

East Granby Farms Recreation Area, CT

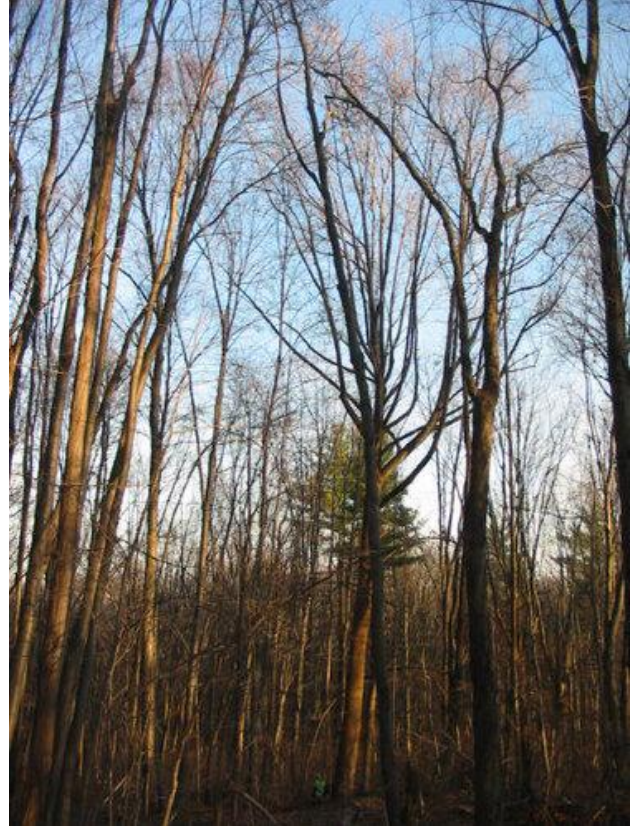
by sam goodwin » Wed Dec 14, 2011 8:15 pm

70 acres of active recreation with offices, playground and future playing fields. 410 acres of passive recreation with a parking area in active corn and hay fields. There is a red blazed trail that starts in the parking lot, passes through the hay field and follows a old farm road through a swampy area with a stream. I measured a white pine @ 10' cbh 90' high in this area. Still following the trail you come to overgrown field with a few small trees and alot of brambles. You then come to older trees as you start heading up to the ridge line and the Metacomet Trail which is still part of the farm. Not far from the field I measured a tulip tree, (see pictures), @ 8' 3" cbh 95' high. I also measured what I think is a hybrid sycamore/planetree. It was 90' high. Some of the pictures show a birch with interesting roots. Heading back I measured and took pictures of a old, corner of the field, swamp white oak. It is 19'7" cbh @ 71'.

Sam Goodwin



Swamp white oak





birch

Update Dec. 15, 2011

Doug, just got back from checking the Farms tree... I remeasured the Farms oak and this time got 19'6" cbh. Just shooting offhand with the shakes my readings were between 66' and 80' tall. Leaning and braced against a solid fence post I got 73' to 77' tall.



East Granby swamp white oak, photo by Sam Goodwin

Spiders in pines

by Steve Galehouse » Wed Dec 14, 2011 11:56 pm

Here is a photo of a fishing spider(dock spider) in an eastern white pine in Ontario---these critters are big!



Steve Galehouse

Sugar maple in Port Byron, NY

by lucager1483 » Wed Dec 14, 2011 8:40 pm

Sam, that's one honkin' big maple. Was it in good health or rotting away?

viewtopic.php?f=161&t=3399 (CT)

I see lots of similar trees in NY, but most are just hanging on, thanks, for the most part, to the power line folks (and poor site selection when planting).

Here's an old field maple on a piece of land I own.



The picture is of a sugar maple in Port Byron, NY.

You'll probably notice all of the young trees surrounding it. It's in a hedgerow between a field and an abandoned pasture. The pasture was used up until about 20 years ago, so it contains a lot of pioneer species for the area--mostly sugar maple, black cherry, and bitternut hickory. For whatever reason, large red maples are pretty rare around central NY, and from what I've seen, they tend to grow tall instead of fat. Trees such as this one are very common, especially along village streets. Typical heights are between 60 and 90', and girths tend to go from about 10' to the mid-teens.

I would guess that most big sugar maples in this area are between 100 and 150 years old and nearing their demise. Other than the groves that Tom Howard has reported on around Syracuse (Green Lakes SP, Liverpool, Camillus Unique Area), I haven't encountered many really old-looking specimens in the wild.

Elijah Whitcomb

Start of new project with DCR, MA

by dbhguru » Fri Dec 16, 2011 4:54 pm

NTS, Monica and I have finally gotten started on a project that we proposed to DCR several months ago to help with their interpretive services. DCR is most receptive, and wants to initiate a pilot project. The attachment is a draft of what we intend to present to them. Any comments/suggestions any of you may have would be most appreciated. I have intentionally limited the focus of this first submission. I want to get the first one right. The goal is to eventually the complete trail network of MTSF and MSF, and most of Mount Tom State Reservation.

Robert T. Leverett

Re: Start of new project with DCR

by dbhguru » Sat Dec 17, 2011 10:26 am

...the current game plan is to produce materials that can be used in a variety of ways to include brochures, kiosks, and websites. We give DCR the info and they turn it into products. DCR's assistant director for interpretive services has promised that if her agency can't devote the resources to the project, using our material, then DCR will back plan B. That plan would then rely on us to produce the final products, whatever they might be. DCR would provide links to the Friends Network website and to our BBS.

The project is very much in its infancy. At this point, it is defined as a pilot venture with focus on Myles Standish SF, Mount Tom State Reservation, and MTSF-MSF. We don't want to be too ambitious at the beginning. At this stage, the ball is in our court. I'm open to any and all suggestions.

I think this project could be loads of fun and open the door to exploring multiple media options. I have a friend that was radio. He now runs a recording studio. He's willing to help. BTW, the credit for getting this

initiative launched goes to Monica. She kept pushing me, reminding me that if I kick the bucket, a lot of forest-tree information that currently resides in my head would be irretrievably lost. I tend to downplay the value of the information, but she doesn't. So, here we are. Of course, what could be said of me goes for many of my lady and fellow Ents. Getting the information out of our heads and into forms that have an impact is an important mission, which in part is what the BBS is about. In this context, I do realize that extensive amounts of our forest and tree information exist in cyberspace, but in time, it becomes too voluminous and scattered and too difficult to find and sift through for specialty purposes. Finding the most current information on a topic and threading the pieces together becomes a real challenge. So, we have to be constantly aware of what we want to be keeping the general public and public agencies informed of and be aware of how accessible the information is to those parties. In my mind accessibility is the key to its having an impact. There is no single vehicle that will do it all.

In terms of the information locked up in my noodle, I'm reminded of the first really super white ash we discovered in MTSF, named the Ash Queen. It grows on Clark Mountain at an elevation between 1/2 and 2/3rd up the ridge from the Deerfield River in a rugged boulder field. In the distant past, the Ash Queen was visited by ecologists Drs. Rick Van de Pole and Tom Wessels, architect-timber framer Jack Sobon, Ent John Knuerr, photographer Diane Gray, a professor and students from UMASS Boston, and others, all in visits to the tree with yours truly. I once wrote a poem about the Ash Queen - not a very good poem, but one that expressed my feelings about the tree's importance.

The last time I measured the Ash Queen, a few years ago, her crown had pared back to 146 feet. When originally measured by Van de Pole, Wessels, and myself, she was a hair shy of 148 feet and the tallest known white ash in the Northeast. Diane Gray, a little French photographer who is as tough as nails carried her heavy camera apparatus up that boulder field and photographed the Ash Queen. She pieced together several shots to get the whole tree. After Irene and the snowstorm, I don't even know if the tree is still standing.

In the eyes of many, the Ash Queen will always be just a tree, but not to me. That lone ash inspired yours truly to hunt all over Mohawk for other tall members of its species, and eventually we confirmed nearly twenty 140s, two of which reach 150 feet - off the charts. No other property in the Northeast has yet matched the number of 140-foot tall ash trees. I expect that some of the southern PA sites can, but at this point MTSF is still number one.

Without us, the story of the Ash Queen disappears - just an ash tree on the side of a mountain. No big deal. But it is a big deal. We make it so - and rightly so. I think I've rambled enough.

Robert T. Leverett

[Re: Start of new project with DCR](#)

by dbhguru » Tue Dec 20, 2011 2:13 pm

NTS, I've attached the latest version of the interpretive trail description to DCR of the Elders Grove Trail. There are more images and I've shifted material around a bit. Ed gave me some excellent suggestions.

I don't blame anyone who doesn't want to wade through another version - or any version. However, the thought occurs to me that we could initiate an NTS-wide project on the trail interpretation theme. We could jointly work on an NTS Guide to Great Tree Trails. Each trail would be a separate stand-alone description. Writing styles and focuses could vary. The guide would be the composite of the individual descriptions.

Our site descriptions are fine, but most of what we see and relate are not from established trails. Visitors will usually not see what we describe. The trail guide would be for the public.



[INTERPRETIVE SUBMISSION-ed-2.docx](#)

Robert T. Leverett

[Tall eastern Mass. quaking aspen MA](#)

by AndrewJoslin » Sun Dec 11, 2011 8:53 pm

Sorry to tantalize but I found a superb quaking aspen in a small grove of same species in the Fowl Meadow area of the Blue Hills Reservation. It looks to be in the high 70's low 80 foot range. I will return at the earliest opportunity to measure. This area of woods just east of the Fowl Meadow marsh is proving to contain some nice trees, nothing to stop your heart but a good species mix and height/volume for far eastern Massachusetts woods.

Andrew Joslin

[Re: Tall eastern Mass. quaking aspen](#)

by AndrewJoslin » Fri Dec 16, 2011 7:33 pm

Went back and measured the Quaking Aspen today. The tree was originally spotted by my friend Paul Buck last weekend. Once I took a look at it I realized it had good height for the species.

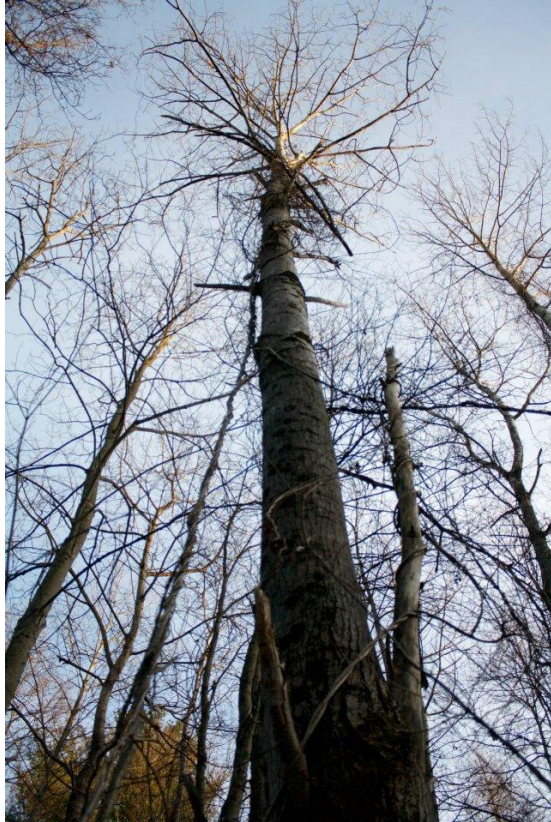
Quaking aspen, *Populus tremuloides*

Height: 84.6'

CBH: 4.25'

This is a fairly young tree in excellent condition. It's in a grove with several aspen, an older populus nearby was 78.4'. It's a prettier tree in person :-)

Andrew Joslin



North Syracuse Cemetery Oak Grove, NY 12/10/2011

by tomhoward » Sat Dec 17, 2011 4:59 pm

NTS, On this beautiful sunny cold windy day I had a glorious visit to the old growth North Syracuse Cemetery Oak Grove. The oaks are bare, and their incredibly gnarled limbs are easily visible. I took the first extensive series of photographs of the oaks in several years. These photos will take some time to develop as I do not have a digital camera, and I take them to Walmart to have them developed. The pictures I post to NTS are jpegs made on my computer from photos developed at Walmart.

Near the still-dry swale south of White Oaks #31 and #32, there is a young Oak next to a Red Maple – this Oak is about 12" dbh and is a Black Oak with Red Oak-like bark higher up so this tree is most likely a hybrid between Black Oak and Red Oak. This rather small Oak seems to be about 90 ft. tall. The grove's largest tree, Black Oak #27, is also this type of hybrid, about 70%-80% Black Oak and 20%-30% Red Oak.

The golden light illuminating the gnarled crooked crowns of these ancient White Oaks is the magical light of a holy place. I have never seen such glorious golden light before. In the 2nd growth forest north of the old growth oak grove, there is a fairly large, a little over 20" dbh, (I did not have the "D" tape with me) Oak just north of 3-trunked Red Oak #39. This new Oak is mostly Black Oak (with Red Oak bark higher up and on north side of tree). This is another hybrid, but it is mostly Black Oak so it has been added to the "Big Oak" list as the 2nd Black Oak.

Number of Big Oaks in North Syracuse Cemetery Oak Grove as of 12/10/2011:

("Big Oak" defined as estimated (oaks that are 19.5" dbh + round up to 20") 20"+ dbh or 100+ ft. tall)

White Oak	17
Red Oak	21
Black Oak	2
Total	40

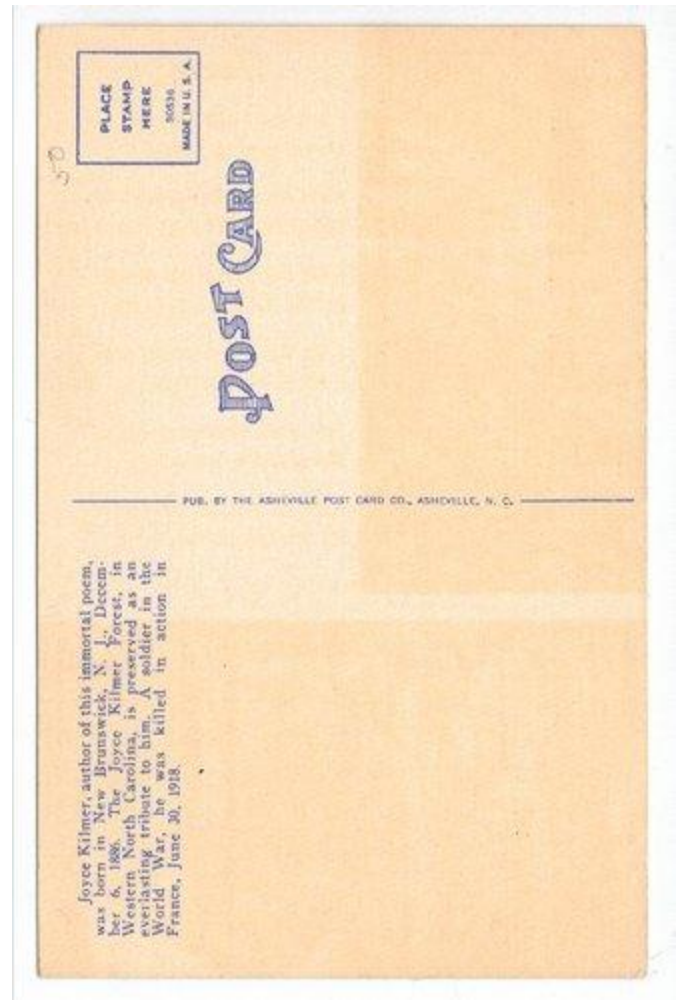
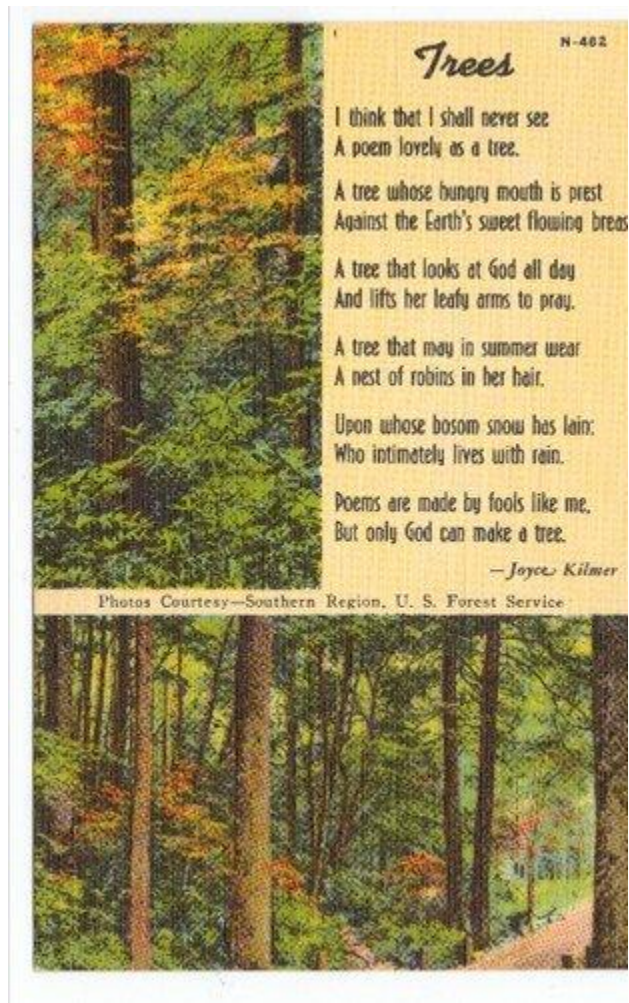
That is a lot in such a small area.

Tom Howard

Antique Postcards

by edfrank » Sun Dec 18, 2011 7:17 pm

I am wondering how many of you have old postcards showing images of forests, trees, or favorite parks? I received this postcard as a surprise within a Christmas card from a good friend and fellow Ent yesterday. It features the poem "Trees" by Joyce Kilmer:



I know for example there are at least two books published consisting of old postcards from Cook Forest State Park, PA and the immediate surrounding area. If any of you have interesting postcards, scan them and post them to this discussion thread.

Edward Frank

[The Death of Champion, IL](#)

■ by Beth » Mon Dec 19, 2011 2:39 am

It is with my regret that my family's "big oak tree" has had to resign as the Illinois State Champion *Quercus velutina*, Black Oak. At the time it was registered as the state champ, 2007, it was 70.7" circumference or 18.5' around, stood 85' tall and a average spread of 77'. My brother decided to bulldoze off about a 1-2 feet of top soil around it a couple of years ago to get rid of "anything with thorns", which included the the State Champion cockspur hawthorn, and that was the last straw that broke the camel's back. Today it is about 25' tall with one branch heading east, living, and another heading west, dead.

Beth Koebel

[Trees at the 9/11 Memorial, NYC, NY](#)

■ by Jenny » Mon Dec 19, 2011 2:28 pm

I've been visiting the 9/11 Memorial quite a bit. Yes, I wanted to see the beautiful pools and reflect on those who lost their lives, BUT the real reason for my frequents visits is to rescue a very wily pigeon named Fred. It's going to take forever as he flies, but he's just been hanging there with the NYPD, Port Authority Police, and 9/11 Security for 5 weeks!

They had been feeding him and giving him water (and still are on the sly), but a stupid New York Post article caused a debacle saying they were mocking the pigeon, making fun of it, treating it badly, as well as calling the pigeon "mean". This couldn't be further from the truth. The bird is tame and somehow escaped from a home. And the police and security were taking care of him. They loved him and Freddy loved them.

Anyway, the REAL ENTS' post is about the tree selection and expectations from the trees in the Plaza.

They replanted a valiant Callery Pear that actually survived amidst the massive destruction. It was transported to a park in the Bronx, then moved back in time for the opening of the Memorial in

September. They chose, I believe exclusively, *Quercus bicolor* for the Plaza. I had read that Sweet Gum trees were also to be included, but the article I am including says that they decided against this because the Fall foliage was too bright. Huh? But I need to investigate. They sell Sweet Gum copper ornaments in the Gift Shop (yes, there is, of course, a gift shop), so there must be a reason for this.

Anyway here's an interesting perspective of the plantings from Horticulture Magazine:

<http://www.hortmag.com/plants/9-11-memorial-trees>

Being oaks, the leaves are still clinging to the trees, so I will try to get some interesting, appropriate pix that show how closely together the trees are planted and also show their approximate age for those of you who can gauge this. Don't know about the viability of this, but I assume they expect to replace trees at intervals. The site is actually incomplete, There is a massive museum being constructed underneath the Plaza - big enough to house a fire engine and large steel girders (is that the word?).

Having been here in NYC during all this in 2001 and then watching and experiencing the media circus, I don't know if I will even want to visit the museum.

Most of the visitors are from other parts of the country and from all over the world. I understand wanting to visit if you are from out of town.

So there's more info than necessary.....no matter what spiritual or religious beliefs you have, PRAY that I rescue this bird before the truly bitter cold settles in.

The wind will whip east from the Hudson. And, yes, that's hard on Fred, but I have to be there for at least 2 hours a day! AHHHHHHH! Come ON FREDDY!

Jenny Dudley

Jennifer Dudley - December 21, 2011

Rescued Freddy! Rescued Freddy! Rescued Freddy! I think Freddy is a bit dehydrated and has not been getting enough proper nutrition. He's a bit under-energy. But I don't foresee anything seriously wrong.

[November Birds, Central Park, New York City, NY](#)

by Jenny » Mon Dec 19, 2011 3:31 pm

<http://vimeo.com/33888088>



Jennifer Dudley

[Prof. Suzanne Simard talks about Mother trees - Video](#)

by edfrank » Mon Dec 19, 2011 8:13 pm

Video by: Dan McKinney
Communication among trees

The University of British Columbia
<http://blip.tv/the-university-of-british-columbia/do-trees-communicate-5351099>



Dr. Suzanne Simard
http://farpoint.forestry.ubc.ca/FP/search/Faculty_View.aspx?FAC_ID=3198

[A classic American elm, Ohio](#)

by Steve Galehouse » Wed Dec 21, 2011 6:59 pm

I've driven past this tree many times; today I was getting my car serviced down the road so I took the time to photograph and measure. Not real tall at 61.8', but it's doing exceedingly well given its surroundings, hemmed in by a four lane road and sidewalk on one side and a parking lot on the other. The classic elm shape with deliquescent branching is always attractive.



Steve Galehouse

Postcard - Delaware Cypress Country

by Barry Caselli » Tue Dec 20, 2011 3:43 pm

The one reason I want to go down to Delaware some day is to visit a Baldcypress swamp. Here's a postcard I just got at an antique shop just down the road from here. I'm showing both sides of the card. Maybe it's from the 70s or so.



Go Into the Arts

by edfrank » Fri Dec 16, 2011 3:45 pm

go into the arts. I'm not kidding. The arts are not a way to make a living. They are a very human way of making life more bearable. Practicing an art, no matter how well or badly, is a way to make your soul grow, for heaven's sake. Sing in the shower. Dance to the radio. Tell stories. Write a poem to a friend, even a lousy poem. Do it as well as you possibly can. You will get an enormous reward. You will have created something.

Words of wisdom from Kurt Vonnegut

Georgia canopy heights from LiDAR

by Jess Riddle » Wed Dec 21, 2011 8:40 pm

In terms of tree heights, North Georgia has long taken a back seat to the mountains of western North Carolina, eastern Tennessee, and northwestern South Carolina. Out of dozens of overstory species that reach their maximum height in the southern Appalachians, the Georgia mountains support the height records for only four species, and three of those are pines growing in the Chattooga River watershed. That lack of records has endured despite extensive searching, rainfall comparable to more record rich regions of the Southern Appalachians, and long growing seasons. However, that pattern is poised to change thanks to LiDAR.

LiDAR data is currently available for only about half of north Georgia's mountains, but a plethora of extremely promising sites are already apparent.

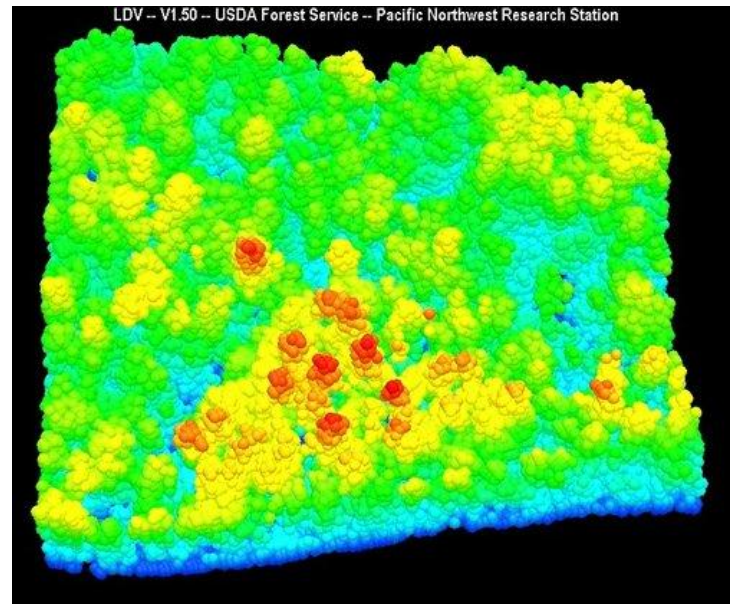
LiDAR indicates literally hundreds of groves with trees over 150', and 160's are common in some watersheds. Many of these areas have been little or not at all previously searched, but others are known tall tree sites. Many of the latter appear more extensive or have a wider range of productive habitat types than previously thought.

The apparent lack of tall trees in Georgia was partly a product of the types of sites that are most productive in Georgia. Coves dominated by a mix of tall hardwoods, by far the most abundant and productive tall tree sites in western North Carolina, are relatively predictable based on topography and the records of uncommon rich site species. Georgia has few cove forests that are the same caliber as those found in western North Carolina in terms of productivity.

Instead, LiDAR indicates Georgia has an abundance of sites where white pine grows well. Such sites are less predictable from topography, and the tall trees are often scattered rather than densely packed in discrete groves. Consequently, most of the records from north Georgia will be species that grow well in association with white pines or on similar site types, but there is also some potential for rich site hardwoods that grow best at low elevations.

This holiday season I will be visiting a few of the

most promising sites. Overestimation of tree heights due to leaning trees on steep slopes is much more common with white pine than tuliptree, so it is hard to say just how tall the trees will turn out to be. The data is dense enough to see a strong lean, so the largest errors can be avoided. The tallest hits that look reliable are around 190', so the Boogerman Pine's reign as the tallest known conifer in the east may not last much longer.



One of the larger clusters of tall white pines. Most of the trees grow on a small, sheltered, alluvial flat, and the highest hit is 176.1'.

Jess Riddle

Re: Georgia canopy heights from LiDAR

by Jess Riddle » Thu Dec 22, 2011 8:41 pm

In general, I think the GA LiDAR heights are just as good as those from NC.

Site	Species	Date	Ground	LiDAR	Difference
Cliff Creek	White pine	1/2011	178.7	178.1	-0.6
Cliff Creek	White pine	1/2011	183.6	182.4	-1.2
Cliff Creek	White pine	1/2011	184.8	182.5	-2.3
Kelly Ridge	Tuliptree	12/2001	151.2	157.5	6.3
Kelly Ridge	Tuliptree	12/2002	159	162.4	3.4
Kelly Ridge	Red hickory	12/2002	144.7	149.1	4.4
Laurel Creel	White pine	3/2005	181.4	184.9	3.5
Reed Creek	White pine	1/2000	153.6	168.5	14.9

The GA data was flown at the start of the 2010 growing season. I don't have coordinates for some of these trees, so I can't be completely certain that the hit isn't for a nearby tree. The red hickory, Laurel Creek, and Reed Creek trees definitely match the hits. In general, I think growth and/or not finding the true top from the ground account for the differences.

The LiDAR coverage for GA spills over just a little into SC, mostly slopes that drain directly into the Chattooga/Tugaloo River. In that little slice of the state, there are several hits over 180 feet, but almost all appear to be associated with cliffs or a lean. I still feel 180' is likely for a white pine in the northwest corner of the state.

Jess Riddle

NTS-Wide Trail Guides Project

by dbhguru » Thu Dec 22, 2011 11:53 am

Any thoughts about the following suggestion made in my prior posting?

I very much hope we can turn this and other trail guides into an NTS-wide project where we all participate. There would be nothing like it anywhere on the Internet. Nobody deals with the trees the way we do, and if we add information from other disciplines, then we can make a series of tree-based trail guides like no others.

Robert T. Leverett

Treeverse Video

by Ascending the Giants » Thu Dec 22, 2011



<http://ascendingthegiants.com/homepage/treeverse-dvd.html>

Ascending the Giants says: We are now pleased to announce the DVD release of Treeverse is finally here. But first we'd like to thank our sponsors, backers and dedicated individuals who have all been responsible for the makings of this record setting adventure. And a special thanks to Uncage The Soul Productions for documenting and creating this award winning short film documentary.

Treeverse: Special Feature DVD

In Stock: USD: \$20.00

Treeverse: Special Feature DVD: Includes 5 short films from Uncage The Soul Productions

Treeverse

Duration: 28 minutes of long distance, endurance-sapping canopy travel

Summary: On March 23, 2011, Brian French and Will Koomjian set off on an unprecedented 1 km canopy trek through an old growth Oregon White Oak forest. Their journey would involve packing all their equipment and belongings with them, traveling unsupported, and never touching the ground. For the next 5 days, Brian and Will would endure the predictably unpredictable Oregon spring weather, battle fatigue, and face seemingly impossible gaps of over 100 feet between trees. Their success would depend on choreographed teamwork, some innovative tools and techniques, and a fair bit of luck.

Into Darkness

Duration: 15 minutes of captivating underground exploration

Summary: Into Darkness is a short adventure essay

about the experience of exploring the secret underworld of caves. The images and sounds of spectacular and remote wilderness caves will reveal a fantastic world unlike anything we experience on the surface.

Ascending the Giants Film

Duration: 12 minutes of dedication to preserve Oregon's largest trees

Summary: Following the demise of the Klootch Creek Spruce, an Oregon landmark, Portland arborists Will Koomjian and Brian French set forth on a journey to locate a new Oregon State Sitka Spruce champion. As they visit several giant contenders along the windswept Oregon coast, both arborists reveal their motives run deeper than collecting data and naming a new champion.

Flight of the Dunni

Duration: 16 minutes of Oregon landscape footage, laughter and suspense

Summary: This short adventure documentary features Jaysen Dunnivant's attempt to design and construct a balloon chair. He attempts this aerial stunt two miles from the nearest road, requiring dozens of trips hauling hundreds of pounds of weather balloons and helium tanks into Twin Lakes in the North Umpqua National Forest. In the sport of 'cluster ballooning', there is only one known participant in North America. Dunnivant attempts to become the second.

Findig Oregon

Duration: 4 minutes of breathtaking timelapse sequences of Oregon's pride and joy

Summary: Finding Oregon is the compilation of six months of timelapse photography across the state punctuated by a 1600 mile road trip in September.

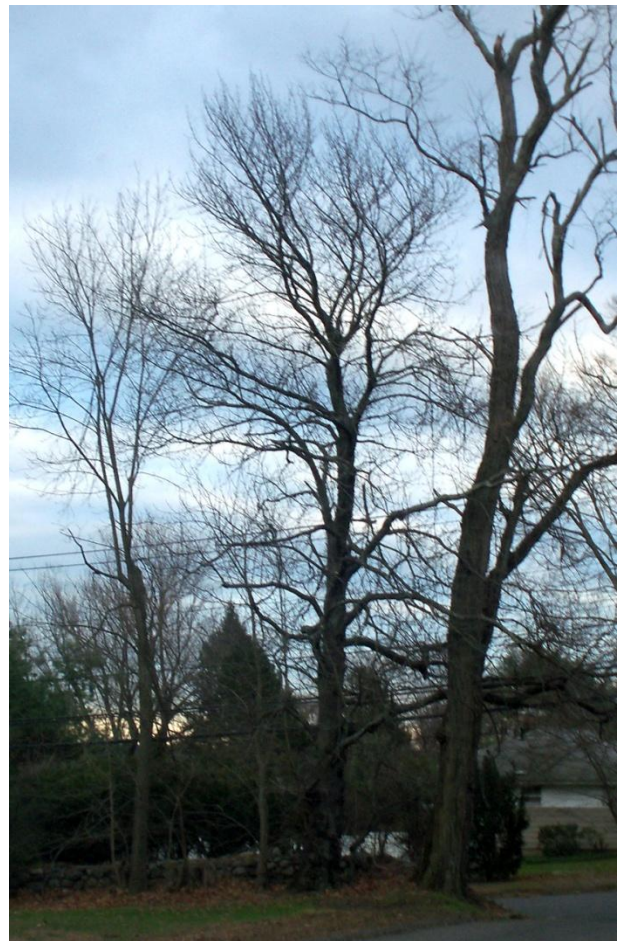
Locations include the Columbia River Gorge, Mt. Hood, Mt Jefferson, the Southern Coast, the Alvord Desert, Leslie Gulch, Blue Mountains, Crater Lake, and the Eagle Cap Wilderness. Uncage the Soul Productions is always considering future timelapse projects.

Cherry (sp.), Southwestern CT

by RyanLeClair » Thu Dec 22, 2011 5:25 pm

Hey all, just measured an unusual cherry, possibly a pin cherry (*Prunus pensylvanica*). Height = ~36 ft, CBH = 91 inches. The 91 inch circumference seems substantial. For comparison, the Nat'l Champion pin cherry has a CBH of 56 inches (but is 3X as tall), and the largest *P. pensylvanica* in NC has a 51-inch circumference.

This is the first hardwood I've ever measured for height, so take that measurement with a grain of salt. It may be pin cherry--its leaves and bark fit the description—but it could also be a European species. I may have to wait until spring to verify. Some photos will be up soon. Here are a couple of pictures of the tree. It's growing right alongside a classic New England stone wall.



Here's a photo of the trunk. It's rife with lenticels.



It may be *Prunus avium*, but the leaves don't seem to match. *Prunus avium* leaves seem to be more elliptical with noticeably acuminate tips, while the leaves of this CT tree (from memory) are more lanceolate, without the acuminate tip.

[Re: Cherry, Southwestern CT](#)

by RyanLeClair » Fri Dec 23, 2011 10:27 pm

Thanks guys for the ID help. It probably is a *Prunus avium*, the Google Image results look like a match.

RyanLeClair

[Metasequoia on Smith College campus, MA](#)

by dbhguru » Sat Dec 24, 2011 4:01 pm

Will Blozan asked if I would get images of a large dawn redwood on the Smith College campus for a third party doing research on the species. This morning Monica and I went to Smith. Here are 3 images of the tree.





Latest measurements are girth = 17.8 feet and height = 95.8 feet.

Robert Leverett

White Pine and Hemlock heights

by tsharp » Sat Dec 24, 2011 10:40 pm

Steve, NTS: sjharlow wrote

It's interesting that white pines do so well in the northern and southern parts of their range. I've been wondering for a while why there doesn't seem to be any super tall pines between northern PA and North Carolina. Anyone have an idea?

I believe there doesn't "seem" to be any because NTS people have not been to the appropriate sites to measure. I believe this is true for WV and probably VA but can not speak for other states. Presently the WV height record is 148' but this was not recorded from a good White Pine site. However I have a similar question about Hemlock in which I have spent some time trying to answer - so far without success. Consider this: Max height for Hemlock is 140'+ in PA and 170+ in NC. I would think WV would have some hemlocks in the 150-160' class. The present height record for WV is 130.3' measured by Dale Luthringer at Cathedral State Park in 2003. I have

recently visited several good hemlock sites(will post details later) but have not measured any tree over 130' I intend to continue to do so until I find some or the HWA beats me to it.

Turner Sharp

More World Records From Zane Moore

by M.W.Taylor » Sat Dec 24, 2011 11:34 pm

I got an email from Mike Hanuschick yesterday stating he confirmed Zane's remarkable new tall tree discoveries with a Trupulse200 laser. Mike's figures were even higher. While Mike was confirming a 240' eucalyptus Zane found last week, they found an even taller one that stands just over 250' according to Mike's measurements. I plan to measure these trees next month and will update this forum on my measurements using the Impulse200LR. I hope to have some photographs and 3rd party confirmation soon on the heights. All these trees located in the San Francisco-Monterey region.

Bay Laurel - 160.0'

Tanoak - 160.4'

California Sycamore - 178.5'

Eucalyptus - 250.6'

New Tallest Tree for New Zealand

by M.W.Taylor » Sat Dec 24, 2011 11:40 pm

Steve Sillett and Bob Van Pelt have located a eucalyptus regnans in New Zealand this week that stands 80.2 meters, or 263 feet. This breaks the old height record of 74m for NZ by over 6m. The tree grows in a forest of regnans that was planted in the 1860s. Not far away are some douglas fir forests of nearly equal height. Non native trees such as coast redwoods, giant sequoia, e. regans and douglas fir thrive in New Zealand's temperate climate, often better than in their native ranges.

Michael Taylor

Re: New Tallest Tree for New Zealand

by fooman » Sun Dec 25, 2011 4:23 pm

Hi All, Just some additional information with respect to Michaels post, and the subsequent questions:

- Without knowing the exact details, the tree is likely to be the tall mountain ash at Orokonui Sanctuary (<http://www.oroconui.org.nz/>), near Dunedin, South Island. The tree was planted ca. 1870, and was measured at 69.1 m in 1982, 77.4 m in 2004 (tape drop), and, now it looks like, 80.2 m in 2011. The NZ notable trees database has an entry for this tree at <http://register.notabletrees.org.nz/tree/view/796>. This tree has had the title of NZ's tallest known tree since 1982. Another mountain ash planted in the Waikto region was measured at 71.2 m in 1968, but was reduced in height during a severe storm soon after (<http://register.notabletrees.org.nz/tree/view/588>).

- Ed, I suggest Michael's website (<http://landmarktrees.net/tash.html>) and the Australian Champion Trees Register (<http://www.nationalregisterofbigtrees.com.au/index.php>) for information on the tallest/largest eucalypts.

- The non-native ("exotics") species do escape, and some are considered to be of nuisance value outside of managed plantations and/or gardens/parks. The most invasive species are *Pinus radiata* (vast plantings of this species in NZ since the 1920's) and the various willow species. There is significant use of exotic species as shelter belts on the dairy/sheep farms, as well as ornamentals. But the biggest plantings are of conifers (mainly *P. radiata*, some douglas fir, some cedars) for timber and pulp processing. The Kaingaroa forest (http://en.wikipedia.org/wiki/Kaingaroa_Forest) was one of the largest plantations in the world (on nutrient poor, pumice rich volcanic soil) when it was planted in the 1920's. These days, *radiata* tends to be harvested after 20 or 25 years for pulp, maybe a bit later for timber. There are probably a few plots remaining of the original plantings, as permanent research plots, but most of the original government-owned forests were privatised in the 1980's. A *P. Radiata* specimen planted in 1927 was measured at 64.2 m in the early 1980's. There are large

ornamentals of this species as well - e.g.

<http://register.notabletrees.org.nz/tree/view/714>.

Very close to this tree is a large *Cupressus macrocarpa*, another widely planted exotic, mainly for shelterbelts or firewood

<http://register.notabletrees.org.nz/tree/view/763>.

Broadleaves also do very well, an example of a large cottonwood is at

<http://register.notabletrees.org.nz/tree/view/210>.

- The redwood grove at Whakawerawera, Rotorua is a tourist attraction (<http://www.redwoods.co.nz/>).

The plantings there, of many conifer species, were a research project identifying the best species to use in the large plantings of the early 20th century. Steve Sillet and Bob van Pelt, during a visit to the adjacent forest research facility a 3 or 4 years ago, measured the tallest redwood there at ~67 m tall. (the tallest was measured at 62.4 m in 1981, the largest at 197 cm dbh at the same time). These trees were planted in 1901. Whakawerawera forest is a working forest, but the original plantings are reserved. If you go onto google earth and look at Rotorua, the forest is to the southeast of the city - numerous photographs are browsable via the Panoramio database.

For further information on NZ trees, check out the notable trees database

(<http://www.notabletrees.org.nz>), the conifers.org section on NZ conifers

(<http://conifers.org/topics/nztrees.htm>) or a couple of books - "Great trees of New Zealand", by S.W.

Burstall and E.V. Sale (1984, out of print, but often found on internet auction sites), and more recently, Trees of New Zealand, by P. Janssen and M.

Hollman (2011). Both these books describe individual specimen trees located throughout the country.

Cheers,
Matt

Abies fraseri var. decorata

by Steve Galehouse » Sat Dec 24, 2011 11:29 pm



Merry Christmas, everyone!

Steve Galehouse

What Does the Future Hold For The NTS?

by dbhguru » Sun Dec 25, 2011 10:15 am

NTS, I am amazed when I consider what we are witnessing. Thanks to Michael and team, we're now getting confirmations of deciduous trees in California that exceed heights beyond what we could have imagined. And it is almost 2012! These latest numbers confirm beyond a shadow of a doubt the value of NTS and associates - if there had been any previous doubts. With LIDAR, new ground-based measurement techniques, a growing team of super Ents searching for new records, and thanks to Ed, the web-based apparatus to communicate effectively, we're steamrolling. 2011 has been a heck of a year.

Who among us would have predicted that we could have legitimately reached 170 feet in Ohio? Consider the sheer number of 20-foot girth live oaks that Larry has confirmed with who knows how many left for him to discover. Then there are the great tuliptrees that Will, Josh, Jess, Mike, etc. in the Southeast are finding. Thanks to LIDAR and Jess, Georgia has come up on the radar scope. And we keep locating more sites with impressive white pines here in New England. Bart is off again to Costa Rica searching for big trees. Kouta and Geroen are ferreting out the best in Europe. The list of accomplishments goes on. When they are strung out in many postings spread over many months, we can lose sight of just how many discoveries have been made.

What's left? A few years ago, I believed that we were near the end of the discovery process. How wrong I was.

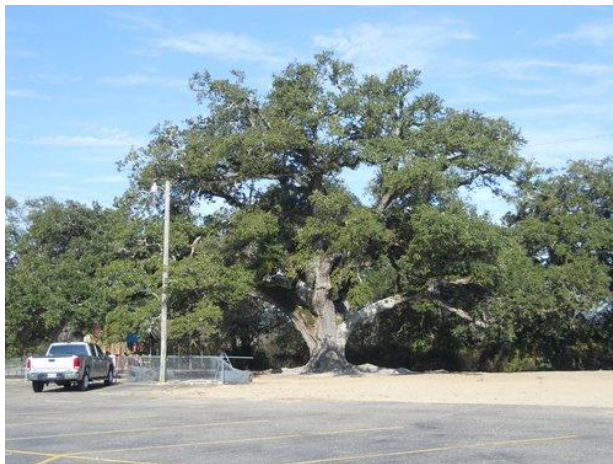
Could 2012 exceed all previous years of discovery?

Robert T. Leverett

Cedar Lake Christian Academy Oak, MS

by Larry Tucei » Sun Dec 25, 2011 2:31 pm

NTS, A couple of weeks ago I was driving north on Cedar Lake Rd., in Biloxi Ms. and noticed a large Live Oak growing at the Cedar Lake Christian Academy. I had a chance to go and measure the tree today on my way to visit my family. The tree is located at 11555 Cedar Lake Rd. The Oak is on the north side of the property at a small ridge that runs along the Tchoutacabouffa River. The small River flows east to west along Interstate 10 then empties into Big Lake at the back of Biloxi Bay. This is a beautiful tree in the 150-200 year old range with a broad crown that measured CBH-20' 9", Height-58.5' and Spread-138' x 120'. Several nice Live Oaks were located here but this was the largest. Larry



Explanation?

by jamesrobertsmith » Sun Dec 25, 2011 9:44 am

Here's a photo an online friend took on Poor Mountain off the Appalachian Trail in Georgia. I'm familiar with "walking trees" and know how they occur. But this one looks different. Any explanations from you Professors and learned men?



There a number os suggestions by various people:

Joe Zorzin wrote: *I bet it started growing on a tall stump- then the stump rotted away.*

Steve Galehouse wrote: *I don't think it started on a nurse log or stump, since the column of the trunk is intact on both the left and right sides. I think the tree had a trauma that led to heart rot of a portion of the trunk, without losing the bark associated with that area. Roots eventually began to form from the wood above the damaged area beneath the bark no longer*

attached to live wood. Eventually the loose bark sloughed away, revealing the "adventitious" roots in the center.

Jess Riddle wrote: *Looks to me like the tree was a twin, and the roots grew into the rot associated with the tightly appressed trunks.*

Christmas Tree Count, OH

by Steve Galehouse » Sun Dec 25, 2011 8:28 pm

NTS, If birders can have a Christmas Bird Count, we tree-ers can have a Christmas Tree Count. I came up with 113 species(just I.D.'d, not measured) in my neighborhood and local parks.



[CTC.xls](#)

Clipboard		Font	
N30		fx	
	A	B	
1	Abies	balsamea	
2	Acer	campestre	
3	Acer	ginnala	
4	Acer	japonicum	
5	Acer	palmatum	
6	Acer	platanooides	
7	Acer	pseudoplatanus	
8	Acer	rubrum	
9	Acer	saccharinum	
10	Acer	saccharum	
11	Acer	x freemani	
12	Aesculus	flava	
13	Aesculus	glabra	
14	Aesculus	hippocanstanum	
15	Amelanchier	arborea	
16	Betula	alba	
17	Betula	nigra	
18	Betula	populifolia	
19	Carpinus	caroliniana	
20	Carya	glabra	

Dive bomb bird in the hand

(About our very own Jennifer Dudley.)

Dive bomb bird in the hand - Cop-hating pigeon tamed (December 26, 2011)

http://www.nypost.com/p/news/local/dive_bomb_bird_in_the_hand_V1s0oZOOP7tdlaXgLFAvOQ



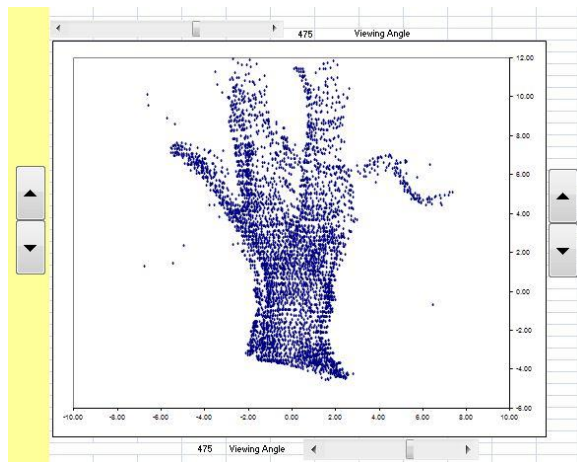
[Impulse200LR Laser - 3D Tree Modeling](#)

by M.W.Taylor » Sun Dec 25, 2011 3:36 am

Bob, Mario, Ed & the other ENTS readers,

3D trunk cloud mapping is another cool thing you can do with the Impulse200LR. Check out the attached spreadsheet where I cloud mapped the entire lower bole and branches of a complex oak tree using 5,000 points in cartesian X,Y,Z coordinates. I did this with the Impulse200LR and Mapstar Angle Encoder from Laser Technologies Inc and some custom made VBA code.

You can rotate the embedded oak tree image about the Z axis using the arrow spinners.



Once you have cloud mapped your chosen tree, you can then estimate its volume quite precisely using a computer and iterative methods. I will discuss the specific methodology of this exciting new method of tree volume measurement in the upcoming book co-authored by the ENTS founders and myself called Dendromorphometry.

Michael Taylor
WNTS VP
American Forests California Big Trees Coordinator
<http://www.landmarktrees.net>

 [Forest Mapper live oak with mapstar- Mac.xls](#)

[Re: Impulse200LR - 3D Tree Modeling](#)

by M.W.Taylor » Mon Dec 26, 2011 3:35 pm

Doug, that oak shape table took me about 5 hours to make. The image looks just like the picture.

I average about 1,000 points per hour using the serial cable to download the distance, inclination and azimuth data of Impulse200LR and MapStar directly to a field PC. If I had to do it by hand, my data acquisition time would triple at least.

The accuracy is as good as your instruments and also diligence to keeping a precise account of the encoder angle summation as one navigates around the tree is of utmost importance. This method will be discussed further in Dendromorphometry. The BoschGIR distance laser are perfect for trunk mapping because they emit a continuous scan red dot laser that updates distance every 1second to accuracy within 1mm. No serial port however so you have to record the #'s by hand. The Leica Disto D8 has bluetooth and inclination along with mm accuracy, but no Azimuth. The Trupulse360 has Azimuth but not super accurate. These two lasers are probably the best choice for trunk mapping on a budget. The Bosch100GLR was \$107 on Amazon last time I checked.

There are also some new ground based LIDAR technologies I am looking at to speed up the process by 1,000 percent.

Hope you find this information helpful,

Michael Taylor

Re: Howland's Island

by Jess Riddle » Sun Dec 25, 2011 11:51 pm

Elijah, nice introduction to the islands, and thanks for bringing the site to the attention of the rest of ENTS.

I've also made multiple trips to the island, and I agree it has one of the most interesting collections of forests in central New York.

I've noticed that most of the island's mature forest grow either in the floodplain of the river or on the west side of the drumlins. Most of the areas in between drumlins have been converted to ponds, and the east sides of the drumlins support either corn fields or post-agricultural forests. Howard Island is the only place I have been where bitternut hickory is a dominant early successional species. Many of the old farm fields have succeeded to nearly pure stands of bitternut hickory with only scattered butternuts or cherries mixed in.

The bitternut hickory stands are not the only unusual element of the islands forests. Kentucky coffee-tree and shellbark hickory, both known in NY from fewer than five populations, are native to the island (or were moved there by Native Americans). A west facing slope on one small drumlin also has a nearly pure understory of American bladdernut. Another particularly diverse drumlin, perhaps 50 acres, supports 26 tree species.

The forests in the Seneca River floodplain are not as diverse as the uplands, but support much higher concentrations of large trees. Freemans maple (*Acer x freemanii*, syn. *A. rubrum* x *A. saccharinum*), by far the most abundant trees in the floodplain, occasionally exceed 14' cbh as single stemmed individuals and 18' as multiple stemmed clusters.

Silver maple is largely restricted to the river edge of the floodplain. Swamp white oak, cottonwood, green ash, and sycamore grow scattered amongst the maples. Among the saplings, green ash is the most common, but dense stands of spicebush make up the understory over large areas on the landward side of the floodplain. I'm fairly certain these forests have been cleared in the past, and that they are not substantially older than the upland forests. The floodplain trees can reach larger diameters than the

upland trees due to the inherently fast growth rates of the floodplain species, good water supply, nutrient inputs from the river, and fertilizer runoff from the adjacent farm fields.



15'0.5" (above basal sprouts) x 115.5' freeman maple

I've roughed out heights for many trees on the island, but only carefully measured a few. I think there is potential to considerably raise the Rucker index, and believe the tallest trees on the island are tuliptrees around 130'.

Species	cbh (in)	height (ft)
Coffee-tree	77.5	96.1
Hickory, bitternut	78.5	120.7
Hickory, shagbark	52	114.9
Sycamore	130	122.6

Jess Riddle

Metasequoia on UNC-Chapel Hill Campus

by pdbrandt » Mon Dec 26, 2011 10:43 am

Very nice metasequoia. There is one about half that size on the campus of UNC-Chapel Hill.

Here are 3 pics:



It is part of a virtual campus tree tour I put together:
<http://maps.google.com/maps/ms?hl=en&gl=us&ie=UTF8&oe=UTF8&msa=0&msid=201122271009071227755.0004ad4b54ab3e9f80894>

Patrick Brandt



Freeman's Maple

by Steve Galehouse » Tue Dec 27, 2011 12:14 am

Doug Bidlack wrote: How do you distinguish Freeman's maples from Silver and Red?

Doug, I'll chime in, since Freeman maple is common in NE Ohio as well. Basically they are intermediate between red and silver maples, with leaf sinuses deeper than red but shallower than silver. They tend less to be multi-trunked compared with silver, and seem to be typically taller and more upright than red. Fall color can be red or yellow, or a combination---silver maple is almost always a mediocre yellow. I've attached a pic of a Freeman from a local park, showing the bark and a typical leaf. This tree, at 130.7', is the tallest maple I've found in the state.



From what I've observed Freeman maple is more upright than either red or silver, or at least it has a cleaner bole and a narrower crown compared with red, and seems to not "lean" like so many silver

maples do. A link to a photo of a Freeman maple crown: <http://alpha.treesdb.org/Photos/630/Large>
When one sees the leaves in person they become less confusing, but generally resemble red more than silver.

Steve Galehouse

Re: Freeman's Maple

by Jess Riddle » Tue Dec 27, 2011 1:55 pm

Doug, I agree with Steve's comments on distinguishing Freeman maple. If you want a few more technical details, try <http://joa.isa-arbor.com/request.asp?JournalID=1&ArticleID=2564&Type=2>

Here's what the leaves look like at Howland Island



Jess Riddle

Smith College campus, MA

by dbhguru » Tue Dec 27, 2011 9:48 am

Today Monica and I went to the Smith College Campus. I am starting to update my list of the Smith College trees. I'll let the metasequoia previously presented stand as the first tree. The second is a sycamore that grows near the college's entrance. It is fairly old and grows near the top of a hill. It measures 14.8 feet around and is 90.5 feet tall. A handsome tree. Here are two images of it.



Down the hill and near the Mill River grows a second sycamore. I'll get images of it on another day. It is hard to photograph in any artistic way. But it is an impressive tree. It measure 14.2 feet around and is 124.9 feet tall. It is one of the 10 tallest sycamores

I've measured in Massachusetts.

The real treat of the day came when I measured the campus's tallest tree, a white pine that I hadn't measured in several years. Well, it has grown. First a look at it.



Now to its dimensions. At 9.95 feet, the tree falls just short of 10 feet in girth. I'll call the tree an even 10 feet. Now to height. Well, measuring from 3 different locations, I settled on a height of 143.3 feet! Wow! The Smith tree becomes the tallest tree of any species that we've measured in the Connecticut River Valley. It beats the tuliptree in Robinson and the white pine on Mount Tom.

There are lots of fine trees on properties owned by Smith College, including the tuliptrees near Fruit Street. In fact, all of Northampton is rich in fine trees. As encroaching winter temperatures encourage me to stay closer to home, the time to showcase area trees has arrived. Later today, I'm going to Easthampton to check on the tall sycamore.

Robert T. Leverett

Re: Smith College campus, MA

by dbhguru » Tue Dec 27, 2011 2:32 pm

Just got back from Easthampton where I remeasured the Mass champion of height sycamore. The most I could get out of it is 139.2 feet. It is 13.8

feet around. It is difficult to get a good photo of it and Monica didn't want to descend into the ravine to be the model. So, the tree goes on the list of "To-Be-photographed". Meanwhile, the new height of the CT River Valley champion pine appears below. Monica is leaning against it.



a big and fast-growing northern red oak

[Appleton, NY Oaks](#)

by Neil » Mon Dec 26, 2011 9:29 pm

Here are some pictures of some northern red oak from near Appleton, NY that are similar to the one you posted. they were some very large in the remnant forest and we didn't get the center of the largest trees. however, these individuals were growing rather rapidly and I would be surprised if the Appleton northern red oak were much over 200 years of age. I've cored other red oak of decent size (a picture inserted below) near Fulton, NY that were not much over 150-170 years of age. I think trees in the Lake Ontario plain growing on decent sites, not too dry, not too wet, likely grow rather rapidly in the cool, lake effect environment.

Neil Pederson



A large northern red oak <170 years old at Curtiss-Gale Wildlife Management Area, Fulton, NY

Modeling a 117 foot, 234 point poplar in Chapel Hill, NC

by pdbrandt » Tue Dec 27, 2011 12:55 pm

Dear NTS, Carolina North Forest (CNF) is a 760 acre public use forest maintained by the University of North Carolina. The forest cradles a soon-to-be-defunct airstrip used over the years by the rich and famous of Chapel Hill as well as visiting dignitaries.

CNF is crisscrossed by miles of dual use running/hiking and mountain bike trails. The forest is primarily composed of ~50 foot tall new growth loblolly pines, but there are a few pockets of mature deciduous stands as well, with multiple trees over 100 feet tall. The forest is loved by the locals and even has its own facebook page

(<http://www.facebook.com/pages/Carolina-North-Forest/179464238759273>).

CNF is on my commute to and from work and I have spent many hours riding the trails scouting for big or otherwise notable trees. The monarch of the forest is a tulip tree (*Liriodendron tulipifera*) with a CBH of 8', 10" that towers over a section of the forest noted for its lack of undergrowth, but plentiful, straight-boled poplars, gnarly oaks, and sweet gum trees.

Last Thursday I set aside most of the day to climb the monarch with the purpose of determining the height and total volume of the tree.

This is my first attempt at determining total tree volume and part of the purpose of posting my experience and my data set is to get your feedback about whether I am making correct assumptions and modeling the tree in an accepted way. I plan to model at least one other tulip tree in CNF – a wish bone poplar with a CBH of 11', 11" (the trunk diverges at 5.5 feet high into 8', 4" and 6', 11" co-leaders), and one or more of the giant red oaks that watch over another part of the forest. I appreciate any comments, questions, or suggestions you can offer.



The Monarch of CNF

The monarch poplar is about a half mile from the trail head so I tried to pack lightly. Even so, I got some quizzical looks from trail runners as I toted my harness, ropes, slingshot and climbing helmet through the forest. The climb took place on the first day of winter, but the temperature was a balmy 65

degrees and I left my jacket at the base of the tree. I had previously measured the CBH to be 8', 10" (or 106") and the average spread of the compact canopy at 43', 6" (45.5 feet major axis and 41.5 feet minor axis). Apparently, luck was on my side because I set an entry line over a good branch 65 feet high on the first try with my hand held slingshot.



Light weight tree entry option

The modified slingshot is made by attaching a \$30 spincast fishing reel (spooled with 90 yards of 20 pound test line) to a \$15 wrist rocket slingshot using a short piece of PVC and 2 hose clamps. A 2-ounce lead weight wrapped in bright orange duct tape serves as the projectile. I use the fishing line to haul a 2.2 mm throw line over the branch and then use that to place my 11.5mm arborist rope over the limb.

I climbed to my first tie in point using a split tail, doubled-blake's hitch, self-advancing setup and a single foot lock. I stopped every ~15 feet to measure the circumference of the trunk on the way up to the first branch. At 50' up, the trunk was still 6', 10" in circumference. The first two branches are at 54 and 59 feet high and appear to have been broken off by storm damage. I measured the limb circumference of these and all 15 primary limbs that protrude from the trunk. Limb circumferences range from 18 inches to 38 inches. The main bole splits at 71 feet into a 4', 11" circumference leader and a 3', 11" lesser trunk. The leader was still 2', 5" in circumference at 94' when it finally split into a series of secondary branches that I wasn't comfortable trusting my life to.



The Monarch's crown

I brought along a new tree climbing tool that proved worthy of its weight many times over. It is a set of 11 aluminum tent poles shock corded together that telescopes out to a little more than 16 feet long. The whole set weighs about 10 ounces and fits in an old umbrella cover that hangs from my climbing saddle. I used the poles, which have bright orange tape at 1 foot increments, to determine the length of secondary branches too steep or too flimsy to access. The poles, which have a hook on one end, also come in very handy when advancing my climbing line when the dangling end of the rope is out of my reach.

(Incidentally, I bought more than 11 poles from http://questoutfitters.com/tent_poles.htm, but I found that combining any more than 11 sections results in a pole that curves too much to be useful.)



Poles extend to 16 feet to help with measurement or line retrieval

While tied into the crotch at 94' feet high (confirmed with a final tape drop), I extended the 16-foot pole as high as my arm could reach, but the tip was still about 2 feet shy of the tallest twig. Adding a few measurements together I confidently report the height of the tree as 117' (+/- 6"). There are most certainly many taller tulip trees in NC, but this one is certainly one of the tallest in CNF and a worthy specimen for the central Piedmont of NC. With a height of 117', CBH of 106" and average crown spread of 43' it has AmericanForest.org point value of 234.

I calculated trunk section volumes using the formula for volume of a frustrum ($Vol = \pi * h / 3 * (R^2 + Rr + r^2)$). I made 11 trunk circumference measurements between ground and 94' high and I also treated the two lowest branches (the broken ones) as frustrums. There was also a primary limb at 61 feet that split into two limbs 5' from the trunk and I treated the single section close to the trunk as a frustrum as well. All frustrum sections together represent a volume of 391 cubic feet.

I made some assumptions when calculating the volume of the primary branches. As noted above, there are 15 primary limbs that protrude from the trunk with circumferences ranging from 18 inches to 38 inches. I measured/estimated the length at which each primary limb tapered to less than 2 inches in diameter by cautious limb walking and using my extendable pole. Limb lengths ranged from 15' to 35'. To calculate volume of the primary limbs I determined 3/4 of the starting radius and assumed

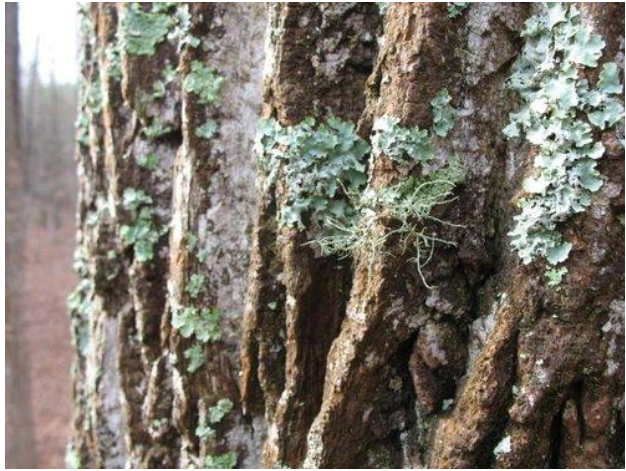
that represents the width of the limb at 1/2 way out the branch. I used the equation for volume of a frustrum to estimate the area of the first half of the limb. I treated the remaining branch as a cone ($vol = \pi / 3 * r^2 * h$) with radius determined in the previous step and "height" equal to half the length of the limb. All the primary limbs calculated in this fashion represent a volume of 59.5 cubic feet (16.5% of the volume of the trunk sections). My calculations are shown in the attached spreadsheet with more details in case your interested and my explanation isn't clear here.

I took notes on how many secondary limbs greater than 2" in diameter extended from each primary limb. In cases where a secondary branch was much bigger than 2" in diameter I counted it as 2 or 3 branches to simplify calculations. When I added all the secondary branches together the number came to 99. I assumed that each branch was on average 10 feet long, 2" in diameter, and behaved as a simple cone. Calculating the volume of the secondary branches in this way added 7.2 cubic feet to the total tree volume.

To summarize the volume measurements, the trunk sections, primary limbs, and secondary branches greater than 2" in diameter represent 391, 59.5 and 7.2 cubic feet for a total of 427.7 cubic feet. When compared to the monster tulips of Great Smokey Mt National Park like the Sag Branch Tulip (4013 cubic feet) or the Fork Ridge Tulip (viewtopic.php?f=74&t=2423, 2844 cubic feet) measured by Will Blozan et al, the "Monarch of Carolina North Forest" seems positively diminutive. Hopefully, I'll get the chance to help measure one of the real monarchs some day.

This tree houses many different lichens and mosses as well as a family of squirrels. While aloft, I saw a large hawk (red-tailed?) silently glide by and land in the tree next to me. A moment later another hawk landed gracefully in another nearby tree. Both either didn't see me (not too likely) or didn't care that I was there (the ultimate compliment). It was fascinating to watch as they ruffled and preened themselves, and then a moment later, both flew off for other parts of the forest. That experience typifies what I love about climbing into the canopy – experiencing the forest

ecosystem from a different perspective where I can almost convince myself I belong.



Closeup of lichens and moss



View from the top



Last year's tulip shells



next spring's promise

The view from the top is spectacular, and in the upper levels of the canopy last year's tulip shells and next year's buds can be seen almost side-by-side. There are a few more pictures from the climb at

<http://www.facebook.com/media/set/?set=a.2507009480696.2114325.1416815241&type=1>

Thanks for reading and thanks for helping me hone my volume measurement protocol for future data generating climbs.



[12-22-2011 tulip volume calculations.xls](#)

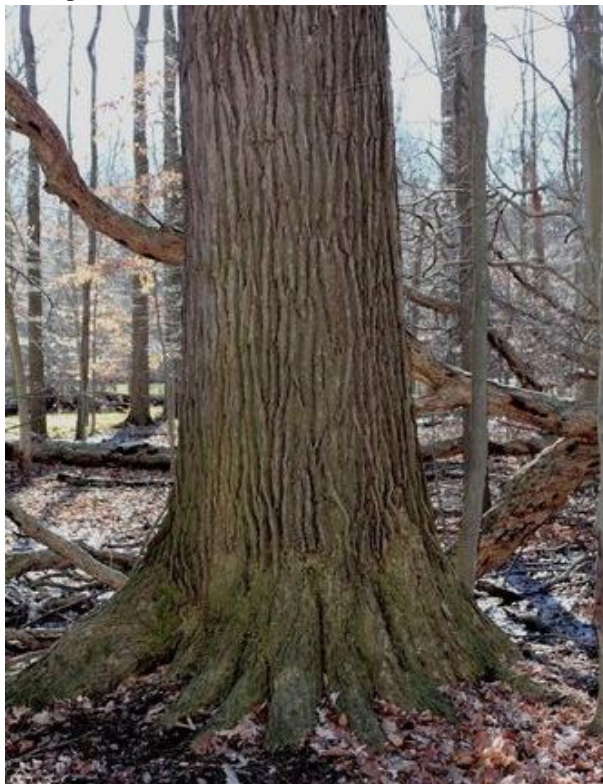
Patrick Brandt

Mill Stream Run Reservation, OH

by Steve Galehouse » Tue Dec 27, 2011 6:49 pm

Yesterday oldest son Mitch and I visited Mill Stream Run Reservation in Berea. This is an extensive Metropark with quite a few different forest types. We concentrated on a floodplain area near a creek with flat topography and some areas of standing water. The species present were typical of other floodplain forests in the area, with two exceptions---pin oak was absent from this woods, and cucumber-tree was present. This is the first time I've found cucumber in a flat, seasonally flooded woods, and this is also the first time I've not seen pin oak as a substantial part of the species mix. By far the most impressive trees were the swamp white oaks, with a number in the 11' to 12' CBH range, and decent heights. The tallest swamp white was 117.4' x 11' 7", the fattest 12' 1" x 106.4'. The tallest and biggest individual tree encountered was a sycamore at 119.2' x 14' CBH. Overall for the site we got a Rucker 5 of 115.6 and a Rucker 10 of 109.63. Details of trees found are here: <http://alpha.treesdb.org/Browse/Sites/1019/Details>

Swamp white oak, 12' 1" x 106.4':



Cucumber on left, northern red oak on right:



Steve Galehouse

Metasequoia at Biltmore Estate, NC

by Larry Tucei » Tue Dec 27, 2011 9:38 pm

Bob, Will and BVP measured a big Metasequoia at an ENTS gathering at Biltmore back in 2008. 117' I don't recall the CBH but it was large. It was the first one I'd ever seen along with many other species at the arboretum.



Dawn Redwood at Biltmore

Larry Tucei

List of 130' sites in Ohio

by Steve Galehouse » Thu Dec 29, 2011 12:00 am

Bob, NTS- Here is a quick list of Ohio sites with trees measured 130'+:

The difference in the species list is obvious (from that of MA (viewtopic.php?f=86&t=3377) ---tuliptree reigns as the tallest tree in nearly every site. I think there are a lot of sites in Ohio with tuliptrees in excess of 130', but we're hard-put to find white pines of that height. The tallest white pine found in Ohio (by Rand and myself) was 156', but there still taller tulips at the site.

1	Sand Run	170	Tuliptree
2	Clearfork Gorge	163.2	Tuliptree
3	Hampton Hills	160.8	Tuliptree
4	O'Neil Woods	158.3	Tuliptree
5	North Chagrin	157.3	Tuliptree
6	Everett Woods	154.9	Tuliptree
7	Hocking Hills	151	Sycamore
8	Dysart Woods	144.4	Tuliptree
9	Elywood Park	144	Tuliptree
10	Ritchie Ledges	138	Tuliptree
11	Mill Creek	137.7	Tuliptree
12	Davey Woods	136.8	Tuliptree
13	Whipp's Ledges	136.1	Tuliptree
14	Rocky River	136	Tuliptree
15	Hatch-Otis	134.4	Eastern hemlock
16	Warren	133.4	Tuliptree
17	Swan Creek	130.5	Eastern cottonwood
18	Brecksville Reservation	130.4	Tuliptree

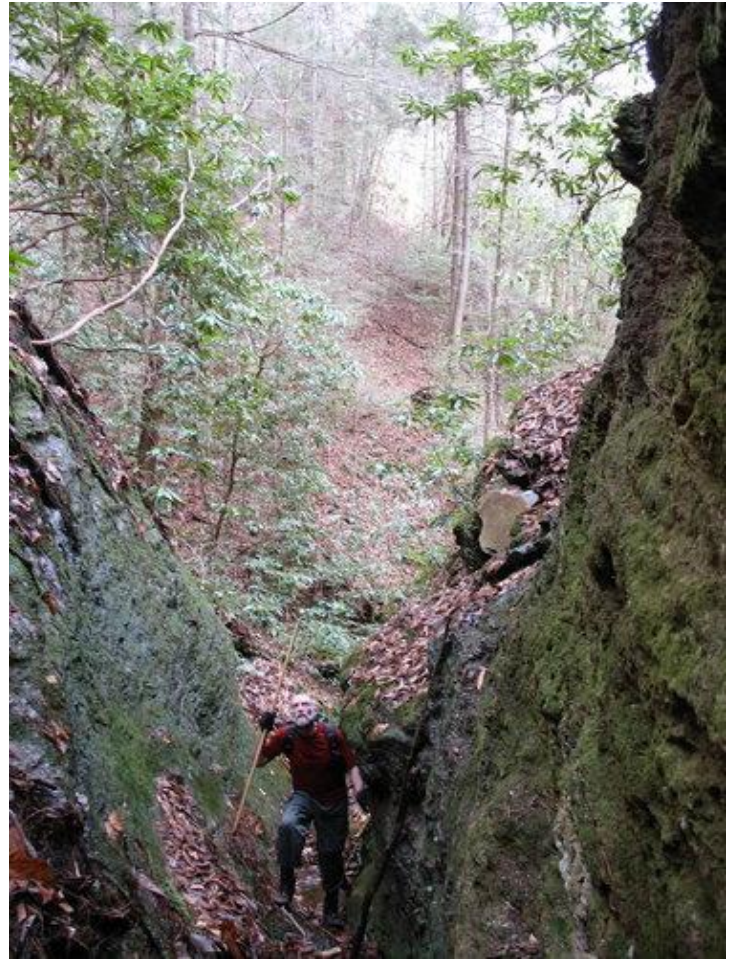
Steve Galehouse

Panther Creek, GA

by Jess Riddle » Thu Dec 29, 2011 1:04 am

The recently flown LiDAR data for north Georgia indicates the Panther Creek area has one of the greatest concentrations of tall trees in the state. That suggestion is not surprising given that a previous tree measuring trip to the area yielded not only several state height records but also the highest Rucker index in the state at that time. However, all of those previous finds were hardwoods growing in three small coves where the carbonate rich rocks of the Brevard Fault Zone approached the surface to produce circum-neutral soils and the appropriate habitat for several rare plant species. LiDAR indicates that tall trees are not restricted to that small area, but grow over a much broader area of narrow, low-elevation ravines and tributaries. That distribution pattern suggests many of the high hits are white pine rather than hardwoods, and aerial photographs confirm that interpretation. Other tall tree sites in the Brevard Fault Zone, such as Tamasee Knob, lack tall white pines, possibly as a consequence of the relatively gentle topography away from the carbonate rich rocks.

On this trip, our primary objects were to check 185.3' and 190.2' LiDAR hits and adjacent northeast facing slopes with hardwood canopies to around 160'. We followed the Panther Creek Falls Trail to the vicinity of the highest hit and found ourselves looking up a rhododendron filled ravine typical of the area. The highest points were actually up a tributary ravine, which turned out to be better described as a crevice in the earth's surface with a vertical cliff on one side and steeply sloping rock on the other. That topography, rather than the height of the trees, seems to have been the source of the high LiDAR hits. I roughed out the white pines on the steep slopes to the 130's and a hemlock to the 120's, though some trees may have been slightly taller. Similarly, the other conspicuously high hit turned out to be an emergent white pine with a swept over top growing directly above a rock outcrop on a very steep slope; that form and positioning meant the distance from the top of the tree to the ground beneath it was about 40' greater than the vertical distance from the top to the base.



Trying to find a route to the highest LiDAR hit



Rosebay rhododendron blooming out of season, probably on account of the warm fall.

Species	Common name	Cbh (in)	Height (ft)	
<i>Betula nigra</i>	Birch, river		81.6	
<i>Carpinus caroliniana</i>	Hornbeam, American	27	63.9	2nd tallest known in GA?
<i>Carya glabra</i>	Hickory, pignut	61	134.8	
<i>Cercis canadensis</i>	Redbud, eastern	17	58.4	Tied 2nd tallest known in GA
<i>Cercis canadensis</i>	Redbud, eastern	22	60.9	Tallest known in GA
<i>Fagus grandifolia</i>	Beech		120.4	
<i>Fagus grandifolia</i>	Beech	122	131.1	Tallest known in GA
<i>Fraxinus americana</i> var. <i>biltmoreana</i>	Ash, biltmore	98	138.3	Tied tallest known in GA
<i>Liquidambar styraciflua</i>	Sweetgum	92	140.2	
<i>Liquidambar styraciflua</i>	Sweetgum		145.6	2nd tallest known in GA
<i>Magnolia acuminata</i>	Magnolia, cucumbertree	75	128.6	
<i>Pinus strobus</i>	Pine, eastern white		163.3	
<i>Quercus alba</i>	Oak, white	88	140.0	Tallest known in N GA mountains
<i>Quercus rubra</i>	Oak, northern red	96	142.3	Tied tallest known in GA
<i>Stewartia ovata</i>	Stewartia, mountain	7	23.6	
<i>Tilia heterophylla</i>	Basswood, white	58	132.5	
<i>Tilia heterophylla</i>	Basswood, white	77	136.4	2nd tallest known in GA
<i>Tsuga canadensis</i>	Hemlock, eastern		138.4	

Despite those disappointments, a few tall white pines on nearby slopes still suggest that at least some of the other high LiDAR hits accurately reflect tree heights

Additionally, the data led to the exploration of additional productive hardwood areas. Those coves lack some of the rich site species found in the previously measured and better botanically known coves, such as black walnut, but tuliptrees reaching around 150' tall typically dominate near the center of the ravines with a mixture of beech, basswood, sweetgum, hemlock and other species occurring on adjacent slopes. An unusually diverse collection of rich site species including paw paw, spicebush, buckeye, and redbud dominate the understory on relatively gentle slopes, but give way to rosebay rhododendron on steeper moist slopes and dwarf rhododendron in the drier ravines. Trees that approached or exceeded state height records established elsewhere at Panther Creek were found in

Overall, 8 state height records now reside at Panther Creek, and the site has Georgia's highest Rucker index at 143.9'.

Jess Riddle

[Michigan Cherries?](#)

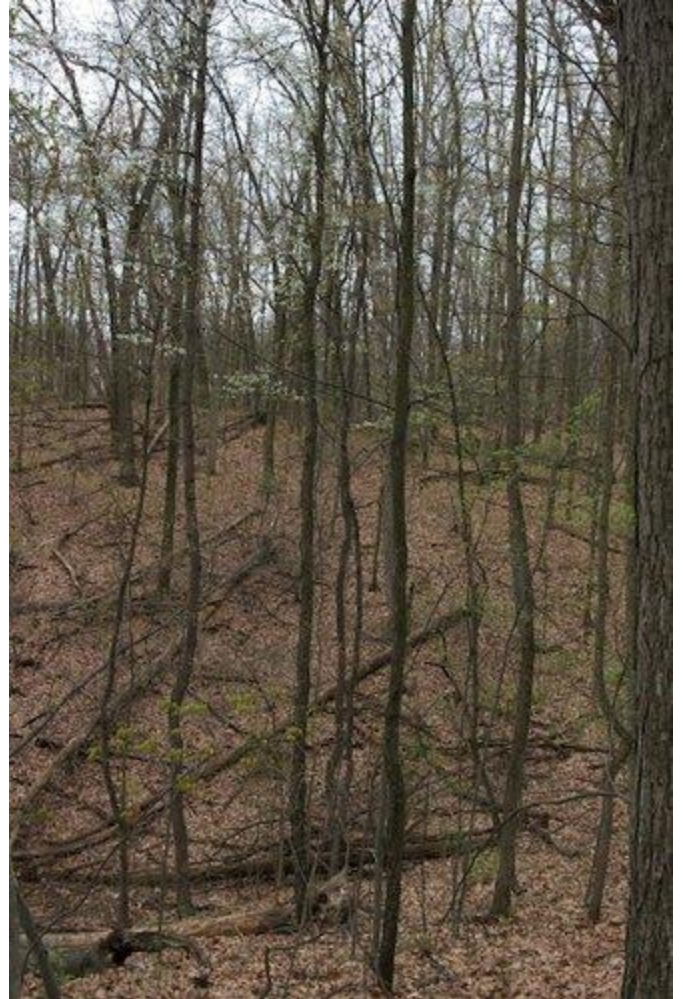
by Doug Bidlack » Thu Dec 29, 2011 1:35 am

Ryan's recent post on a potential big pin cherry in CT prompted me to post on some cherries that I found in MI. This all started last year in mid-April when I went to visit my parents in Michigan. On the way over there I was thinking about some serviceberries that I wanted to measure and I started driving by all these flowering trees in central and western New York state. Since I had Amelanchier on the brain I wondered if...nah, they were just too stout...and too dark to be serviceberries. Mind you, this is all driving at highway speed, or thereabouts. My best guess was that they were some kind of cherry, and since I ordered a number of my own fruit trees from the region I figured they were likely sweet cherries. I think I went to Highland State Recreation Area the very next day to check out those serviceberries. I just knew they were over 50' and some that I had seen in the distance during a previous hike looked to be well over 60'. I found one nice serviceberry that had fallen over and it was a little over 50' and around a foot in diameter but I didn't write it down because I was sure the others were bigger.

Well I found the big ones, three of them all there together, and they sure looked an awful lot like those trees in NY. So I ran down to check them out and

sure enough they were cherries. Darn! Sweet cherries (*Prunus avium*)?! I measured the biggest one anyway and took some pictures because I was uncertain of their identity.

2.22' x 77.7' Wow! Even bigger than I thought, but I figured this was probably no big deal for a sweet cherry. Here are a couple pictures.



I then decided to check out another tree that I thought might be the same species near the parking lot of the park headquarters.

It measured 3.31' x 57.3'. Both of these trees were measured using SIN up SIN down. Two pictures follow.



I didn't think about these much until I ran into a couple more of these trees at Lower Huron Metropark in February of this year. Unfortunately I have no pictures and I was trying to measure a lot of trees that day so my heights are from straight up shots with the laser.

These trees were even bigger. The fat one was 5.78' @3"7" x 75' and the tall one was 4.15' x 81'. Pretty

cool, but I figured they still weren't that big for sweet cherries so I forgot about them again.

In October, just a little over two months ago, I attended the NTS meeting in Holyoke, MA and I bought a book on tree bark after listening to the author, Michael Wojtech, give a talk. When I got home and I was leafing through the book I came upon the pin cherry pages. Hey, these look just like the trees I saw in Michigan! If they are, they would be pretty nice.

I checked out a 2003 measurement of the MI champion tree and it was 5.00' x 75' x 50' = 148pts for a tree in Kalamazoo. Since Ryan mentioned the National champion tree I was curious if it was this tree. It appears to be one of the co-champions but remeasured in 2009. The new measurement is 5.08' x 80' x 63' = 157pts. The co-champion, which I believe is from the same area in Kalamazoo, measures 4.67' x 93' x 22' = 155pts. I'm guessing these measurements, particularly the heights, are a bit on the high side. If the trees I measured were indeed pin cherries they will probably compare favorably to these two from Kalamazoo.

So, do the trees in my pictures look like pin cherries or sweet cherries to NTS out there? Or will more evidence be required?

Doug Bidlack

[Re: Michigan Cherries?](#)

by Will Blozan » Thu Dec 29, 2011 9:55 am

Doug, You seem to be correct on the *P. avium* ID- they are a very common escape. Once you get familiar with pin chery you will never confuse them. To me, they are vastly different.

Bob Leverett and I measured a *P. avium* to around 120' at Montpelier in VA last spring. As far as I know that is the tallest known in the US. Mature, dominant forest grown trees in the mid-atlantic and even here in NC often reach 100'.

Makes me wonder if the MI champions are misidentified... I hope some ENT can visit them and find out. Oh yeah, to date NTS has not found a pin cherry to reach 100' yet. I think ~96' is the tallest (TN Smokies)

Will Blozan

Eli Dickerson and Trees Atlanta

by eliahd24 » Tue Dec 27, 2011 6:09 pm

Hi Ed and NTS, I'm credited on the Trees Atlanta website under their program for Atlanta's Biggest Trees (champion trees). I've completely revamped the list, tripling the numbers of champs and finding many new champions, while also getting updated measurements on many long time champs. Here's the link:

<http://www.treesatlanta.org/AtlantasBiggestTrees.aspx>



Eli Dickerson

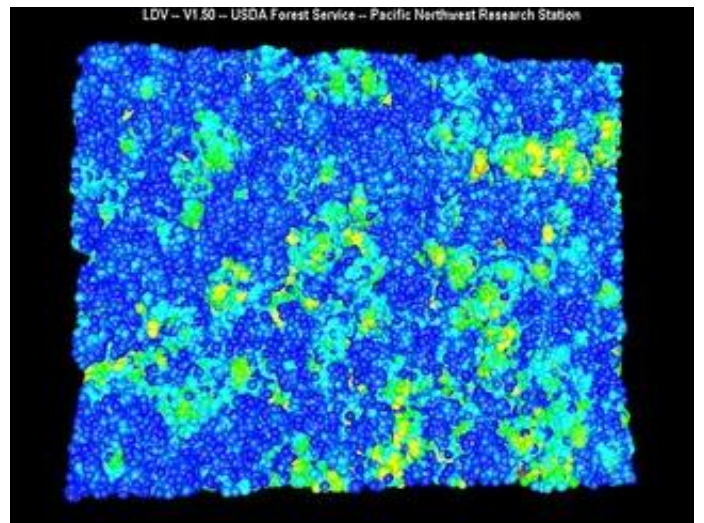
Return intensity and deciduousness

by Jess Riddle » Thu Dec 29, 2011 1:04 pm

Has anyone used return intensity to try to discriminate between evergreen and deciduous trees? After a friends suggestion, I've played around with it some, and had moderate success.



A patch of forest with mixed deciduous trees, white pine, and hemlock. Rhododendron forms a dense evergreen understory.



LiDAR hits for roughly the same area symbolized by return intensity. Bluer colors are lower intensity.

Jess Riddle

[Re: Modeling a 117 foot, 234 point poplar in Chapel Hill, NC](#)

by Will Blozan » Thu Dec 29, 2011 6:00 pm

Patrick, Excellent work! I like your telescoping poles for extended measurements and rope positioning. I have been using a painter's pole with calibrations on it for the terminal lead measurement. And yeah, the sheer size of the giants is mind-boggling when even a 400 cuber looks big!



Sag Branch Tuliptree 2004

Your post has inspired me to post about a tall but small tree we did a few months ago... coming soon!

Thanks for the post and I hope to join up sometime on a climb. BTW, have you seen the collection of old tuliptrees at Tanglewood Park in Clemmons? Nice, old specimens worth a visit.

Will Blozan

[3D spacial modeling of a giant redwood trunk](#)

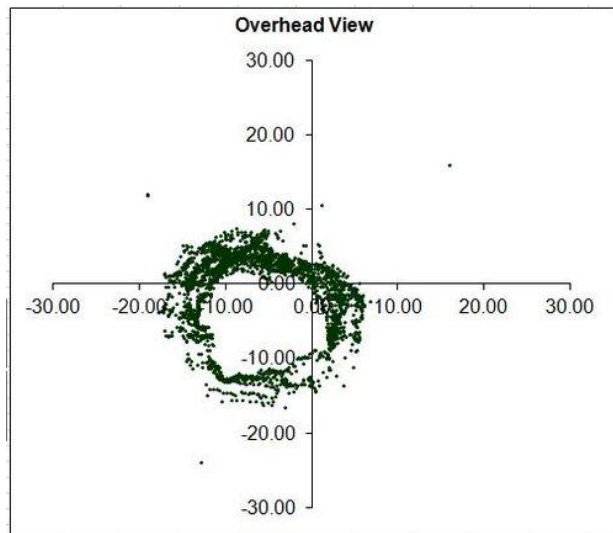
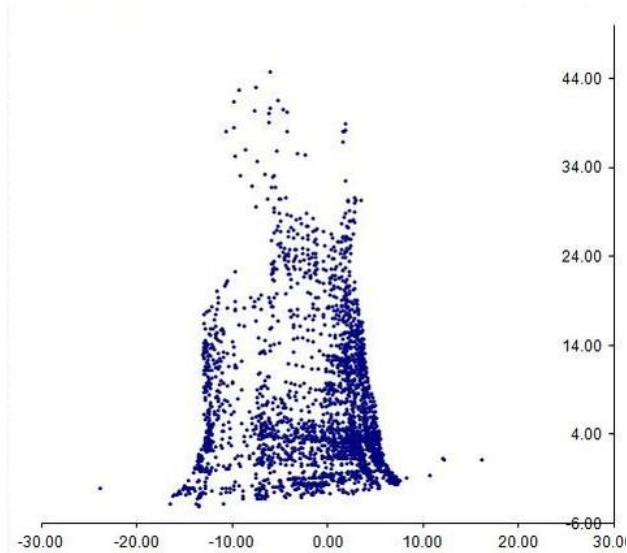
by M.W.Taylor » Thu Dec 29, 2011 10:40 pm

I have attached my latest effort to model Drury Tree's bark surface in X,Y,Z Cartesian coordinates. This shape table has 2595 points and represent the first 30-40 feet of trunk. You can rotate the overhead 2D and side view 3D graph of the trunk by using the spinner arrows on the side or finer tuned slider arrows on the top.

As you can see from the overhead view, Drury Tree is enormous ! Looks to be 20ft diameter at 20ft off the ground. This is largest of any known redwood.

When I get to 100ft off the ground and about 10,000 data points I will solve for volume using the theory of "homothetic slices" and update the forum with a more complete rotating graph of the massive lower bole of Drury Tree. I think this tree will easily reach 35,000 cubic feet in trunk volume.





 [Forest Mapper Drury Tree- Mac.xls](#)

rotating graph of Drury Tree

Michael Taylor
WNTS VP
American Forests California Big Trees Coordinator
<http://www.landmarktrees.net>

[Re: 3D spacial modeling of a giant redwood trunk](#)

by M.W.Taylor » Fri Dec 30, 2011 4:23 pm

Larry Tucei wrote: Wow, That is an amazing graft you created. It must take many hours to do such a detailed mapping. Way cool! Larry

Hi Larry, I download my data from the Impulse200LR and MapStar encoder directly to a field PC through serial data cables. I average about 1,000 data points per hour. This map of the first 20 feet of Drury's trunk took me about 4 hours due to clutter around the tree. I had to move around a lot to find clear views and that took some time. To completely map the tree this way will probably take at least 10 more hours of field time. There is just so much surface area to map on this behemoth. This tree appears to be 16' diameter at 100' off the ground. It's a massive wall of wood.

Michael Taylor

[Re: 3D spacial modeling of a giant redwood trunk](#)

by M.W.Taylor » Fri Dec 30, 2011 4:27 pm

Jill Butler wrote "Looks interesting for spacial modeling of our fat, squat ancient trees but could you do the hollow internal surfaces too at the same time?" ...

Yes ! To really properly model this tree in its full glory you would need to climb and look down so you can fill in the features not visible from the ground. You can do that with this survey method just as long as you can find a way to hang and fix a tribrach mount to a big branch and have at least one station visible from your last survey point on the ground for spacial referencing.

You could also bring the survey into the tree's hollow interior and map that volume...then deduct from total. Theoretically possible.

Michael Taylor

[Re: 3D spacial modeling of a giant redwood trunk](#)

by fooman » Fri Dec 30, 2011 10:05 pm

All, some very interesting stuff going on here, and it is starting to get very similar to the stuff I do for a living. I work as an engineer, and part of the work we do involves reverse engineering of reasonably complex engineering components (pressure casings, turbine scrolls) to help assess remenant service life.

One way we capture the geometrical information is using a handheld 3d-laser scanner

(<http://www.zcorp.com/en/Products/3D-Scanners/ZScannerandtrade-700/spage.aspx>).

These can be used for scanning objects up to car-sized at quite high resolution. The resulting point clouds are then imported into reverse engineering software, and the analysis can be performed on the resultant 3-d models. The particular method of scanning used in this product is resonably manually intensive - reflective spots placed approximately 4 inches apart over the surface to be scanned is required. This is not our core business, but it is a valuable tool we can draw upon as required. The company producing this scanner advertises a variant that can be used for recording archeological geometry

I know of another engineering company in Europe doing reverse engineering of large power station turbine rotors (3 or 4 m in diameter, 10 m long) using (semi)portable structured light scanning (http://en.wikipedia.org/wiki/Structured_3D_scanner). Another company I used to work for was developing another handheld laser scanning system, and was looking at room-sized objects (e.g. <http://www.irl.cri.nz/newsroom/news/setting-scene-3d-revolution>).

These techniques are all used to automate the manual acquisition process that Michael is performing. I do not know of any particular outdoor scanners, e.g. for surveying/mapping, but I know they exist, and are available at a price - our basic laser scanning setup at work is more than \$100k, hardware plus software, but this is for the required resolution - tree measurement may not be as demanding.

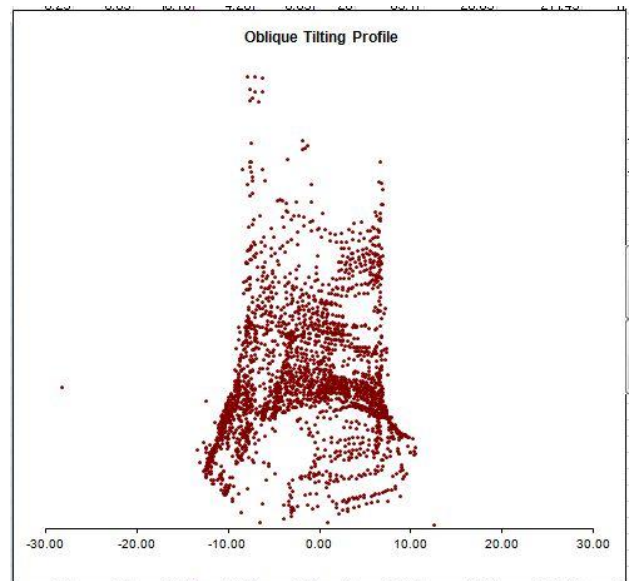
Matt

[Re: 3D spacial modeling of a giant redwood trunk](#)

by M.W.Taylor » Sat Dec 31, 2011 4:07 am

Hi Matt, I am in contact with several companies about Flash 3D LIDAR for tree modeling. That is the ultimate way to map a tree trunk but the range on these cameras is limited and shooting angles restricted. These cameras are improving rapidly though!

Each pixel has azimuth, distance and inclination embedded in the image so you can contract a 3D image. The Swiss Ranger 4000 takes a 320 x 160 picture so that would be 38,000 pixels with angle, distance and inclination angle in one shot !!! Range is limited though...30 foot is longest range 3D flash LIDAR I know of and you can only point at two angles, 49 degrees and 63 degrees. These cameras are expensive too. They would work great for modeling interior hollows, cavities and burls.



Matt, what is the range on your company's 3D flash LIDAR ?

I attached the latest version of the Giant Redwood 3D Graph, but also with an unlocking Y-axis so you can fly over the tree and look down like on Google Earth. This new perspective is useful for identifying flying pixels for removal prior to volume solving.

Re: 3D spacial modeling of a giant redwood trunk

by fooman » Sat Dec 31, 2011 3:41 pm

Hi Michael, the laser scanner we use is not a Lidar scanner - it does not use a reference position to generate the point cloud. It provides self positioning data via reflective spots that are randomly positioned on the scanned object. Once these points are registered the laser beam is scanned across the object, much like a spray can, "painting" the scanning beam across the object. This generates reasonably high resolution data (sub-millimetric) very rapidly - maybe a million points in an hour or so. But not really suitable for a large tree.

Another scanner I came across used self positioning in the magnetic field as some sort of global reference, but it could not scan metallic objects, so wasn't much use for us.

I've just remembered that our inspection division used to scan the inside of delayed coker drums (large refinery vessels - maybe 20-30 m tall, 4-5 m in diameter) using a laser process - a rotating prism was used to scan a beam around the inside circumference of the vessel, while being dropped down the axis, to pick up cracking/bulging in the vessel wall.

I do think structured light scanning is a real possibility for large trees - all that is needed is a reference dimension (e.g. taped girth) or length between two features on the trunk, a method to project a light pattern (a large projector at night?), and two cameras recording the image at a known baseline plus the software. The guys at the company I referred to in my earlier post were just using normal cameras mounted on tripods a known distance apart.

The resolution of a scanned tree would be lower than the smaller objects normally scanned (e.g. people) but I guess +/- 1 inch would be ok for volume, rather than +/- 1 mm?

Matt

Re: 3D spacial modeling of a giant redwood trunk

by M.W.Taylor » Sat Dec 31, 2011 5:24 pm

Matt,

1 Inch accuracy for the entire surface of the trunk would be very useful !

The 3D Flash LIDAR name is a misnomer. The company puts LIDAR in there for the name but technically speaking the pixels are not encoded with laser based distance returns in the same way as a typical LIDAR array on an airplane would work. which is one distance "Z" point return per laser emitted. For Flash LIDAR (and I really don't understand the process) A laser is used for an initial flash and then some type of RGB color distortion for each pixel is generated as a result of the laser flash in a single image and it can be used to find the distance by some type of algorithm. Again, this stuff was designed by people way smarter than me. but I do believe it would work on a big redwood trunk..maybe. I think the Swiss Ranger 4000 is a little different than the camera you use. It snaps a 320 x 120 pixel image..this would be over 38,000 pixels with distance, angle and inclination for each pixel embedded into the image files. At 100k and up, the camera is a completely unaffordable dream however.

Michael Taylor

Re: 3D spacial modeling of a giant redwood trunk

by fooman » Sat Dec 31, 2011 6:02 pm

Hi Michael, just doing a google search for "structured scanning trees" or "3d scanning trees" gives a number of interesting hits,

e.g. http://www.coste53.net/downloads/Delft/Presentations/COSTE53-Conference_Delft_van_Goethem_van_de_Kuilen_Gaard_Ursem.pdf

Matt

Re: 3D spacial modeling of a giant redwood trunk

by M.W.Taylor » Sat Dec 31, 2011 9:46 pm

Yep, those guys are doing just that. Modeling trees with 3D scanners. With small trees in open areas it works like a dream.

The biggest challenges for using this type of equipment for the big redwood example that I am modeling is the extreme forest clutter and few open view of the trunk anywhere. I am using the point red dot laser to get between these cluttered areas one scan one piece of the trunk's surface at a time. Takes time, but it is accurate and reliable and I am using inexpensive equipment and free software. Also, this tree is nearly 300 feet up. How would you model the mid to upper trunk ?

Also, my MS Excel spreadsheet volume solver and 3D grapher would probably have a seizure if presented with such a large data set as that which would be generated by the 3D scanners. I would need some animation software and a bigger-faster computer too...which again cost more \$\$\$. I am trying to measure this tree's volume accurately, but without breaking the bank in other words. Perhaps a company is willing to lease me or even better loan me a 3D scanner for a few days and I will test it for them on a big tree trunk.

Michael Taylor

Re: 3D spacial modeling of a giant redwood trunk

by fooman » Sun Jan 01, 2012 12:16 am

Hi Michael, I can appreciate the issues in data acquisition. Unless your view points are rather small, then it may be possible to capture visible surfaces and interpolate between them. Either that or run a scanner up and down the trunk or along lines next to the trunk.

In terms of software, have you used MeshLab (<http://meshlab.sourceforge.net/>) - it is free software used for editing point cloud surfaces - I've had a play with it, but not much else. Don't know if there are any useful querying tools for the data.

Out of curiosity, has anyone had a play with submitting tree photos to Photosynth (<http://www.photosynth.net/>) and querying the resultant point cloud against known data to check accuracy? Lots of tree photo's already converted to 3d point clouds there (e.g. <http://photosynth.net/view.aspx?cid=3d7cb48a-3930-41b6-bf89-802367f10783>).

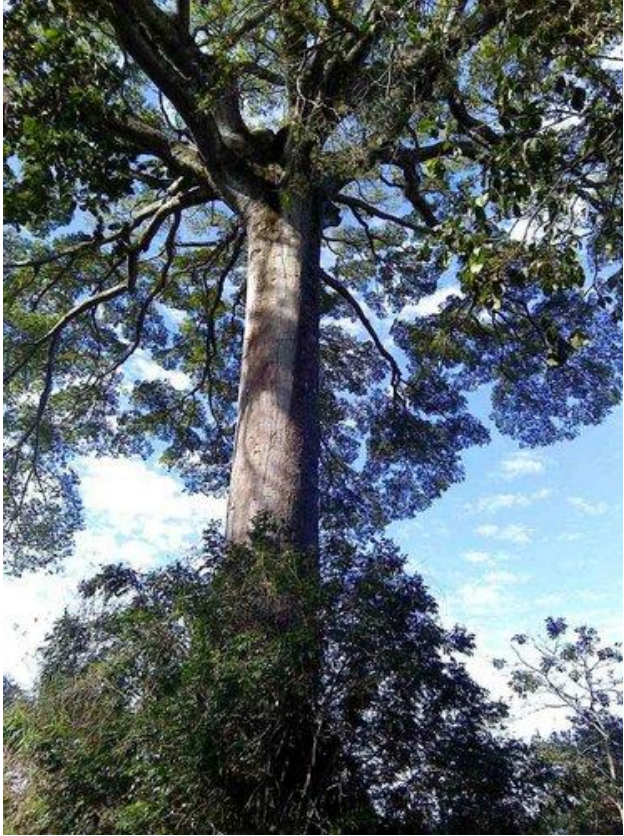
Matt

Bart's Travels, Costa Rica

by Bart Bouricius » Fri Dec 30, 2011 9:36 pm

Hi tree folks, here are two images of the Kapok from yesterday. Today we scouted out a very promising location in a ravine. The first two noticeable trees Bob and I ran into were Wild Cashews with respective circumferences of 18' 1" and 18' 6" the heights were 131.5' and 126' I could actually see larger ones further down the ravine. We plan to spend a whole day working down the ravine to where there is a primary forest that it runs through. This will be when I return from the Tirimbina Biological Station on the 3rd of January. I am hoping for some record cashews then.. I will keep you folks up to date.

Bart Bouricius



London Plane and Sparrow, Central Park, NYC, NY

by Jenny » Fri Dec 30, 2011 12:33 pm

So cute! This House Sparrow found a great lookout spot in a London Plane in Central Park. I was thrilled to catch the moment. Jenny



Jennifer Dudley



Amherst, MA

by dbhguru » Sat Dec 31, 2011 4:45 pm

Monica coaxed me into a trip to Emily Dickinson Museum in Amherst earlier today. It afforded me the opportunity to check on a couple of trees in the area. One of the two grows on the adjacent home site of Emily's brother Austin Dickinson. It is a tuliptree probably planted by Austin Dickinson. Here is its image taken from the sidewalk. It was too muddy to go to the base of the tree.



The tuliptree stands out as conspicuously tall. It is in fact 127.7 feet in height and 11.8 feet in girth. It is showing its age.

The next tree is a sycamore growing next to a museum.



I forgot my D-Tape. However, I did use the TP360 routine I previously developed to compute diameter. The equivalent girth I got from the diameter computation is 13.8 feet. Height is 105.0 feet.

Robert Leverett

St. Charles Borromeo Church Live Oaks, LA

by Larry Tucei » Sat Dec 31, 2011 10:22 pm

NTS, St. Charles Borromeo Church is located on River rd., in the city of Destrehan Louisiana. The first Church built here in 1740 called Little Red Church burned in 1806 was rebuilt burned and rebuilt again in 1921. There are many early prominent figures from days past buried at the Church Cemetery. Two large Live Oaks were planted here in 1852 and 1858. The first is the Red Church Oak a multi-trunked tree that measured CBH-26'10, Height-72' and Spread-124.5' x 108'. The larger of the two trunks measured 18' 10".



Red Church Oak



Red Church Oak

The second tree is the Rev. John F. Basty Oak it measured CBH-22' 2", Height-60' and Spread-108' x 108'. Both of these trees are on the Louisiana Live Oak Society Listing at number 671 and 673. The 1921 Church and grounds are very beautiful with many Live Oaks but these are the two largest. I spent several hours in this part of Louisiana today at 5 different locations and will report on several other larger trees in upcoming posts.



Rev John F. Basty Oak





Rev John F. Basty Oak

[Oak Opening Project](#)

by Doug Bidlack » Sat Dec 31, 2011 9:06 pm

I planted my first oak from an acorn in the fall of 1994. Actually I planted a couple, one northern red oak and one bur oak. Not long after this I came up with this idea of planting a bunch of acorns in a park nearly adjacent to where I grew up and where my parents still live. Amazingly they allowed me to plant a bunch of bur oaks, white oaks and swamp white oaks in an old field of about 30 acres or so. This old field was quickly becoming overrun by autumn olive and I was hoping to slowly remove these while planting the oaks. Initially I tried growing acorns in containers that I built out of plywood or by using 1/2 gallon milk cartons. Transplanting these to the field didn't work as well

as I'd hoped so I switched to planting the acorns in place. In this first post I'm mostly just going to describe this process, but first I wanted to say a little more about where I ended up going to collect acorns as well as a little about the site.

I thought it would be cool to highlight the diversity within each species by collecting from all over North America. This turned out to be a lot harder than I expected. My hope was that there would be significant morphological differences within each species that anyone could easily see. I was also planning on measuring the growth of each tree to determine whether or not the source of the seed would greatly influence their growth rate. The field is rectangular with the east-west length being greater than the north-south length. There is a marsh in the north central part of the field and a second marsh that is mostly on private property at the northeastern end of the field. In wet springs these two marshes will

connect to form one large marsh. Acorns were planted in the field based on where they were collected in North America, so bur oak acorns from Vermont were planted in the northeastern part of the field while bur oak acorns from Oklahoma were planted in the southwestern part of the field. A large hill just to the south of the field helps to keep the southern end of the field in snow a good deal longer than the rest of the field. Below is a picture of the field looking to the northeast.



And one looking north towards the marsh at the north central part of the field.



This should help to keep the southern trees from breaking dormancy too early...I hope. I allowed the swamp white oaks to break the rules a bit because I wanted all of them to be planted at the edge of the marshes and it was often not possible to plant them within the invisible lines of their respective states. So, I'm now going to describe how I went about

planting most of the acorns. I always tried to collect at least a hundred acorns from each tree or trees that would represent a particular state. I usually failed but that was the intent. Initially I tried to collect from AF champion trees for each state. I eventually dropped this idea for reasons that I will discuss later. Acorns were then given the float test in water and all "floaters" were thrown out. However, in a number of cases I didn't have many "sinkers" so I would keep and mark the "floaters" with a black magic marker (sharpie). I would use these "floaters" as spacers between the "sinkers" so that the highest quality seeds were not all lumped together. Although "floaters" are less likely to germinate than "sinkers", sometimes much less likely, they are worth planting if you are low on acorns. "Floaters" will germinate better if you soak them overnight in water (some will sink long before this). Even when I had all "sinkers" I would try to make sure that the largest, best-looking seeds were evenly spaced at planting time. I always tried to plant the seeds as quickly as possible in fall and if that was not possible I would store them in plastic zip-lock baggies in the refrigerator crisper until I could plant them. I held some far southern material (Tennessee, Arkansas, Oklahoma, Texas etc.) in the crisper all winter long because they were often collected too late in the season to plant in Michigan. These were then planted in April.

At the time of planting a 2' x 2' piece of sod was dug out with a spade and flipped upside down after all grasses were removed by hand pulling. The depth of soil removed and flipped was about 8-12". The spade was then used to break up the soil for planting the acorns. If I had 100 acorns I would evenly space them in a 10 x 10 grid and push them a couple inches into the soil and then cover the little holes up. If I only had a few I always tried to place the best acorn near the center. I then covered the soil with cut straw to insulate the soil and to keep it from washing away during rains. I often piled the straw up quite a bit more for acorns from more southerly locations. I removed the straw in the spring if it was quite heavy. Below is a picture after this stage.



Now it was time to add the cage to protect the acorns from rodents. I constructed this cage from a single 3' x 10' piece of 1/4" hardware cloth. These are sold at hardware stores in 10' rolled up sections. I use the wire that holds these rolls together to sew the two ends of the hardware cloth together. There is always much more than you need for this task. I then place the cage over the acorns, center it and mark the ground along the inside edge of the cage with a plastic tent stake. Spade about 3/4 of the way around along the line and then place the cage in the spaded portion to make sure it will still fit if you spade along the remaining line. I try to make sure the cage is between 4 and 6 inches deep to keep the voles at bay and the wind from blowing the cage away. I like to tamp the soil around the inside and outside of the cage edge with the spade but it is probably better to use something that isn't sharp. The final step is to add a roof. I cut a 3' x 10' piece of 1/2" hardware cloth into three pieces for three tops. Each top can be wired to the cage with the same wire as was used to sew the cage together. I think this top is mainly to keep squirrels out because I think voles are afraid to climb over such a fence in an open field. I use 1/2" because I don't think voles are getting in this way and because it does a better job of keeping snow from building up and crushing the cage than 1/4" mesh. Below is a picture of a completed cage.



With a little luck most of the acorns will germinate and you'll end up with something that looks like the Tennessee bur oaks below after a season of growth. I actually planted these ones a little beyond the usual 2' x 2' planting area.



Eventually the top will need to be removed. Don't do this before you are ready to protect your trees! In a truly stupid move, I once removed a top in the evening after sunset. The next morning I saw some deer walking away from the general direction of the trees I left unprotected. Naturally they shredded the tops of my poor little trees! I usually remove the tops when the tallest tree has reached 18-30" depending on how fast the trees were growing. They usually grow slowly until they reach around 2' and then they take off...at least that has been my experience with most of these trees in Michigan. After taking the top off, a bigger, deer fence is needed. I use a 5' x 20' piece to make a little more than a 6' diameter

perimeter. The fence needs to be strong enough to keep deer out and if it's in a windy location I like to use 3 good, metal fence posts.

Picture below is of Kentucky swamp white oaks with top removed from the cage but before addition of deer fence.



The next picture is of Indiana white oaks with top removed from the cage and a ratty, temporary fence to keep deer from eating them.



The picture below is of Virginia bur oaks and the deer fence is actually not 6' in diameter...I need an upgrade. The hill to the south can be seen in the background.



The other big difference with the previous picture is that the 1/4" mesh cage has been removed. I need to put small vole guards around these trees because they are still quite susceptible to these little critters.

I'll talk about the growth of these trees in my next post.

Doug Bidlack

Re: Oak Opening Project

by DougBidlack » Sun Jan 01, 2012 12:08 am

...I wouldn't say I have an exact process for culling my seedlings, but I do cull them over time. For the TN bur oaks in the picture, for example, I had planned to cut out over half of the seedlings after that first growing season in 2010. But after a fantastic growing season through July of that year, August was pretty harsh. It only rained about a 1/4" for the whole month, it was warmer than usual, the soil is really well drained there and it was their first growing season. Needless to say they suffered a fair amount of tip dieback. I was able to give them lots of water when I finally arrived in early September and it began to rain a little more. I decided not to cut back because I didn't know how many might die, so I didn't touch them. Fortunately 2011 was about as good a growing year as any I've ever seen...lots of rain all year and nice and warm. Almost all of them made it. However, there wasn't much growth in 2011. The tallest plant after 2010 was 20" tall and after 2011 just 22". I'm going back next weekend and if I have time I'll take more than half of the seedlings out. At the end of 2012 I'll take even more out. When I eventually see a clear "winner", I'll cut all but that one. It is generally the most vigorous grower or at least one of the most vigorous growers, but I also greatly value branching habit, susceptibility to disease, leaf color,...etc.

As for other species, no, I'm just planting bur oaks, white oaks and swamp white oaks. I'm basically done with that now, but I have planted many other species on my parent's property as well as on some other private property between my parents and the park. I'll probably write about them sometime too...someday.

I know there may be some problems with some of the distant material, but most of my really distant sources have been for bur oak acorns and they are amazingly tough. I know others in Michigan and even Vermont that have planted stuff from Oklahoma with little trouble. The biggest problem I've heard about was from the person in Vermont regarding snow loads on the tree during early snows. The Oklahoma tree keeps its leaves quite a bit longer and the limbs tend

to grow more horizontal than for local VT bur oak. I don't remember if any limbs were lost but that is a strong possibility. So far I haven't had any problems but I'm prepared to make replacements if need be.

I realize it's kind of a weird way to grow trees...and expensive! Fence isn't cheap. But to try and grow as many seeds as possible on site and slowly weed them out, this is just the way I came up with. It would have been much easier to plant just one and put a grow tube around it. Much easier and cheaper, but I really wanted to select the best growers out of a good number without disturbing their roots. I'm sure there is a better way but I just wanted to put this out there so that others could learn from my successes and failures. I'm also very interested in what you, Steve and others have done and are planning for the future.

Doug Bidlack

Re: Oak Opening Project

by DougBidlack » Sun Jan 01, 2012 1:14 am

NTS, here is some info on growth of the three oak species I've planted. First I'll list sources for each cage/fence. In a couple instances I've put up 2 or even 3 cages where only one tree will eventually exist and I've also sometimes replanted seed from a separate source a year or two later in the same cage as another. I'll include all these.

BUR OAK (29 sources, eventually 26 trees)

1 year of growth

Plain City, Ohio
Tulsa, Oklahoma
Crowley, Texas
Mukwonago, Wisconsin

2 years of growth

Keiser, Arkansas
New Harmony, Indiana
Millersburg, Kentucky
Richardton, North Dakota
Brantford, Ontario
Hermosa, South Dakota
Hendersonville, Tennessee

3 years of growth

Funk's Grove, Illinois
Polk City, Iowa
Sylvan Grove, Kansas
Faribault, Minnesota
McBaine, Missouri

4 years of growth

Brighton, Michigan

5 years of growth

Niles, Michigan #2
Bellevue, Nebraska
New Haven, Vermont

6 years of growth

Dearborn, Michigan
Milford, Michigan
Niles, Michigan #1

8 years of growth

Geneseo, New York
Millersville, Pennsylvania

9 years of growth

West Columbia, West Virginia
Elkton, Virginia

12 years of growth

Petersburg, Illinois

17 years of growth

Milford, Michigan

All are growing in the field in Kensington Metropark except the two oldest ones which are growing in my parent's backyard. The following numbers exclude the Millersville, PA seedlings because they have been so badly ravaged by meadow voles. Only one now survives and it is only 10" tall. I'll first give the average height of seedlings and then the tallest after x number of years of growth. The tree from Petersburg, Illinois has been extremely vigorous: so much so that I've listed it after the tallest growing in Kensington Metropark. If I didn't do this virtually all the max growths would be from this one tree that is not actually growing in Kensington Metropark, just very close. Number in parentheses is the number of years of growth for the seedling displaying max

growth.

One year

$226"/28 = 9.50"$
max = 25", Tulsa, OK (1)

Two years

$346"/24 = 14.42"$
max = 27", Keiser, AR (2)
52", Petersburg, IL (12)

Three years

$379"/17 = 22.29"$
max = 33", Sylvan Grove, KS (3)
81", Petersburg, IL (12)

Four years

$369"/12 = 30.75"$
max = 37", Elkton, VA (9)
114", Petersburg, IL (12)

Five years

$508"/11 = 46.18"$
max = 59", Milford, MI (17)
145", Petersburg, IL (12)

Six years

$539"/8 = 67.375"$
max = 79", Milford, MI (17)
151", Petersburg, IL (12)

Seven years

$451"/5 = 90.20"$
max = 88", Milford, MI (17)
165", Petersburg, IL (12)

Eight years

$555"/5 = 111.00"$
max = 125", Milford, MI (17)
189", Petersburg, IL (12)

Nine years

$572"/4 = 143.00"$
max = 148", Milford, MI (17)
214", Petersburg, IL (12)

After nine years the number of trees drops to two so I'll end it here. I'll follow up with some pictures of the Petersburg, Illinois tree.

Full tree



Close-up of some leaves



Not quite so close



I'll work on the white oaks next.

Doug Bidlack

Familiar eastern trees which range into the tropics

by Steve Galehouse » Sat Dec 31, 2011 3:18 pm

Will's mention in the "Big fat hophornbeam" thread that the largest of that species and sweetgum were found in the mountains of Mexico caused me to look up other familiar species which range south of the Tropic of Cancer. In addition to those two species, shagbark hickory, flowering dogwood, American beech, and sycamore are present in tropical Mexico, as well as hornbeam(*Carpinus*), black cherry, and white pine(!), which make it into Mexico and even into Guatemala. Hornbeam and hophornbeam make it into Honduras as well as Mexico and Guatemala, while sweetgum even gets into Nicaragua. I wish we had photos and data from those areas.

Mexico and Central America was a refugium for a number of eastern trees. Here is a range map of white pine:



A good source for native ranges is here:

<http://esp.cr.usgs.gov/data/atlas/little/>

Steve Galehouse

External Links:

Savoring Bogs and Moose, Fearing They'll Vanish as the Adirondacks Warm

http://www.nytimes.com/2011/12/02/nyregion/fearin-g-climate-changes-effects-on-the-adirondacks.html?_r=1&nl=nyregion&emc=ura1

Burt's Bees founder wants to donate national park

Roxanne Quimby wants to give more than 70,000 wild acres to the federal government

http://today.msnbc.msn.com/id/42295096/ns/us_news-giving#.Tt44ThxUFil

Savoring Bogs and Moose, Fearing They'll Vanish as the Adirondacks Warm

http://www.nytimes.com/2011/12/02/nyregion/fearin-g-climate-changes-effects-on-the-adirondacks.html?_r=1&nl=nyregion&emc=ura1

Children and Nature network Releases Volume 5 of C&NN's Annotated Bibliographies of Research

http://www.childrenandnature.org/news/detail/cnn_to_release_volume_5_of_cnns_annotated_bibliographies_of_research/

Giant log on display at Gumdiggers Park, NZ

<http://www.scoop.co.nz/stories/BU1112/S00235/giant-log-on-display-at-gumdiggers-park.htm>



22nd Annual North American Dendroecological Fieldweek

http://www.apsu.edu/sites/apsu.edu/files/betr/NADEF_2012_Flyer.pdf The website for the NADEF <http://dendrolab.indstate.edu/nadef/>

National Park Service Announces Reconnaissance Survey of the Allegheny Highlands

<http://www.saveblackwater.org/documents/npspressrelease.pdf>

Storms that knocked out power stir emotional debate over future of Connecticut's trees

STEPHEN SINGER Associated Press, Posted: December 04, 2011 - 11:47 am

<http://www.therepublic.com/view/story/0ce353151c484bb18d05b2855171a76b/CT-October-Snow-Trees/>

Confessions from a Former Coniferophile

by Neil Pederson | 11.29.2011 at 4:01pm

<http://blogs.ei.columbia.edu/2011/11/29/confessions-from-a-former-coniferophile/>

National Tree Climbing Program

<http://www.fs.fed.us/treeclimbing/>

Algonquin-Old Growth Forest

<http://www.youtube.com/watch?v=ztsc7qBYplk>

Thinking of previous hikes. by James Robert Smith, Dec 11, 2011. While I'm holed up here writing a contracted horror trilogy, I was thinking of recent hikes.

<http://tilthelasthemlockdies.blogspot.com/2011/12/old-growth-memories.html>

Quincy garden club petitions mayor for 2d

opinion on elm, by Robert Knox, Boston Globe Correspondent, December 11, 2011.

http://www.boston.com/yourtown/quincy/articles/2011/12/11/conservationists_petition_quincy_mayor_for_second_opinion_on_old_tree/?camp=misc:on:share:article

Ontario is planning to kill its promise to protect an ecological gem — an old-growth forest near Temagami.

<http://www.thestar.com/news/article/1100528--ontario-breaks-temagami-pledge?bn=1>

Huge East Point oaks a tough fight for preservationists, GA

<http://www.ajc.com/news/huge-east-point-oaks-1258762.html>

2011 Precipitation extremes in US - Dr. Jeff Masters' WunderBlog

<http://www.wunderground.com/blog/JeffMasters/comment.html?entrynum=2001>

Shrubbery on the March in Quebec

<http://earthobservatory.nasa.gov/IOTD/view.php?id=76634&src=eoa-iotd>

Acorn to Oak filmed over an 8 month period time-lapse

<http://www.youtube.com/watch?v=ZK4LjURtaDw>

One Year Time Lapse, Oak Tree Timelapse

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

Historic oak tree likely doomed in UW Memorial Union reconstruction

<http://www.isthmus.com/daily/article.php?article=35330>

10 Cool iPad Apps From Uncle Sam

<http://informationweek.com/news/galleries/government/mobile/232300178?pgno=1>

Video about biodiversity in Mexico

<http://www.youtube.com/watch?v=LE-qmarVAGM>

Old Logging Photos from Texas

<http://www.texasbeyondhistory.net/aldridge/logging.html>

White deer video

<http://www.pbs.org/wgbh/pages/frontline/video/flv/generic.html?s=inwi10s22a3q81f>

Scientists' names live on in lichens By Judith Lavoie, Times Colonist December 17, 2011

<http://www.timescolonist.com/news/Scientists+names+live+lichens/5876669/story.html>

Old Growth Tree Saved in Nantahala National Forest

http://www.citizen-times.com/article/20111219/NEWS/312190006/Old-growth-trees-saved-Nantahala-National-Forest?fb_comment_id=fbc_10150436385274211_20138864_10150437158924211 also:
<http://wildsouth.org/index.php/press-room/516-old-growth-saved>

Kauri under threat, NZ

<http://www.stuff.co.nz/auckland/local-news/manukau-courier/6160081/Kauri-under-threat>

How crowdsourcing is changing science

By Gareth Cook, November 11, 2011

<http://www.bostonglobe.com/ideas/2011/11/11/how-crowdsourcing-changing-science/dWL4DGWMq2YonHKC8uOXZN/story.html>

Holly Holidays from NOAA

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

From the Ground Up: The Making of a Children's Forest

<http://www.childrenandnature.org/blog/2011/12/19/from-the-ground-up-the-making-of-a-children%E2%80%99s-forest/>

If a Tree Falls Movie Trailer ...Official 2011[HD] – The story of the Earth Liberation Front

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

Drought may have killed a half-billion trees,

Texas http://www.cnn.com/2011/12/20/us/texas-drought-trees/index.html?hpt=hp_c2

Dennis Downes: Native American Trail Marker Trees

<http://www.trailmarkertree.com>

Great Lakes Trail Marker Tree Society

http://www.greatlakestrailtreesociety.org/trail_tree_about.html

The National Champion American "Buckley" Elm in Buckley, MI

<http://treedoctor.anr.msu.edu/dutchelm/buckley.html>

Ancient Indian Amber Preserves 52-million-year-old Biological Partnership

http://www.amnh.org/science/papers/amber_2011.php

TREEGEAR TV | 65m Vic Mountain Ash Tree Removal

<http://www.youtube.com/watch?v=akZ527VoTsc&feature=related>

Forests and Climate Change (by the 'Forestry Commission', UK)

<http://www.youtube.com/watch?v=zEb22FDsGyU>

Draw Me a Tree: A photographic study that involves trees, people, and people's drawings of trees. Orion magazine, January/February 2012

<http://www.orionmagazine.org/index.php/articles/article/6602/>

Mystery of the Trees Book

<http://wildsouth.org/index.php/cultural-heritage/48-cultural-heritage/521-mystery-of-the-trees-book>

Beetle Destroying Native Basket Weaving Cultural Traditions

<http://indiancountrytodaymedianetwork.com/2011/02/28/beetle-decimating-environment-in-north-america-19352>

Turkey's Big Tree Website agaclar.net - Farklı Ağaçlardan Anıt Ağaçlar

<http://www.agaclar.net/?id=showthread&t=13995>

The Importance of Trees - Video

<http://www.youtube.com/watch?v=2-OoHjjh5fM>

Arboreally Speaking, the 'Good Old Growth Curve Is a Delusion' by Neil Pederson | 12.27.2011 at 6:32pm

<http://blogs.ei.columbia.edu/2011/12/27/arboreally-speaking-the-good-old-growth-curve-is-a-delusion/>

Historical Long leaf pines - the Boxed Pines in Southern Pines, NC.

<http://tclf.org/sites/default/files/microsites/everytree/pines.html>

About: eNTS: The Magazine of the Native Tree Society

This magazine is published monthly and contain materials that are 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