Re: Bhutan

by **Neil** » Tue Jan 10, 2012 10:26 pm

OK, on to Dochula. Google maps says Dochula takes 20 minutes from Thimphu - http://g.co/maps/7cxzg - each leg of the round trip we made took at least 40. Those Bhutanese roads!

Dochula is a high mountain pass at a tad over 3000 m. We went there with my partner for the week, Masaki Sano, to check out *Tsuga dumosa*. Dr. Sano wished to make a drought reconstruction using the isotopes from tree rings. We had a midday meeting before this trip, so I just tagged along for the afternoon excursion. I was saving the boring for broadleaf species.

Dochula has a lovely dzong, or temple, on this pass.

Soon after entering the forest, we saw some fine-looking Tsuga.

Dr. Masaki Sano (l) and my host Mr. Kuenzang (r)

In some places, one would think you were in the southern Appalachians or a hemlock forest in the western US [I've not been in too many hemlock forests out west, so I come back to the SoApps]. Did I suggest watching the movie "Travellers and Magicians" yet? A movie in Bhutan made by Bhutanese. It is a nice story with some incredible forest interior scenes.

North America or Asia?

Asia, of course.

But, the similarities here can be striking. Check out the birch.

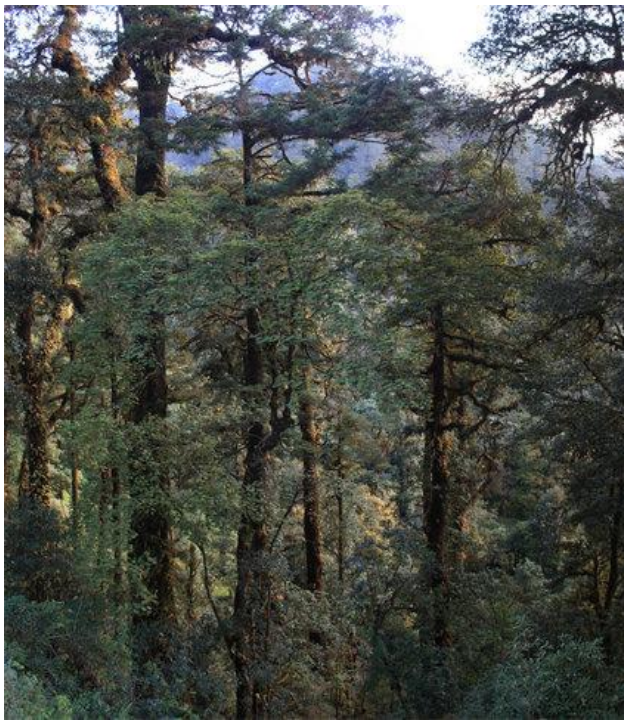
Betula alnoides - look familiar?

Perhaps the most exciting part of the day while in the field was happening upon a nice, broadleaf understory species, *Gamblea ciliata* .

Mr. Kuenzang holding a leaf of *Gamblea ciliata*

While it was small and not too old according to the raw core - it had rings! When working at low latitudes with broadleaf species, ring formation is often weaker or non-existent. This is more true in tropical latitudes. So, the coring on this trip was completely experimental. The basic question was, "Do these broadleaf species have rings?" There has been coring for some of the species, but angiosperms are often not sampled with the same intensity as gymnosperms: http://blogs.ei.columbia.edu/2011/11/29 ... iferphile/ - Of course, the high elevation at which we were coring makes it more seasonal and more likely that these species would have good ring boundaries. But, it is sometimes hard to predict. Even Nyssa sylvatica near the Adirondacks has weak ring boundary formation.

So, when it became apparent that this species had pretty obvious rings, I was stoked. Actually, Dr. Sano and Mr. Kuenzang might have thought I was a little crazy from my reaction. A preliminary surfacing of the core form this species does indicate good ring structure. I am stoked all over again.



The towering *Quercus semecarprifolia*

The next stop at Dochula was to talk down from the pass back towards Thimphu. Just before the pass we saw some towering *Quercus semecarprifolia*. They are an evergreen oak and, after coring live oak in GA, my arms attempt to flee when my brain thinks about coring an evergreen oak. That stuff is tough.

However, the low stem taper and just plain curiosity helped my brain best my arms. Actually, Mr. Kuenzang was more enthusiastic about coring a *Quercus semecarprifolia*, so he took the first run at one of these beasts.

Mr. Kuenzang going for it!

To no one's surprise, these were very difficult trees to core; we eventually cored two of them. On the first one, we only got about 1/2 to the center of the tree.

The first *Quercus semecarprifolia* cored. We only used about 1/2 of the 16" borer before we stopped. I feared we were going to snap the borer on the first oak. There were too many left to core!

Despite this, if what I am seeing in the lab are rings, this oak is over 400 years old - easily. It will take some time to confirm this, but the rings were much smaller than what I had expected [again, if what I see are rings]. So, only two months later did this part of Dochula become the real highlight.

For the last stop on this part of our trip, I'll leave you with a pan of the trunk of the first *Quercus semecarprifolia*. It has some massive aboveground biomass!

Next up: Chukha & Darla forests.

Neil Pederson

Dunwoody Nature Center, GA

by **samson'sseed** » Mon Jan 09, 2012 11:11 am

I was attending my nephew's Bar Mitzvah this weekend and didn't expect to find much nature. He lives in Dunwoody which is part of the sububan megalopolis of Atlanta.

Nevertheless, I took a walk from his house to a small park known as the Dunwoody Nature Center. The area is of course overdeveloped and the road is incredibly busy. It's nothing but subdivisions piled upon subdivisions, but the developers did leave lots of trees. The area must have once consisted of a dry upland forest because most of the trees consisted of white oaks, chestnut oaks, black oaks, shortleaf pine, and loblolly pine. (I had a hard time differentiating between shortleaf pine and loblolly some times because they hybridize.)

A sizeable southern red oak grows near the entrance of the Dunwoody Nature Center. The road in the park slopes down to Wildcat Creek. The forest here was a pleasant surprise. It's dominated by beech. I have never seen so many beech trees in Georgia. White oak, sweetgum, and river birch were also common.

I took a photo of a white oak with a diameter of about 4 feet and a couple pictures of the beech trees.

This white oak was about 4 feet in diameter.

The beech grew on the edge of a rocky creek.

Mark Gelbart

Re: NPR-Radio Times -1 Million New Trees in Philadelphia by

by **Neil** » Wed Jan 11, 2012 9:50 am

Dear NTS, NYC is running a similar initiative. They are around 1/2 a million trees: http://www.milliontreesnyc.org/html/home/home.shtml

A guest to our lab told us about it sometime last spring. She thought it would be one of Mayor Bloomberg's major legacies. You will only see his name towards the end of the major sponsors in small print. But our guest made it clear he quietly made this a personal project. Apparently he has been well schooled in the economic value of urban trees (and takes climate change seriously). One of these USFS programs drove the point home for Mayor Bloomberg.
http://www.fs.fed.us/psw/programs/uesd/uep/

It will be great when these cities become re-treed!.

Neil Pederson

Donner Summit, CA

by **lucager1483** » Wed Jan 11, 2012 5:38 pm

Ents, I crossed over Donner Pass twice during the second week of December on I-80. I didn't have much time to hang out there, though that would have been great. On 12/8, I stopped at the summit rest area, took a few pictures, and roughed out a couple of measurements. I looked and didn't see any reports on Donner (though I may have missed something) so I figured I should share the little documentation I had. I will admit that I'm not too familiar with western tree species, so I apologize in advance for any mis-identification.

The best I can figure, the trees in the photos include red fir, lodgepole and perhaps ponderosa pine, and western cedar. Please correct me if I'm wrong. I measured a lodgepole pine to ~115' and a red fir to ~132'. The whole area is beautiful and I can't wait to spend some serious time there.

Elijah Whitcomb

Lodgepole Pine

~132' red fir

Re: 3D surface modeling of a giant redwood trunk

by **M.W.Taylor** » Wed Jan 11, 2012 6:00 pm

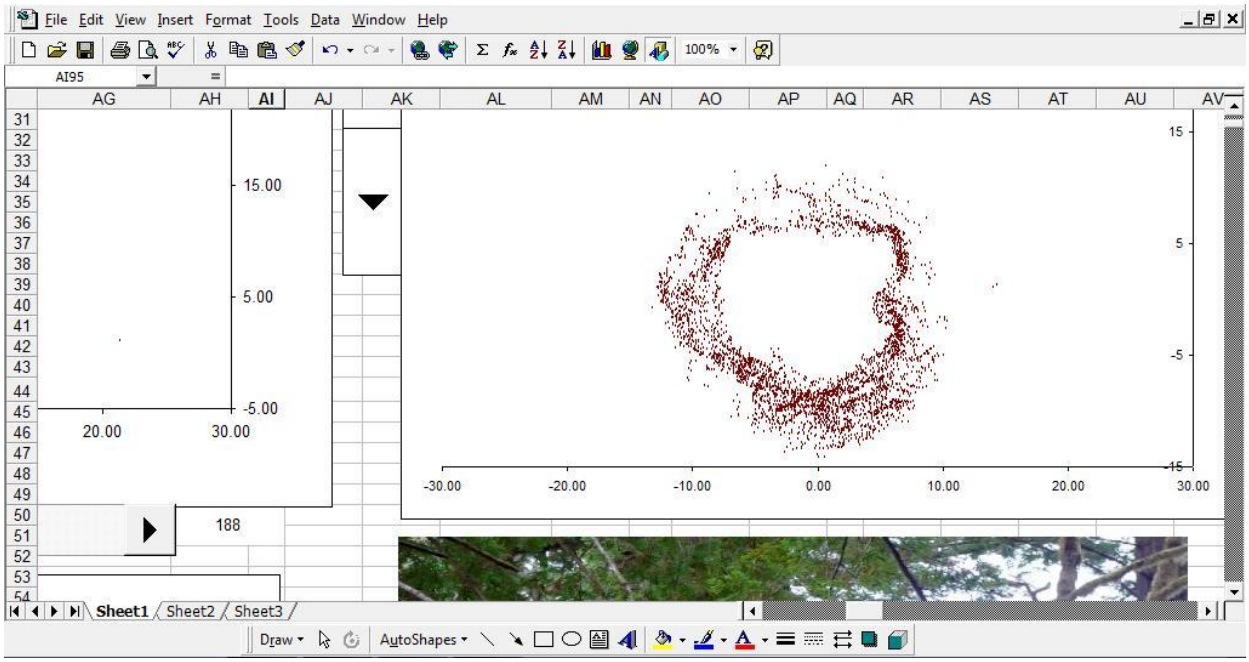
I have decided to go hi-tech with the majority of the trunk surface modeling. The point by point approach was too slow to practically model a giant redwood tree for precise volume determination.

However there are a handful of widely available technologies including ground LIDAR and optical parallax scanners (Ms Kinect for example) that can quickly and accurately map a trunk. LIDAR has the best range. The problem is in a cluttered forest environment you get a lot of noise and unwanted cloud points. Hundreds of thousands potentially. But these can be filtered out.

See latest map of Drury, Terex and an unnamed giant redwood. ALso attached is a trunk scan of an oak tree using an optical scanner (measures pixel off-set ratio between a digital camera focal center and line laser projection and blends with photo pixel data).
The Impulse200LR and Mapsmart will be useful for hitting tight areas were cloud density is low and/or not reachable by optical scanning technology. I need to create a properly scaled skeleton framework with the MapSmart/Impulse200 combination first. With Drury, this framework is almost complete.

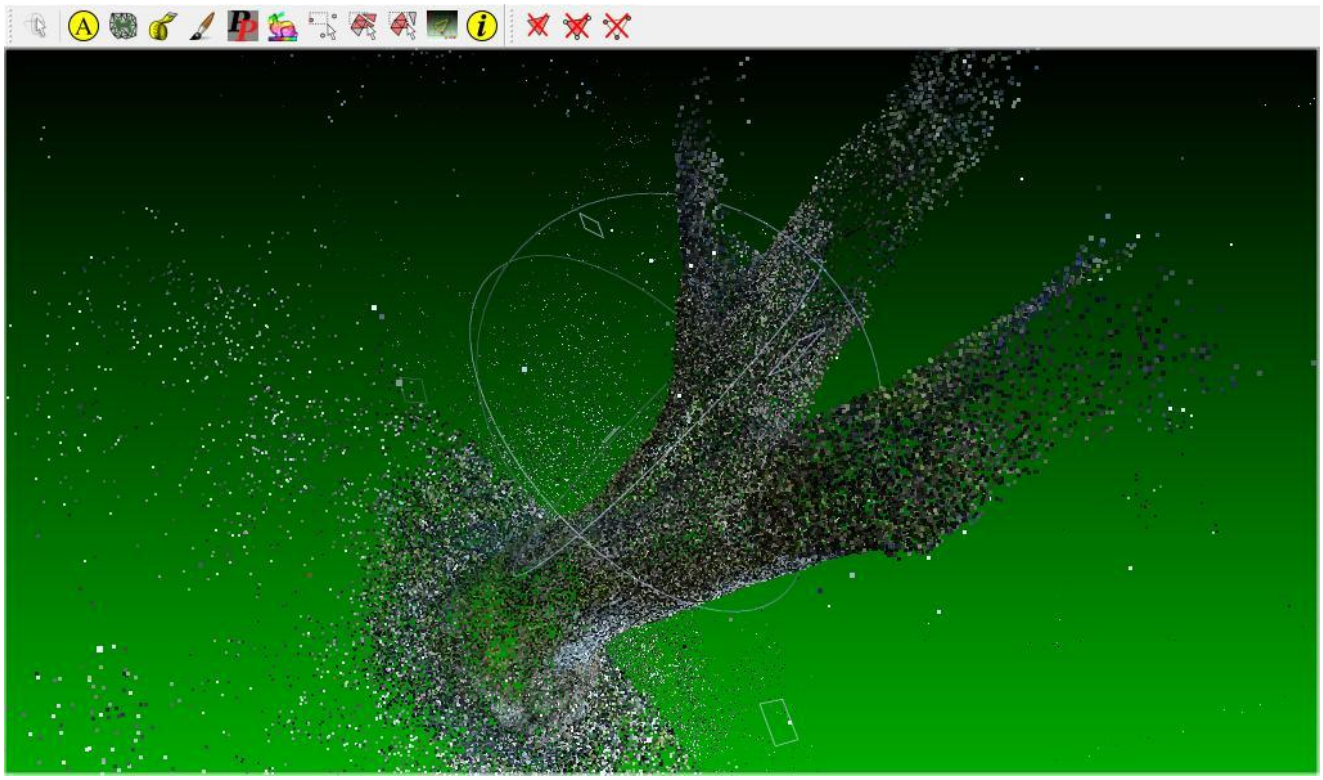
During my point by point mapping of Drury's lower 100ft of trunk, I discovered something interesting about Drury's structure. It was once 3 trees that merged into one. The tree leans a little so the direct over-head view does not show these vestigial side trunk iterations that merged. However I slight nudge on the tilting axis view shows these old trunks fused. I left the graph in the best over-head oblique position to see this. That would explain the flange-like protrusions on the side of Drury's trunk. Despite the old fusions, I still consider Drury to be one tree now.

See attached Excel spreadsheet of Drury's cloud map with rotating and tilting graphs. Also see attached screen captures from my 3D graphic software show the optical parallax scans of tree trunks, including Drury. These are HUGE clouds sets that are on average 100k in size. The trunk features are easily captured, with somewhat accurate color, bark texture and features such as burls and holes etc... Note the colorized pixels !

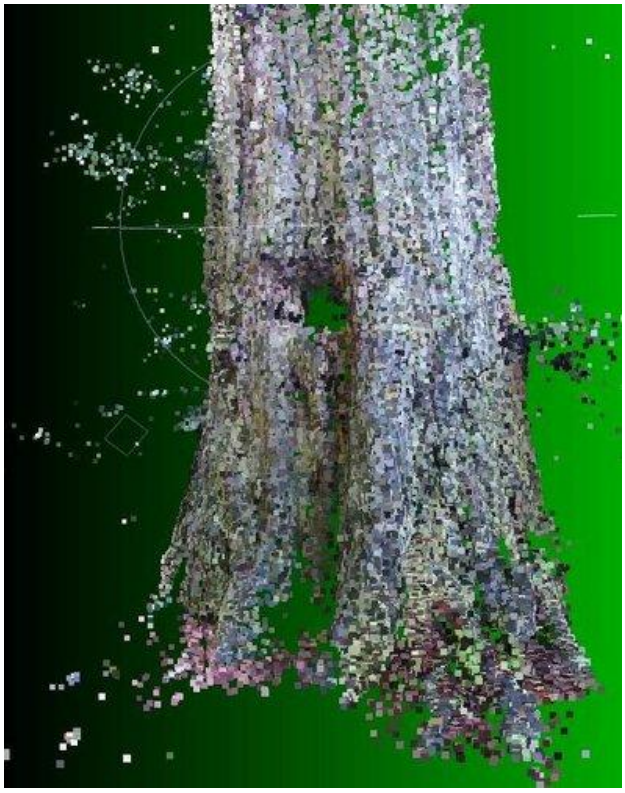


this particular view from the latest cloudset shows Drury's structure in a way not possible unless the tree is 3D surface modeled

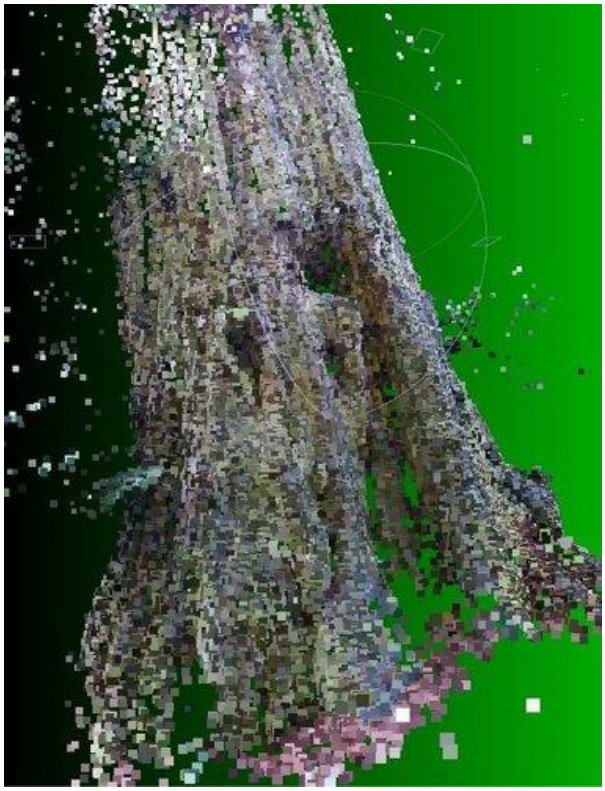
70k point cloud set of same oak tree after filtering out 29k of unwanted noise



99k cloud map of oak tree lower bole prior to noise filtering



Optical Scanner easily picks up bark texture and trunk features...note the hole in side of trunk and small burl



similar view as from photo..note small burl and "key-hole" in trunk at different perspective

photoview in real life, not VR like previous two screen captures from 3D modeling software

Michael Taylor, WNT VP
http://www.landmartrees.net

Re: 3D surface modeling of a giant redwood trunk

by **M.W.Taylor** » Fri Jan 13, 2012 12:37 am

I should have more more Iconic Tree cloud sets for you to look at soon. If you download MeshLab, free open source 3D graphics viewer, you can see these models in all their glory. As soon as I get confirmation of people downloading MeshLab on this blog, I will post the PLY(X,Y,Z position + R,G,B color code for each cloud point) graphics files on ENTS.

Link to download MeshLab:
http://meshlab.sourceforge.net/

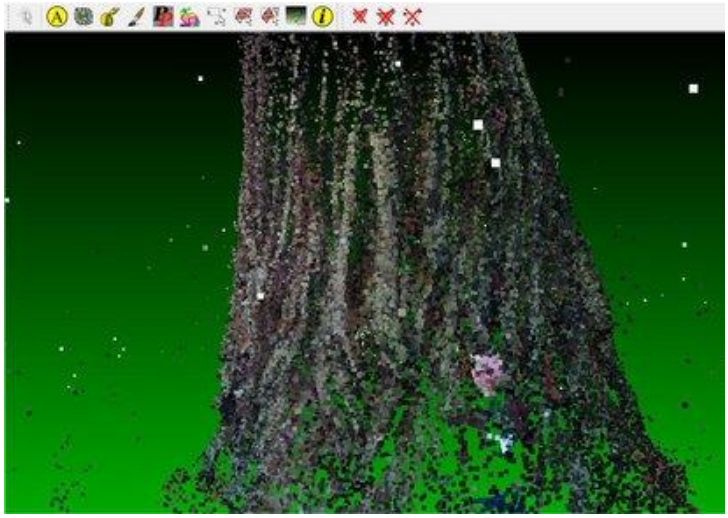
I was planning to give specific details on how I did this in the Dendromorphometry book. The equipment costs =$500.

Ground Base LIDAR may have just been rendered obsolete for tree trunk mapping in terms of cost and equipment weight. We'll see soon.

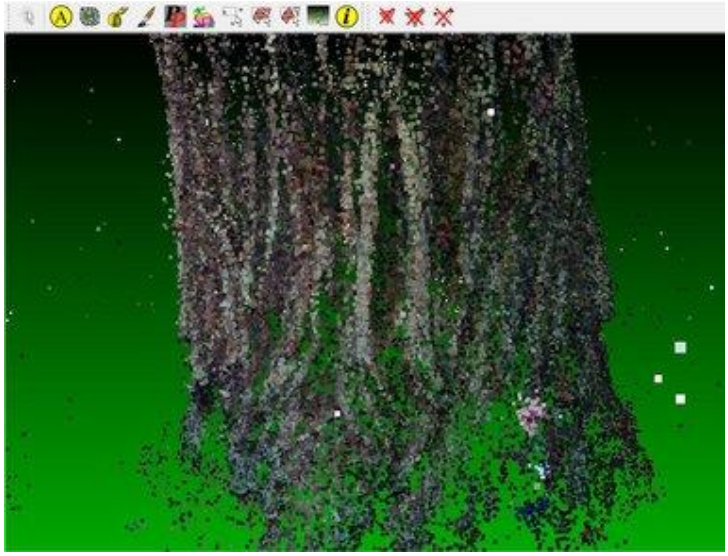
The attached pictures are screen captures from MeshLab for another big redwood trunk I scanned with my exploring partner Mike Hanuschick. You can see his bald head, eyes, nose, chin, silver camera, maroon shirt and blue jeans. If you have the MeshLab software you can soom around to the other side of the tree and see Mike's backside...or go up and look down and see the top of Mike's head and shoulders.. The optical scanner was sensitive enough to pick up the human form from 30 feet away.

I hope have more big tree trunk scans to post in a few days.

Michael Taylor, WNTS VP
http://www.landmarktrees.net



Mike under a redwood tree. Note bark color and texture and image of Mike under tree



Mike under a redwood tree. Slightly different angle

Re: Tree Haiku

by **Karl Cronin** » Thu Jan 12, 2012 9:55 pm

If I can stand still,
but know how to eat the sun,
will I too be tree?

Re: Tree Haiku

by **Steve Galehouse** » Fri Jan 13, 2012 12:08 am

Persimmon gives fruit
Pucker, frost, freeze, then so sweet
Who knows to taste it?

Metal Sculpture Gate

by **Don** » Thu Jan 12, 2012 10:25 pm

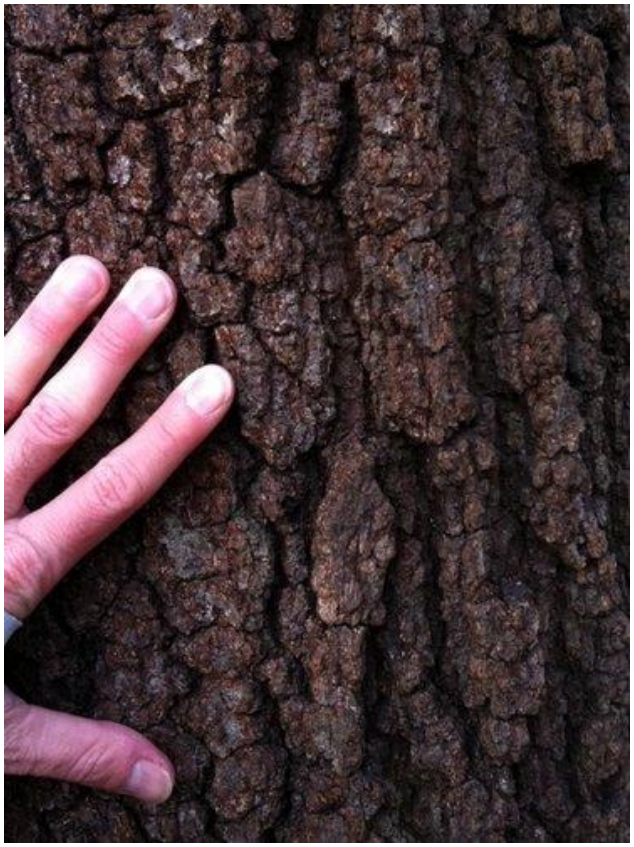
The work of a friend of a blacksmithing friend's handiwork, a gateway into an orange grove, home…

Don Bertolette

First winter storm of the season today...

by **Steve Galehouse** » Fri Jan 13, 2012 11:52 am

NTS- We've had an exceptionally mild winter so far, and today is the first real blast of cold snowy weather----4'-5' on the ground now, with lake effect snow to follow after the front passes through.



Steve Galehouse

Oak ID help - Atlanta, GA

by **eliahd24** » Fri Jan 13, 2012 11:54 am

NTS, I just measured a sizable oak in a small forested area of Piedmont Park in Atlanta, GA and I am unsure about the ID. It's significantly tall (126') and might be the tallest for the species in the state depending on the ID. I'm thinking Southern Red (Q. falcata) or Black Oak (Q. velutina). The bark is much darker than most southern reds (though in my picture it looks brownish). I searched through the leaf litter for leaves and acorns, but many other species were present too. Check out these pictures and lemme know if you have any guesses. BTW- the tree was growing on a forested slope above a wetland area, so moist-ish, and also many White Oaks and a few Beech were present. Also- I didn't find any twigs for bud or leaf scar comparisons....

trunk 2

assortment of leaves

acorns

tufts of hair on vein axils

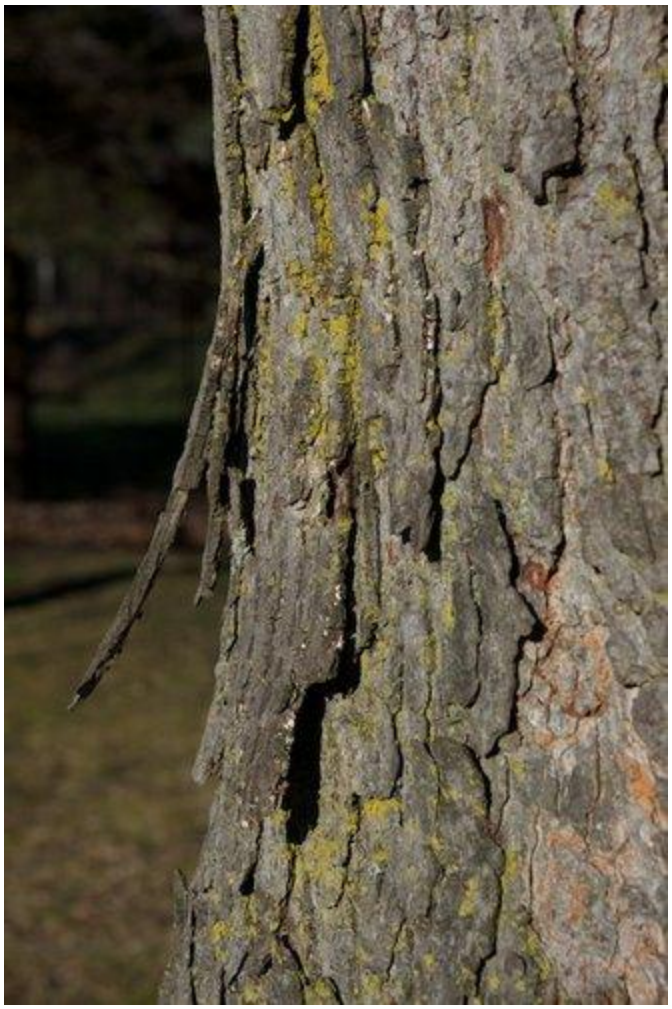
~Eli Dickerson

Re: Is This A Red Hickory?

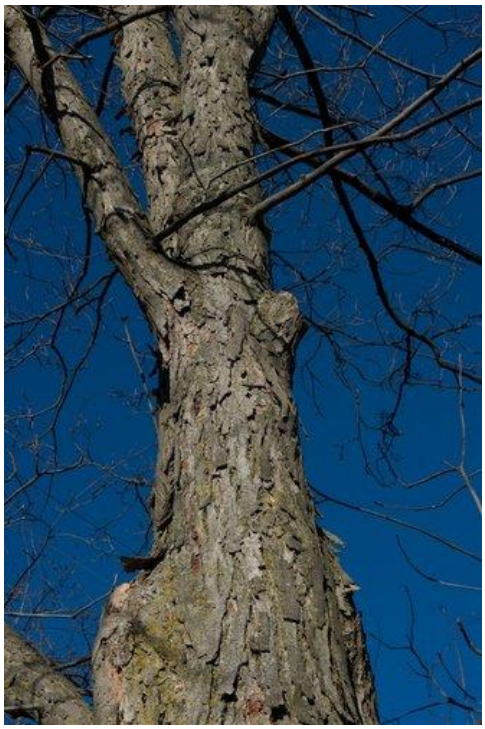
by **DougBidlack** » Fri Jan 13, 2012 3:51 pm

George, when I visited my parents in southeastern Michigan for Thanksgiving my dad told me that he had eaten some of the nuts from one of the hickories in the front yard...and they were sweet. This surprised me because I thought all three of the hickories in the front yard were pignuts and I thought they were supposed to have bitter tasting nuts. In the past I had only tried identifying the two larger trees closer to the house and they always matched up to pignut hickories. They have tight bark and only five leaflets and I think one year I even noticed that the nuts of one of them had husks that only split half way to the base. Since my dad said the sweet nuts came from the third and smallest of these hickories I decided to give it a closer look. Well, it actually did have shaggier bark, but it was a little late for the leaflets. I tried tasting nuts from all three but the squirrels and wet ground made it tough. I only got meat from one of the nuts produced by the little tree and they did taste sweet.

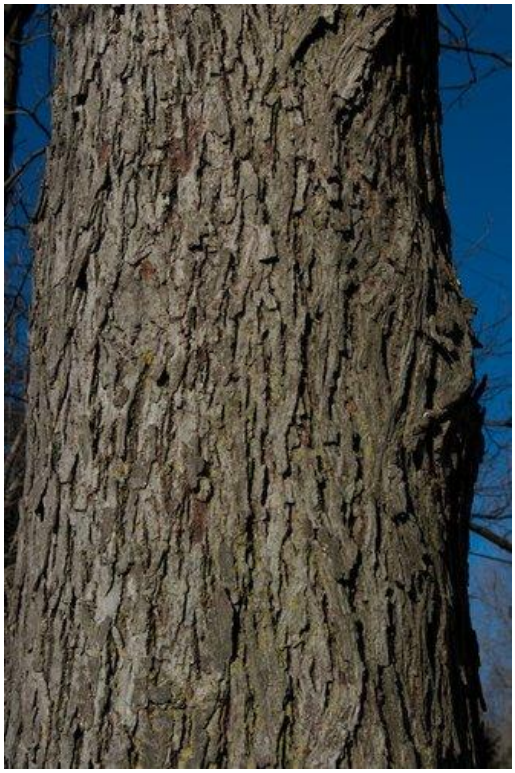
Here are some pictures of the three trees that I took last weekend. The first is a close-up of the bark of the little tree that seems to be a red hickory.



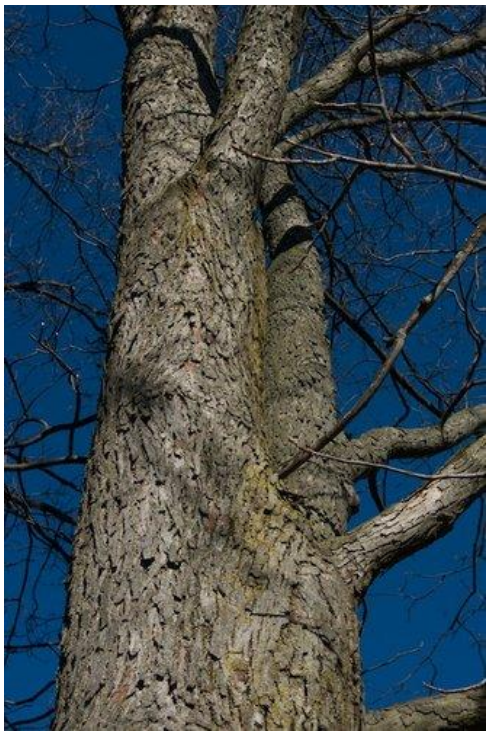
This is of the same tree looking up.



This is the middle tree which is only about 10' from the previous tree. It seems to be a pignut. Close-up of the bark.

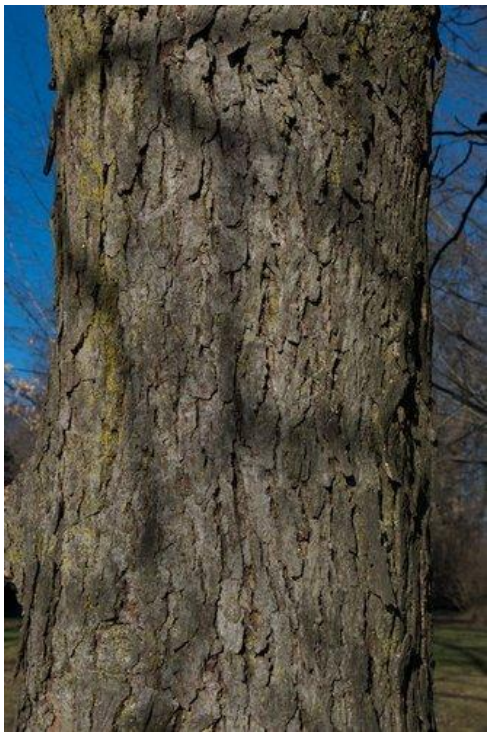


Looking up at the middle pignut.



This next tree is another 30' or so down the line and closer to the house. It also seems to be a pignut.

Close-up of bark first.



Looking up.

The red hickory, if that is what it is, doesn't seem to have bark quite as shaggy as yours. I have always been afraid to distinguish between these two because they are so similar and because a number of people either don't think they are separate species or that the characters are simply unreliable. So far I just call them all pignuts and I might note shaggy bark or something. Maybe in the future I'll attempt to separate them all out.

Doug Bidlack

Outdoor Activity Center forest, Atlanta

by **eliahd24** » Fri Jan 13, 2012 8:21 pm

I was able to go for a quick hike at a spot in SW Atlanta I've been trying to get to for years called the Outdoor Activity Center. It's a facility operated by the City of Atlanta Parks Dept. that was built in the 1970's and after much initial use, sat vacant from sometime in the 1990's through about 2006. It has a nature center and also has 26 acre mature hardwood forest with a seasonal stream and fairly extreme topographic features. I heard rumors of a "HUGE Beech tree" called the "Grandfather Beech" and thus that was one of my main goals- finding and measuring said tree.

The forest was typical of many around this part of the Piedmont- lots of beech, white oak, tuliptree, northern red oak, chalkbark maple and a few scattered sourwoods and loblolly pines all on the steep slope. In the low wet spots were some really nice Sweetgum and what's become one of my favorite trees- Winged Elm (*Ulmus alata*).

I took measurements of quite a few Oaks, but none were all that impressive (a lot of competition in these parts). What really stole the show were 2 Winged Elm's that both topped 120'! I've only measured one taller anywhere else- that's a 126 footer in Fernbank Forest (and I believe stands as the 1st or 2nd tallest living individual of the species known). Also finding a Black Cherry over 100' tall is pretty rare around here--- finding one at all in a forest is pretty rare.

Turns out the Grandfather Beech was smaller than advertised and the height was not even worth measuring (in terms of standing up to other tall Beeches in the area), but still an important tree as it is located at one of the forest teaching stations. Overall I didn't find anything to eye-popping aside from the Winged Elms, but it was a great day to be in the woods. The daytime high was upper 30's and there were even snow flurries earlier in the day. It was nice to walk in the crisp air after 2 weeks of warm mugginess down here in the southland.

Measurements:

Carpinus caroliniana CBH: 2'10"
Fagus grandifolia "Grandfather Beech" CBH: 10'2.5"
Liquidambar styraciflua 129.9'
Liquidambar styraciflua 130.7'
Liquidambar styraciflua 9'4" x 134.5'
Liriodendron tulipifera 122.9' (def. taller ones around)
Pinus taeda 8'4" x 133.5'
Prunus serotina 4'1.5" x 102.5
Quercus alba 132.2'
Quercus alba 13'4" x 121.1' (BIG forest grown White Oak!)
Quercus rubra 120.9'
Ulmus alata 5'10.5" x 123.3'
Ulmus alata 8'7.5" x 124.6'

I also did a rough ring count on a trail cut Green Ash and got 68 annual rings on a trunk circumference of only 24". Pretty tight growth in the last 30 years or so.

Eli Dickerson

Re: Cook Forest April 18-19

Cook Forest State Park. PA will be sponsoring a tree-measuring workshop for April 18-19.The agenda has not been completely determined, but at this point it will likely include at least five major events:

1. Re-measuring the Longfellow White Pine, tallest accurately measured tree in the Northeast. ENTS President Will Blozan will likely climb the tall pine and do a tape drop measurement and volume modeling. We will concurrently measure the Longfellow Pine from the ground using a variety of height measuring techniques with comparisons made to the tape drop.

2. An outdoor workshop to demonstrate a variety of tree measuring techniques. This will principally be an ENTS-orchestrated event. There will probably be at least half a dozen experienced ENTS members to demonstrate the various methods.

3. An equipment demonstration by Laser Technologies Inc. (LTI) with hopefully a glimpse at what is in the planning stages. LTI is the Cadillac of the infrared laser products industry. They make the Impulse 200LR laser, the TruPulse series, RD1000, etc. Forestry is a prime market for their equipment.

4. An interpretive walk through the incomparable Cathedral Grove of old growth white pines. Cook Forest has at least 111, and probably over 120, white pines that reach heights of 150 feet or more. Four exceed 170 feet, and one exceeds 180. All have been measured by Park Naturalist and Educational Specialist and ENTS member Dale Luthringer.

5. A lecture by my friend Dale on the exceptional forests and trees of Pennsylvania.

American Forests will join us on April 18-19 at Cook Forest, PA. In fact, I think AF will be supporting other NTS events including the one in MTSF in the fall. This is a major step forward in what could be a partnership that serves both organizations well. We had the makings of that partnership in 2001 when AF attended an ENTS rendezvous in MTSF and in Cook Forest the following year. However, staff turnover derailed the budding partnership and we found ourselves back at square one. Our great friend Colby Rucker played a pivotal role in that early association. Now we appear to be back on track. LTI will also be a participant at future NTE events in an educational capacity. It is onward and upward.

For any of you who have not had the opportunity to visit Cook Forest, and can join us, I guarantee you won't be disappointed. Guaranteed.

Re: Cook Forest April 18-19

by **edfrank** » Fri Jan 13, 2012 10:46 pm

Reports from Previous Cook Forest Rendezvous:

Fall ENTS Rendezvous-Cook Forest Big Tree Extravaganza October 2009
http://www.nativetreesociety.org/events/ents_cook_forest_2009_event.htm

Cook Forest Big Tree Extravaganza/ ENTS Rendezvous April 2007:
http://www.nativetreesociety.org/events/cook2007/cook_forest_big_tree_event.htm

April 23-24, 2005 Cook Forest, PA
http://www.nativetreesociety.org/events/cook_forest_05.htm
http://www.nativetreesociety.org/fieldtrips/penna_cook_forest/cook2005/rendezvous_cook_forest05.htm

Cook Forest Rendezvous April 2003:
http://www.nativetreesociety.org/events/2003%20Extravaganza.htm
http://www.nativetreesociety.org/fieldtrips/penna_cook_forest/senecaclimb/senecaclimb.htm
http://www.nativetreesociety.org/events/cook_workshop03.htm

Rendezvous April 2002:
http://www.nativetreesociety.org/events/cook_forest_or_bust.htm
http://www.nativetreesociety.org/fieldtrips/penna_cook_forest/cook_forest_rendezvous.htm
http://www.nativetreesociety.org/fieldtrips/penna_cook_forest/cook2002/cook_forest_rendezvous2002.htm
http://www.championtrees.org/oldgrowth/surveys/CookForestSP20420.htm
http://www.nativetreesociety.org/events/cook2002.htm

North Georgia beech and arboglyphs

by **Pingdis** » Fri Jan 13, 2012 9:57 pm

Large beech tree near creek in North Georgia - I cleaned off alot of the moss and lichens. Any ideas on symbols or authenticity? Creeks and Cherokees were in area 2-300 yrs ago.

Brent Bergherm

Atlanta GA Area Georgia Beech Arboglyphs

by **eliahd24** » Sat Jan 14, 2012 1:44 pm

On one beech in a particularly remote urban forest (if there such a thing) I found a beech carving that looked quite old. I was able to make out a name and year (1929 if memory serves). After some Google searching I actually found someone I thought could be a match. This guy is a local WWII vet and used to live near that forest. We finally met in person and he said he certainly could have carved on that tree, since those are the woods where he would "go trapping" as a kid. Back then it would have been "way out" instead of adjacent to Midtown Atlanta and all the neighborhoods and buildings like it is today. Such a cool thing to be able to tie this 80 year old carving to a living person! Though he couldn't really see why I wanted to meet him...no big deal to him :)

Eli Dickerson

This may shed some light on the possible ages. This is from a smaller diameter beech tree 100' away.

Brent Bergherm

Re: North Georgia beech and arboglyps

by **Pingdis** » Sat Jan 14, 2012 10:15 pm

Will Blozan wrote: Also, the Roman alphabet would not likely be used by Native Americans in the suggested time period.

I understand the point you are making about the Roman alphabet and Native Americans.

However, the 1821 Cherokee Syllabary had 85 symbols, 8 of which were vowels, and the remaining 78 combos of consonants and vowels. Some are exact likenesses to current Roman letters.

This view from the same tree:

Belle Isle, Michigan

by **DougBidlack** » Sat Jan 14, 2012 4:52 pm

NTS,

last weekend I visited Belle Isle to measure the Michigan AF champion pumpkin ash and Shumard oak. Belle Isle is a 985 acre island in the Detroit River that is within the Maumee Lakeplain. It is a flat landscape with silty clay soils that is wet in late winter/early spring and dries out in summer. The remaining forest on the island is classified as a wet-mesic flatwoods and it is unusual due to the number of rare tree/large shrub species that are common on the island but are rare in Michigan.

(The Range maps are not included in this magazine due to copyright considerations.)

Pumpkin ash was first found in (southern) Michigan in 1992 by researchers from Ohio trying to determine the true range of the species within that state. The range map below consists of data from "Michigan Flora Online" by Reznicek, Voss and Walters as well as from the Michigan Natural Features Inventory. The red counties were the known distribution in Michigan in 1996 when the third part of "Michigan Flora" was published as a book by Voss. The numbers within counties refers to the number of times the species occurs within that county according to the Michigan Natural Features Inventory.

Shumard oak was not even positively identified in Michigan until after 1985 when the second part of "Michigan Flora" was published.

Wahoo (*Euonymus atropurpurea*) is a rare shrub for Michigan that can reach tree size (15' or more).

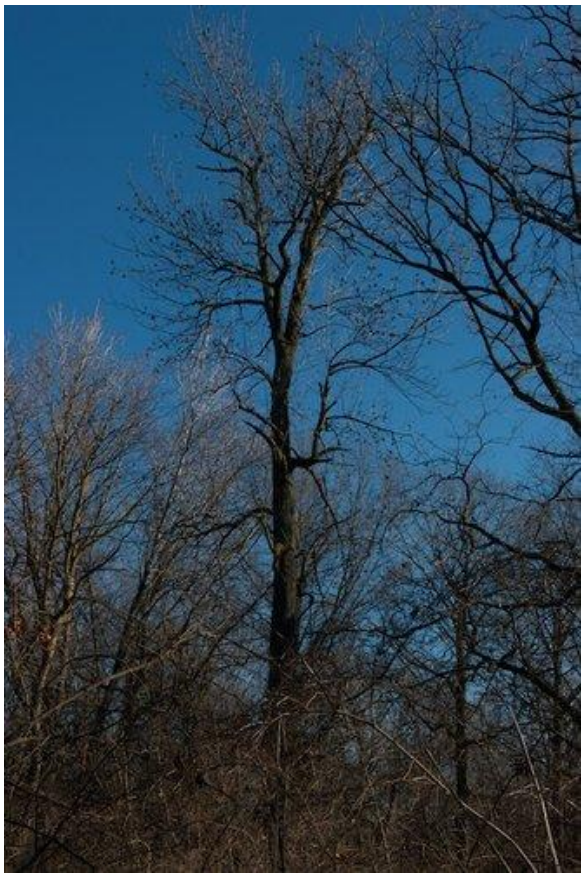
Shellbark hickory is rare for Michigan but apparently not rare enough for the Michigan Natural Features Inventory to track. Red indicates 1985 or earlier and corresponds to when the second part of "Michigan Flora" was published.

Rough-leaved dogwood, also known as Drummond's dogwood, is rare in Michigan but also apparently not rare enough to be tracked by the Michigan Natural Features Inventory. This species is still only known from the four southeastern-most counties in the state.

So these are the five rare trees that I'm aware of on the island. The forest is dominated by oaks. The common red oaks are Shumard oak, pin oak and northern red oak and the common white oaks are bur oak and swamp white oak. Chinkapin oak is also supposed to be on the island but I didn't notice it. Other common tree species include pumpkin ash, green ash, silver maple (?) and American elm. I put a question mark after the silver maple because I wonder if they aren't mostly Freeman maples. More on that later. The most common small tree is downy hawthorn although hornbeam and hophornbeam are also reasonably common. The most common shrub appears to be spicebush and actually the Michigan AF champion spicebush is also supposed to be on the island but I didn't have good location data or enough time to try and find it. Unfortunately, virtually all of the ashes are dead due to EAB and I very much feared that the champ would be dead as well.

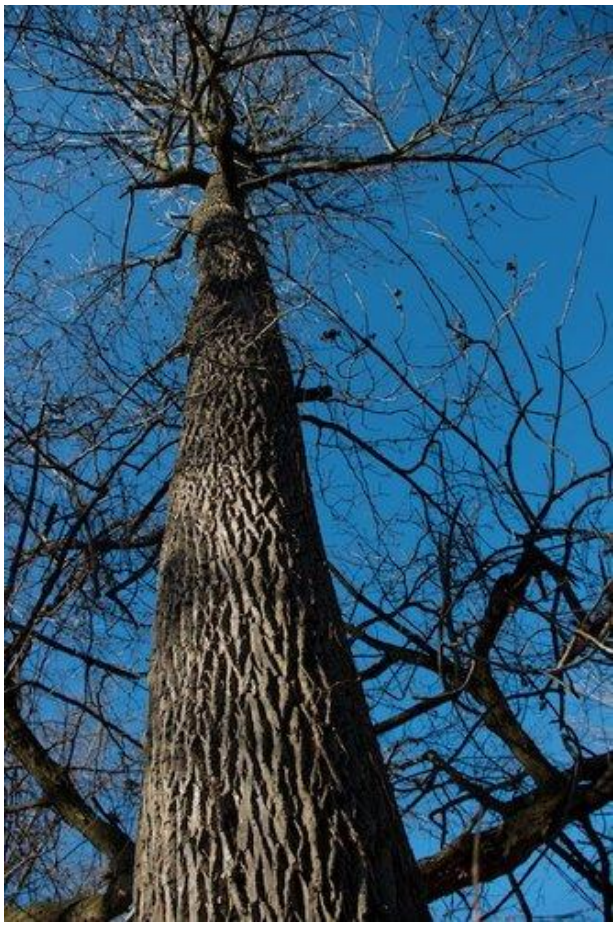
The pumpkin ash was the first champ that I found. Luckily it still seems to be alive. On closer inspection, however, I think that luck may have nothing to do with it. I found a little hole near the base of the tree with a yellow, plastic insert. It looks kinda like a place that you'd hook up an IV to an ailing human, so I'm guessing that this tree is being treated to keep it alive. The tree was last measured in 2001 by Woody Ehrle and the dimensions were 85" (7.08') in girth, 135' in height and 50' in average crown spread for 232.5pts. I got 7.34' (88.1") in girth, 84.3' in height and 32.6' in average crown spread for 180.5pts. Just slightly shorter! I think I might have missed the highest sprig because when I shot straight up I got 87' and I didn't finish my calculations 'til later because I thought I got the highest point. I'll have to return again. It does look like this tree has lost a fair amount of limbs recently but this obviously does not explain the height and average crown spread disparity. The max spread that I found was 36' 7".

Here is a picture of the champion pumpkin ash.



A close-up of the bark.

Looking up.

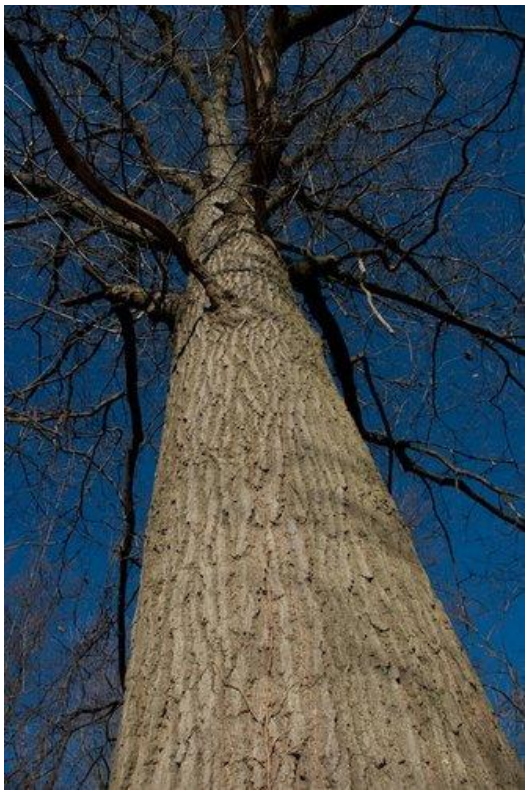


The second tree that I wanted to measure was the Shumard oak. Back in 2001 this tree was measured at 150" (12.5') in girth, 128' in height and 70' in average crown spread for 295.5pts. I got 14.46' (173.5") in girth, 102.7' in height and 75.4' in average crown spread for 295.1pts. Again a big height differential but this tree has been growing extremely well...nearly 2' of girth growth in 10 1/2 years. Not too shabby! Also, and this is a first for me, I actually measured a greater average crown spread than the original measurers...wow! The max crown spread that I found was 83'. I feel fairly confident about the height since I got 102' by shooting straight up.

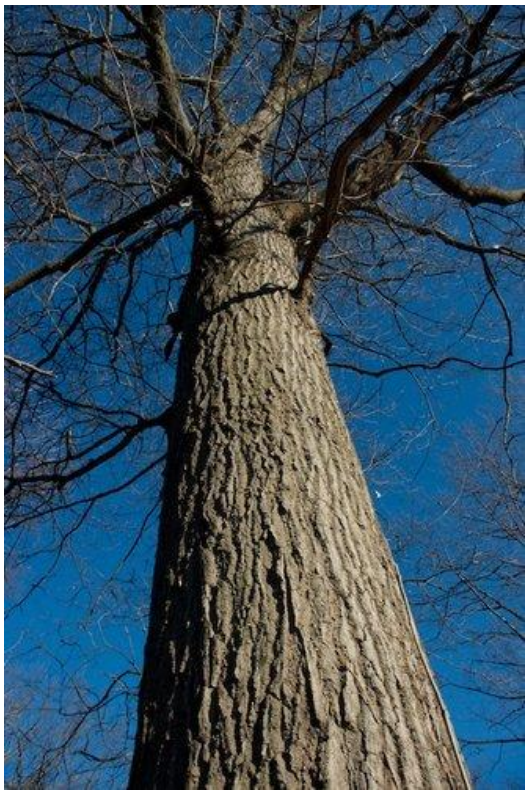
Here is a picture of the champion Shumard oak.

A close-up of the bark.

Looking up.



Another view looking up.



Leaves from around the champion Shumard oak.

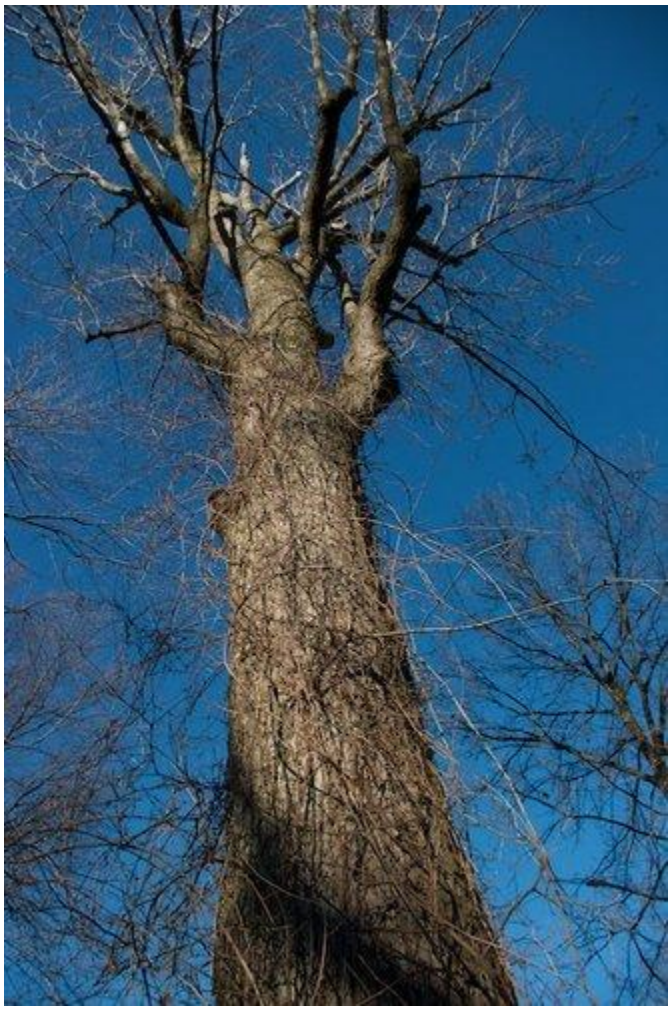
I measured the girth of one other Shumard oak to 13.36'. I think there are a number of decent-sized oaks that are just waiting to be measured.

As I mentioned earlier I'm not sure if the maples in the park are actually silver maples. I didn't notice any with multiple stems and the leaves looked a bit different. I'm hoping that other NTS can help out here.

Here is a picture of some leaves that I gathered on the forest floor.

A picture of the bark of a fat maple. I measured the girth to 14.17'. (next page)

Same tree looking up.



Freeman maple

Doug Bidlack

Re: Belle Isle, Michigan

by **DougBidlack** » Sun Jan 15, 2012 3:07 pm

Will and Steve, it's good to get confirmation from you guys that the maples are likely Freeman maples.

Will, I knew the heights were way off even before I first visited the island on a measuring trip in February of 2008. I was with a friend looking for the champs but we didn't have exact locality data and we were looking in the wrong place. Some measurements that I made from that trip shooting straight up.
Pin Oak 127" (10.6') x 91.5'
Swamp White Oak 137" (11.4') x 94.5'
Shumard oak 114" (9.5') x 90'
Shumard oak 109" (9.1') x 102'
Based on these two trips I think it is unlikely that any trees are over 110' in height. The island is just too exposed as the Detroit River is nearly two miles wide at this point. I suspect that some of the pumpkin ash on the island were over 90' at one time, but now they are nearly all dead. The current champion pumpkin ash, despite the much more modest dimensions, may still be the largest on the island in terms of AF points. I'm sure taller ones exist, or once existed, in more sheltered areas of Michigan. Unfortunately we may never know.

Here is a picture of the taller Shumard oak from the February, 2008 trip. It shows the habitat a little better than some of my other shots. The Shumard oak is on slightly higher ground while the lower, flooded area in the background consists mostly of pin oaks I think...at least I remember many flooded areas that were pure or nearly pure stands of pin oaks ("pin oak flats").

Doug Bidlack

Steve Galehouse writes: The best way to determine Freeman maple from red maple and silver maple is to taste the seed within the samara. Red maple tastes like almond, silver like hazelnut, Freeman like Midori liquor. Trust me, it works.

Warm winter in Minnesota

by **Lee Frelich** » Sun Jan 15, 2012 4:13 pm

ENTS: Although there have been some cold winters in New England in recent years (especially last year with its negative Arctic Oscillation), winters in Minnesota have been getting steadily warmer. We have not had a day yet with a low of zero F or lower this 'winter', and if this does not happen by Wed, it will be a new record (interestingly, the forecast does call for a chance of a low below zero Wed or Thursday). During the first week of January temperatures as high as 62 degrees F were recorded in Minnesota, and most of the state only has 1 inch of snow on the ground as of Jan 15 (only the Boundary Waters has more-4-8 inches). Ironically, this is leading to much colder soil temperatures than usual, and since we have a severe drought in much of the state, root freezing could be an issue causing tree damage. Dieback of twigs in tops of crowns occurs when roots die if soil temperatures in the top 2 feet get as low as 20 degrees, which cold happen in the next few weeks.

Below are links to a radio interview and an article in a newsletter I did about the possible impacts of the warm weather.

http://minnesota.publicradio.org/displa ... on-nature/

http://www.midwestenergynews.com/2012/0 ... s-forests/

Lee Frelich

Re: Warm winter in Minnesota

by **Lee Frelich** » Tue Jan 17, 2012 9:53 am

Have you seen James Hansen's latest analysis of temperatures in the U.S. and other parts of the world? It shows that the last 30 years, as compared to 1951=1980, had a shift to a warmer mean, but that also the variance of the distribution about the mean has increased, so that cold extremes on the left tail of the distribution are reduced only slightly in frequency, and warm extremes are very extreme, because the mean is higher, and so is the chance of being far from the mean on the left side of the distribution.

Basically what this means is that we still get a cold extreme temperature about equal to the average coldest temperature from the 1951-1980 period once every few years, but that extreme warm events that used to be 2 or 3 standard deviations from the mean, and thus only occurred rarely, now occur regularly-i.e. a temperature that was 3 standard deviations above the mean from the old days is now only a 2 standard deviation event, and in 10 or 20 years, will only be a 1 standard deviation event.

Lee Frelich

Re: Warm winter in Minnesota

by **Lee Frelich** » Tue Jan 17, 2012 4:56 pm

Joe, The upside of global warming is not having to drive as often in the blizzards that used to be more frequent.

Ecologically, all changes lead to negative effects on one group of species and positive effects on another group (with the possible exception of an asteroid hitting the earth, which would be bad for a lot more species than for which it would be good). However, a changing climate in the northern U.S. pretty much yields a 50/50 split between species that benefit or don't benefit. In northern Minnesota what is bad for boreal forest is good for temperate forest, oak savanna, and grasslands. I don't see people as benefiting on the whole, since people do well when the environment is stable.

Lee Frelich

Local Vegetative Degradation of the Canadian Shield

by **Don** » Sun Jan 15, 2012 9:55 pm

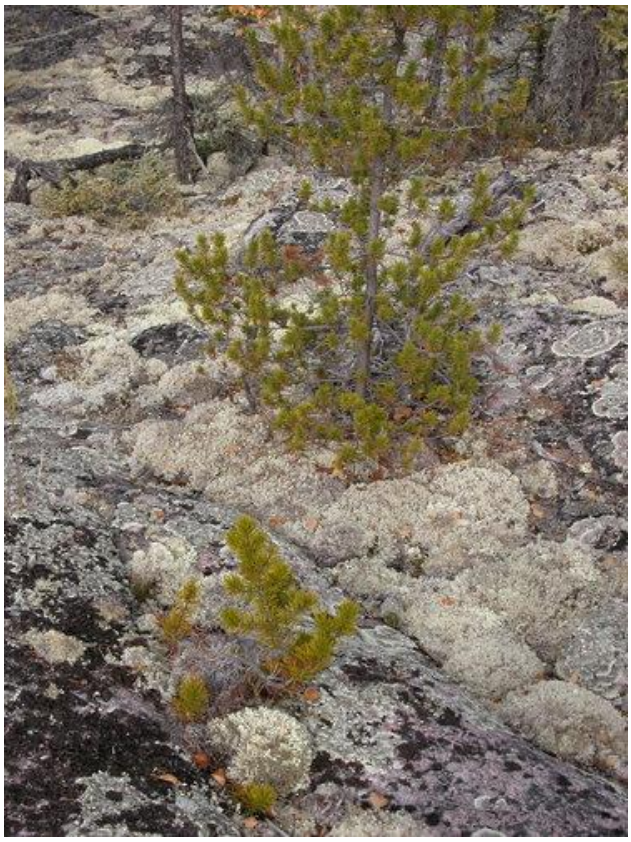
The nine hundred pound gorilla in this report is the Canadian Shield. What the Canadian Shield is, is well-described at , and a snippet follows:

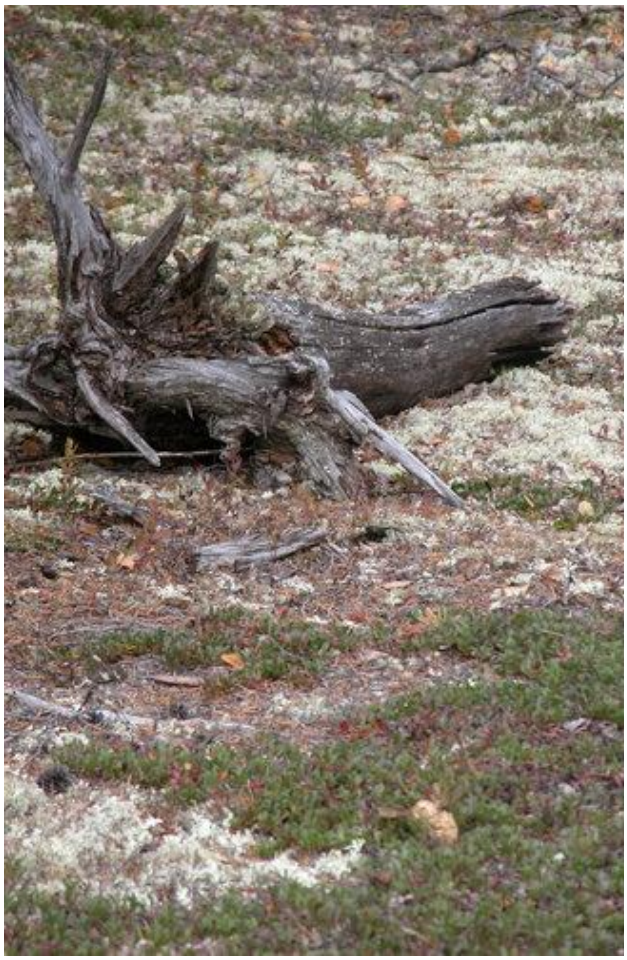
Canadian Shield, one of the world's largest geologic continental shields, centered on Hudson Bay and extending for 8 million square km (3 million square miles) over eastern, central, and northwestern Canada from the Great Lakes to the Canadian Arctic and into Greenland, with small extensions into northern Minnesota, Wisconsin, Michigan, and New York, U.S. (continued on the BBS)

It's been about a month more than a year since my wife Rhonda and I ventured onto the Canadian Shield and spent 5 months in and around Yellowknife, the capitol of the Northwest Territory. For my wife it was an university sabbatical, where she would regather her creative forces and energies, regroup her priorities, network with an expanding group of health care professionals.
For me it was an opportunity to get out into the woods, explore wildernesses, observe wildlife in new environments, canoe endless lakes and portages, and take on the feared mosquitos. But for the last, I was totally pleased with my opportunities, but it is with NO sadness that I found NO mosquitos. None. Our timing was excellent, arriving in early August, after the mosquito season.

For this report, I'll be inserting a number of images taken near Prelude Lake, about a half an hour's drive on the Cameron Trail. Driving from Yellowknife the countryside alternated between forests of small jack pines and birches, and evolving grasses and brush colonizing the otherwise barren stretches of the Canadian Shield.

The following series of images proceed from bare rock with pioneering crustose lichens to more complex lichen and mosses, each community taking advantage of the accumulation of nutrients and organic structure. Eventually the conditions for tree seedlings are met, and trees add their contributions. Sufficient accumulations provide for a forest community when regional climate permits surpluses.





A diverse community develops over time:

Cameron Falls, source of the name of the Trail we traveled in on...

And what a nice setting for my two favorite blonds!

Downstream from the Falls, the Yellowknife River rounds the bend...

I've more images, and comments on life in the Northwest Territory, you need only express your interest...: >)

Don Bertolette - Moderator, WNTS BBS
Restoration Forester (Retired)
Grand Canyon National Park

View my Alaska Big Tree List Webpage at:
http://www.akbigtreelist.org

View WNTS Webpage at:
http://www.nativetreesociety.org/wnts/index_wnts.html

Re: Local Vegetative Degradation of the Canadian Shield

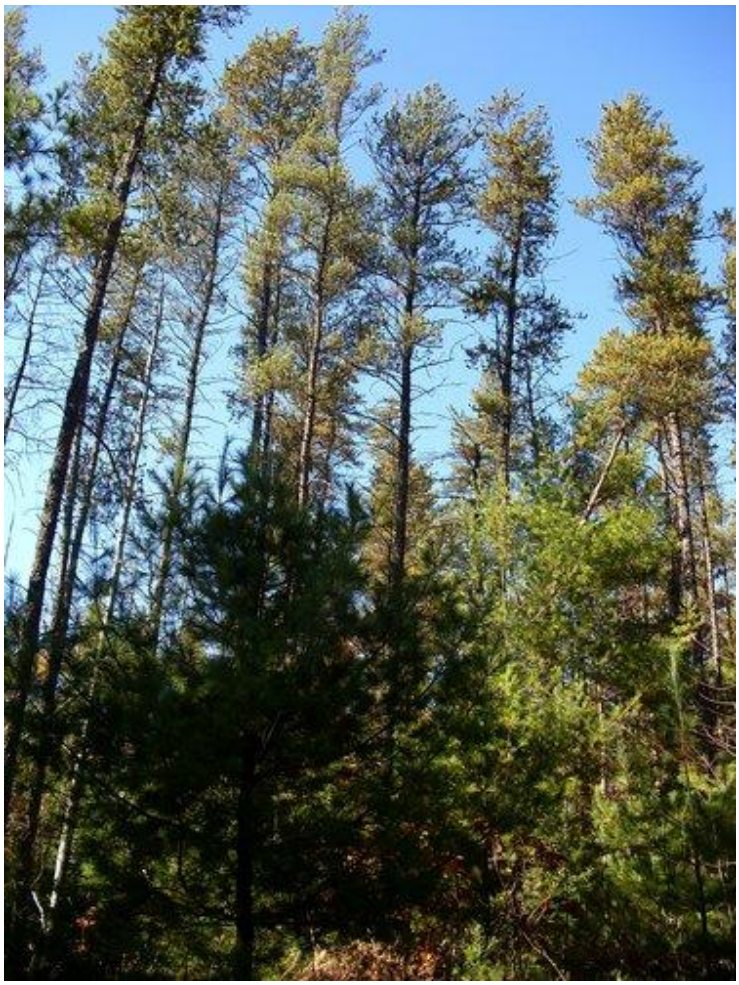
by **Steve Galehouse** » Mon Jan 16, 2012 11:57 pm

Don, NTS- The Canadian Shield is really cool, and it's remarkable how similar the vegetation is over vast distances. Here are a few of pics from central Ontario, 1800 miles SE of Yellowknife:

Crustose, foliose, and fruticose lichens-

Black spruce, white spruce, tamarack, and balsam fir-

Jack pines-



Steve Galehouse

Bear Creek Trail, Gannett Poplar and a nice hemlock!

by **eliahd24** » Sun Jan 15, 2012 8:38 pm

Today I was able to take a trip to the Bear Creek trail near Ellijay, GA in the Chattahoochee National Forest. This was a rare kind of tree hunting trip where my wife and our dog joined us, so I was pretty stoked. Main primary goal was to locate and (re)measure the state co-champion tuliptree known as the "Gennett Poplar". It's a well visited tree on a popular hiking and mountain biking trail. For those interested in visiting the tree, a simple Google search will lead to good info and accurate directions. It's only about 12 miles outside of Ellijay.

Being such a quick trip I only had a chance to measure a few trees. The creek was running a little high, so we had a few "wet feet" crossings, much to my wife's dismay and my dog's delight :)

The first tree that caught my eye was a one-off American Holly:

4'1.5" x 68' holly

Soon afterwards we began seeing more and more downed trees. Some almost looking like avalanche debris you see out west. Then I realized that it was probably tornado damage from one of the many vicious storms we've had in the past 2 years:

tornado damage?

The damage began to let up just when the trees started getting bigger. A pair of large looking hemlocks along the banks of Bear Creek caught my eye:

hemlock on right was 11"1" x 128' (doubt I hit the top w/ the laser)

Just before the famous poplar was the real highlight of the hike- a gi-normous hemlock! This beast measured in at 12' CBH x 140.2' Tall!!

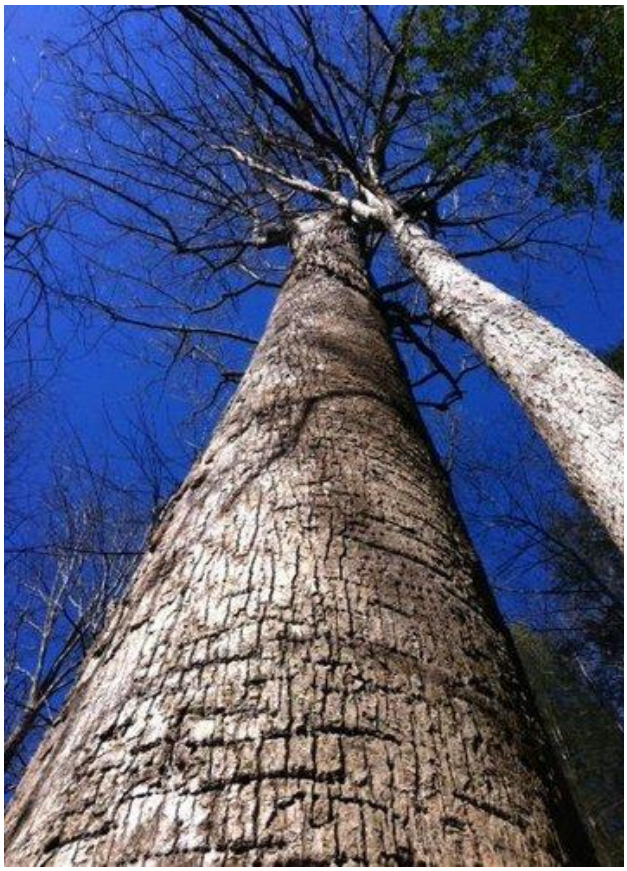
After some quick searching of the ENTS site, it seems that the stats on this tree are pretty good for Georgia. I know Jess and Will likely have data not posted on the site yet, but can anyone expand on the impressiveness (or non-impressiveness) of this tree? I could only find one hemlock over 160' documented for Georgia.

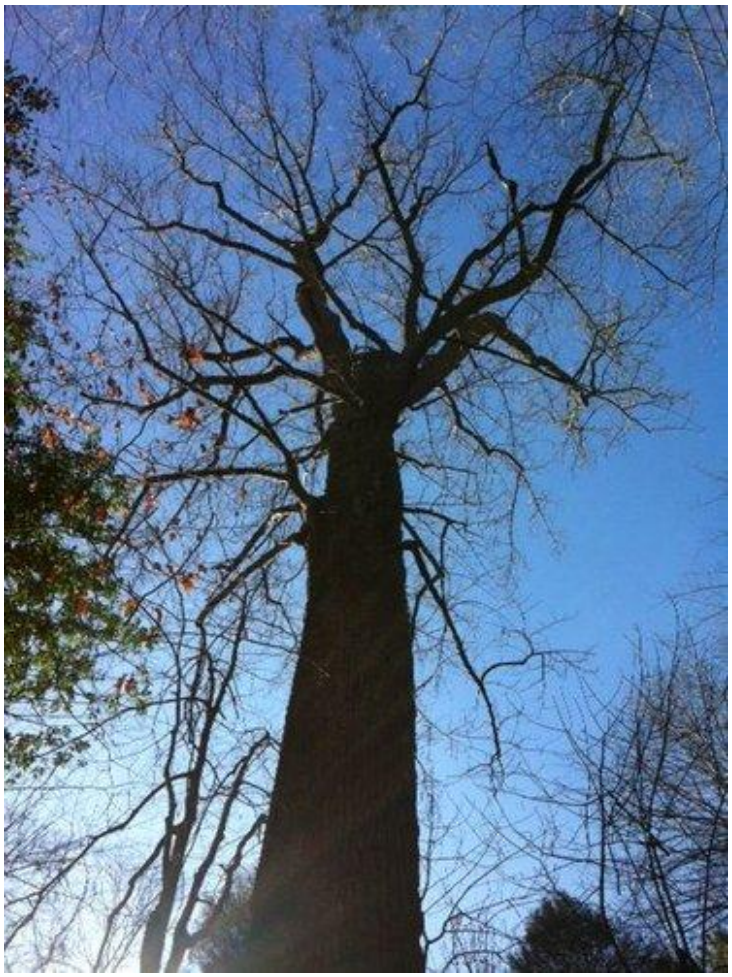
I didn't get a full shot of the tree, but here's one with my dog for scale:

140.2' "Bear Creek Hemlock"

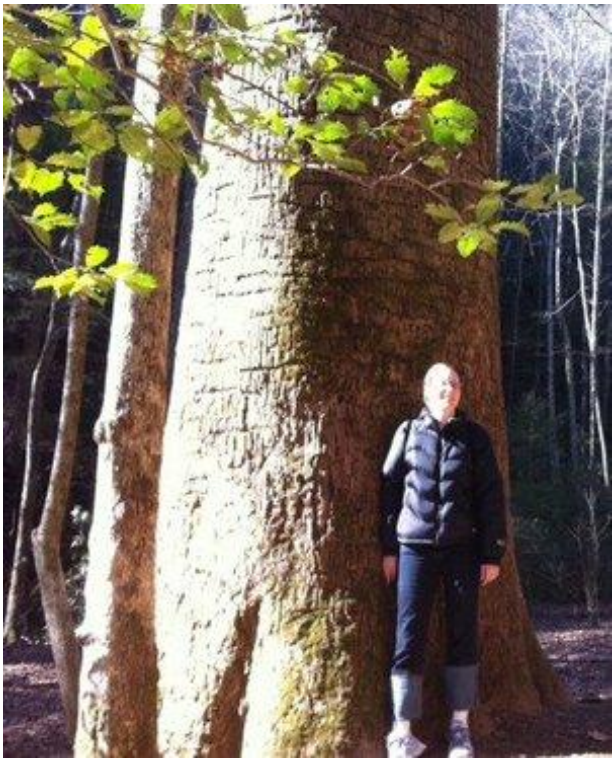
And now on to the Gennett Poplar...

18'6" x 145.2' Tulilptree





top is completely blown out



CBH was same as measured 10 years ago! (of course I measured midslope....not sure how GFC did it)

Overall this was a great trip, but just made me want to go back and spend more time. There seemed to be some much taller Tuliptrees in the deep creek bed ravine near the campground along FS Road 241.... also we only did 1 mile (out and back) of a 6 mile loop. Always a reason to return.

Oh and as far as those pesky adelgids go.... some trees had moderate damage, a few with heavy damage, but many seemed quite healthy including the biggest ones. The really big hemlocks were scattered but had a lot of green up top and not much dead crown. I'm sure there are more nice ones than I noticed too, but all the biggies were down next to the creek. It was a really short trip and I only expected to remeasure the big tulip...wasn't thinking about hemlocks too much... assumed they'd be dead. Also, I rarely get to N. Georgia, so I had no good perspective on what was "big" or not. No big hemlocks or white pines down here in Atlanta! I'd like to get back up there soon to take better measurements and look for more big living hemlocks. BTW- I saw a very small trail cut hemlock (maybe 12" diameter) that had a rough ring count around 130 years.

Eli Dickerson

Sand Branch, GA

by **Jess Riddle** » Tue Jan 17, 2012 12:18 am

I recently explored some privately owned coves in an area I'll call Sand Branch. Sand Branch is not a place you inadvertently stumble upon. Several miles of dirt road separate the small watershed, only about a mile long, from the nearest highway, but the stream does not lie near any wilderness area either. Judging from a topo map, the surrounding mountains do not stand out as remarkable for north Georgia. From a base at Lake Rabun, elevation 1690', the highest peaks in the area rise to only around 3000'.

The fog on the day I visited added to the feeling of a secluded and forgotten area. Water dripped from the dark green leaves of the rhododendrons that line much of the quiet road that bisects the watershed. On the slopes above and away from the road, the understory remains dark and evergreen, but the species composition changes to mountain laurel and dwarf rhododendron. In a few north facing coves and adjacent northeast facing slopes, the locations that likely retain the most nutrients and moisture, the color switches to the tan of dead leaves, and the understory transitions to a deciduous mix of buckeye and silverbell. On the most sheltered of these sites, only two coves, tuliptree excludes all other species from the overstory, but on slightly less productive sites that species is a minor component of forests dominated by white, northern red, and black oaks, pignut and mockernut hickory, many of them well formed and 120' tall. Moving downstream black birch, eastern hemlock, and eventually white pine enter the canopy, and moving towards drier positions upslope chestnut oak dominates the overstory with a few pitch pines mixed in on the larger ridges.

Sheltered tuliptree dominated stand. The cove quickly transitions to hickory dominance just below this area.

Species	Common name	Cbh (in)	Height (ft)	
Betula lenta	Birch, black	39	106.7	3rd tallest known in GA
Carya alba	Hickory, mockernut	72.5	141.6*	Tallest known in GA
Carya alba	Hickory, mockernut	85.5	136.8	3rd tallest known in GA
Carya alba	Hickory, mockernut	66	130.3	
Carya glabra	Hickory, pignut	118	156.9	Tallest known in GA
Carya glabra	Hickory, pignut	84.5	141.7	
Liriodendron tulipifera	Tuliptree	82	156.8	
Liriodendron tulipifera	Tuliptree	74	156.7	
Liriodendron tulipifera	Tuliptree	93	151.6	
Liriodendron tulipifera	Tuliptree	59	151.3	
Pinus strobus	Pine, eastern white		164.3	
Quercus alba	Oak, white	84	130.8	
Quercus alba	Oak, white	87	120.4	
Quercus montana	Oak, chestnut		148.5	Eastern height record
Quercus montana	Oak, chestnut	104	129.9	3rd tallest known in GA
Quercus rubra	Oak, northern red	107.5	149.1	Tallest known in GA
Quercus rubra	Oak, northern red	116.5	136.6	
Quercus velutina	Oak, black	86	124.6	
Tsuga canadensis	Hemlock, eastern		128.4	

I think I made an error when recording my angles and distances for the mockernut history, but the listed height is consistent with what I obtained by shooting vertically from beneath the tree. A taller pignut hickory is known from the Smokies, but the identification on that tree needs to be double checked. I didn't recognize the largest pignut hickory at first, because the bark was much lighter than I am accustomed to; in general, the tree closely resembles a bitternut, but lacks the yellow buds. Other pignuts in the area had darker bark and fruits with a pronounced neck. Since I could not find any fruits from the largest hickory, there is still some possibility that this tree is actually a sand hickory.

Bark of the tallest pignut hickory.

9'10" x 156.9' pignut hickory.

At 140.8', the site has the second highest Rucker index in Georgia, just surpassing Cliff Creek, even though black birch is the tenth species. More searching of the lower reaches would likely substantially improve the index. Basswood, present in the Rucker index for most montane hardwood sites and almost always present, appears to be completely absent from this watershed. Overall, this site struck me as one of the finest oak-hickory forests in north Georgia, and probably has more tall mockernut hickories than another other site I have visited.

The tallest known chestnut oak. There is an incised stream just out of site in the foreground, and a small cove of tuliptrees immediately behind the oak.

Jess Riddle

Neola White Pine botonical area, WV

by **tsharp** » Tue Jan 17, 2012 8:11 am

On October 8th I paid a visit to a stand of Oak and White Pine in the Monongahela National Forest near Neola, Greenbrier County, WV. Elevation along the access road is 2040 feet. I intended to see if I could find some 150+ class White Pines. The 10-15 acre stand was acquired by the Forest Service in the 1930's and apparently has never been logged. It is an uneven age stand and after walking through it I have to agree that it exhibits "Old growth" characteristics. It is recognized as such by the Forest Service and is set aside as the "White Pine Botanical Area".

I had a ½ day to devote to this stand but my timing was not the best. I got there from White Sulphur Springs about 8:30 AM and found that the Oaks, mostly White, were still In full foliage plus the convective valley fogs that are prevalent in this area was very thick with visibility a lot less then tree height. I had a very pleasant stroll through the stand but at 10:30 I still had not measured a single tree height but had recorded some of DBH'S of promising trees. After I got back to my vehicle the fog started to dissipate, and I walked back into the stand and managed to get the heights of three White Pines out of the six I had measured for DBH. The largest of the three was 10.7' x 140.9 and is pictured below.

Photo by Turner Sharp

The other measurements can be found at:
http://alpha.treesdb.org/Browse/Sites/1047/Details
Somewhat disappointed I crossed FS 96 and measured three trees along the bottomland thinking they may be taller along the North Fork of Anthony Creek. These trees would not be in the designated

botanical area but they appeared to be the same age. However, the circumference and height averaged smaller with the tallest one at 9.8' x 132.0'. That side of the road was been impacted by campers, fisherman and has some 4-wheeler damage.

Some Penn State researchers studied this stand an published a paper in the Journal of Ecology titled Dendroecological analysis of successional dynamics for a resettlement- orgin White Pine- Mixed Oak forest in the southern Appalachians, USA. An abstract may be found here:
http://www.jstor.org/pss/2261156

The stand is real easy to access. From White Sulphur Springs take WV 62 north about 15 miles to Neola. Turn left onto FS Road 96. Continue about one mile and park at the gated FS Road 796 on the left at One Mile Run. The stand is on the left side of the road just travelled with the North Fork of Anthony Creek on your right. There is a Ranger Station in White Sulphur Springs and the person managing the desk only knowledge of the location was somewhere near Neola. I found it easy enough anyway.

This stand deserves another visit and I will be back and will pay more attention to the Oaks which had some good size to them and might even find some 150' White Pines.

Turner Sharp

Re: Tree Haiku

by **Jenny** » Tue Jan 17, 2012 7:45 pm

This London Plane Tree,
Smooth, wood, spine against my back.
Hold me up always?

Re: Tree Haiku

by **Jenny** » Wed Jan 18, 2012 9:40 pm

How about this Joe?????

Measuring a tree
Is something I've never done.
But will Joe teach me?

Jennifer Dudley

Historic tree "The Senator" catches fire and collapses

Historic tree "The Senator" catches fire and collapses
http://www.wdbo.com/news/news/local/historic-tree-senator-collapses-after-catching-fir/nGNcm/

'The Senator' falls, world's 5th oldest tree destroyed by fire in Longwood
http://www.baynews9.com/article/news/2012/january/370329/The-Senator-oldest-tree-in-Seminole-County-on-fire-at-Big-Tree-Park

Investigator: Fire that destroyed The Senator tree not arson
http://www.orlandosentinel.com/news/local/seminole/os-senator-cypress-tree-fire-20120116,0,6171920.story

video clip:
http://www.orlandosentinel.com/news/local/seminole/os-senator-tree-on-fire-20120116,0,4077126.premiumvideo

3,500-year-old cypress tree collapses after catching fire in Florida
http://www.myfoxorlando.com/dpp/news/seminole_news/011612-big-tree-parks-the-senator-tree-on-fire

We must demand to know exactly why beloved Senator tree burned down
http://www.orlandosentinel.com/news/os-beth-kassab-senator-tree-obit-011712-20120116,0,107906.column

Re: Historic tree "The Senator" catches fire and collapses

The oldest accurately aged Cypress is from NC at 1622 years old. There are some from the Four Holes Swamp of SC over 1,000 years. http://www.ldeo.columbia.edu/~adk/oldlisteast/Spp/TADI.html More information about the Senator Cypress: http://www.nativetreesociety.org/fieldtrips/florida/senator/senator_cypress2.htm

Re: Historic tree "The Senator" catches fire and collapses

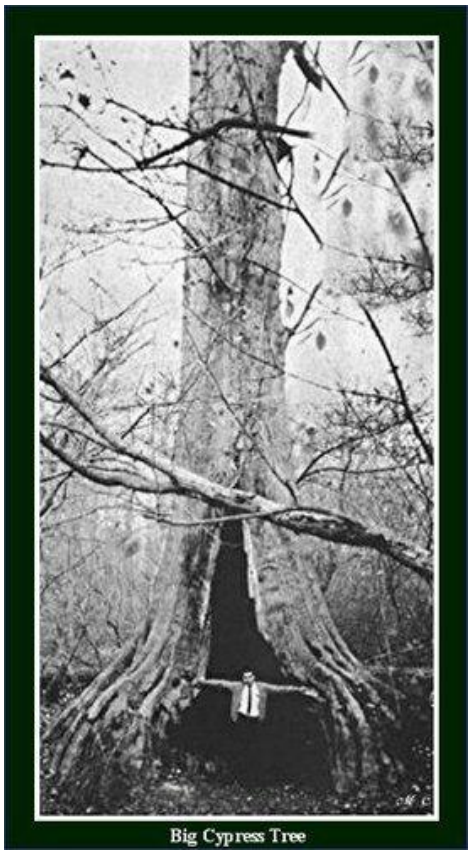
by **Larry Tucei** » Mon Jan 16, 2012 8:28 pm

Marc, Cypress trees can be huge. It was not uncommon for them to reach 30-40 Cir before Whiteman cut them all down. Very few remain today thanks to greed. One example. Search Old Cypress Trees on google. http://edis.ifas.ufl.edu/fr008 Here is another in Tenn., the height is an extreme varse though.http://www.rootsweb.ancestry.com/~tnwea ...sstree.htm One more form Missouri. http://www.semissourian.com/blogs/flynch/entry/39981/ These are a few examples of Cypress trees that were once common. Most are gone now with a few remnants here and there.

Larry Tucei


Virgin Cypress in Longwood Florida

Missouri Cypress



Cypress in Tenn

Re: Historic tree "The Senator" catches fire and collapses

by **Will Blozan** » Mon Jan 16, 2012 9:56 pm

Larry, Thanks for posting the shots of historic cypress. Those trees, however, are a good bit smaller than the Senator. I doubt trees of the 5,000 ft3 class were ever common. Perhaps 2,000- 2,500 cubes but not 5,000 cubes.

The Senator was likely the product of IDEAL growing conditions- not over 3000 years of mediocre growth. At 83' the Senator was still just under 5.4 feet thick- larger than any current known cypress- even those in the photos you posted (based on what can be seen). Larger in fact than any eastern tree known to ENTS. At the same height both the Sag Branch Tuliptree (NC) and the Trails End Tuliptree (TN)are just over 5' diameter- a huge differential in volume considering neither of them started at ~12' dbh...

I hope you get to measure some biggun's down your way and even better, get some reticle work-ups. I think we will find that we have just lost the superlative of all superlatives for the species in modern times. We will never know what once was, but what to strive for in the future.

Will Blozan

Re: Historic tree "The Senator" catches fire and collapses

by **aniftychic** » Tue Jan 17, 2012 11:50 am

I was so sad to turn the TV on to breaking news of the Senator was on fire. My dad took me to see this tree as a child and I have taken my children. I hope they find out what happened. It hasn't stormed here in some time and there is a lighting rod on the top of it I am so glad that I had the opportunity to see this great wonder of the world.

aniftychic

Re: 3D surface modeling of a giant redwood trunk

by **M.W.Taylor** » Fri Jan 13, 2012 11:55 pm

Here we go. These were the 1st trunks I have scanned so there will be room for improvement. Don't forget to re-center axis to get the best views...Normals,Curvatures,Orientations Then Transform: Move, Translate, Center. Click mouse pointer on new axis to reset. Also Tools-Options pixel size from 1 to 2 sometimes looks better, depending on the background noise.

I will first attach the raw file without noise filtering.then filtered for noise to show the processing needed. I still need to clean the filtered version up it up a little. You can run these cloud sets through AutoCad and have only discrete structures (i.e. tree trunks and forms with a surface) filtered automatically out of the noise. The 1st. cloud map is the lower trunk of Terex Titan. I will get a MUCH better scan of this tree soon. This 1st. scan was more of a calibration run.

If you have any questions or problems viewing the graphics, let me know,

I may be away for a few days as I attempt to get better quality tree cloud maps.

The next attachments are from a large redwood trunk with my friend Mike standing underneath. I attached the raw version + filtered version. For filtered version, increase pixel size from 1 to 2 for best color. As I stated previously, you can see Mike's head, eyes, nose, mouth, chin, maroon sweatshirt, silver camera and blue jean. This was also a calibration run. I should be able to improve cloud density and color with practice.

Attachments deleted

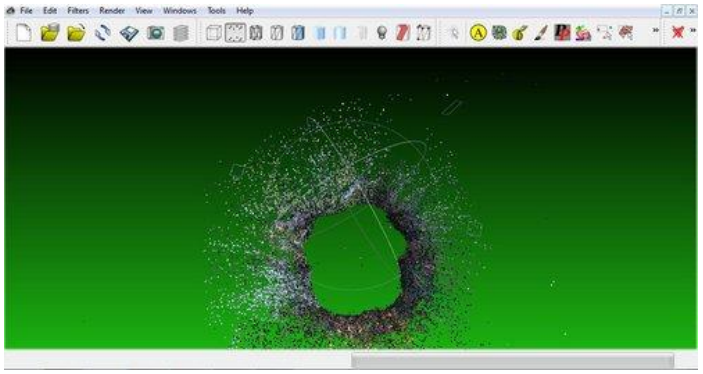
Re: 3D surface modeling of a giant redwood trunk

by **M.W.Taylor** » Fri Jan 20, 2012 6:50 pm

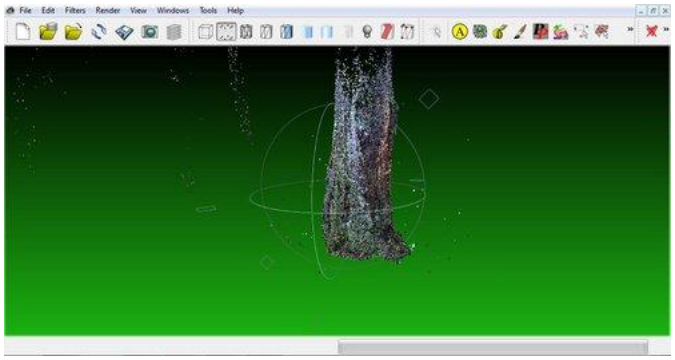
The attached are some recent trunk scans. The cloud set are 100-250k in size so you will need MeshLab to view. I am attaching some jpg images first of Forest Glen Giant, Redwood Creek Giant, Melkor and Stratosphere Giant.

For all these new cloud maps, the entire lower trunk is modeled in 3-D. These cloud sets are the original scan without the noise filtered. You can see many of the background trees in these scans. The best details came out in Forest Glen Giant, an 8' dbh ponderosa that died recently. You can see where the bark is peeling off high up the trunk. The plates and color detail came out nicely. For Melkor you can see the lower burl and fire scarring quite well. With Redwood Creek Giant I captured about 250k cloud points in the first 15 feet of trunk. You can see the moss backed North side and ground detalis near the root flares. This is cloud is plenty dense enough for an accurate volume calculation.

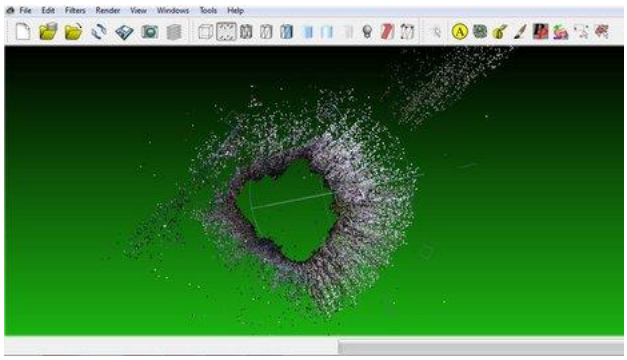
I hope to soon have an example of the Visual Basic code that calculates the irregular volumes under these scanned surfaces. I'll post an open source code version when finished.



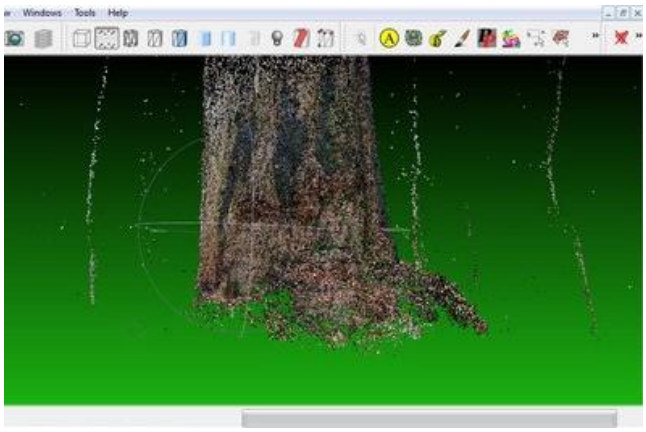
Stratosphere Giant - 17'+ dbh



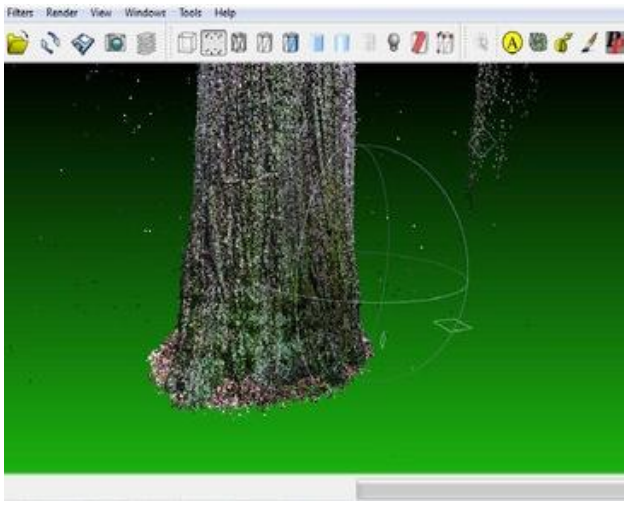
Stratosphere Giant -372' tall



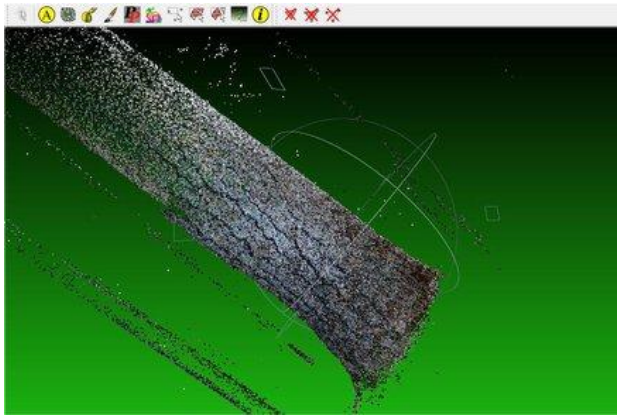
Redwood Creek Giant - 17' dbh



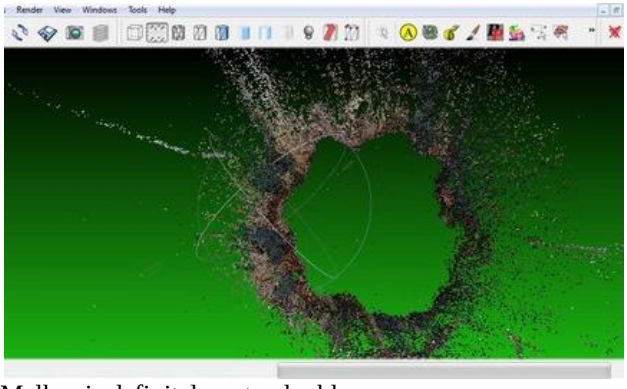
Melkor 2nd largest coast redwood



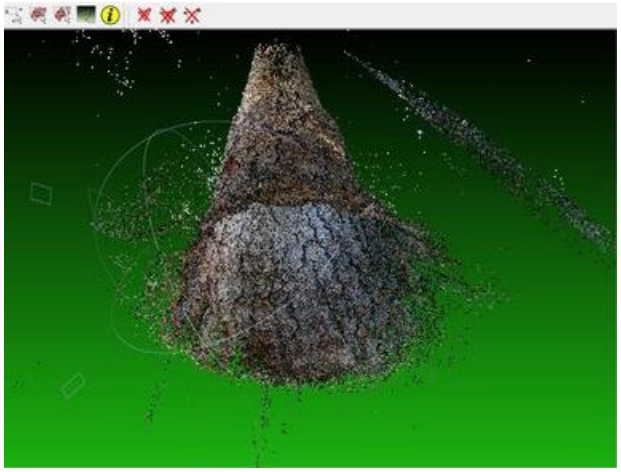
Redwood Creek Giant - 362 feet tall



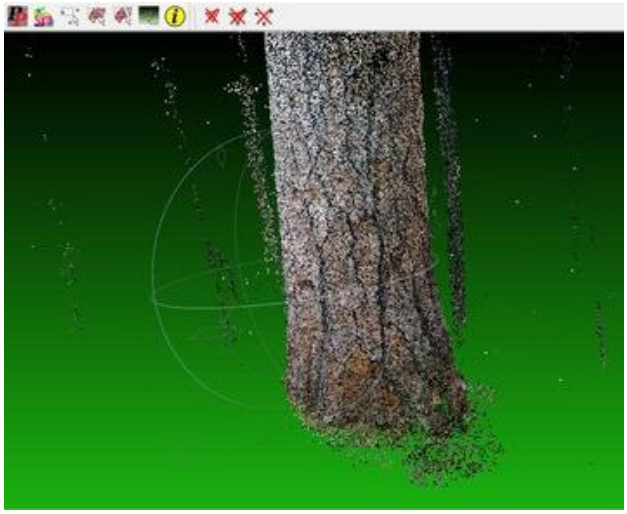
forest glen giant now dead



Melkor is definitely not a double



perfect specimen pinus ponderosa



8' dbh Forest Glen Giant

Michael Taylor
WNTS VP

Re: 3D surface modeling of a giant redwood trunk

by **fooman** » Sat Jan 21, 2012 10:23 am

Rand wrote: It would be nice to have some good online documentation for Meshlab. There are some Youtube tutorialvideos.

Try http://www.cyi.ac.cy/system/files/MeshLab%20Documentation1.pdf for 3rd party documentation of Meshlab.

Edit: there is a bunch on presentations on 3d scanning, including the use of Meshlab at http://vcg.isti.cnr.it/~callieri/blendercourse.html. This may be of some interest.

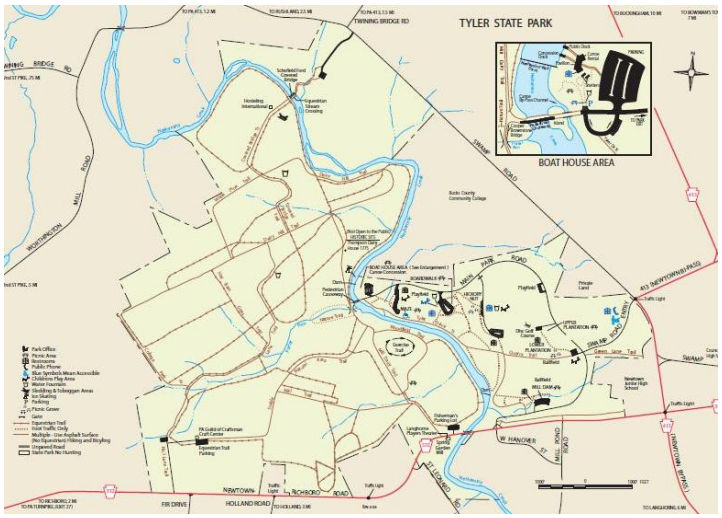
Cheers,
Matt

Tyler State Park, PA

by **George Fieo** » Fri Jan 20, 2012 9:29 pm

NTS, Tyler State Park is located in Bucks County just outside of Newtown. The park consists of more than 1,700 acres of woodland and actively farmed land. The woodlands are a diverse mix of floodplain and upland species in several stages of succession.

The park was surveyed in 2003 as having two possible old growth sites. A white oak blowdown within the larger site was removed to clear a trail. A fresh clean cut was made 6' above ground at which the girth measured 7.8' and revealed ~200 consistently tight growth rings. There are larger trees and I would estimate their ages to be between 200-250 years, some possibly older. Species in this age class includes green ash, pignut hickory, tulip poplar, and white oak. The smaller site consists mostly of tulip poplar and black and northern red oak. American beech is also common at both sites.



http://www.dcnr.state.pa.us/ucmprd1/groups/public/documents/document/dcnr_003000.pdf

This tulip poplar is the largest tree in the park at 15'11" x 129.4'

Coniferous species include eastern red cedar, eastern hemlock, Norway spruce, and white pine. Hemlocks are confined to the steep slopes and ridges of the Neshaminy Creek and are most abundant in the northern half of the park. These hemlocks max out with girths around 6' and 90' in height. A lone hemlock located in a parking area measured 10'2" x 104.3'. This tree has some age on it and may have been spared during the last harvest. White pine and Norway spruce are in several plantations throughout the park.

A 9'10" x 132.7' green ash.

A small naturally occurring stand of white pine grow along a steep slope on the east bank of the Neshaminy Creek which is owned by the Bucks County Community College. The park borders the college on three sides and I did not measure any trees here do to lack of time. This is only the second site where I have seen native white pine in SE Pa. The other site is located along the Schuylkill River in Upper Providence Township, Montgomery County. Both of these sites are nearly identical in geography.

Tyler State Park Site Index 11/22/2011

Species	CBH	Height	Comment
A Basswood	9'2"	102.1'	Beautiful single stem
A Beech	8'	115.7'	
A Elm	9'6"	99.6'	
Bitternut Hickory	9'10"	118.5'	
Black Birch	8'8"	98.9'	
Black Birch	7'1"	107'	
Black Cherry	5'3"	125'	With 140' tulips
Blackgum	5'3"	108.7'	
Black Oak	11'10"	115.1'	
Black Oak	10'4"	115.9'	
Black Oak	11'2"	123.6'	
Black Walnut	5'11"	118.9'	
Black Walnut	5'2"	123'	
Flowering Dogwood	1'3"	32.6'	
Green Ash	10'3"	123.9'	
Green Ash	9'10"	132.7'	
Green Ash	10'	133'	
Green Ash	7'11'	133.6'	
Mockernut Hickory	5'2"	127.2'	
N Red Oak	15'4"	102.3'	Severe storm damage
N Red Oak	~9.5'	124.3'	Crown of fallen AB @ base
Pignut Hickory	8'6"	124.2'	
Pignut Hickory	6'7"	126.5"	
Pignut Hickory	7'9"	130.2"	
Pin Oak	8'1"	114.8'	
Pin Oak	9'4"	117.4'	
Red Maple	4'8"	107.7'	
River Birch	4'3"	66.9'	
River Birch	7'5'	72.7'	
Sassafras	3'2"	92.9'	
Shagbark Hickory	6'8"	118.9'	
Slippery Elm	4'1"	102'	
Sycamore	9'10"	123.9'	
Sycamore	5'4"	127'	
Tulip Poplar	11'7"	144.7'	
White Ash	5'9"	123.8'	
White Oak	11'9"	113'	
White Oak	8'2"	119.4'	
White Pine	6'6"	127.4'	Plantation tree

12' x 100' List

Species	CBH	Height
N Red Oak	15'4"	102.3'
Tulip Poplar	12'	128.2'
Tulip Poplar	15'11"	129.4'
Tulip Poplar	13'11"	131.9'
Tulip Poplar	12'4"	132.2'
Tulip Poplar	13'4"	132.2'
Tulip Poplar	12'8"	141.9'

Tyler State Park Rucker Index 11/22/2011

Species	CBH	Height	Coordinates
Tulip Poplar	11'7"	144.7'	N40 13.629 x W74 58.813
Green Ash	7'11"	133.6'	N40 13.825 x W74 57.666
Pignut Hickory	7'9"	130.2'	N40 13.596 x W74 57.673
White Pine	6'6"	127.4'	N40 13.597 x W74 58.742
Mockernut Hickory	5'2"	127.2'	N40 13.216 x W74 58.524
Sycamore	5'4"	127'	N40 13.616 x W74 58.738
Black Cherry	5'3"	125'	N40 13.222 x W74 58.472
N Red Oak	~9.5'	124.3'	N40 13.607 x W74 58.859
White Ash	5'9"	123.8'	N40 13.427 x W74 58.554
Black Oak	11'2"	123.6'	N40 13.624 x W74 58.816

RI **128.68'**

George Fieo

Re: Tyler State Park, Pa.

by **George Fieo** » Mon Jan 23, 2012 8:20 pm

Ranger Dan wrote:Thanks for the detailed report and images! I'm surprised to hear of so many big tulips in one park in PA. Sounds like a place worth traveling to see.

Dan, I'm finding that SE Pa. has lots of big tulips. Some sites may have only one while the larger sites may have dozens. The closer you get to Philadelphia your odds of seeing a big tulip increases. Pennypack park which is located in NE Philly, is loaded with impressive trees. Between December 2009 and January 2010 I documented ninety five trees that measured 12' x 100' or more. Seventy three of those were big tulips.

A stitch of a few battered tulips from Pennypack Park.

George Fieo

Cookie Extractor

by **M.W.Taylor** » Wed Jan 18, 2012 6:48 pm

The attachment is an example of useful information that can be obtained from X,Y,Z cloud sets of tree trunk surfaces. The spreadsheet uses visual basic to extract orthogonal slices (perpendicular to gravity) of the massive Redwood Creek Giant's lower trunk. To view cookie at desired height (Z) enter new height in text box and cookie thickness. Then press Control-C to run the cookie filter macro. The new cross-section will be updated on the graph with X,Y,Z table to the right.

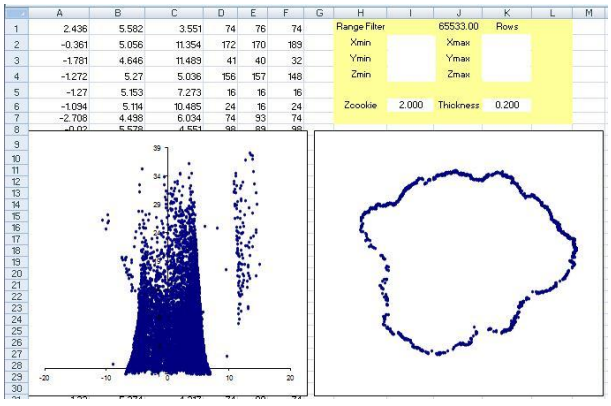
One of the most useful things about these orthogonal slices is that they can be used to calculate the trunk's volume very accurately.

Michael Taylor

WNTS VP
http://www.landmarktrees.net

RCG cookie filter.xls

cookie filter utility



Can anyone recommend a book on woodland eco-restoration?

by **ck123.white** » Thu Jan 19, 2012 8:55 pm

Greetings,
This is my first post, and I have searched where I THOUGHT there might be an answer to my question - but did not see one. I must admit, there is so much information here, I find it a little daunting. Please forgive me if this post is off the mark. I figured I would give it a try; I am only embarassing myself. Any and all help is greatly welcomed.

THE PROBLEM: I am interested in restoring a piece of property in eastern West Virginia - to its natural state. I love this place, and would like to see it maximized in terms of its wildness. I would like to know what I should do to advance that, to enable the woods to improve as a habitat for trees, shrubs and animals.

DESCRIPTION: The property is completely wooded, having been selectively, though not intermittently, logged for several generations. As such, there are a few older trees, most are under about 40 years old or about a foot thick. A few along the old fenceline are several feet in circumference, but some of those appear to be dying. This is mixed oak, hickory, and pine (Virginia and white). The altitude is about 1,000 feet above sea level.

MY QUESTION: Is there some resource I could use to enlighten myself about how to go about advancing the natural state of this property? Should I leave it as is? Are there plant species that I should inhibit, such as vines? Should I cut or trim the plentiful pines to allow the hardwood trees to flourish? Any advice or suggestions are greatly welcomed.

Many thanks.
Chuck White

There have been a number of replies and suggestions.
Edward Frank suggested:

Restoring Old-Growth Characteristics by Anthony D'Amato - University of Massachusetts–Amherst & Paul Catanzaro - University of Massachusetts–Amherst
http://harvardforest.fas.harvard.edu/publications/pdfs/Damato_umassextension_2007.pdf

Joe Zorzin commented:

"restoring to its natural state" could be interpreted in different ways- it can have "wildness" without being restored to old growth condition- I suggest "wildness" can have very different meanings- Thoreau found wildness living in the tame landscape near Walden Pond. Some people would say just leave it alone, some say follow some rules to speed up a restoration to near old growth conditions- personally, I'd modify it with a chain saw, pruning saw, brush cutters and other such tools to improve the aesthetics- maybe even plant some trees, native and otherwise! why not? The answer, I think, is do what you like- there are no absolute answers- as long as what you do, you do with care and thoughtfulness- if it looks good, it is good.

Will Blozan suggested:

My former professor in college just released this book last year; "Restoring Ecological Health to Your Land"
http://islandpress.org/bookstore/details8c03.html

Re: World Rucker Index

by **edfrank** » Fri Jan 20, 2012 7:47 pm

NTS, I went through a number of big tree sites and generated an updated list for the World and for North America based upon what data I could find. I likely with some more work could pull out a RI for California. Maybe some western people can chime in on the western state by state by province by park numbers. And I hope others can update and correct this initial list:

World Rucker Index: 312.39
North America Rucker Index: 297.34

world_rucker.xlsx

World Trees Other

Koompassia excelsa	*Koompassia excelsa*	281	Borneo	Sabah
Shorea argentifolia	*Shorea argentifolia*	278.3	Borneo	Sabah
Shorea superba	*Shorea superba*	277	Borneo	Sabah
Western Hemlock	*Tsuga heterophylla*	272	CA	Northern Coastal
Hopeia nutans	*Hopeia nutans*	271.7	Borneo	Sabah
Shorea smithiana	*Shorea smithiana*	269.9	Borneo	Sabah
Sugar Pine	*Pinus lambertiana*	269.68	CA	Yosemite NP
Ponderosa Pine	*Pinus ponderosa*	268.69	OR	Siskiyou National Forest
Grand Fir	*Abies grandis*	267	WA	Glacier Peak
Shorea gibbosa	*Shorea gibbosa*	266	Borneo	Sabah
Port Orford cedar	*Chamaecyparis lawsoniana*	266	CA	Jedediah Smith State Park
California Red Fir	*Abies magnifica*	252	CA	Sequoia NP
Western White Pine	*pinus monticola*	242	OR	Rogue River National Forest
pacific silver fir	*abies amabilis*	235.9	WA	Olympic NF
engelmann spruce	*picea engelmannii*	222.2	WA	North Cascades Highway
california white fir	*abies concolor*	216.9	CA	Yosemite NP

North America Other Trees

California Red Fir	Abies magnifica	252	CA	Sequoia NP
Western White Pine	pinus monticola	242	OR	Rogue River National Forest
pacific silver fir	abies amabilis	235.9	WA	Olympic NF
engelmann spruce	picea engelmannii	222.2	WA	North Cascades Highway
california white fir	abies concolor	216.9	CA	Yosemite NP

Edward Frank

World Rucker Index

World Rucker Index

http://www.landmarktrees.net/tall.html
http://wwwconifers.org
http://www.nationalregisterofbigtrees.com.au//index.php

Species	Name		Height	State	Location
Coastal Redwood	Hyperion	*Sequoia sempervirens*	379.46	CA	Redwood National Park
Douglas Fir	Brummett Fir	*Pseudotsuga menziesii*	327	OR	Coos County
Eucalyptus regnas	Centurian	*Eucalyptus regnas*	326.8	Tasmania	Arve Valley
Sitka Spruce	Raven's Tower	*Picea sitchenis*	317.2	CA	Prairie Creek Redwoods State Park
Giant Sequoia	Noname	*Sequoiadendron giganteum*	311.4	CA	Sequoia NP
Eucalyptus globulus		*Eucalyptus globulus*	297.6	Tasmania	Huonville
Noble Fir	(in Goat Marsh)	*Abies procera*	295	WA	Mt. St. Helens National Monument
Eucalyptus viminalis	White Knight	*Eucalyptus viminalis*	292	Tasmania	Evercreech Reserve
Shorea fagueteana		*Shorea fagueteana*	289	Borneo	Sabah
Eucalyptus delegtensis		*Eucalyptus delegtensis*	288.4	Tasmania	Florentine Valley
			312.386		

North America Rucker Index

Species	Name		Height	State	Location
Coastal Redwood	Hyperion	*Sequoia sempervirens*	379.46	CA	Redwood National Park
Douglas Fir	Brummett Fir	*Pseudotsuga menziesii*	327	OR	Coos County
Sitka Spruce	Raven's Tower	*Picea sitchenis*	317.19	CA	Prairie Creek Redwoods State Park
Giant Sequoia	Noname	*Sequoiadendron giganteum*	311.4	CA	Sequoia NP
Noble Fir		*Abies procera*	295	WA	Mt. St. Helens National Monument
Western Hemlock		*Tsuga heterophylla*	272	CA	Northern Coastal
Sugar Pine		*Pinus lambertiana*	269.68	CA	Yosemite NP
Ponderosa Pine		*Pinus ponderosa*	268.69	OR	Siskiyou National Forest
Grand Fir		*Abies grandis*	267	WA	Glacier Peak
Port Orford cedar		*Chamaecyparis lawsoniana*	266	CA	Jedediah Smith State Park
			297.342		

NTS RHI Dashboard

by **dbhguru** » Sun Jan 22, 2012 12:45 pm

George's, Eli's, and Jess's recent posts included important Rucker indices that highlight some extraordinary sites. The RHI values they report shine the spotlight on a need we have in NTS. We need to implement, perhaps as a BBS project, a list of sites with their RHIs and we need to keep the list current and visible. Managers in big companies commonly implement something called dashboards that include performance statistics for their company, department, branch, etc. Managers review their dashboard daily. The idea for the dashboard grew from the challenge of trying to keep track of too much data. The mind can track and juggle only so much information. Years ago, I helped develop software systems called EISs (Executive Information Systems). Top level mangers could not be expected to sift through tons of reports, flipping pages and hunting for summary statistics. Visibility and accessibility became the clarion call. Today these executive summaries are commonplace.

I propose that we create an NTS RHI dashboard. It would be organized in our typical hierarchical fashion: State to property to site. An Excel format would work, but that is of secondary importance. The column headings that seem most important to me are:

Header Information for a Site

State
County
Property
Site
GPS coordinates of a point at the site, e.g. an entry gate
RHI

Detail Information for a Site

Tree species
Height
Girth
Number of trunks
Method of height measurement (LC=laser clinometer, CT=clinometer tape)
Measurer of the particular tree
Date of last measurement
RHI5
RHI10

We all can think of other items of information, but this is a dashboard. Less is better. Ideally, we'd first see a summary that included only the header information. The detail would follow. I would not go beyond these two levels.

We have RHI-site information spread throughout the BBS, website, and database, but it is not easy to find conveniently, and we cannot expect you to do our work for us. We need to keep RHI information from and center.

I predict that an RHI dashboard would stimulate interest and serve to motivate our members to go forth and find new sites. It would also keep the RHI front and center to researchers from around the world.

The amount of material that we pump out daily on the BBS these days is impressive and serves lots of worthy purposes. However, bread and butter stuff like RHIs can get lost in the sheer volume and when that happens, importance and focus diminishes. We need to find ways to keep critical information up on everyone's radarscope. What better way to showcase the exceptional efforts that George Fieo is making in southern PA than to have an RHI dashboard and have all his sites reflected.

The source of the data for the dashboard would be (or should be) the NTS database. It makes sense to make maximum use of the database, but we need highly visible summaries that require the absolute minimum number of steps to access. Simple is better. Coming from me, this may sound like I've made some sort of conversion. But this isn't about accuracy in our numbers. We can never let down our guard there. This is just about visibility, convenience, and marketing. Think daily stock exchange.

Robert T. Leverett