, he found another at 136.0 feet. And there may be still another that he measured over 15 years ago that will beat 136.0 feet. He got 138.0 then. Monica and I ill check it out when we leave on Aug 2nd.

On Wednesday an outfitter took Mark up Hermosa Creek to rendezvous with a big Doug fir. On the way he confirmed another big pond at G = 12' 4" and H = 146.0 feet, roughly. The number of 12-footers grows. However, once at the Doug fir, his fear of disappointment disappeared.

Folks, it is huge. Girth = 17.0 feet, Height = 163.0 feet. It is one tree. Mark will have the full report when he gets back to Iowa. I expect that its volume will prove to be between 1400 and 1600 cubes.

Southwestern Colorado is big tree country, and tall tree country too. Here's an up-to-date list.

Species	Height	Confirmer
Doug fir	163.0	Mark Rouw
Ponderosa	160.3	Bob Leverett
Colorado blue	160.2	Bob Leverett
Englemann spruce	142.5	Bob Leverett
White fir	138.0	Mark Rouw
Southwestern white p.	127.0	Bob Leverett
Narrowleaf cottonwood	114.0	Bob Leverett

There is no doubt that there are taller Englemann spruce out there. I expect we'll eventually break 120 on cottonwoods of two and possibly 3 species. Next year, we'll have another rendezvous out here and maybe we can push the above numbers even higher.

Robert T. Leverett

[Re: Iowa Big Tree Guy Conquers Colorado](#)

by **Larry Tucei** » Fri Jul 26, 2013 4:18 pm

Bob- Wow 17' what a monster. Maybe next year I could see that one. I have no doubt that every trip at and around Hermosa Creek will bring in some new records. What a great place for large and tall trees! That's one heck of a list you have. Congrats.

Larry

[Re: Iowa Big Tree Guy Conquers Colorado](#)

by **dbhguru** » Fri Jul 26, 2013 5:06 pm

Will Blozan wrote: WOW! Can't wait to see the photos. I do hope to make it next year and break ALL the records ;)

Here is hoping. A WNTS rendezvous in Durango with Don, Larry, Mark, you, me, LTI representative, FS representatives, Great Old Broads Rep, etc., etc., etc. I would hope other NTS could make it. The possibilities are endless out here. Endless. Mark learned from a San Juan NF forester of a dead Doug fir that measures 18 feet around. No details on it.

Robert T. Leverett

[UPdate please](#)

by **pattyjenkins1** » Fri Jul 26, 2013 9:03 am

NTS:

In preparation for the Tree Climbing Rendezvous, it would be very helpful if this list were culled out for projects that are no longer active. Maybe everything is active, I don't know, but I'd like NTS to be able to present a current list of projects to which Rendezvous participants may be able to contribute. Also, if your project isn't here, please add it! Thank you.

Patty Jenkins

[Re: UPdate please](#)

by **Matt Markworth** » Fri Jul 26, 2013 6:30 pm

Hi Patty!

Here's the link to the Tree of the Week Forum, which contains the Tree Maximums List that I've been updating: <http://www.ents-bbs.org/viewforum.php?f=393> The spreadsheet and guidelines are included in the first post.

The goal of the list is to document maximums (height, girth, spread, volume) of tree species and builds upon the hard work that Jess and others have done in the past. I would be absolutely thrilled if a TCI member submitted a tree for inclusion on the Tree Maximums List! Tape drop, pole measurement, and the NTS Sine Method are all acceptable methods for height measurement.

Looking forward to October!
Matt

2013 Atlanta Champion Tree List

by **eliahd24** » Sat Jul 20, 2013 9:23 am

Hello NTS,

About a month ago I finalized and submitted the updated 2013 Atlanta Champion Tree List to Trees Atlanta. You can find the list attached to this post. I am the volunteer manager of the program and all submissions come to me (most come from me) and I then venture out verify species ID and take measurements. This year's list is a whopping 260 trees! Keep in mind that many species on the list go 3 or 4 deep (or more as with tuliptrees). This is sometimes because of their total points being so close, but also to have a deep pool of trees to choose from as champions die over the years... and we lost quite a few biggies in the last year along including the STATE champion Sweetgum and Northern Red Oak- both that were in metro-Atlanta.

A little backstory... When I first found this city champion tree list about 6 years ago I noticed many of the champions weren't all that big. Also many of the champ's were short, fat trees... tall trees were strangely absent. Finally, after learning tree measuring techniques from NTS, I realized that many of the trees on the list were mismeasured. The listing of a 176 FOOT TALL WHITE ASH was my first clue that these trees needed a second look (that tree is a state champion and is still on the list at 14' x 131', but no way it was ever near 176' tall). So... I approached Trees Atlanta with dozens of new nominations and they were so impressed that they asked me to take over the list! 6 years later, the list is about 5 times bigger than before with many more state champions than ever before.

Highlights of new trees added on this year's list include:

9' x 74' Eastern Redcedar- this is at an old homestead on Mercer University's campus
9' x 120' Pignut Hickory
14'9" x 77' Hackberry (this tree is taller, but I was not able to measure until after leaf out... didn't hit the top)
4'1" x 99' Persimmon
8'5" x 120' Shortleaf Pine (double trunk, but splits 6' up... probably not single pith, but not entirely sure)

10'6" x 125' Loblolly Pine (BIG bole that tapers little)
14' x 110' Swamp Chestnut Oak (old growth
floodplain forest hidden behind a wealthy n'hood)
7' x 78' Coastal Redwood (Will Blozan spotted this near the Tree Climber's International clubhouse while visiting this year)
6'8" x 122.6' Winged Elm

~Eli

 [atlantachampiontrees_2013.pdf](#)

Re: 2013 Atlanta Champion Tree List

by **DougBidlack** » Sun Jul 21, 2013 11:14 pm

Eli, I believe your hackberry is an NTS girth record.

Doug

Re: 2013 Atlanta Champion Tree List

by **eliahd24** » Mon Jul 22, 2013 8:25 pm

Doug- I hadn't even thought about that possibility!

I'm sure Jess or Will knows of a fatter one somewhere... maybe down in the Congaree, but I'd be curious to see how it stacks up regardless. This tree is in someone's front yard in the middle of Atlanta.

The trunk jams up so tightly against their front eaves that they've had to remodel!

[Re: 2013 Atlanta Champion Tree List](#)

by **Jess Riddle** » Wed Jul 24, 2013 6:16 pm

Eli, Great job with the list. That's a lot of concentrated measuring effort.

Without seeing the tree, my guess is that the Celtis is sugarberry (*C. leavigata*). Hackberry (*C. occidentalis*) is rare in Georgia. I believe the tree would still be a NTS girth record, though several years ago I did measure a Celtis in Kentucky (now mulch) at 15.5' cbh that was probably a sugarberry. The southern sugar maple (*Acer floridum*) looks like a height record.

Jess

[Re: 2013 Atlanta Champion Tree List](#)

by **eliahd24** » Fri Jul 26, 2013 8:04 pm

I've always wondered about *C. occidentalis* vs. *C. leavigata*. I suspect all the ones I've found around town are the same species, but even with my field guides it's very difficult to nail down which species. I'll go with Sugarberry if that's what you're thinking Jess.

I'll try to look at the maple again to confirm that it's *A. floridum* as well.

[Re: Tree Maximums - Genus of the Week: Carya \(Hickory\)](#)

by **bbeduhn** » Mon Jul 01, 2013 9:39 am

I'll try to get an update on the circumference of *carya laciniosa* at Biltmore and an exact figure for the really big mockernut I found there this weekend.

The shellbark was 93" c and 111.7' in 2004. It is 117.6' as of last year. The big mockernut is 119.6' and about 12' c (forgot my tape), much larger than the 121" on the maxlist.

[Re: Tree Maximums - Genus of the Week: Carya \(Hickory\)](#)

by **Larry Tucei** » Mon Jul 01, 2013 3:59 pm

Matt- Species (Scientific): *Carya illinoensis*
Species (Common): Pecan
Height (ft): 105'
CBH (ft): 18' 1"
Maximum Spread (ft): 150'
Average Spread (ft): 123.75'
Volume (ft³):
Site Name: Private
Subsite Name: Near Congaree National Park
County: Richland
State or Province: Ga
Property Owner: Rawls Family
Date of Measurement: Feb 2009
Measurer(s): Larry Tucei, Marcus Houtchings, James Parton and Randy Brown
Method of Height Measurement: Ents
Tree Name: Rawls Pecan
Habitat: Open Field
Notes: **South Carolina Co-State Champion**
Marcus Houtchings brought us to this Pecan after the Congaree gathering back in 2009. Larry



South Carolina State Co-Champion Pecan 2.jpg



South Carolina State Co-Champion Pecan 1.jpg

Are trunks in a multitrunk tree separate trees?

by **edfrank** » Mon Jul 22, 2013 11:34 pm

Are trunks in a multitrunk tree separate trees? How do different trunks in a multitrunk tree relate to each other?

This may seem a strange question, but it is an important one to answer especially when we are trying to determine how to measure and represent multitrunk trees in our tree listings. Multitrunk trees typically grow from a single root mass after the previously existing tree was damaged or downed. As such they are genetic clones of each other.

If you look at relationships between organisms, both plants and animals, in nature these can be broken down into a number of broad categories: mutualistic, parasitic, commensal, predator/prey, competitive, and a handful of other special cases. Are the separate trunks just different parts of one whole, or are they acting as independent trees growing in close proximity, or something in between?

I have brought up the question previously if trees growing from a pre-existing root mass is simply growing to the size it would have been if the original tree had not been lost. This idea was based upon the ideas of the Leonardo Da Vinci "The Da Vinci sequence viewtopic.php?f=143&t=3271 "Expressed mathematically, Leonardo's rule says that if a branch with diameter (D) splits into an arbitrary number (n) of secondary branches of diameters (d1, d2, et cetera), the sum of the secondary branches' diameters squared equals the square of the original branch's diameter. Or, in formula terms: $D^2 = \sum d_i^2$, where $i = 1, 2, \dots, n$. For real trees, the exponent in the equation that describes Leonardo's hypothesis is not always equal to 2 but rather varies between 1.8 and 2.3."

The question was does it work the same for trunks directly growing from the roots? I don't think this is the case. The sum of the branches above ground is limited by the size of the water/sap flowing through the trunk farther down. There would be some initial burst of growth because of the preexisting root stock

would not need to be regrown and all of the energy of the growth could be put into growing height and girth. This is the same thing that happens when grafting trees. There is not any evidence that would support the concept, and evidence indicates that the large multitrunk trees are often much larger than any single trunk trees for the species in a similar setting. So I must conclude at this stage that the size of the trunks are not directly related to the size of the initial root mass, nor of the original tree which was lost.

What do we know about multitrunk trees? 1) Often the primary trunks are of similar size, 2) they are both growing from the same root mass, 3) they are genetic clones with identical growth potential.

This is all mixed up with the idea of competition between trees. You can view all of these relationships as one of competition. You can even consider the relationship between branches to be competitive as branches are lost on the lower portions of the tree as light is being sucked up by higher level branches. It can be countered that they are cooperating as well because the upper leaves are more transparent than lower leaves and smaller. If it was all out war the upper leaves would be completely opaque and suck up all of the light they could. This is a degree of cooperation for the greater good of the whole tree. Trees send out chemical weapons to prevent the growth of nearby trees or sprouting of other trees in close proximity. But they also send out warning chemical signals to warn other trees of insect infestations so the other trees can build up their leaf poisons.

So how do trees fight among themselves? By limiting resources. Trees are primarily made up of air, which is unlimited. In many or most situations there is sufficient water that one tree is not stealing it all from other trees, soil nutrients are the luck of the draw of position and besides they are not a tool in tree warfare. That leaves light and chemical warfare between trees – allopathy isn't just for insects anymore. Presumably the chemicals being produced by the roots are not affecting the tree producing it, so the genetic clones would be equally unaffected by the chemicals used in the battle.

Light – if you look at trees we all know they have a distinct form associated with open growth where there is no competition for light. There are trees that are growing in the understory that are suppressed by the lack of light. Then look at a typical mature forest.

These are generally fairly open and often the group of trees of one species of similar ages are similar in size. There were hundreds of seedling and saplings that died off before growing to much size. These are lost from competition with other trees for light, maybe water when they are tightly packed, and perhaps alleopathy. In addition many are lost through simple attrition from other processes like browsing and insects independent of the competition with other trees.

Over time this more open arrangement is reached where the trees are fairly evenly spaced, but most notably often similar in size. Since they have had different individual histories, different positions in the forest, grew next to different trees, and so forth, why are they similar in size? The basic idea I would suggest is that outside of the extremes of suppression and open growth there is a range of light levels that all produce similar amounts of growth.

How does any of this apply to multitrunk trees?

They have a preexisting root system so maybe they avoided some of the early stand thinning processes.

So you have two or more trunks grown to a certain size. They continue to grow. They do shade each other to some degree, but they each get enough light to maintain approximately the same growth rate.

Each has essentially claimed a part of the original root system for themselves. Their growth parallels each other as they grow bigger. When trunks are lost at this stage, I don't think it is competition from the other trunk or trunks but generally other factors such as damage from wind, insects, and rot.

To sum up I am proposing that the multitrunk trees bypass the early thinning stages because they are growing from a preexisting root set. Each trunk claims a portions of that root system for itself and continues to grow. They are immune from the chemical alleopathy from the other trunks in the group. They by this time are large enough they can hold their own in terms of canopy and light gathering

for a fairly long term and will continue to grow. The loss of trunks at this stage I suggest is typically a result of other factors than direct competition from the other trunks. Each trunk is essentially a separate tree growing in close proximity or even pushing or impinging against each other. It becomes more complex if the trees fuse together in a way that allows sap to be transferred between trunks, but overall they are still separate trees growing in close proximity. The proposal is that they are genetic clones, but separate individuals even when they are juxtaposed into a massive clump.

Now everyone can pick this idea apart, but I wanted to suggest it and see if it leads anywhere.

Edward Forrest Frank

[Re: Are trunks in a multitrunk tree separate trees?](#)

by **Larry Tucei** » Tue Jul 23, 2013 4:33 pm

Ed- In some cases the trunks are separate trees and in other cases they are not. It depends on many factors as you have pointed out. Live Oak for example splits at ground level in some cases and forms one, two, three or more trunks but have the same root mass. In other cases they form trunks from 1' to as much as 10' above ground with the same root mass. They also can grow from clumps of trees and form trunks that have different root mass. They can fuse together over time and look like one trunk. It sometimes can be difficult to decide just exactly what type of example they are. Several tree species seem to fall into this category and these types of examples should be counted as such. We are all at NTS in agreement on this subject and glad you brought it up again.

Larry

[Re: Are trunks in a multitruk tree separate trees?](#)

by **edfrank** » Tue Jul 23, 2013 4:49 pm

Larry,

I think that while these trees growing from preexisting root masses are nominatively sharing a root mass, that in actual practice the preexisting root is partitioned into sections that serve only one of the trunks. So effectively they are separate trees. They should be treated as separate trees for measurement purposes. When they are fused into a giant mass they need to be treated as a multitruk tree.

Ed

[Re: Are trunks in a multitruk tree separate trees?](#)

by **DougBidlack** » Wed Jul 24, 2013 8:17 am

Ed,

what evidence is there that root masses are partitioned into sections to serve individual trunks?

And how good is this evidence? I feel that an organism resulting from one seed that happens to have several trunks and one, physically intact, root mass is a tree...a single tree with multiple trunks. I'm not even sure I would change my opinion if it is actually true that the root mass is partitioned. I guess I would always have the sneaking suspicion that the root mass may be partitioned in some ways but not others and that some species almost certainly have stronger partitioning than others. Identical twins in humans and other animals are, almost always, physically separate individuals. Naturally, this brings up 'Siamese Twins' and that wonderfully complicates things.

Doug

[Re: Are trunks in a multitruk tree separate trees?](#)

by **dbhguru** » Wed Jul 24, 2013 12:15 pm

Will, Ed, Don, Doug, et. Al.,

Understanding the nature of trees above and below ground across species will continue to challenge us.

Measuring the diversity if forms by an artificially simple process was always bound to present problems. When we try to dumb everything down to one size fits all, we should expect exactly what we have now. Dumbing down is what we do through the AF measuring procedure.

I give full recognition to the nobility of purpose for the register. It isn't the purpose or concept, but the execution. I don't think I could have done better job if crafting a single formula, had I been around then, but we do now have the benefit of 20-20 hindsight. To stubbornly hang on the the original design so that we keep everything artificially simple will, I fear, be our downfall. If AF will not entertain some form of official distinction between single and multi-stem trees and adopt a method (pith rule) to purge doubles, triples, etc.. I fear we will be left with a charter to produce some cosmetic changes, but nothing substantive. I am not saying that this is what will happen, but it very well could. This is why Don and I need every ounce of wisdom the rest of you can send our way.

Will,

I am not optimistic about AF throwing out the current point system in favor of TDI. However, the issue can be broached as a concept. My approach would be to ask others for their take on TDI and see what kind of responses we get. Then, take it from there.

Robert T. Leverett

Re: Are trunks in a multitruk tree separate trees?

by **edfrank** » Thu Jul 25, 2013 3:47 pm

Doug,

Excellent questions. I have no specific evidence of the partitioning of the root masses except some anecdotal accounts and some personal observations. That is why I tried to express this as speculative in nature, but I apparently did not make that point well enough in the post. it was not meant as a statement of incontrovertible fact. I was hoping somebody would post some specific citations of root function in multitruk trees or more personal observations.

Yes there is both some degree of competition and some degree of cooperation in these trees. What I am trying to see is if it is possible to characterize the individual trunk in a multitruk tree as growing more like it is a separate individual tree or more like it is a fork in a single organism. To what degree are resources being shared between the trunks? To what degree are the resources being hoarded by each individual trunk?

The section on the thinning process and loss of nearby trees through competition between trees was really trying to consider why multitruk trees retain multiple trunks instead of them being lost early in the process. Essentially I was arguing that even if they could be considered to be separate trees growing close together, many of the mechanisms for forest thinning might not be applicable to these trunks within the multitruk specimen. Even if they were acting as separate trees, the presence of an already developed root mass during the early growth stage and their not being subject to their own alleopathic chemical battles might allow them to persist to large size. The same likely would be true if they were acting more cooperatively as forks in a single tree.

I am trying to open up this discussion to more wild speculations on the nature of mutlitruk trees and see if it leads anywhere. So everyone consider this an invitation to brainstorm with whatever ideas, strange or not, you might have.

The Key to Science

<http://www.youtube.com/watch?v=qt7gPCioqTg>

This is a brilliant 60-second segment from one of Feynman's lectures where he talks about the key to science.

Re: Are trunks in a multitruk tree separate trees?

by **Will Blozan** » Sat Jul 27, 2013 10:12 am

Ed,

Separate- as regardless of biological or mechanical origin, the end result is a collective effort, not the result of a single individual.

I think you are right on in that the multi-trunked clumps are not subject to the same competitive pressures as closely spaced trees. Natural thinning of these clumps does occur but at a much slower rate (my take as an arborist observing trees for nearly 3 decades). All the more reason to never compare to single trunked trees.

Will

Re: Are trunks in a multitruk tree separate trees?

by **DougBidlack** » Wed Jul 24, 2013 8:59 am

Will,

every multicellular organism is the result of a collective effort.

Doug

Re: Tree Maximums - Genus of the Week: Carya (Hickory)

by **tsharp** » Wed Jul 03, 2013 11:32 am

Matt:

Here is a Shellbark Hickory nomination.

Scientific name: *Carya laciniosa*

Common name: Shellbark Hickory

Height: 90.4'

CBH: 146.1" or 12.2' taken at 4'

Crown Spread: Max. = 86.5', Average = 80.2'

Volume:

Site name: Sheppard Farm

Subsite:

Country: USA

State: West Virginia

County: Jackson



Property owner: Sheppard family heirs

Date of measurement: 11/20/2012 by Turner Sharp and Craig Minton

Method of measurement: Sine method using handheld Nikon 440 laser rangefinder and Suunto clinometer

Tree name:

Habitat: Tree located on bottom land in an open hay field

Notes: Tree was nominated to the West Virginia Big Tree register by John Fichtner in 2007

Re: Tree Maximums - Genus of the Week: Carya (Hickory)

by **bbeduhn** » Mon Jul 08, 2013 4:52 pm

Species (Scientific): *Carya alba*

Species (Common): Mockernut hickory

Height (ft): 119.6' in winter, but I just got 120.4' above eye level ~123'

CBH (ft): 11'9.5"

Maximum Spread (ft): ~75'

Average Spread (ft): ~70'

Volume (ft³):

Site Name: Biltmore Estate

Subsite Name: Arbor Trace Trail

Country: US

State or Province: North Carolina

Property Owner: Biltmore Estate (Cecil family)

Date of Measurement: 12/20/2012 for height , 7/6/2013 for cbh

Measurer(s): Brian Beduhn

Method of Height Measurement: sine/laser/clinometer

Tree Name: Old Hickory or Andrew Jackson

Habitat: next to small stream below small hill 50 yards from I-40

Notes: Still vibrant and putting on height but is being choked out by invasives, making spread measurement particularly difficult.



[Re: Tree Maximums - Genus of the Week: Carya \(Hickory\)](#)

by **bbeduhn** » Tue Jul 09, 2013 8:44 am

Will Blozan wrote: Are you sure that is not a bitternut?

Will,

The fruits are enormous. They certainly look like mockernut. I didn't pay attention to the leaves however as I was certain from the fruit.



Brian Beduhn

Re: Tree Maximums - Genus of the Week: Carya (Hickory)

by **Josh Kelly** » Tue Jul 09, 2013 10:29 am

Species (Scientific): *Carya ovata*
Species (Common): Shagbark Hickory
Height (ft): 146.6
CBH (ft): 10.6
Maximum Spread (ft): N/A
Average Spread (ft): N/A
Volume (ft³):
Site Name: Beaverdam Creek, Shady Valley TN
Subsite Name: Tributary of Fagal Branch
Country: USA
State or Province: TN
Property Owner: Cherokee National Forest
Date of Measurement: April, 2008
Measurer(s): Josh Kelly
Method of Height Measurement: Laser and Sine
Tree Name:
Habitat: Mixed Mesophytic Forest (Southern Blue Ridge Rich Cove & Slope Forest)
Notes: Localities around Holston and Iron Mountain have been explored very little by big tree hunters. There is good potential for other large specimens in the area.

Re: Tree Maximums - Genus of the Week: Carya (Hickory)

by **Matt Markworth** » Sun Jul 14, 2013 3:09 pm

Hi All,

Looks like this is the tallest confirmed Pignut Hickory. Here's Jess's original post . . .
http://www.nativetreesociety.org/fieldtrips/south_carolina/lee_branch.htm

However, an enormous pignut hickory growing on the edge of the bench in the southernmost cove is by

far the most impressive tree in the area . . . The lower trunk tapers from 13'6" at grade on the uphill side to 11'5" at bh, and remains just over 11' at six feet above mid-slope! Above that height, the tree extends another 74.0' to where the trunk forks and spreads into a crown spanning 63'. I took a total of five measurements to four different twigs from three different positions spanning about 120 degrees. The one twig measured from two positions yielded 167.8' and 168.2'! The other tops measured 167.1', 168.2', and 168.53'! Using 168.2' for the height, the tree has 321 big tree points!

This post has photos . . .

http://www.nativetreesociety.org/fieldtrips/south_carolina/brevard/brevard_fault_zone.htm

Species (Scientific): *Carya glabra*
Species (Common): Pignut Hickory
Height (ft): 168.2
CBH (ft): 11.41
Maximum Spread (ft): 68.6
Average Spread (ft): 63
Site Name: Sumter National Forest
Subsite Name: Lee Branch
Country: USA
State or Province: SC
Property Owner: USFS
Date of Measurement: 3/20/2004
Measurer(s): J Riddle
Method of Height Measurement: NTS Sine
Habitat: Forest, grows on the edge of a bench

- Matt

Re: Tree Maximums - Genus of the Week: Carya (Hickory)

by **Matt Markworth** » Sun Jul 14, 2013 4:54 pm

Hi All,

I'm especially pleased to put a tree measured by Colby Rucker on the Tree Maximums List. It's the 137.4' Sand Hickory in Belt Woods.

Brian – Thanks for going back and measuring that great Mockernut! I put down 119.6' as the height, but it sounds like it may even be taller. Let me know if you visit the tree again in winter and I'll update the height and spread.

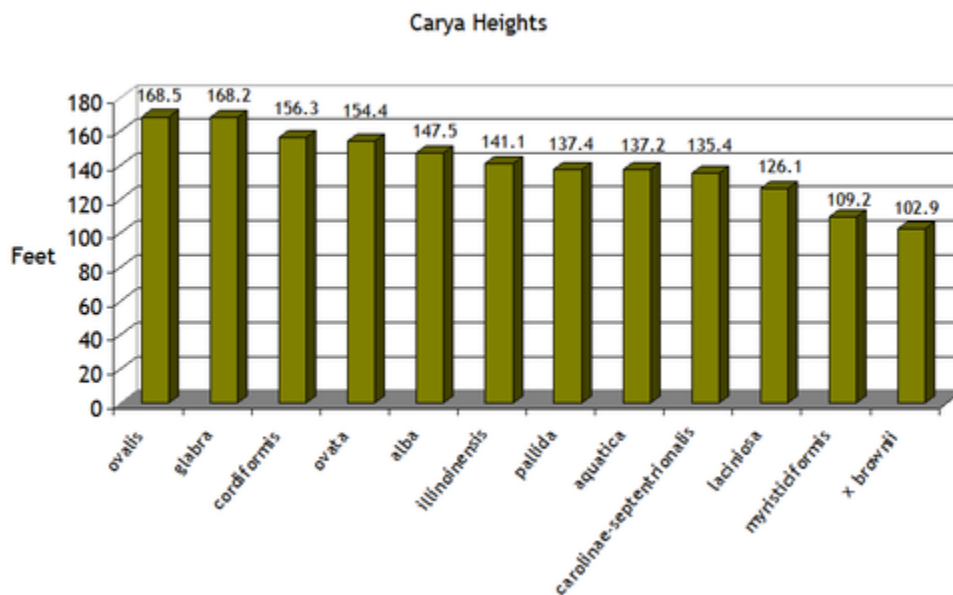
Larry – That Pecan is amazing! I entered it for Max Girth and Max Spread.

Turner – Nice Shellbark! I entered it for Max Girth and Max Spread. I bet there are some unknown tall Shellbarks out there as well.

Josh – That is one sweet Shagbark, I listed it under “Other Superlative Trees” on the Maximums List, which I think will be a good place to show the depth of impressive specimens that are out there.

James - I agree, Don Leopold's videos are the best I've seen.

Here are the Maximums Heights. I'll update the chart as additional Hickories are submitted over time.



Tree Maximums List: viewtopic.php?f=393&t=5221

- Matt

Re: Tree Maximums - Genus of the Week: Carya (Hickory)

by **bbeduhn** » Mon Jul 22, 2013 4:47 pm

The hickories have a Rucker of 147.2'! I doubt any other family could beat that, with the exception of the pines.

I have a late entry for girth, but it is clearly a multi-trunk individual.

Species (Scientific): *Carya cordiformis*

Species (Common): Bitternut hickory

Height (ft): 87.4'

CBH (ft): 13'10"

Maximum Spread (ft): ~70'

Average Spread (ft): ~60'

Volume (ft³):

Site Name: Fletcher Community Park

Subsite Name: near Cane Creek

Country: US

State or Province: North Carolina

Property Owner: Town of Fletcher, NC

Date of Measurement: 7/20/2013

Measurer(s): Brian Beduhn

Method of Height Measurement:

sine/laser/clinometer

Tree Name: Triple Bitter Stout

Habitat: next to stream

Notes: triple trunk. Resides with other bitternuts, walnuts, sycamores, cherries and river birch



[BHick.MOV](#)

[Re: Tree Maximums - Genus of the Week: Carya \(Hickory\)](#)

by **Matt Markworth** » Mon Jul 22, 2013 6:22 pm

bbeduhn wrote: The hickories have a Rucker of 147.2! I doubt any other family could beat that, with the exception of the pines.

I have a late entry for girth, but it is clearly a multi-trunk individual.

Brian,

That's an awesome idea! I hadn't thought of doing a Rucker Index for a Genus and the possibilities that exist for comparisons.

That is a sweet hickory, I haven't seen anything like it. This particular list is adhering to "Tree Measuring Guidelines of the Eastern Native Tree Society," which discusses the pith test and measuring the attributes of the target stem, but that is still an awesome specimen. Thanks for posting it and I love the idea of doing a Rucker Index for Genera!

- Matt

[Re: Tree Maximums - Genus of the Week: Carya \(Hickory\)](#)

by **KoutaR** » Sat Jul 27, 2013 2:09 pm

Is there perhaps a mistake either in the old maxlist or in the post Matt linked in the message # 10? The tallest *C. ovalis* in the maxlist is 168.5 ft, which is exactly the same height as the tallest twig of the *C. glabra* in the 2004 post. The spreads are identical as also the site (Lee Branch). Which one is correct?

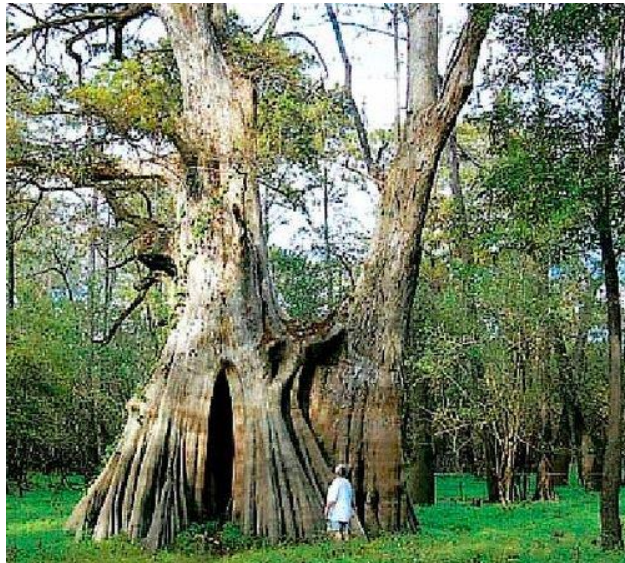
Kouta

[So-called Champion Baldcypress - Please Vote](#)

by **dbhguru** » Mon Jul 22, 2013 12:35 pm

Hi Folks,

Can I get your feedback? Here is an image of the National Champion bald cypress. How do you vote? What are your thoughts?



What rules would you advocate to exclude forms such as this from being treated as legitimate contenders. Please I need to hear from the many, not just the few. There is a strategy at play.

Robert T. Leverett

[Re: So-called Champion Baldcypress - Please Vote](#)

by **lucager1483** » Mon Jul 22, 2013 1:28 pm

Bob, That's an interesting tree, but probably not one I'd bother to go out of my way to visit. From this angle at least, this thing is obviously two individual

trees joined at their respective bases, which don't even flare out on similar planes; coppiced, low-branching, and even many hard-to-classify multi-trunked trees will appear as one specimen at or near ground level. This one can't make that claim. As far as good rules to follow in these types of situations, I really like Ed's approach and this recent thread on the multi-trunk subject <http://www.ents-bbs.org/viewtopic.php?f=235&t=5319>.

In my personal experience, I've been disappointed several times when visiting so-called "champion" trees. I don't remember ever being let down by an NTS-championed tree, and I think this is one proof of the group's value both to science and the general public.

Elijah

[Re: So-called Champion Baldcypress - Please Vote](#)

by **Larry Tucei** » Mon Jul 22, 2013 4:14 pm

Bob- Maybe this Baldcypress would be the Multi-Trunk champion. The tree has two large trunks that over time have fused together. I can't say for sure from the photo but it appears to have had the top blown out and has new limb growth. Not a Single Trunk tree but a fused two into one tree. Where is this tree?

Larry

[Re: So-called Champion Baldcypress - Please Vote](#)

by **bbeduhn** » Mon Jul 22, 2013 4:25 pm

Bob,
It's ridiculous! They don't even share the same flared base. I'd be slightly more forgiving if they were

conjoined better, but if they were regular, straight trunked trees, they might not even be touching each other. This and the National Champ sycamore are ludicrous as champion trees. Someone could bring up the example of the Tule tree, but at least that Montezuma cypress is fully conjoined, however it wasn't always so. That tree has skirted multiple definitions over the centuries. The baldcypress is clearly not in that league. It is a curiosity...but not a champion.
Brian

Re: So-called Champion Baldcypress - Please Vote

by **tsharp** » Mon Jul 22, 2013 5:02 pm

Bob
It is a legitimate contender for a multi-stem tree.
Don't exclude it -just call it what it is.
By any chance is that the tree that was evaluated with DNA samples from both trunks to prove it was genetically one tree and displaced the "Senator" on big tree lists? It is beside the point if it is genetically one tree- the Pith Rule works!

Re: So-called Champion Baldcypress - Please Vote

by **dbhguru** » Mon Jul 22, 2013 5:42 pm

Ed, Indeed, I know your position, but what I'm thinking of is collecting all the individual opinions and presenting them to the group without identifying the sources. So, any fresh thoughts you have need to be heard. They may be just you commenting on the inputs of others, but that's fine too. I hope we can keep this discussion going and perhaps we will figure out how to thread the needle on the more difficult calls. The cypress seems to be an easy one.

But if there is doubt, should the benefit of doubt go to the tree? I am thinking of some of the cottonwoods that appear to have coppiced near the base, but are legitimately one tree.

Turner,

The problem that we presently face is that AF is reluctant to have two lists or even put asterisks by trees like the baldcypress. This position may change. I'm going to lobby hard to get AF to have a change of heart. I think that is the tree that was DNA tested, which raises interesting questions about clones. I'm thinking of aspens that are clonal and have separate, but touching trunks above ground.

Elijah, Larry, and Brian,

Thanks. Now here is a question. Suppose AF will only list one champion, and furthermore, will not specially identify multi-stemmed trees as a special class - no asterisks. If so, how would you treat the tree: try to infer what is the trunk of the larger and measure it by some process? Ignore it altogether? Etc. Ed, here is a place I hope you'll weigh in. I need to have a plan for every contingency. This is going to be a thorough vetting of the possibilities.

Bob

Re: So-called Champion Baldcypress - Please Vote

by **edfrank** » Mon Jul 22, 2013 6:53 pm

Bob, I have a contingency plan. It is to ignore everything on the American Forest Registry and do my best to eviscerate their lack of standards at every opportunity. I have been among the most supportive of the American Forests efforts, and have countered arguments about the problems with height measurements by pointing out the purpose was to get people involved with tree measurement. But any meaningful activity, even if the meaning is just

recreation, has to have at least some minimal standards, and lumping multitrunk trees with single trunk trees would result in an activity without any standards at all. I could not be an apologist for the program any more.

As for measuring the larger of the two trunks, you could measure the diameter of the root flare using a reticle or photo method and infer a girth based upon that diameter. It is pretty clear where the extent of the roots for the trunk on the left extend.

Ed

[Re: So-called Champion Baldcypress - Please Vote](#)

by **DougBidlack** » Mon Jul 22, 2013 7:32 pm

Bob,

Ed just perfectly summed up why I have not weighed in up to this point. I don't care. They are simply irrelevant and I much prefer thinking about trees and moving things forward rather than constantly going back to points that are simply a non issue for us.

Most people are reasonably intelligent and if they look at our ideas, arguments and evidence then they will side with us. AF can join us or wither and die. I am not saying that you and Don and others are wasting your time for trying to get AF to see the error of their ways, I'm just saying that I don't have the type of patience that you guys have for dealing with people that are unwilling to change even when they are clearly wrong.

Doug

[Re: So-called Champion Baldcypress - Please Vote](#)

by **Will Blozan** » Mon Jul 22, 2013 10:17 pm

Great comments folks!

The consensus is clear- two trees and a farce champion like the OH sycamore and many others. AF asked me to visit and measure this tree as well as the now dead Senator Cypress to see which was "bigger". I refuse to waste their money on the trip and did not go for the reasons stated so well in the above posts. The Senator (may it rest in peace) was by far, and I mean by FAR!, the legitimate champion in every conceivable way than that fused turnip.

AF listed that tree based on a genetic test. Yet they won't list the Sag Branch Tuliptree as a champion based on volume (as they do with western species).

Will

[Re: So-called Champion Baldcypress - Please Vote](#)

by **bbeduhn** » Tue Jul 23, 2013 9:12 am

Bob,

As far as what I would recommend on such a tree, simply do the best measuring possible, guesstimating girth, taking pictures and have a professional hit the field and do it right. I know that's beyond my ability to do solo but I could certainly get a fairly good estimate. Most people do not have reticles and do not carry tripods either.

With enormous tapers, the numbers are skewed for girth. A baldcypress growing on land that almost never sees flooding couldn't compete with one that grows in a natural floodplain. A truer girth would be above the taper, but that presents other problems and also gives the tree short shrift because it may be 15 feet up the trunk. I guess that's a different discussion.

At what point would we make the call on a tree that appears to be fused but has little evidence of the fusion? If it is well rounded, like a recent cottonwood discussion, with apparent seams in the bark, but not an obvious fusion, how high up would the fusion need to be? If it were at a great height, say 30 feet or so, I would be more inclined to accept it as a single.

The bottom line is we do need certain standards. There will be trees that do not fit those standards. There must be some degree of flexibility with any standards and some cases will come down to a judgment call involving AF judges.
Brian

[Re: So-called Champion Baldcypress - Please Vote](#)

by **Jess Riddle** » Wed Jul 24, 2013 11:32 pm

Bob,

Clearly two trees, and therefore not a valid entry for a list that also contains single stem trees. The pith test would clearly identify this nomination as multi-stem.

Trees like this are what kill the recreational value of the big tree list.

Jess

[Re: So-called Champion Baldcypress - Please Vote](#)

by **JohnnyDJersey** » Thu Jul 25, 2013 10:01 pm

Will, I couldn't agree more. I have a problem with "turnip" trees being champions at all or considered among the biggest. The Senator was far larger than anything out there today.

As for the question, any big multi stemmed tree should always be listed with an * by it. If fused trees and multi stemmed trunks are considered champions then why not the "Screaming Titans" or the "Boy Scout Tree" being the champion Redwood? That being said, isn't the "Lost Monarch", the current Redwood champ also some form of a multi stemmed tree?

John D Harvey

[Re: So-called Champion Baldcypress - Please Vote](#)

by **gnmcmartin** » Sat Jul 27, 2013 3:03 pm

Bob:

I have always been uncomfortable with how trees are measured, and what kinds/forms are considered as the largest. Not only is this two trees--that is completely obvious to me--but I am uncomfortable with measuring the girth of trees around what is also obviously an unusually large trunk/root flare. Of course, our specialty, the height of trees, is much more clear-cut.

I am unimpressed with trees that are considered especially large because of some special individual growth form. Some kinds of trees typically, or commonly have "swollen bases," or exaggerated trunk/root flares, so I would think that could be considered in the measurement and ranking of such trees. But with some other kinds of trees, these exceptionally large bases are not typical--are the result of some injury, infection, or special growing environment, and therefore should not be considered.

To put it as simply as I can, I would like, for each species of tree, to have some "normal" or "typical" form established, and then measurements taken at points that reflect that typical form. Often a guideline used is that the circumference of a tree should be measured at 4.5 feet above the ground. Well, that doesn't work for giant sequoias, where often at 4.5

feet you are simply measuring around a large basal "flare" or whatever it should be called, or maybe even a root itself. I believe there is a point with such trees where the flaring of the trunk into the root collar begins, and measurements should be taken at that point.

With the baldcypress tree pictured, the "flare" extends upward very high. Higher than I think is typical for the species. Measured where I think this tree "should" be measured, I would not consider it especially large.

Another special problem with baldcypress is they often grow in water. So, with a water level which can rise and fall, where--or when--do we measure? At a low water level, more of the basal flare may be exposed above the water line.

But, implementing my idea here for some more "fair" or "true" way to measure, and deciding what to measure and what not to measure, would not be easy. First, it would have to include an analysis to determine what is typical, and not simply some "freak" aspect of growth. Then, It could also be difficult to determine exactly at what point a trunk should be measured, based on where a "flare" begins. Perhaps some mathematical formula could be used, but then the same formula might not be equally appropriate for all species. And I can imagine that there would be other complications.

Ultimately, it may not be possible to have any "regularized" or universally applicable "fair" system of measurement for things as fundamentally irregular and diverse as trees are.

But, obviously, considering this baldcypress as a candidate for the largest of its species makes absolutely no sense to me. Not only because it is two trees, but also because of the unusually large basal flare.

--Gaines

[Re: So-called Champion Baldcypress - Please Vote](#)

by **edfrank** » Sat Jul 27, 2013 3:40 pm

Gaines,

I would say that the girth and height should be referenced to the ground surface or swamp bottom in which the tree is growing. The water may go up and down, but the supporting surface upon which the tree is growing is constant. The species like bald cypress will have unusually large girths because of the buttressing at their base. The buttressing extends up the tree to different heights in different trees and has a different amount of flare in trees of comparable diameters above the flare. It would be an improvement if the girth were to be measured above the flare, but even that will not yield a uniform comparison. Such measurements would be an improvement, but would not be perfect. Rather than reinvent the process for each different species at the AF public participation level, I personally would be satisfied with a measurement 4.5 feet above ground/bottom level and just be aware that these girths are inflated.

Edward Forrest Frank

[New 108.5 meter redwood in HRSP](#)

by **John Montague** » Fri Jul 26, 2013 5:10 pm

I recently discovered a new tall redwood in HRSP, which I have named "Eclipse". I performed a tripod survey with an Impulse 200LR and prism pole. The survey revealed this tree to be 355.98 feet or 108.5 meters. The tree is located in Humboldt Redwoods State Park, and it was mysteriously absent from LIDAR's hit list. Note the attached picture. Eclipse has the unique feature of a neighboring trunk that leans into Eclipse and then wraps itself around the upper trunk.

Michael Taylor is credited as co-discoverer of this tree. While he was not present for locating and measuring the tree, it was Michael's LIDAR research that directed me to this particular patch of forest in HRSP.



[Re: New 108.5 meter redwood in HRSP](#)

by **M.W.Taylor** » Sat Jul 27, 2013 3:41 pm

John, you are the Tree Detective. Thanks for finding this unknown 350' class redwood and measuring it accurately with the Impulse200. Your height figure is

consistent with the LiDAR return + a few years of growth. I need to update my tall trees list with Eclipse included. Amazing this tree was not noticed before.

Michael Taylor

[Re: Tasmania's 10,500-year-old stand of Huon Pine](#)

by **JustinBrown** » Thu Jul 25, 2013 3:57 am

Wow! What a beautiful tree. It is such a miracle!

[Re: Tasmania's 10,500-year-old stand of Huon Pine](#)

by **Don** » Thu Jul 25, 2013 7:50 pm

I guess beauty is in the eye of the beholder! In my read and viewing of the video, I felt like I needed more than the claims made there, and hope to contact "the scientists..." that the narrator referred to.

For one thing, they mentioned a 3500 year dendrochronological match which is a fairly solid way of proving continuous occupation, but in fact, not one had all those years intact. There was reported to be another kind of pine that was a 1000 years old, presumably based on increment boring evidence. I think the recent (in the big picture, less than 50 years I'd say have folks been talking of aging clones, which at best are estimates/extrapolations) spate of clones need to compete with each other, and separately from living trees. You know, like apples and rutabagas...

Don Bertolette

Rucker Index for a Trail - How wide?

by **edfrank** » Sun Jul 28, 2013 1:19 pm

NTS, Recently Brian Beduhn has been posting on the Rucker Index for the Mountains-to-Sea Trail viewtopic.php?f=106&t=5040 The Mountains-to-Sea Trail (MST) is a long-distance trail, for hiking and backpacking, that runs across North Carolina from the Great Smoky Mountains to the Outer Banks. The trail's western endpoint is at Clingman's Dome. 530 miles of trail has been designated as a part of the MST by NCDPR.

This is a great project. It caused me to wonder when defining a Rucker Index for a trail, what should it include? Should it include only those trees within a certain distance of the trail? Or should it be defined differently? If it were to be trees within a certain distance, what should that distance be?

Robert Leverett wrote:

"I agree that to be included in the Rucker for a trail, we need a limiting distance. I propose a distance of 200 feet either side. I would even go 250, but not more."

viewtopic.php?f=106&t=5040&start=10#p24710
July 28, 2013.

I have also been thinking about how we talk about other linear features. For our Clarion River RI and for our Allegheny River RI we are generally just including the river and its floodplain within the index. For smaller scale streams a good basis for RI purposes might be a drainage basin. For something like the Blue Ridge Parkway the corridor would include the federally designated parkway area and facilities, the adjacent state parks, and perhaps the broader idea of the forests on the ridgetop where the parkway runs.

What do you think about what should be included in a trail?

Edward Forrest Frank

Re: Rucker Index for a Trail - How wide?

by **edfrank** » Sun Jul 28, 2013 1:30 pm

Bob,

I am somewhat surprised you have taken such a conservative approach to distance from the trail. Out of curiosity I took my Laser rangefinder out into the brushy second growth forests behind my home. In general I found the farthest trees for which I could clearly see the basal portion of the trunk were about 60 yards away, with occasional ones as far away as 80 yards. This would represent the distance away from the trail where a large trunked tree could easily be seen. This does not include the views from overlooks or unusual open areas, or a canopy far off into the distance, but those trees where you could see the lower portion of the trunk (not necessarily the base) from the trail. In areas of older growth forest, or of bigger trees, the sight distance would be longer.

For something like the Mountains-to-Sea Trail, I could see arguments for distance of say a quarter mile being considered, or perhaps practical line of sight through the forest from the trail. The latter would be variable, but in general would be in the range of 200 to 500 feet.

Brian, this is your project, what are your thoughts on the matter? Will Blozan?

Edward Forrest Frank

Re: Rucker Index for a Trail - How wide?

by **dbhguru** » Sun Jul 28, 2013 1:55 pm

Ed, my distance was motivated by a consideration of accessibility to hikers. Too far away and even though the tree might be visible, it would not be very

accessible to most hikers. If we're talking about an ecological corridor, then the longer distance would make sense, and that is the more valuable consideration. I hereby abandon my earlier number.

Robert T. Leverett

[Re: Rucker Index for a Trail - How wide?](#)

by **dbhguru** » Sun Jul 28, 2013 5:21 pm

Ed,

Lots of named trails have big trees easy visible to travelers. In some cases, it makes sense to bring attention to those trees. The Hermosa Creek Trail here in western Colorado is an example. The Mahican-Mohawk Recreational Trail in Massachusetts is another. The Rivulet Trail in the Bryant homestead is a third. The trees visible within 200 to 300 hundred feet either side of these trails are worthy attributes, but unless it weren't for NTS, they would not receive much attention or importance. Since we specialize in height measurements, it occurred to me that we could sponsor trail competitions. Just a thought.

Robert T. Leverett

[Dakota Dunes, SD](#)

by **Jess Riddle** » Sun Jul 28, 2013 3:06 pm

Alternative title: yes, there are trees in South Dakota

Separated from Iowa by the Big Sioux River and from Nebraska by the Missouri River, Dakota Dunes, a residential development, occupies the extreme

southeastern corner of South Dakota. The smaller houses have manicured yards with recently planted trees, the larger homes are nestled in a mature cottonwood forest, and the end of the peninsula formed by the two rivers has been left as a public park. Among the dozen floodplain sites I have visited in southeastern SD, the park stood out as unusually productive.



Main path through forest with tallest tree measured in center

The roughly 40 acre forest also supports unusually high tree diversity for the region, though the dense canopy limits herb diversity over most of the site.

Mature cottonwoods form most of the overstory, but box-elder and green ash dominate some areas close to the Big Sioux. Box-elders and green ash also combine with white mulberry to form the midstory while the understory varies from sparse to dense rough-leaf dogwood. Much of the herb layer has been taken over by the invasive lion's tail, but white

snakeroot and Pennsylvania pellitory are also common.



Canada thistle at edge of forest



8'5" x 69.6' box-elder

Rough-leaf dogwood is one of the most abundant species in riparian forests along the middle Missouri River, and commonly forms a continuous shrub layer.

Individuals over a foot in circumference are rare, half that size being the norm, and the tree at Dakota Dunes is by far the largest I've seen.

Species	common name	cbh (in)	height (ft)
<i>Acer negundo</i>	Box-elder	101	69.6
<i>Cornus drummondii</i>	Dogwood, Rough-leaf	20	26.1
<i>Fraxinus pennsylvanica</i>	Ash, Green	51	81.5
<i>Fraxinus pennsylvanica</i>	Ash, Green	56	79.7
<i>Populus deltoides</i>	Cottonwood, Eastern	138	117.5
<i>Populus deltoides</i>	Cottonwood, Eastern	119	119.4
<i>Salix amygdaloides</i>	Willow, Peachleaf	72	76.2
<i>Salix amygdaloides</i>	Willow, Peachleaf	56	80.5

Dakota Dunes measurements.



1'8" x 26.1' rough-leaf dogwood

These cottonwoods are likely among the tallest trees in South Dakota, unless conifers in the Black Hills grow taller. These trees experience longer growing

seasons and more rainfall than cottonwood elsewhere in the state. The only stand with trees I've seen with trees of comparable height is on the Missouri River about 30 miles to the northwest.



Cluster of cottonwoods with 11'6" x 117.5' tree on the right

Has anyone else measured rough-leaf dogwood or peachleaf willow? These are the only ones I know of measured by NTS.

Unmeasured species at the site include European buckthorn, northern catalpa, bur oak, black walnut, white mulberry, and silver maple; catalpa, walnut, and bur oak are all represented by only one or two individuals. Mulberry reaches at least 60', walnut around 70', and silver maple about 75'.

Jess Riddle

[Re: Dakota Dunes, SD](#)

by **edfrank** » Sun Jul 28, 2013 3:23 pm

Jess, NTS,

Here is a listing of the current state champions in South Dakota:

<http://sdda.sd.gov/conservation-forestry/big-tree-register/>

<http://sdda.sd.gov/conservation-forestry/big-tree-register/current-list/>

The list is dominated by street trees and yard trees with fat girths. There are photos for most of the champions. I bet you could get state records for many species. There also is only a limited number of species on the list, including many exotics, so for some species any decent sized tree would be the new champion because it is the only one on the list.

Edward Forrest Frank

[Re: Dakota Dunes, SD](#)

by **DougBidlack** » Sun Jul 28, 2013 5:32 pm

Jess,

I haven't yet measured any rough-leaf dogwood but it is very common in the metroparks along the lower Huron River in Michigan. The largest there are probably slightly taller than the one you measured but I'm not sure that I've seen any that were fatter. I was planning to measure this species this Winter so we'll see. There are also peachleaf willows of good size in southeastern Michigan but the measurements, as you know, are highly suspect. One is supposedly 112' tall and has a girth of 61". The girth seems reasonable and if we use the 3/4 rule for the height this would put the tree at around 84' which may actually be in the ballpark. I'll have to check out this tree and measure it.

Doug

[How Fire Can Restore a Forest \(TIME LAPSE VIDEO\)](#)

by **edfrank** » Thu Jul 25, 2013 5:25 pm

How Fire Can Restore a Forest (TIME LAPSE VIDEO)

Written by Rich Reid

Published on July 24th, 2013

<http://blog.nature.org/conservancy/2013/07/24/how-fire-can-restore-a-forest-time-lapse-video/>

"I found myself in this beautiful old-growth forest on a unique mission: document the changes of a controlled burn using time-lapse photography. The Conservancy has been using controlled burns as a method to restore native habitats and control invasive plants for over 50 years on their lands. My assignment sounded simple enough... what could go wrong?"

http://www.youtube.com/watch?v=cMUnFyz_8mM

<http://www.youtube.com/watch?v=SoQA6gGEyLg>

[Re: How Fire Can Restore a Forest \(TIME LAPSE VIDEO\)](#)

by **Don** » Thu Jul 25, 2013 6:16 pm

Ed-

This is a good introductory approach to educating the public. I'm all for it! Good find!

-Don

[Re: How Fire Can Restore a Forest \(TIME LAPSE VIDEO\)](#)

by **Joe** » Fri Jul 26, 2013 8:23 am

I love time lapse videos- they're VERY trippy. By coincidence, I watched several this morning before reading this thread- the first 2 are of constructing wind turbines, the 3rd is construction of a solar "farm" on a commercial roof in Boston. It's now my mission in life of producing time lapse videos of silvicultural work!

<http://www.youtube.com/watch?v=f6quIrljEbg>

<http://www.youtube.com/watch?v=BhwSkSO1Yz8>

<http://www.youtube.com/watch?v=e-RD18U3-OE>

I also intend to do some videos of Bob Leverett measuring trees- I've done a little of that already.
Joe

[Re: Big Oaks in New York](#)

by **lucager1483** » Sun Jul 28, 2013 10:25 pm

Hey Tom,

I must have missed this post when you first wrote it.

I enjoy seeing the giant white oaks in North Syracuse and the surrounding area. Route 11 has a number of impressive lawn trees, as do Buckley Rd. and Old Liverpool Rd. If you're including Wayne and Cayuga counties in your listing, I'd like to add the 20'3" northern red oak on Howland's Island. The tree is growing in a forest setting, but probably was relatively open-grown before the 1930s. Like your white oak, it's likely less than 200 years old and has put on mass at a rapid clip. The best height I've measured is a bit over 99'. Take it easy.

Elijah

[Re: Howland's Island](#)

by **lucager1483** » Sun Jul 28, 2013 11:35 pm

NTS,

Just an update on Howland's Island. I've been making trips out there over the last couple of years, trying to get as complete a picture as I can of the superlative trees calling this chunk of soil their home.

I've not yet explored every inch, but that is my long-term goal. So far, I've documented measurements for 41 tree species, 35 naturally occurring and 6 planted.

Of the 6 clearly planted species, two (Scots pine and Norway spruce) are not native.

The tallest species measured is (what else?) tuliptree, a straight-up laser shot at 129'. This tree is likely in the mid-130s, and several nearby specimens are in the 120-130' range. The shortest species on my list right now is hophornbeam, at 42.1'. 17 species at least 100' in height have been documented, and 21 over 90'. Between Jess Riddle's and my measurements, the Rucker Index for the Island now stands at 118.26'.

As far as girth goes, the fattest (and my personal favorite) tree is a northern red, at 20'3". The fattest of the skinny trees is a chinkapin oak, at 28". Ten species come in at 10'+, and another seven are over 100". The Rucker10 girth index now stands at 12.79'.

As Howland's Island is a favorite spot for mosquitoes and flies during the warm months, I'll probably not be out there again until fall. Looking forward, my main goals are:

1. Confirming a tree over 130'
2. Finding a 100' and/or 10' cbh yellow birch
3. Locating American chestnut on the Island.

Hopefully I'll have more to share in a few months.

Elijah

[Re: Howland's Island](#)

by **dbhguru** » Mon Jul 29, 2013 12:48 am

Elijah

Really great stuff! I love to see us get a solid handle on sites and your and Jess's measurements have done that for Howland Island. I've passed through the general area a dozen and a half times, but never knew what was lurking in the wetlands. Now I know.

Robert T. Leverett

[Rucker Index for a Trail - How wide?](#)

by **edfrank** » Sun Jul 28, 2013 1:19 pm

NTS,

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Edward Forrest Frank

[Re: Rucker Index for a Trail - How wide?](#)

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Edward Forrest Frank

[Re: Rucker Index for a Trail - How wide?](#)

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Robert T. Leverett

[Re: Rucker Index for a Trail - How wide?](#)

by **edfrank** » Sun Jul 28, 2013 2:05 pm

Bob,

I am not sure what we are talking about or what we mean by a trail Rucker Index. That is what I am trying to figure out.

Ed

[Re: Rucker Index for a Trail - How wide?](#)

by [dbhguru](#) » Sun Jul 28, 2013 5:21 pm

Ed,

Lots of named trails have big trees easy visible to travelers. In some cases, it makes sense to bring attention to those trees. The Hermosa Creek Trail here in western Colorado is an example. The Mahican-Mohawk Recreational Trail in Massachusetts is another. The Rivulet Trail in the Bryant homestead is a third. The trees visible within 200 to 300 hundred feet either side of these trails are worthy attributes, but unless it weren't for NTS, they would not receive much attention or importance. Since we specialize in height measurements, it occurred to me that we could sponsor trail competitions. Just a thought.

Robert T. Leverett

[Re: Rucker Index for a Trail - How wide?](#)

by [bbeduhn](#) » Mon Jul 29, 2013 8:47 am

Ed, Bob,

I have used the figure of 100 yards as the limit, unless there is a significant geologic obstacle. Trees are almost always visible from the trail in winter and generally visible in summer. I can't say I haven't measured a handful beyond 100 yards but that's certainly a good approximation.

Brian

[Re: Mountains-to-Sea Trail](#)

by [bbeduhn](#) » Mon Jul 29, 2013 9:08 am

Josh, Will,

Chasteen Creek is on the Benton Mackaye Trail.

Mingus Creek is on the Mountains-to-Sea, which will boost the R10 significantly. I could add the old figures from Mingus into the current Rucker. The Mountains-to-Sea Trail and the Benton Mackaye Trail share the same trail for a stretch.

Brian

[Re: Mountains-to-Sea Trail](#)

by [Josh Kelly](#) » Tue Jul 30, 2013 10:33 am

Hey Brian,

Thanks for the clarification. I had forgotten that the MST had decided on a fairly ridiculous route through Cherokee and the Tuckasegee River valley rather than the more realistic route along the Parkway in Jackson County.

You could add the Mingus Creek numbers Jess has put up, but I guarantee that most of those trees would be far outside the 100 yard threshold you propose.

Looking at the map <http://www.ncmst.org/the-trail/interactive-map/>, there is one tree I know you should add, the huge 21' cbh x 179' tall poplar at Poke Patch on the Fork Ridge trail.

You could probably find some tall stuff on Deep Creek trail and the tallest spruce on the MST is definitely on the Fork Ridge Trail - somewhere in the 140's, I think?

Josh

[Re: Mountains-to-Sea Trail](#)

by **Will Blozan** » Tue Jul 30, 2013 6:33 pm

Josh, Brian

There is a 153' red spruce visible from the Fork Ridge Trail. Three over 150' actually. And the 104' serviceberry on the trail as well...

Will

[Re: Tree Maximums - Genus of the Week: Carya \(Hickory\)](#)

by **Matt Markworth** » Mon Jul 29, 2013 7:09 pm

Kouta,

Wow, you have a keen eye! That's definitely the same tree based on identical measurements, date, and location. For now, I deleted the tall Red Hickory from the list and left it as Pignut Hickory based on all the original references that I found referring to it as a Pignut.

Also, this Field Report in the Bulletin of the Eastern Native Tree Society (http://www.nativetreesociety.org/bulletin/b1_1/B_E_NTS_v1_01_sec5_FR01.pdf) refers to the Max Spread Red Hickory as a Pignut. Maybe at some point in time there was a change in thought as to whether this group of large Hickories in the Central Brevard Fault Zone are actually Red, and not Pignut.

Can anyone shed any light on this?

- Matt

[Re: Tree Maximums - Genus of the Week: Carya \(Hickory\)](#)

by **Will Blozan** » Mon Jul 29, 2013 9:12 pm

Red hickory.....

[Re: Tree Maximums - Genus of the Week: Carya \(Hickory\)](#)

by **Jess Riddle** » Tue Jul 30, 2013 9:03 pm

Many hickories in the Southern Appalachians do not key out clearly as either ovalis or glabra, and the tallest hickory is one such tree. Based on the sub-globose fruits, I currently lean towards ovalis for that tree. It would be great if someone could visit it in the fall and collect leaf and fruit samples.

I now think the x brownii is actually just a illinoensis, though a bit of an odd one.

Jess

Trees database- use it

by **tsharp** » Tue Jul 30, 2013 8:45 am

NTS:

I recently posted five trip reports on the NTS BBS board. Prior to that I entered the trees measured at those five sites on the Trees database. I notice no one has been using that site recently. That is a shame. It is a nice tool that could give a lot of meaning to what the NTS obsessive tree measurers do. I probably entered about 200 trees plus basic information about the five sites and it only took about 3-4 hours including reviewing what was entered and correcting mistakes.

There are a couple of features of the Trees database that make entering data less time consuming. When entering species names (I enter scientific names first) and after the first two or three letters are typed into the system tries to identify what your intentions are. For instance when entering Tuliptree I just have to type three letters (Lir) in the scientific name box and the system automatically completes the scientific name plus automatically fills out the common name box. Another potential time saver occurs once the GPS coordinates of a site is entered. For individual trees one can just copy the initial GPS reading for the site and change at most the last two or three digits for each coordinate of the individual tree readings.

The system calculates Rucker Indices for height, girth, and spread for 5, 10, and 20 species. It automatically ranks each species in alphabetical order but with click of a button will rank species or sites in descending or ascending order by height, girth or spread. Once enough data has been entered it is easy and fun to compare species, states and individual sites for the three attributes measured.

The system is pretty flexible and I also use it to maintain a municipal and state maximum dimension list. I am sure that Steve or Mitch Galehouse will answer any questions of how to get started or any problems that arise.

Turner Sharp



<http://www.treesdb.org/>

Re: Trees database- use it

by **lucager1483** » Tue Jul 30, 2013 11:31 pm

Turner, NTS,

I heartily agree on the usefulness of the trees database. I view it regularly and enter pretty much every tree I measure. I believe that I've written this before, but much thanks goes to the efforts of the Galehouses. You've done a great job. For my part, I've not had any problems with the site, logging on to it or otherwise.

Elijah

Re: Trees database- use it

by **dbhguru** » Tue Jul 30, 2013 11:46 pm

NTS,

While I've made some use of the database in the past, when I return to MA, I plan to enter new important trees. I have far to many trees in old databases to enter. I'm talking thousands. However, I plan to use the database for later measurements of significant trees.

Robert T. Leverett

Re: Group progress of AF measuring group

by **Don** » Mon Jul 29, 2013 7:29 pm

Matt-

If you don't mind, I'll try to respond, in the body of your post below [in colored font](#):

*Matt Markworth wrote:*Hi All,

I reread my two posts on this thread and just want to add some clarifications that are displayed in (**BOLD ITALICS**). My purpose for posing these sample questions is to draw a comparison between the proposal that will be made to AF and a "sales proposal", if you will. My thinking is that a "sales proposal" starts with getting to know the goals/needs of your "customer" in depth. When the proposal is presented, the solutions can be tied back to the answers that were given and the "customer" will be much more receptive. I'm sure that these types of discussions have been going on, but I thought that some of these hypothetical open-ended questions may also help. [Matt, we appreciate all responses, in whatever format they're delivered in...WE LOVE INPUT!](#)

I believe that NTS measuring methods are far superior to anything else. The real challenge is coming up with creative ways to convince others, in hopes that they will see the value in accurately measuring single stems. [First, you're right! Second, AF has already embraced establishing new guidelines, more accurate height determinations, and wants a solution to single-stemmed tree versus multiple stemmed trees \[note singular and plural forms\]. The devil is in the details, with years of back and forth...if we come up with a rule, it has gotta work and stand the test of time...the last one didn't, but even so, this will not be an easy to resolve issue.](#)

Here are some questions/requests that may help them (AF) contemplate/decide what they want to accomplish with the future direction of the list:

If some direction (**FROM AF**) can be uncovered on these major underlying issues, then the other

members of the group (**THE PRINCIPAL MEMBERS AND ADVISORS IN THE MEASURING GUIDELINE WORKING GROUP**) will be willing to accept change. This opportunity may not present itself again for years to come and I hope that the current decision makers (AF) have the foresight to ensure that the list can serve both educational and scientific purposes that will benefit all involved. [We in the MGWG are giving it our best!](#)

- Tell me more about what precipitated this recent effort to upgrade the Big Tree Program. [Honestly? I think it is the singular fault of this guy that used to take on the role of Colonel Compone, aka Burlbelly, who has over years, no, make that decades striven to assist AF in improving height measurement accuracy in the national registry. Consistent, continuous, courteous, Bob Leverett I think is the cause of all this. Along with the minions of NTS, ENTS, WNTS, EuNTS out there embracing measurement accuracy, and the love of all things trees...I'm just saying!](#)

- What issues have you encountered with how this list has been managed thus far? [Bob can speak to this better than I, but I think I can say that everyone involved is pure of heart and mind, and of no malicious intent. They are all kind people and don't deserve sarcasm, sneering or such. It's my view that we're all in this together, and have common goals...NTS hasn't been around since the 1940's and hasn't the organizational complexity that AF has evolved with.](#)

- Going forward, will the primary purpose of the list be recreational, scientific, or a combination of both? For what purposes do you envision these various groups utilizing the list? [Yes...and I see in in a 'vertical' way, ie, recreational at the lay person, nominating level, and scientific at the national registry level.](#)

- What level of accuracy do you feel is required to serve the interests of the groups that will be utilizing the list? [Same answer, at local and state levels, accuracy is as accuracy does \(to borrow a Forrest Gump-ism\), whatever they are able to achieve with the equipment and skill levels available. At the](#)

National level, bring everything we've got to bear...laser rangefinders, digital hypsometers, LTI stuff, Total Stations, etc., all to properly, accurately measure the pride of American Forest registry champions.

- Is there a willingness to accept significant changes to the list, as long as those changes will result in the long-term success of the list and lead to participation by everyday citizens and serious tree measurers? Yes, you're reading our mail!

- Documenting these exceptional examples of big trees has served many purposes throughout the years and the program should be applauded for the various educational and conservation efforts that it has promoted. To ensure that the program continues this legacy and maintains support from tree lovers of all experience levels, are you open to requiring stricter standards of both technique and measuring equipment for the individuals that certify the measurements of the tree? Yes, but only at the national level, below that, only as the skills and equipment are available...if you've unlimited financial resources and could underwrite all training and equipment costs, etc., I'm sure that within ten years we could make a lot of headway towards bringing more measurement accuracy to state and local levels. By now, there should be a rudimentary matrix forming in your mind, something like this:

<u>Certification Level</u>	<u>Skill Level</u>	<u>Equipment Level</u>
<u>Method</u>		
Local/Regional Similar triangles	Lay public	Available
State Coordinator Tangent	Technician	Clinometer/Tape
National Cadre Sine/Sine	Expert	Hypsometer

- Here are 10 examples of National Champions that clearly have multiple stems at ground level (provide 10 of the most egregious examples) and their inclusion has been the biggest reason why more and more individuals have lost faith in the list and have stopped participating. This is also a major reason why the list cannot be relied upon by professionals for species comparisons. Are you open to tightening to

the standards so that these multi-stem specimens can be replaced by single-stem specimens, as long as a way can be found to recognize these impressive multi-stem specimens? Yes, and no. We haven't resolved yet the issue of single versus multi. We are working toward a way to be 'separate but equal', to recognize "BIGNESS" whether as a single or a multi, but also specify which one is which. It would not be scientific to do otherwise. I have long advocated asterisked exceptions to the single-stem rule, but am happy to consider other ways that are inclusive AND distinguishing. And optimistic that we will find resolve.

- In addition to the state coordinators, what are your thoughts on allowing properly trained individuals be involved with the certification process? Much as the MGWG consists of AF, University, NTS individuals, I think that a national registry level cadre should be formed consisting of properly trained AF, University, NTS individuals, and others should be involved in the certification process. But that's just me...

- Are any of the current guidelines completely set in stone and off the table entirely for discussion? I think AF has pretty well bought into a Ten Year rule...ie, either a tree gets measurements/existence verified every ten years, or it's replace with the next biggest tree. Here's a challenge for you Matt...in the context of measuring national level champion tree registry trees, how would you define "big"?

If their answers are extremely rigid, then it's going to be an uphill battle to solve the major problems that everyone has been discussing. Matt, they are very reasonable people, it will not be an easy undertaking, but I and Bob, I think, are optimistic that major problems will find solution.

- Matt

Don Bertolette

Re: Group progress of AF measuring group

by **Matt Markworth** » Mon Jul 29, 2013 8:49 pm

Thanks Don! After reading your responses, I have a much better understanding of the underlying issues at hand and that leads me to be much more optimistic. The tireless efforts made over a long period of time by you, Bob and others can't be overstated. And all for the trees! Awesome!

This cracked me up, too funny! . . .

I think it is the singular fault of this guy that used to take on the role of Colonel Cornpone, aka Burlbelly, who has over years, no, make that decades striven to assist AF in improving height measurement accuracy in the national registry. Consistent, continuous, courteous, Bob Leverett I think is the cause of all this. Along with the minions of NTS, ENTS, WNTS, EuNTS out there embracing measurement accuracy, and the love of all things trees...I'm just saying!

When asking about any issues with managing the list, I'm referring to any challenges or obstacles, as a way to draw out problems that need to be solved. I 100% agree with you on this statement . . .

Bob can speak to this better than I, but I think I can say that everyone involved is pure of heart and mind, and of no malicious intent. They are all kind people and don't deserve sarcasm, sneering or such. It's my view that we're all in this together, and have common goals...NTS hasn't been around since the 1940's and hasn't the organizational complexity that AF has evolved with.

How do I define big? Single-Stem Volume. But, of course, that's not practical and would be nearly impossible to implement! In the context of measuring national level champion trees, I favor keeping the point system for single stems.

Thanks again,
Matt

Re: Group progress of AF measuring group

by **Don** » Mon Jul 29, 2013 11:29 pm

Matt

Single-stem volume, root collar to tip top?
Volume based on modeling, or volume based formulaically from our given measurements (circumference, height and some standard shape)?
What about multi-stem volume? Stay with us for the exercise, if you would, on this. Why do I ask? One of the scenarios that could emerge would be a rule that allowed multi-stems, but only the largest stem would get measured.

I like your response, I came into this with pretty much a 2D orientation (diameter (or what space the bole took up in a 2D world, and height; essentially h x w)). My early stance was, what impressed me with a big tree as I approached it. If the forest permitted, perhaps the height of the emergent crown. But that really doesn't always happen. By the time you get close to the tree, it's either the width/height of the crown, or the breadth of the base (which is on approach, a 2D view we call diameter).

Since then, and in the context of measuring big trees, it's circumference that opens up the 3D world, and is best exemplified by the awestruck children, hand in hand, circling the tree in amazement as they look up and try to comprehend what they've encircled, spatially.

Circumference at base and height? Almost looking 'volume' in the eye...get's complicated after that, probably most so with the likely accuracy king of volume measurements, Michael Taylor's cloud mapping process.

But yeah, most elegantly stated..."Single Stem Volume"

Re: Group progress of AF measuring group

by [edfrank](#) » Tue Jul 30, 2013 1:54 pm

NTS, Bob, Don, AF,

What do I want to see come out of the American Forests measurement Group process? There are both ideal goals, and goals that are more likely to be achievable. I have been pretty strident on some issues, partially as a motivational message to emphasize what I think is important. I really do appreciate the comments by Matt Markworth and find his approach to be constructive. I thought I would try to specify what I think the goals should be. These are not casual ideas, but ones I have thought about for years since first reading the original measurement guidelines by Will Blozan all the way through publishing the series of tree measurement articles on Wikipedia. These are the conceptual and practical underpinnings of what needs to be done to improve the American Forest Big Tree Program.

As a very minimum:

1. Enforce the previously existing guidelines that allowed only single trunks to be accepted as a champion tree.
2. Require that photographs, hopefully from two different angles, that show the tree so that there is visual evidence that the tree is indeed a single trunk.
3. List the height measurement method, hopefully with the long term goal of eventually requiring the champion trees to be measured by an accurate method, i.e. NTS method (Sine Method), tree climb and tape drop, pole method, or formal survey method.

The ten year rule:

1. It is often impractical to get back to measure champion trees on a ten year rotation when those trees are in a remote location. This comment has been made by Dr. Robert Van pelt with regard to some of the big western trees. I agree.
2. If a tree has not been measured for a period of ten years it should still be kept on the list but with an asterisk, and a second listing should be included for the largest tree measured within the ten year time

frame. In this way a champion tree will not be dropped from the list while it is still the largest known of its kind.

Measurement point:

1. The tree should be measured from the point at which the pith of the trunk intersects the supporting surface below. One a slope this would be at the approximate midslope point.
2. This point should be the basis for both height and girth measurements.
3. If this point would place a portion of the girth measurement at or below ground level on one side, then the girth should be measured at an appropriate height to achieve a representative girth value and that height above the base point noted.
4. If the tree has low branching below 4.5 feet, the girth should be measured at the narrowest point below the lowest branch and that height noted. Epicormic sprouts and suckers at the base of the tree can be ignored.
5. If there is a burl, bump, or other anomaly at 4,5 feet that would falsely inflate the girth value, the girth should be taken at the narrowest point on the trunk below this anomaly and that height noted, or just above the anomaly if it would give a better approximation of the actual girth of the tree.

Multitrunk trees versus single trunk trees:

1. **This is the most important distinction in my mind.** Multiple trunk trees should not be intermixed with single trunk trees on the champion tree list.
 - a. The list should have separate listings for multitrunk trees and single trunk trees
 - b. If there is to be only one listing, it should contain only single trunk trees. A single trunk from a multitrunk tree would be eligible for inclusion on a single trunk champion list, if all the measurements submitted are for that single trunk alone, and the girth is measured above the trunk fusion. If the fusion is below 4.5 feet, then the girth of that trunk should be measured at 4.5 feet. If the fusion extends above 4.5 feet, the girth should be measured at the height where that particular trunk becomes separate from the fused mass.
2. Whether the tree is a single trunk or a multitrunk tree is to be determined using the pith trace method. If a tree would have more than one

pith at ground level it is considered to be a multitrun tree.

3. If there is any question about whether a particular tree is a single trunk or a multitrun tree that is to be left to the best judgment of the measurer, and of the state coordinator based upon a site visit or inspection of the photographs of the basal portion of the tree trunk taken from multiple angles.

Tree Height:

1. The champion trees included on the champion tree list should be measured by an accurate method, i.e. NTS method (Sine Method), tree climb and tape drop, pole method, or formal survey method. This may be done by the state coordinator, or by a person qualified to use these methods.
2. Use of the stick method, or the tape and clinometer method will not be allowed for the national champion tree list.
3. The height measurement method for all trees submitted to the state or national champion lists should be listed on both the submission form and on the champion list itself.

Edward Forrest Frank

Re: Group progress of AF measuring group

by **Will Blozan** » Tue Jul 30, 2013 6:43 pm

Ed,

Dude, you totally nailed it. Get AF signatures and implement now. Done. End of story.

The only thing I would add is in the event that accurate volume can be used to determine the most massive tree that is out pointed by a smaller (volume) tree- it too should be listed as western conifers are now. Case in point- the Sag Branch Tuliptree is way larger than the current national champion, yet is out pointed due to an excessively large base on the

current champ. I would reticle the VA champion to determine its volume if I knew the Sag would be listed. Same would go for yellow buckeye, northern red oak, red maple...

Will

Re: Group progress of AF measuring group

by **Matt Markworth** » Tue Jul 30, 2013 9:01 pm

Don wrote: Matt

*Single-stem volume, root collar to tip top?
Volume based on modeling, or volume based formulaically from our given measurements (circumference, height and some standard shape)?
What about multi-stem volume? Stay with us for the exercise, if you would, on this. Why do I ask? One of the scenarios that could emerge would be a rule that allowed multi-stems, but only the largest stem would get measured.*

Hi Don,

Thanks so much for the encouragement to bring forth new ideas, it's very much appreciated and it means a lot! I'll first address my pie in the sky ideal for measuring bigness. After that, I'll propose something from a more practical standpoint.

If technology knew no bounds, then I think the ideal measure of bigness would be a volume measurement that equals the result of shrink wrapping the entire stem, including the roots associated with that stem, and finding the volume that would result from water displacement. It could even be taken to the extreme and measured right before, for example, the fruits were ready to fall. In the fantasy measurement that I'm describing, I would consider it to be one stem if one central pith existed at any point in the structure.

Reading through the last few posts, I find myself in agreement with everything that you, Ed and Will stated. Here is a secondary plan that may help if the

objections to these proposed changes are too strong to overcome. Here is the basic concept . . .

- Allow current trees that have multiple piths at ground level to maintain "Legacy Tree" status. This should overcome the fear of deleting trees off of the list and the backlash that could result. By not setting up a completely separate list for trees that may have multiple piths at ground level, we avoid the problem of unnecessarily crowning new champions for that list, when the current champion already has one pith at ground level.
- All species, including the ones that currently have champions with multiple piths at ground level would be opened up for "Single Stem" champions. This will serve the needs of serious tree measurers. If a tree with multiple piths at ground level just happens to have a stem that would qualify as a Single Stem champion, then it could certainly be submitted.
- New tree height measuring standards will need to be implemented and a timetable set for existing Single Stem champions to be verified.
- Legacy Trees and Single Stem champions reside next to each other on the same list.
- Definition of big stays the same – point system
- 3 levels of triage as you've explained

Just some thoughts from a guy that has been measuring trees for less than 8 months.

Thanks,
Matt

Re: Group progress of AF measuring group

by **dbhguru** » Wed Jul 31, 2013 10:58 am

Matt,

As Don says, we greatly appreciate your input as well as Ed's, Will's, Doug's, Larry's, et. al. We are working to change the direction of the thinking and decades of tradition. At this point we are building our case for change. The communications among members of the Group must obviously remain private, but rest assured we are firming up our position.

The willingness of AF to set a new course is going to be influenced by not going to stop with the input of the Group. AF will likely test the plan by getting input from the field. I don't know how concepts like the pith rule, which Don champions and I support would be received by current program participants. I guess the old saying that Rome wasn't built in a day applies.

Robert T. Leverett

[Re: So-called Champion Baldcypress - Please Vote](#)

by **edfrank** » Tue Jul 30, 2013 2:10 pm

Genetically the same:

You can't use genetic DNA as a criterion for establishing what is a single tree. For example the Pando aspen in Utah could therefore be considered a single tree - genetically identical sharing the same root system that include 47,000 trunk and occupies an area of 106 acres. Wrap the tape around that tree and you would get an enormous girth. Since it is on a sloping surface, would you consider the height of the tree to be the base of the lowest trunk to the top of the highest trunk on the uphill portion of the site? It therefore might be taller than Hyperion. Present the ludicrousness of extending the definition of a tree to be genetic identity rather than a single tree. I understand there are examples of clonal colonies of redwoods and huon pines that cover an enormous area. They would be one tree if you accept the genetic criterion.

Edward Forrest Frank

[Re: So-called Champion Baldcypress - Please Vote](#)

by **DougBidlack** » Tue Jul 30, 2013 10:51 pm

Ed,
why can't you use identical DNA as a criterion for establishing what is a single tree? I do. But that doesn't mean I would be foolish enough to stretch a tape around all the trunks and compare it to a tree with a single trunk. These are two entirely separate issues. This is no different than other trees with very unusual shapes such as the tropical figs that were discussed some time ago.

Doug

[Re: So-called Champion Baldcypress - Please Vote](#)

by **edfrank** » Wed Jul 31, 2013 1:23 pm

Doug,

As you say this is a separate issue. There is the question of clones. Often clones of a tree is really an entirely separate organism with a separate root system and separate trunks. These are genetically the same, but are physically different trees. Consider conjoined or to be politically incorrect "Siamese" twins in humans. They are connected physically and often share some organs, but for other aspects can be considered separate individuals. There are all the HWA bugs. They are all reproduced parthenogenetically and are all female clone with identical DNA, but they are all individuals. So the question becomes when is a trunk a part or organ of a larger individual, and when is it a separate organism?

I have seen where portions of a trees roots in a multitrun tree have been damaged. One trunk will die, fall over, and those roots connected to it are uprooted with the fall. The rest of the tree seems to be unaffected suggesting that that trunk was fed by those roots while the rest of the tree was fed by other roots. Does this mean that trunk is an individual as far as overall function and physiology? Or is it just an extra limb or tail shed by the larger organism because of stress? This is something that may in the long run may just be a philosophical question. On a practical basis, look at the three trunked paw paw shown earlier, or the bald cypress pictured. Where do you draw the line for a champion tree measurement between these examples and the Pando aspen?

As for your point about the tropical figs, I agree. I would be interested in seeing a listing of clonal colonies of sumac, aspens, figs etc. based upon the area of occupation of the colony. I don't want to see a colony considered to be a champion tree when compared to single trunk specimens. This is comparing two different growth forms. Perhaps another way to look at the question would be, instead

of when do you consider a multitrunk tree to be two separate trees rather than one individual, but when do you consider a coppice or colony of trees to be a single tree for championship tree purposes? I think there can be clonal specimens that are individual trees, and clonal colonies that can be considered to be one giant organism. The latter depends on context.

In the context of determining a championship tree, I don't think the fact that two trunks are genetically the same means they should be considered one tree for championship purposes. Context.

Edward Forrest Frank

Re: So-called Champion Baldcypress - Please Vote

by **Matt Markworth** » Wed Jul 31, 2013
6:52 pm

Hi Bob, Hi All,

Here's a view of the other side of the tree from
monumentaltrees.com:

<http://www.monumentaltrees.com/im/baldcypress/baldcypress01.jpg>

I vote that it should only be a National Champion if it outpoints all others based on the largest stem. That being said, I think that the vast majority of Americans identify with diameter and this specimen certainly has that. I met a family that was walking out of the Forest Cathedral at Cook Forest State Park and they said they couldn't find the big trees. In reality, they had walked right by them. They didn't identify with height. Cook Forest certainly has big diameters, but they were looking around expecting to be awestruck by humongous trunks.

As I mentioned in a different post, a tree like this could be designated as a "Legacy Tree" and given a place on the list. However, room should be made on the list for a "Single Stem" Champion.

- Matt

Re: So-called Champion Baldcypress - Please Vote

by **dbhguru** » Wed Jul 31, 2013 11:06 pm

Matt,

Good photo. It also shows the need to have photos taken from four directions to reveal the complete structure of the trunk. The objective of the measurer should be to reveal as much detail as possible. The measurer should seek to justify the measurements by providing as much information as he/she can. I am certainly going to push for that in the MGWG.

Robert T. Leverett

[How wildfires can do more good than harm](#)

by **edfrank** » Wed Jul 31, 2013 3:24 pm

How wildfires can do more good than harm
July 29, 2013
by Lori Daniels

<http://news.ubc.ca/2013/07/29/lori-daniels-on-forest-fires/>

[Re: How wildfires can do more good than harm](#)

by **Don** » Wed Jul 31, 2013 3:37 pm

From Facebook

I'll direct my comments to Lori's explanation. In general I agree with her almost entirely, but specifically I think that the article was so short that she wasn't able to 'get it all out there'. I like the photo that she starts off with. I won't support it with the thousand words it deserves, but...what she is doing is 'stringing fire' from the top of the controlled burn across the sidehill, then stringing another line a short distance below it...this essentially makes for a low burn severity fire, as each strip runs up against the one above and burns itself out. [Note my use of Burn Severity, to be mentioned later.] Controlling the distance between the strips controls the burn severity. This is a tried and proven tactic.

Where I'd like to rephrase Lori's wording on "high severity fires", has to do with the array of burn severity level classifications that typically emerge from an uncontrolled wildfire. Unlike those inexperienced with fires, such fires aren't a wall of fire that consumes every living piece in it's way (very seldom anyway). What commonly emerges is what fire scientists refer to as a fire mosaic, with a wide array of burn severities...from just consuming fine fuels, to burning all organic material to ash, down to bedrock. Wildfires mapped in terms of burn severity appear to be a random fire mosaic, with seemingly

random shapes. With consideration to the primary wind direction, topographic features such as aspect, slope, and elevation, and climatic conditions such as ground and vegetative moisture contents have much to do with Burn Severity Classification.

In my last couple of years before retiring from Grand Canyon NP's Science Center, we began mapping burn severity from satellite imagery taken just before and just after the fire, and capturing the difference, much of which was due to the burn severity of the fire. Our first was the Outlet Fire, I think it was in 2001 or 2002. She's absolutely right, though, wildfires can be used for resource benefit (in Fire Science lingo, a WFURB, employed in Grand Canyon's re-introduction of a more historical and natural fire regime. It's not likely, or even possible to return to the pre-settlement fire regime, but certainly returning the current vector towards those that preceded it can be achieved.

Don Bertolette

[Re: Trees database- use it](#)

by **Steve Galehouse** » Wed Jul 31, 2013 11:22 pm

NTS--

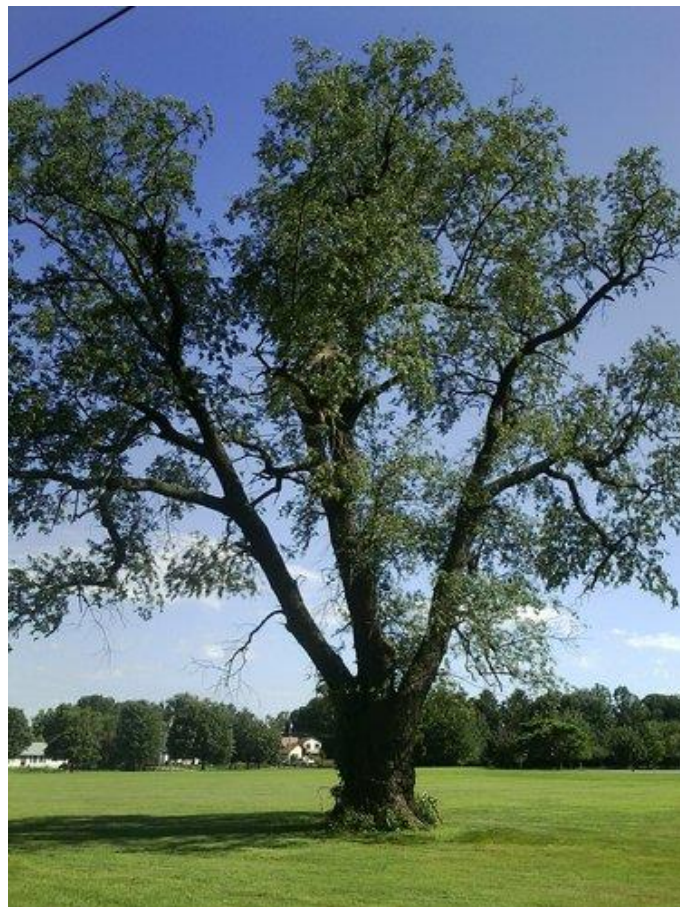
My son Mitch, a software designer, not a tree geek like me, designed and built this site taking into consideration the requests of some of the long-time ENTS members. It's free to use if you want, it calculates much of the data entered, but it does require some time/effort to input data(as any database would). The site is free to users(on a server in my cellar, so some service outages are to be expected), and I encourage NTS members to post their finds to the database.

Steve

[ID this tree](#) – Black Cherry

by **JohnnyDJersey** » Wed Jul 31, 2013
7:48 pm

Not often I run into a tree that stumps me in my native land (New Jersey)...maybe black cherry? Tree has a single stem CBH of 16'3".



John D Harvey

Re: ID this tree

by **Will Blozan** » Wed Jul 31, 2013 8:52 pm

Looks like black cherry.....

Re: ID this tree

by **JohnnyDJersey** » Wed Jul 31, 2013 9:09 pm

Ok that's what I was thinking. If so it may be the new state champ. The current champ is 15'11" at 2.5'. So its a split trunk. 79' spread and 76' high. (Here we go again with split trunks) The current champ also seems much younger.

This new tree is not a split and is 4 to 5 inches wider. Ill have to go back and get the average apread and attempt to calculate the height. Below is a pic of the current champ from NJ big tree website.

<http://www.state.nj.us/dep/parksandforests/forest/community/images/36-BlackCherryx23.jpg>

Of course getting a new champ recognized in NJ is hard as hell. I have two southern red oaks that I KNOW are bigger than the current champ, a black locust that blows away the current title holder, also an American basswood and a swamp white oak that also are new champs if not co-champs. Ive submitted but never hear back. I wish NJ had a site like PABigtrees.com.

John D Harvey

Re: ID this tree

by **Matt Markworth** » Wed Jul 31, 2013 9:41 pm

Johnny,

Nice find! I love the bark of Black Cherry.

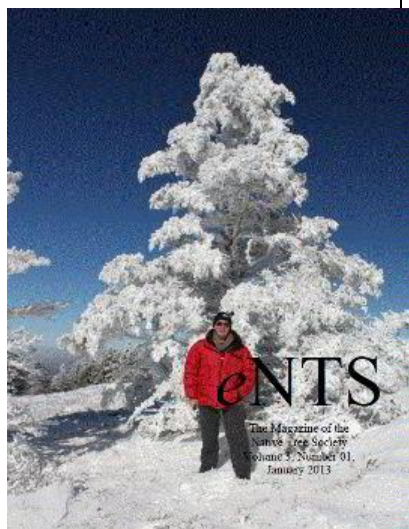
JohnnyDJersey wrote: I'll have to go back and get the ave apread and attempt to calculate the height.

Sounds like it's time to get a rangefinder! I got the Nikon 440 last December along with the Suunto Clinometer and can't imagine being without them.

- Matt

External Links:

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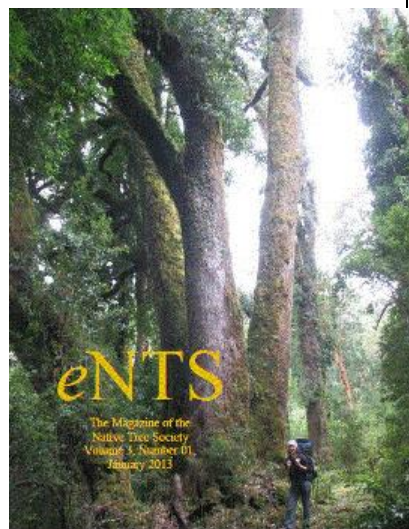
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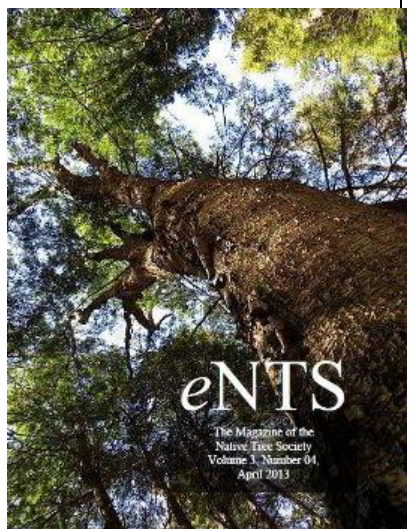
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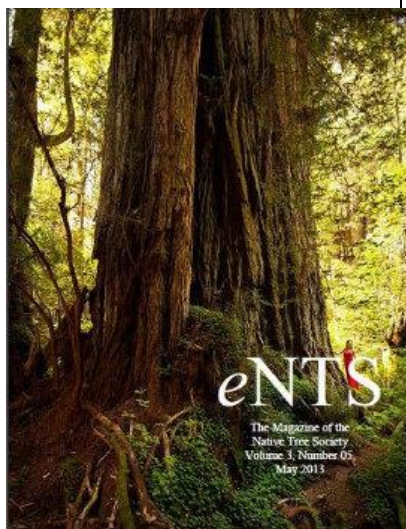
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[eNTS Magazine April 2013](#) 20 MB

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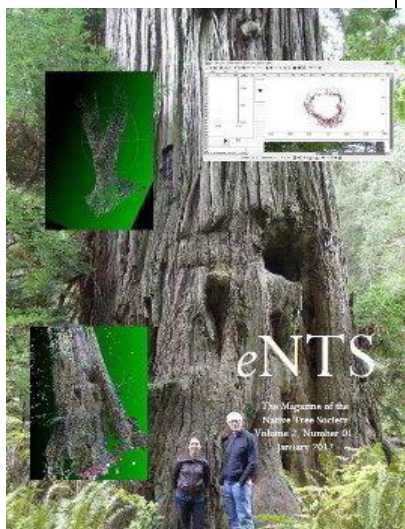
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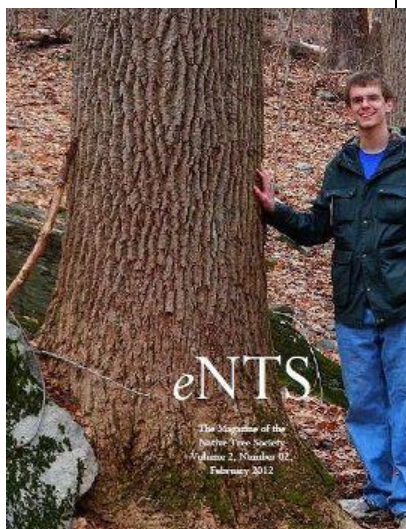
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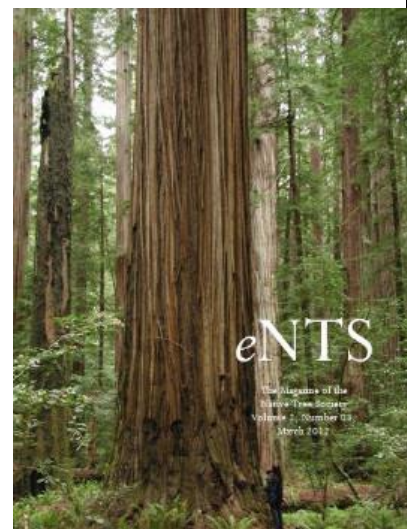
[eNTS Magazine January 2012](#) 21 MB

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[eNTS Magazine February 2012](#) 20.5 MB

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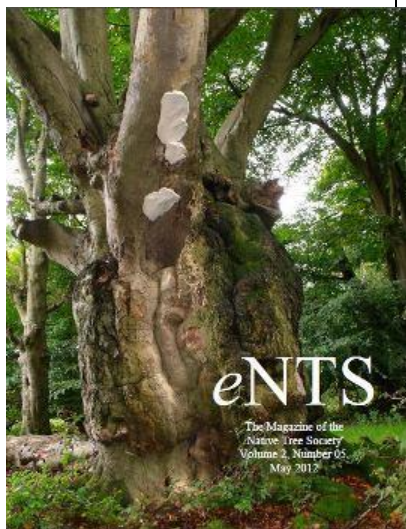


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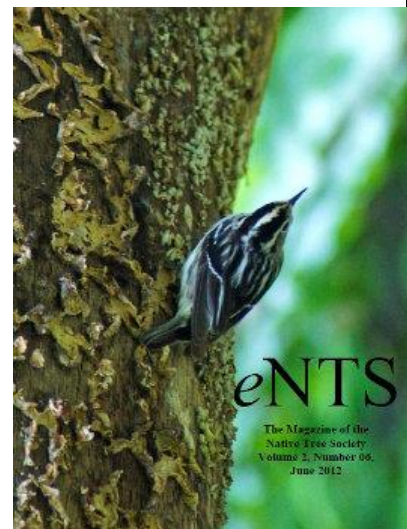
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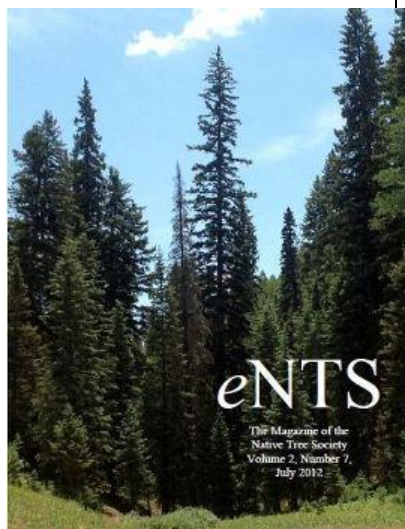
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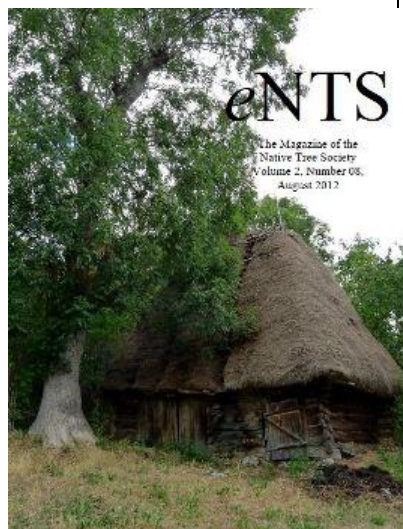


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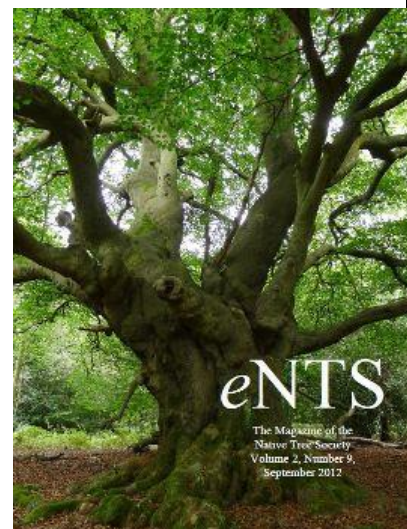
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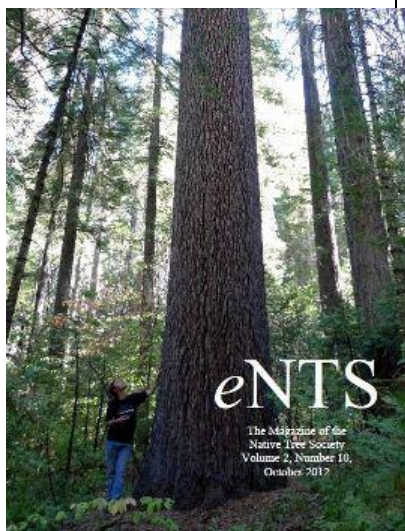


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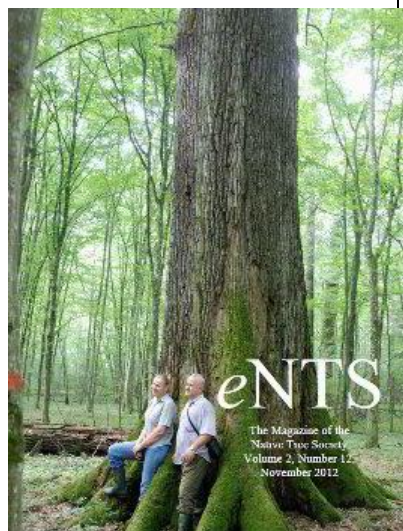
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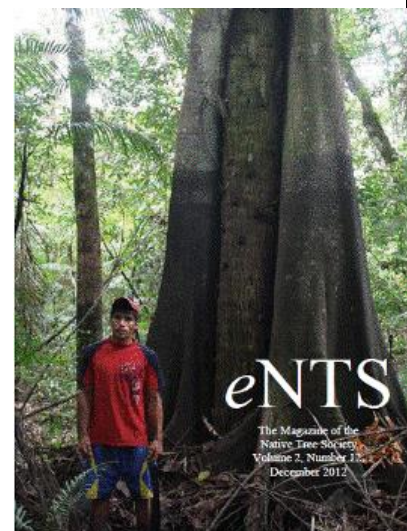
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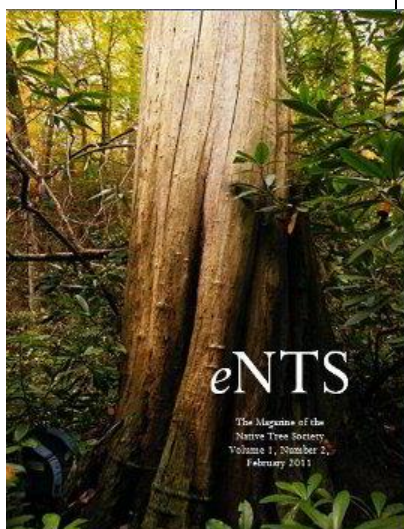


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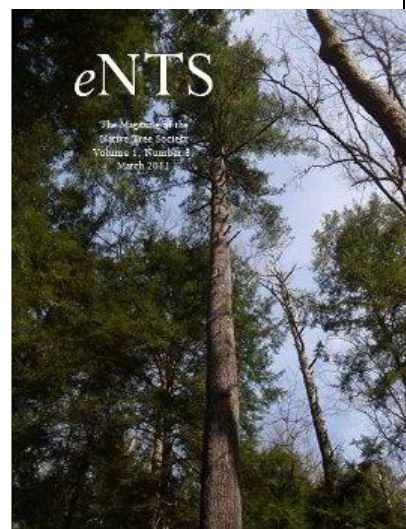
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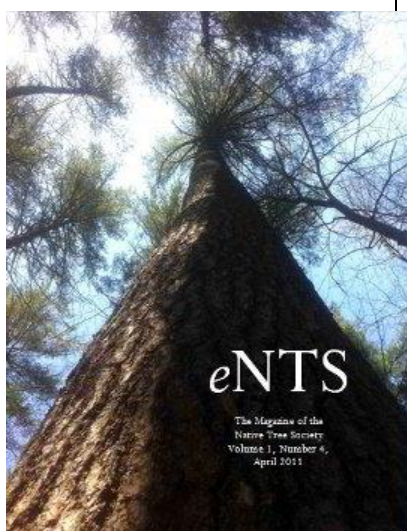
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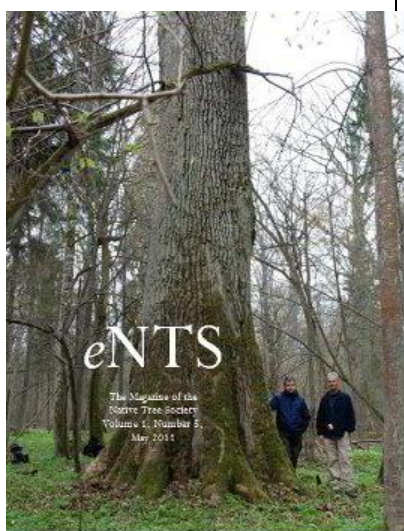
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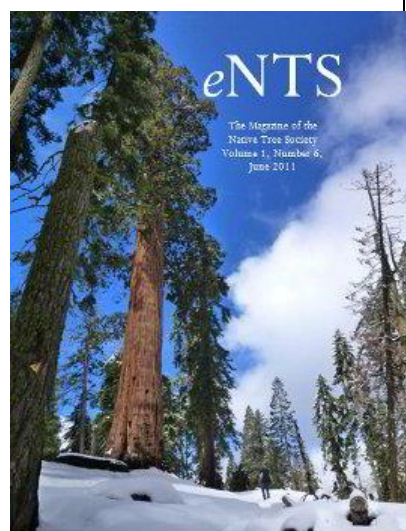
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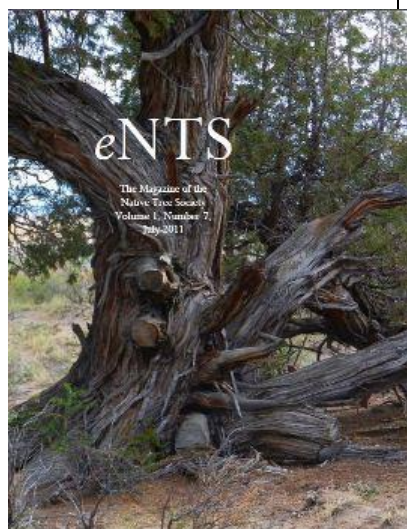
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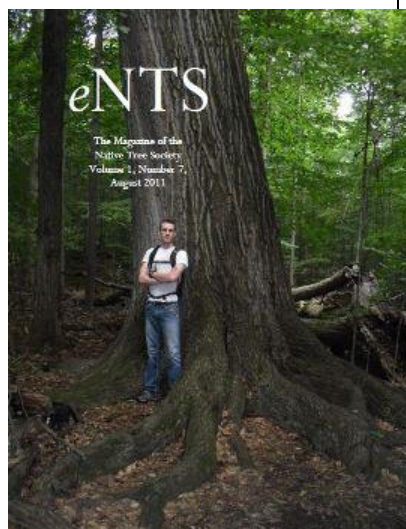
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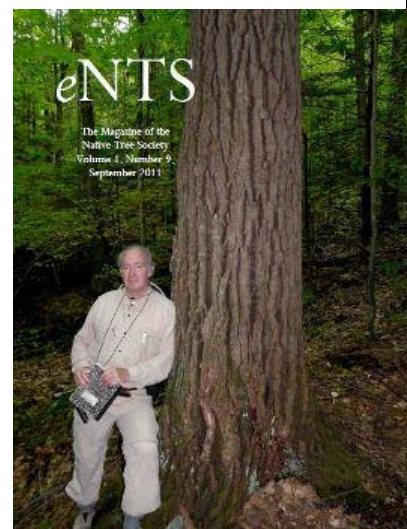
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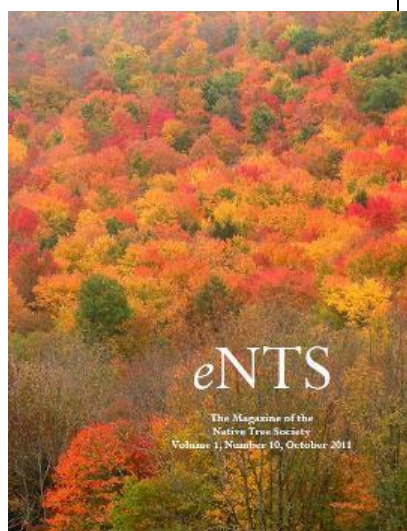
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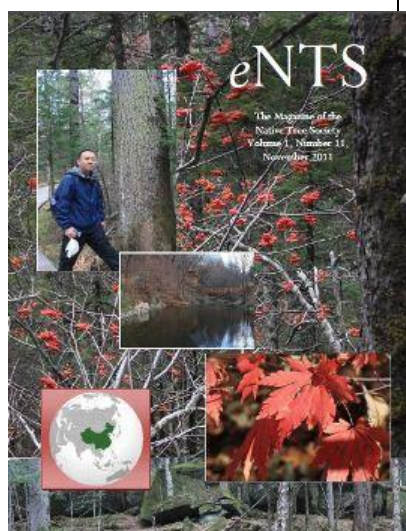
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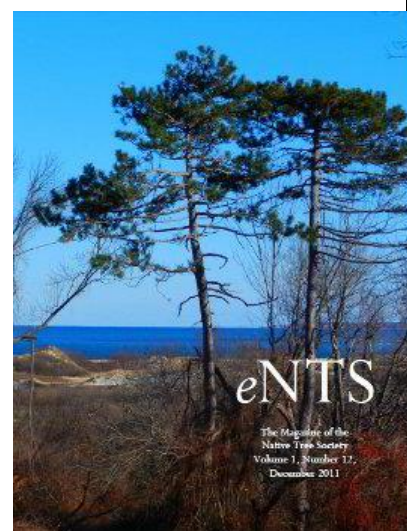
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About: eNTS: The Magazine of the Native Tree Society

This magazine is published monthly and contains material that is compiled from posts made to the NTS BBS. <http://www.ents-bbs.org> It features notable trip reports, site descriptions and essays posted to the BBS by NTS members. The purpose of the magazine is to have an easily readable and distributable magazine of posts available for download for those interested in the Native Tree Society and in the work that is being conducted by its members.

This magazine serves as a companion to the more formal science-oriented *Bulletin of the Eastern Native Tree Society* and will help the group reach potential new members. To submit materials for inclusion in the next issue, post to the BBS. Members are welcome to suggest specific articles that you might want to see included in future issues of the magazine, or point out materials that were left from a particular month's compilation that should have been included. Older articles can always be added as necessary to the magazine. The magazine will focus on the first post on a subject and provide a link to the discussion on the website. Where warranted later posts in a thread may also be selected for inclusion.

Edward Frank – Editor-in-Chief