Mission Statement:

The Native Tree Society (NTS) is a cyberspace interest groups devoted to the documentation and celebration of trees and forests of the eastern North America and around the world, through art, poetry, music, mythology, science, medicine, wood crafts, and collecting research data for a variety of purposes. This is a discussion forum for people who view trees and forests not just as a crop to be harvested, but also as something of value in their own right. Membership in the Native Tree Society and its regional chapters is free and open to anyone with an interest in trees living anywhere in the world.

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COVER: Ancient Beech, UK. Photo by Anthony Croft 2012.

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I want to remind the readers of this magazine that the articles presented here are only a part, usually just the beginning, of the discussions being held on our BBS at http://www.ents-bbs.org. The full discussion can be read by clicking on the link embedded in the title of each individual article. - Edward Frank

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New England Trip

by tomhoward » Sat Sep 01, 2012 12:46 pm

NTS, Here is a narrative of the New England trip my brother Jack Howard and I took in Aug. 2012:

Jack Howard and I traveled through New England from Aug. 14-22, 2012. We had nearly perfect weather, warm (but not hot) and sunny.

Our first stop was Northampton, MA, where we visited some sites associated with Sylvia Plath. We explored Childs Park, and I tested the measuring equipment Ed Frank loaned me (Nikon Prostaff 440 laser rangefinder, clinometer) along with the scientific calculator I bought. I measured some of the beautiful White Pines in Childs Park to heights of 108.9 ft., 84.6 ft., 105.4 ft. (2 trees same height), 120 ft.

We also walked by the house on Elm St. (MA route 9) where Sylvia Plath and Ted Hughes lived from 1957-58. The big White Pine that I saw next to this house Oct. 14, 2011 (and about which I wrote a poem that was published in Plath Profiles this year) was gone, a stump in its place. We saw a lot of storm damage in Northampton, and this tree was probably a storm victim. It was a big White Pine, easily over 100 ft. tall.

We next explored Look Park, and its glorious White Pines, especially the Totem grove (with a totem pole at edge), a site Bob Leverett knows well. I tested the equipment there, and came up with 2 White Pines taller than Bob’s measurements. I got 141.8 ft. on the tree that Bob listed as tallest, and 143.6 ft. on another White Pine rising out of the brush. I’m sure that Bob’s measurements are the most accurate – the figures I got are, no doubt, errors due to misreading the angle to the top of the tree on the clinometer, and to my inexperience with this equipment. I would acquire a lot more proficiency with the equipment at the Bowdoin Pines in Brunswick, ME.

We also spent some time at Smith College, saw some interesting trees there like Zelkova, Sycamore, but it was already evening, and we had to look for a place to eat dinner.

On Aug. 15, we went to eastern Massachusetts, to sites associated with Sylvia Plath in her home area – she was born in Boston, and spent much of her life in the Boston area. We stopped by her home in Wellesley, MA, where she lived from 1942-1957 (except when she was at Smith College in Northampton MA, Cambridge England, and other places), a nice white house in a beautiful tree-filled neighborhood, with a row of tall White Pines on one side. Then we went across Boston to Winthrop, where Plath lived from 1936-1942, in something like a magical childhood by the sea, which she writes movingly about in her poem “Point Shirley” and memoir “Ocean 1212W”. It was beautiful there by the ocean – and also by Logan Airport, where we watched planes take off and land, some planes flying right over our heads.

Aug. 16, we visited the Endicott Pear Tree in Danvers, the oldest European tree in the New World, planted by Puritan leader John Endicott about 1632. We last saw that tree in Apr. 2010 when it was in bloom; this time we saw it in leaf, and fruit. It is a very small but gnarled old tree, no more than about 15 ft. tall. Otherwise, the old tree looks the same as last time, but the 2 Scots Pines that flanked the Pear Tree in 2010 are gone now.

We next spent some time in Salem, before heading for Maine on Aug. 17. We took I-95 north into Maine, and long before we left MA, we were traveling through a vast fragrant sunny forest of White Pine. The Maine Welcome Center on I-95 is in a lovely fragrant grove of White Pine with some Pitch Pine.

We stayed in Maine from Aug. 17-21, basing ourselves in the Brunswick area, where we surveyed the awesome Bowdoin Pines, and the glorious tree-filled campus of Bowdoin College. See separate report about the Bowdoin Pines, filed under Maine.

We also explored the Pemaquid Peninsula, where we had spent so many happy times in childhood. We went to Colonial Pemaquid State Historic Site, where since 1965, there has been a major archaeological dig, in which the remains of one of the earliest and
The forest of the interior of the Pemaquid Peninsula, on the shores of which we spent so many magical summers so long ago. Its shores and islands are still lined with tall fragrant 2nd growth White Pines about 80-100 ft. tall (I measured a White Pine near the public boat launch near the northern end of the lake to 102.6 ft.).

On Aug. 21, we reluctantly left Maine, traveled to Killington, VT. On the way we explored the awesome Ordway Pines of Norway, ME, the biggest and tallest trees we would see on our trip (see separate report, filed under Maine), and we also went to the Tamworth Big Pines, NH (see separate report, filed under New Hampshire).

On Aug. 22, we visited Gifford Woods State Park (see separate report, filed under Vermont), and then returned to North Syracuse.

Tom Howard


d by tomhoward » Sat Sep 01, 2012 1:07 pm

NTS, From Aug. 17-21, 2012, my brother Jack Howard and I stayed near Brunswick, ME as a center point for our explorations of mid-coast Maine. We passed through the famous Bowdoin Pines several times. This was our first trip to this part of Maine in nearly 40 years, but we went to this part of Maine every summer in childhood. One of the highlights of these childhood trips was the passage through the Bowdoin Pines on what used to be US Route 1. Route 1 now bypasses Brunswick, and the old route through the Pines has been re-numbered Maine Route 24.

The Bowdoin Pines are on the east side of the beautiful campus of Bowdoin College, and in that part of the campus towering White Pines are everywhere to be seen. The Bowdoin Pines are still as spectacular as they were to us as children.

This post is, in a sense, an answer to the ENTS report
made by John Knuerr in 2006, to my knowledge the only survey report made about this site by our group. In 2006 John Knuerr found that the Bowdoin Pines were in poor condition in what seemed to be a sewage outflow. There could have been a severe storm that caused the conditions he described.

In 2006 John Knuerr found that the Bowdoin Pines were in poor condition in what seemed to be a sewage outflow. There could have been a severe storm that caused the conditions he described.

Passage through Bowdoin Pines ME 24

When Jack and I visited the Bowdoin Pines in Aug. 2012, they were as glorious as ever, an extraordinarily beautiful forest of tall healthy White Pines, and the air was filled with the wondrously spicy and cleansing fragrance of White Pine. There are hundreds, possibly thousands, of these tall rough-barked trees in this stand, which is said to cover about 33 acres. The main route through them (State Route 24 now) is breathtakingly grand, a passage of about one fourth mile (at most) with masses of towering White Pines reaching high into the sky. This is possibly the Northeast’s closest equivalent to California’s Avenue of the Giants, an even more spectacular sight than the road through the Tamworth Big Pines in New Hampshire, which The Sierra Club Guide to the Ancient Forests of the Northeast says is the closest equivalent to that famous California road trough the Redwoods. The approach to the Bowdoin Pines from the east across the open airfield of the former Brunswick Naval Air Station is most impressive; the Pines are seen to be reaching dizzying heights from far away, a mighty green wall of rugged windswept trees. They seem to be much taller than they actually are, so charismatic are they. This passage through the Bowdoin Pines is a sight every ent must see.

ME 24 (also known as Bath Rd.) goes east-west. Another impressive route through the Pines goes north-south along the east edge of the main part of the Bowdoin College campus. This road is ME Route 123 (also known as Sills Dr.). Rough-barked White Pines tower along both sides of this road. To the west (on the campus), the Pines rise out of a grassy lawn, but to the east the Pines form a dense forest canopy. There are several trails going through this part of the forest, and through the midst of this part of the forest, a dirt road goes to a stadium (called Wheeler Field), with Pines creating an aesthetically beautiful effect as they soar over a gate.

Google Maps provides an excellent view of the site. Unfortunately, little information is available at the college about the Pines.

The Pines do not seem to have grown very much in the past 40 years. My father and I surveyed the Pines with a tape measure in Aug. 1970, and the largest Pine then was 9 ft. 8 in. in circumference at breast height. The largest Pines today seem to be no larger.

In the idyllic early evening of Aug. 17, Jack and I explored the Pines between ME 123 and Wheeler Field. The air felt wonderfully fresh and pine-scented. Ed Frank loaned me a laser rangefinder (Nikon Prostaff 440) and clinometer, and I recently bought a scientific calculator, so I used the NTS method with sine function to measure trees. I measured the following trees in this section:
White Pine 104.7 ft.
White Pine 106.8 ft. + highest point not visible
White Pine 99 ft.
White Pine 104.8 ft.
White Pine 104.3 ft.
White Pine 102.3 ft. 19” dbh (more slender than most)
White Pine 105 ft.
White Pine 102 ft. near ME 123
White Pine 29” dbh one of the bigger ones
White Pine 24.5” dbh, typical tree, by ME 123

I also got some age data – counted 189 rings on a White Pine stump on north side ME 24, about 10” radius.

The golden evening light made this part of the Pines especially magical.

On the campus west of ME 123, several White Pines have number tags, like “702”, “707” – they might be part of classroom scientific studies. Bowdoin College cares for the Pines, has signs by them saying, “No Parking Preserve Our Pines”.

On Aug. 20, a perfectly beautiful sunny summer day, the type of weather that brings out the healing fragrance of White Pine, Jack and I made a more extensive exploration of the Bowdoin Pines. There are some fairly large picturesque Pitch Pines mixed in with the White Pines on the lawns of the eastern part of the campus.

We measured the following trees:

White Pine 97.4 ft. slender tree in lawn with others like it, east of Smith Union
White Pine 91.5 ft. east side of ME 123

Then we measured the Pines along the awesome ME 24 corridor:

White Pine 108.4 ft.
White Pine 115.7 ft. south side ME 24
White Pine 114.4 ft. north side ME 24
White Pine 125.4 ft. in woods south side
ME 24 – Jack spotted this one
White Pine 126.4 ft. 30 in. dbh south side ME 24, biggest dbh measured, but there are bigger ones
White Pine 126.6 ft. north side ME 24, tallest tree measured
White Pine 115.7 ft. south side ME 24
White Pine 28.5” dbh south side ME 24

White Pine 28.5” dbh south side ME 24
White Pine 25.1” dbh
White Pine 29” dbh one of the bigger ones

I don’t believe that we found the largest, tallest, or oldest trees. The tallest trees seem to be near the southeast end of the Pines where ME 24 enters the grove from the open fields to the east. The tallest White Pines could easily be about 130 ft. tall (but should not be much taller than that). The largest Pines seem to be about 3 ft. dbh, and the oldest could be over 200 years old. This is an old 2nd growth stand that has been steadily developing old growth characteristics, especially the rugged twisted crowns of many of the lofty White Pines.

After we left the ME 24 corridor, we explored more of the Pines to the south toward Wheeler Field:

White Pine 96 ft. near stadium, forked upper crown
White Pine 27” dbh by edge of Pines Cemetery, which is a cleared area just south of ME 24, west of where the awesome ME 24 passage through the Pines begins – Pines Cemetery has a large open-grown Norway Spruce.
White Pine 93.3 ft. + top not visible 19.2” dbh, in woods between ME 123 and Wheeler Field
White Pine 100.8 ft. same area
White Pine 27.2” dbh, by trail, same area

There are groves of large White Pines elsewhere on
the Bowdoin campus. I measured a typical one in a group in a lawn on College St. to 93.5 ft. heads. We had to keep craning our necks to look up into the crowns so far above us.

ME 123 Pines Cemetery to right of Pines

The terrain is flat and easy, and the Pines soaring everywhere over your head, make you feel like you are in a vast living cathedral.

I am enclosing 2 pictures of the Bowdoin Pines taken by Jack Howard with his cellphone camera.

Tom Howard

Ordway Pines, Norway, ME Aug. 21, 2012

NTS, Jack Howard and I visited this grove on this beautiful sunny day. Ordway Pines is featured in The Sierra Club Guide to the Ancient Forests of the Northeast, as the site of the greatest White Pines in Maine. This is a realistic claim, and Bob Leverett has measured a White Pine there to 152.5 ft. in 2006 or later, the tallest accurately measured tree in Maine. These huge towering White Pines are an awesome sight, soaring high into the sky far, far over our heads.

A trail leads into the grove, through a patch of Japanese Knotweed (I believe, called “Mexican Bamboo” in the site brochure). There are also native plants like New England Aster, which was starting to bloom. The trail enters the grove by an old stone wall, by which a large Red Oak grows. So far not very impressive. But go a few steps up the trail and the great Pines appear, seeming to be impossibly tall, far taller and larger than the Bowdoin Pines. These were the largest and tallest trees we saw on our New
England trip.

White Pine over 140 ft. tall next to snag

There are not very many of these great White Pines, maybe 20 or 30 trees, in densely packed groups. The big Pine area covers about 2 or 3 acres of the 9-acre Ordway Grove. The big Pines are easily over 200 years old, with the oldest possibly 300 years old or more. They have rough bark to high in the canopy, rugged old windswept crowns as typical of great old growth White Pines. The area where the old Pines grow has classic old growth characterisics like snags, coarse woody debris (old downed logs in varying states of decay), pit and mound topography, various types of Fungi. The rest of the Ordway Grove is mainly 2nd growth.

White Pine is the dominant tree in the oldest part of Ordway Grove. Associate trees include Hemlock (some big trees), Beech, Yellow Birch, Sugar Maple, Red Maple, Striped Maple, Red Oak.

I measured several trees, and due to difficulties in seeing the tops, as trees are in leaf, could not see the highest points of the trees. Hence, the heights listed here are lower than the actual heights of the trees.

Trees measured:

White Pine 135 ft. +
White Pine straight up shot at least 120 ft. to lower crown, 32.4” dbh, this tree next to White Pine snag
White Pine in group of 3 tall White Pines, straight up shot, at least 135 ft. into crown
White Pine 140.4 ft. by Ice Road Trail, snag next to this tree
White Pine 143 ft. in same group
White Pine 141.7 ft. in same group
White Pine 128.2 ft.
White Pine 37.5” dbh, rough bark to lofty height
White Pine 137.2 ft. fairly slender
White Pine 132 ft. in group of 3
White Pine 141.5 ft. across Main Trail from biggest White Pine
White Pine 140 ft. + (could not see top, tree taller), 48” dbh, biggest tree in grove, biggest tree seen on New England trip
White Pine about 120 ft. at edge of younger White Pine group
Red Oak 31.9” dbh, by Main Trail

After reluctantly leaving this glorious grove, Jack and I continued west toward New Hampshire, on our way back to North Syracuse. The route west, on ME route 117 to US route 302 toward New Hampshire, went through some very beautiful country, with low mountains, lakes with shores lined with tall White Pines. Along the roads were seemingly countless groves of tall fragrant rough-barked White Pines well over 100 ft. tall. It was an enchantingly beautiful drive, and towns like Bridgton, ME, Fryeburg, ME are filled with big tall White Pines. Large picturesque Pitch Pines are mixed among the White Pines in some places.
We pulled off of Rt. 302 in Bridgton (to get a tailgating truck off our back), and stumbled across beautiful Shorey Park by Highland Lake. In this park was a grove of tall White Pines rising out of a lawn, and I measured an average one, no taller than its neighbors, to a height of 124.4 ft. There are White Pines like this everywhere in this western part of Maine.

I am enclosing 2 pictures of the Ordway Pines taken by Jack Howard with his cellphone camera.

Tom Howard

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**Tamworth Big Pines, ME, Aug. 21, 2012**

by tomhoward » Sat Sep 01, 2012 1:15 pm

NTS, After leaving the Ordway Pines of Norway ME, Jack Howard and I went in search of the Tamworth Big Pines of NH, a stand of trees much celebrated by NTS. Since we were unfamiliar with the area, it took us a long time to find the Tamworth Pines. Despite careful planning with Google Maps and so forth, it took us over an hour to find the site. We were searching for what The Sierra Club Guide to the Ancient Forests of the Northeast calls “the Northeast’s version of California’s Avenue of the Giants” (page 243), a mile-long stretch of road through towering White Pines. We were also looking for a big sign for the Big Pines Natural Area. We assumed that the road is NH Route 113A, and we drove several times up and down this road without seeing this awesome passage through the Pines or the sign. We finally decided to stop by a small sign saying “Big Pines Trails” (or something like that) in an area where there were some tall White Pines by the roadside. Jack talked to a hiker who said that the sign had blown down in a storm, and they hadn’t bothered to replace it, and that this fairly unimpressive spot was the site called “Big Pines Natural Area”, but he didn’t seem to be aware of any really big Pines.

Jack and I walked on a trail to a bridge over the Swift River. The forest seemed to be 2nd growth Conifer-Northern Hardwood, with only a few big White Pines, nowhere near as impressive as the Ordway Pines we’d just left. The forest was quite beautiful, but there seemed to be fewer White Pines than in all the woods we’d seen since leaving the Ordway Pines. I measured a big White Pine by the Swift River to a height of only 96.4 ft. We saw that the trail continued on the other side of the river from the road, but we had neither time, nor the right footwear to explore further. So I’m certain that we missed the truly great White Pines hiding scattered through the woods.

We returned to the car parked alongside NH 113A. It was along the road near the car that we saw the greatest number of White Pines. They are tall, beautiful trees, but rather slender, and fairly far apart, not the awesome massing of towering trees I’d been led to expect. ME 24 through the Bowdoin Pines of Brunswick, ME is more impressive. I did measure a few trees along this less than a mile stretch of road in NH:

<table>
<thead>
<tr>
<th>Tree</th>
<th>Height</th>
<th>DBH</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Pine</td>
<td>124.5 ft</td>
<td></td>
</tr>
<tr>
<td>White Pine</td>
<td>122.9 ft</td>
<td>36.7”</td>
</tr>
<tr>
<td>White Pine</td>
<td>125.2 ft</td>
<td></td>
</tr>
<tr>
<td>White Pine</td>
<td>128 ft.</td>
<td></td>
</tr>
</tbody>
</table>

We continued on to our next stop, Killington, VT, arriving there by dark. Because of stops at this site and Ordway Pines, heavy traffic, winding roads, construction, it took us over 10 hours to get from Brunswick to Killington.

Tom Howard

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**Re: Tamworth Big Pines, ME, Aug. 21, 2012**

by tomhoward » Sat Sep 01, 2012 6:35 pm

Robert Leverett wrote: The big Tamworth Pines are on a loop trail - not those near the water. You missed the big ones. I've got to get back up there and re-
measure what is likely the largest single-trunk white pine we have in New England.

Bob, You're right - we did miss the big ones. They are an awesome sight, I'm sure, and I really need to see the biggest one. We simply had neither time nor proper footwear to take the loop, so we definitely need to get back to Tamworth.

Tom


by tomhoward » Sat Sep 01, 2012 1:17 pm

NTS, Jack Howard and I visited this accessible old growth forest on the last day of our New England trip. It is on VT Route 100 just north of US 4, in some of Vermont’s most beautiful high country. Before went to Gifford Woods, we drove up to the main ski area at the base of Killington Peak (4141 ft.) – the air felt fresh and crisp, and it was glorious to see forest climbing the mountains (as well as ski lifts) with Spruce-Fir forest on the mountain tops.

The contrast with the enclosed and much warmer hardwood forest of nearby (and not all that much lower) Gifford Woods could not have been greater. At Gifford Woods were large Sugar Maples everywhere, and there was no feeling of being in the mountains. The day had rapidly become very warm. Gifford Woods is an impressive place, but not as awesome as I was led to believe. Sugar Maple dominates, and other trees include Hemlock, Yellow Birch, Beech (with Beechdrops on roots), White Ash, Striped Maple (common). There are shrubs like Canada Yew, Hobblebush.

Gifford Woods has 2 excellent interpretive trails, one identifying trees (and underestimating average heights, like Sugar Maple 80 ft.) and other plants (herbs like Blue Cohosh, False Solomon’s Seal, Interrupted Woodfern. The other interpretive trail is called the Old Growth Trail, and it is the best old growth forest interpretive trail I’ve ever seen, with illustrated signs explaining old growth characteristics in a way that can be easily understood. If there were signs like these in the old growth forests here in and near North Syracuse, the signs would be vandalized by obscene graffiti, destroyed, or stolen in no time.

The forest these signs interpret, however, is nowhere near as impressive as its sister site in my area, the Liverpool School Maple Grove. There are more openings than canopy, and many old stumps. The forest is very highly disturbed. Yet there are some really old trees here. We saw the huge ancient snapped off Hemlock Adam Rosen said in his post (about my New England trip) that could be 500 years old – it could be, but is maybe 300-400 years old? An interpretive display contains the cross-section of a tree I couldn’t identify (it had no bark) on which I counted 301 rings on about 14” radius (a park worker said it was a Hemlock log with 240 rings). Elsewhere on the trail I counted 200 rings on a 14” radius cross-section 40.5 ft. above the base of a Hemlock fallen across the trail.

Some trees measured:
Sugar Maple 105.6 ft. + 36.1” dbh – tallest tree measured at Gifford Woods, by trail near road, possibly 110 ft. tall, couldn’t see highest point
Sugar Maple 82.6 ft. more typical of trees here
Sugar Maple 84.9 ft.
Sugar Maple 98.7 ft. by entrance road – Sugar Maples around the 1930s park building seem to be about 90-95 ft. tall.

We did not have time to see the best of the Gifford Woods old growth. Adam Rosen, The Sierra Club Guide, and Joan Maloof’s Among the Ancients recommend the woods across VT 100 from the main part of the park. This narrow area between the road and Kent Pond is said to be a trackless old growth forest, where the biggest Sugar Maples grow. We drove by that area, saw a forest with scattered fairly large Sugar Maples with Kent Pond right nearby. Well, maybe next time, but from the road the trees did not look exceptionally large.

Tom Howard
**Re: Why do we find trees so rapturous?**

by **Joe** » Sat Sep 01, 2012 3:48 pm

I suggest that Huxley's concept of a "reducing valve" is more than that - it's an "interpretation valve" - if all it did was reduce input, that might not do much for us, but as we live, we keep building and modifying an interpretation valve - so that all the input is not just filtered but transformed into meaning, which is just as often wrong as right - so that it adds confusion and misunderstanding - so by reducing that valve, we can clear some of the fog out of our brains - the fog of religion, racism, nationalism, and propaganda of all sorts - along with our own false theories of reality. Of course some people can't bear facing "the ground of their being" as some philosophers say.

Regarding trees, seeing them for what they are, living creatures, can be an epiphany, or so those who've experimented often say.

Joe Zorzin

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**Re: Why do we find trees so rapturous?**

by **Ryan LeClair** » Sat Sep 01, 2012 7:38 pm

I agree with both of you gentleman--our primitive ancestors probably admired the wilderness more than Huxley would care to admit. I don't know if you've heard this little tidbit, but the legend goes that if you peeled the bark off of an oak tree in pagan Germany, you were killed in a very bad way (which I won't go into on here. If you're curious, you can look it up ;) ). This definitely suggests that ancient man viewed Nature as sacred in a very, very, very profound way.

Some people have said that enhanced consciousness is a curse. This is probably the case for people who are miserable, but I find increased consciousness to be a blessing.

Ryan LeClair

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**Why do some redwoods twist?**

by **Mark Collins** » Sun Sep 02, 2012 8:26 pm

"Twisting" Candy Cane Trees  (Humboldt Redwoods State Park)

A friend and I were hiking in Montgomery Woods today when she asked me if I knew why some of the redwoods in the grove appeared to be twisting, while others did not. I had no idea. Can anyone explain this phenomenon?
"Straight" redwoods (Humboldt Redwoods State Park)

Marc Collins

Re: Why do some redwoods twist?

Mark, We have had discussions on this subject before, but without any definitive resolution. This thread: https://groups.google.com/forum/?hl=en& ... y_BO1E3nQQ on our old Google Group list includes most of the discussions. With earlier remarks posted here:

http://www.nativetreesociety.org/forest ... grain.htm

Essentially it seems that most trees have spiral grain to some extent. It has to do with cell formation:

Wood Sci Technol (2007) 41:133–156,
The mechanism of spiral grain formation in trees
K. Schulgasser & A. Witztum

The abstract reads in part:

Thus it is concluded that neither the slant of pseudotransverse divisions nor other “isolated events” (imperfect periclinal division, biased intrusive growth) are causative, but that they rather result from the fact that there is a radial gradient of the inclination angle (in the tangential plane) of fusiform cells, i.e. from the general tendency of a maturing cell to take on a preferred inclination with respect to the cell which immediately preceded it in its file. Growth stress patterns in trees have also been extensively investigated in the past half century. It is shown that the development of these stresses and the formation of spiral grain are just two aspects of the same process.

It seems that is some species the spiral is more pronounced than in others. Also in a given population there seems to be a strong preference for either right hand or left hand spirals suggesting that their is a genetic factor involved. There seems to be a strong preference for spiral grain under certain conditions or at certain locations, suggesting it is a factor that is selected for over those with vertical or straight grain.

Why would there be a selection for spiral grain? What advantages might it have in some conditions? One suggestion is that it has some value in water transport through the tree. Another suggestion is that the spiral grain may allow these trees to better distribute wind shear by twisting some rather than bending. There has been research on its effect on the characteristics of the lumber produced by these trees, but not so much on what advantage it may or may not provide the trees.

Ed Frank
How high is Mount Harvard and attendant implications?

by **dbhguru** » Mon Sep 03, 2012 10:27 am

NTS, Mount Harvard in the Collegiate Peaks area of the Sawatch Range of the Colorado Rockies is the 3rd highest peak in the chain. Its height on modern lists is usually given as 14,420 feet. When Massive and Harvard were vying for the number two spot, with Massive given as 14,421, a single foot of elevation was critically important. Below you can see what the current NGS datasheet shows. Note the 14,421 figure at the top. However, if you read far enough you see that the benchmark is 6 feet below the actual summit. Adding the 6 feet gives a height of 14,427. That, I presume, is the mountains best determined height on NAVD88.

I expect that future listings for Mount Harvard from many interested parties will present a helter-skelter combination of heights: 14,420, 14,421, and 14,427, and sometimes two of these figures on the same page as I've seen on Peakbaggers.com. So, what is my point in presenting mountains as opposed to tree heights on the BBS? We in NTS need to constantly be reminding readers how we make our tree measurements and not be timid in pointing out the flaws in how most others do it. We can't let ourselves tire of the message or the numbers deluge on the Internet will dilute our contributions, often negating their value. You have to dig deep to uncover the facts around a NGS elevation. You can sort it out if you persist, but misinterpretations are common, and the proliferation of old and misinterpreted data on the Internet has gone beyond proliferation to explosion.

How can we learn from the NGS experience? NGS is the source of the most accurate geographical positioning information available to the public?

I will now return to tree measuring.

Robert T. Leverett
**Tree's leaves genetically different from its roots**

Cottonwood trees show genetic differences across individuals as well as within populations.
Ed Yong, 10 August 2012

**Re: Tree's leaves genetically different from its roots**

by [gnmcmartin](mailto:gnmcmartin@domain.com) » Mon Sep 03, 2012 2:54 pm

Wow, this is interesting.

Here is a question, followed by a thought. First, the question: is this degree of genetic variation within one tree greater, or more common with black cottonwood than with other trees? And if so, how much more common? I doubt anyone would have an answer to that question yet.

Anyway, here is the thought: there are a great many trees sold as grafted clones. Cuttings are taken from a "parent" tree, then grafted onto a rootstock, and then sold as a clonal variety, or "cultivar." Genetic identity is assumed. I have a collection of these, including a bunch of Norway spruce cultivars. But, if there are commonly mutations throughout a tree, the cuttings may not all have the same genetic makeup.

I once found a very unusual and beautiful Norway spruce tree, and twice had someone do custom grafting for me. Unfortunately, I lost most of the grafts due to one accident or another, but four remain. I am not sure that any of those really represent the tree from which I got the cuttings. I always thought this was strange, and had some explanations in mind. Well, now I have another potential explanation. Some of the cuttings I took were from epicormic sprouts from low down on the trunk, which if there is genetic diversity within the tree, would increase the chance that I may have got a sample genetically different from what the upper parts of the tree were expressing.

I have been a member of the Gardenweb tree forums for years, and there has been a fair amount of discussion of the identity/confusion about some of the clonal varieties. I have always thought it was because of some pervasive carelessness in the trade. For one example, at two different times I bought a cultivar called Norway spruce 'Pendula Major.' But the trees are growing in very different forms, and can't be "clones." Is this because of some confusion or carelessness? Or could it be somewhere along the line someone took cuttings properly and kept them properly identified, all with good provenance, but there was an unsuspected mutation involved, resulting in a tree quite different from the parent?

Most dwarf conifer clones originate as branch mutations, usually expressing themselves as witches brooms--obvious cases of an intra-tree mutation. But other mutations may not be so obvious, but may still result in noticeable, and sometimes significant differences in growth of the grafted tree.

--Gaines McMartin

**Re: Tree's leaves genetically different from its roots**

by [edfrank](mailto:edfrank@domain.com) » Mon Sep 03, 2012 3:36 pm

Gaines, I ask myself the same questions when reading the post about the degree of variation between the roots and branches and whether it was more prevalent in black cottonwood than other species. I would think if it had been a dramatic difference it would have been noted previously. I also consider the case of some of the clonal colonies, such as the box huckleberry plants estimated to be 11,000 years old. These have been shown in literature to be the same plant across its many acre spread based upon genetic testing.

So... where does this lead us...

Edward Frank
Re: Tree's leaves genetically different from its roots

by gnmcmartin » Mon Sep 03, 2012 7:07 pm

Here is another thing that may apply here, but again, I have to plead that I know little or nothing about the cause:

Sometimes a grafted clonal variety, or "cultivar" will have a chance reversion back to the normal type. Two specific times I have seen this happen with a cultivar of white spruce, sometimes called Dwarf Alberta Spruce, or Picea glauca 'conica.' I saw one of these at the National Arboretum, and one on one of my own trees. On my tree, I cut it out, and it has not grown back.

Now here is what makes me think this is strange--why a reversion to the original type? Now I obviously didn't do any genetic testing, but these shoots looked like regular white spruce. Of course they could be a mutation to some third genetic "type," that includes undoing the dwarfism. Possible, but to me this seems like a stretch.

So here is another speculation--yeah, maybe a bit "far-out"--but recently there has been a lot of interest in epigenetics, or ways in which the phenotype (the physical structure of a grown plant) can be significantly different because of factors that influence gene expression, and these can be inherited even though they are not a part of the plant's DNA. So, I am wondering why there is such a common "reversion" in Picea glauca "conica." Yes, apparently it is common--I have seen it twice, and others have seen the same thing.

So, could this "Dwarf Alberta Spruce" be simply a form that is expressing epigenetic factors, not true genetic ones in the DNA? The frequency of the reversions makes me wonder. There is some question about how long inherited epigenetic factors can be passed on to offspring. But this difficulty does not apply here, because the Picea glauca 'conica' is propagated by grafted cuttings.

My first question in trying to solve this question would be to find out what the origin of this cultivar was. Was it a witches broom, which would indicate, I would think, a genetic mutation? Or a chance seedling growing in some special environment that may have brought into play some epigenetic factors?

Well, lots of ideas for someone who is looking for a plant genetics dissertation topic.

Anyway, just as an aside here--you all know I am fascinated by Norway spruce. A professor at Michigan State University once told me that Norway spruce has a very, very large genome, and it is/was(?) thought that much of this is "junk" DNA. Well, having observed the apparent genetic diversity of the species--or at least the phenotype diversity--and the tree's great adaptability, I have wondered if the "junk" DNA is really junk, or if it is in some sense "dormant" until some epigenetic factors come into play.

OK, I know, too much speculation, too many questions, about something I know too little about to really discuss sensibly. Anyway, maybe someone knows something, or would like to do some "unbuttoned" speculation along with me.

Gaines McMartin

Re: Tree's leaves genetically different from its roots

by edfrank » Mon Sep 03, 2012 7:14 pm

Gaines, in some animals, and I assume some plant species there are certain genes that can be turned on or off by various environmental factors. The genetic code is there for two different forms, but only one is turned on at a time.

Edward Frank
Re: Tree's leaves genetically different from its roots

by Don » Mon Sep 03, 2012 10:25 pm

While attending Northern Arizona University specializing in Ecological Forest Restoration, we had only to look up at the San Francisco Peaks at the north edge of Flagstaff, Arizona to find another reason to ponder this issue.

At mid-slope around most of The Peaks, quaking aspens had established a transitional position in the classic C. Hart Merriam Life Zone model that informed ecologists for more than a century. The colors of the aspen's seasonal change was a palette of colors ranging from yellow to gold to almost scarlet, not so much in an elevational or temporal gradient, as defining clonal groups, or so the speculation ran among the forest academics.

Don Bertolette - President/Moderator, WNTS BBS

Re: Tree's leaves genetically different from its roots

by TN_Tree_Man » Tue Sep 04, 2012 9:33 am

Gaines,

This is an interesting topic. Attached are a couple of pics of a Dwarf Alberta spruce that has reverted back. Both of these trees were the same size and age at planting. One has reverted while the other has not.

My understanding is that this cultivar was indeed discovered and propagated from a "witches broom" growing on White spruce. Witches brooms are unpredictable and usually considered as genetic anomalies caused by different variables including unstable dominant alleles, environmental factors and/or other reactionary responses (chance?).

Steve Springer
Asheville Trees

I wanted to post some numbers on trees I've measured recently in the Asheville, NC area.

Montford Park
Nordmann fir 68.4' 78.4' 81.1' 93.2'
Suwara false cypress 85.6' 91.2'
Northern white cedar 73.3'

Hanger Hall near downtown-unusual trees for Asheville
Longleaf pine 75.0'
Loblolly pine 78.0'

The Mountains-to-Sea Trail
Shortleaf pine 124.6' very nice grove.
Pitch pine 121.7' I've listed this previously at 121'. The actual top is a bit higher but nearly impossible to spot.

Church St., downtown
Ulmus procera? English/Atinian elm? both triple trunked but may pass the single pith test
17'2" cbh 90.4' 17'9" cbh 79.6'

Fuddruckers near downtown
Ulmus glabra? Scots/Wych elm?
13'6" cbh 90.0' 15'5" cbh 93.0'

TGIF/hotel parking lot
Shortleaf pine 115.7' The same site has a 144' sycamore and a very tall dawn redwood.

I'm cataloguing all of the tall Dawn redwoods (60'+) in the area. Will just informed me of a few more, so I'll post the numbers very soon.

Brian Beduhn

Re: Why do some redwoods twist?

Here's a Fagus grandifolia with a nice counter-clockwise twist:
**Re: Why do some redwoods twist?**

by *Larry Tucei*  » Tue Sep 04, 2012 5:24 pm

Hi Mark, Ed has pointed out about our previous discussion on this topic. No one is really certain what causes these strange twisting patterns. For some reason when the tree is very young it starts to twist as it grows ever larger. I believe one reason could be the trees are twisting to follow sunlight. Many Live Oaks have this growing pattern. The funny thing is that only certain trees have this characteristic. A Live Oak with the strange twisting pattern,

![Image of a Live Oak with twisting pattern](image_url)

**Re: Tree's leaves genetically different from its roots**

by *Bart Bouricius*  » Wed Sep 05, 2012 9:55 am

Gaines,

Here is some more "unbuttoned" speculation. This is a very interesting subject and may help explain why some early research showed more similarity between the DNA of some white and red oaks in I believe Wisconsin? than between Red Oaks in North Carolina and Wisconsin. There may have been flaws with this research which was done at the very beginning of gene sequencing technology, but much of this may be explained by HGT (horizontal gene transfer) which is now said to account for significantly more genetic change in organisms as a whole than does mutation. Epigenetic explanations certainly play a role here, but there are probably more factors at play.

When one of my favorite evolutionists Richard Dawkins, asked Lynn Margulis in a debate (paraphrasing here), why we needed more than mutation and adaptation through natural selection, straight forward and parsimonious, to explain evolution, Lynn replied "because it exists". Lynn was talking about the myriad of ways that genetic material moves or is moved from one organism to another and how organisms often combine together to form new organisms. She also championed the notion that organisms often evolve as guilds or interlocking systems rather than as simply individuals and I remember her telling me that she believed that very little of "junk DNA" was actually junk.

Now I have probably gotten way beyond the scope of this thread, but don't kill the messenger when new information, in this case about genes in trees, shows up. Should you not believe "your lying eyes" just because you do not know the mechanism, or should you search more broadly for a different mechanism. Sorry for the rambling thoughts.

Bart Bouricius
Re: Tree's leaves genetically different from its roots

by gnmcmartin » Wed Sep 05, 2012 7:58 pm

Bart:

Yes, yes, yes. And I have read that viruses can be the transfer mediums for genes. And, I actually remember seeing something about genes being transferred from dogs--or was it cats--to their owners, or the reverse. I have no idea if any of this was true, but I could do a quick web search to see what I can find.

And, as coincidence would have it--about the "junk" DNA: there was a report on the NBC evening news, of all places, about the "junk" DNA and it said that the DNA that the DNA directly responsible for the structure of proteins was previously thought to be the only acting DNA, but the report tonight said that the "junk" DNA actually is the switches that control the activity of the other genes and/or their effects. One point the report made is that the new way of understanding our DNA may lead to medical breakthroughs.

I am not sure I caught the report completely or accurately. But I assume that it is not really "breaking news," but it does seem to overlap somewhat what I have read about the epigenetic factors. It is exciting that we are beginning to sort these things out.

--Gaines

Worksheet for Oct 12th Tree-measuring workshop

by dbhguru » Thu Sep 06, 2012 10:51 am

NTS, Attached is the worksheet that I developed for the advanced tree-measuring workshop scheduled for Oct 12th at Mohawk Trail State Forest, MA. I developed it around use of the LTI TruPulse 360 although a conventional laser rangefinder-clinometer-compass can be used instead. I set the worksheet up to take advantage of the TP360's features since Steve Colburn from LTI will bring a bunch of them to the Oct gathering for others to use. I would greatly appreciate it if NTS members who plan to come can tell me now so that we can try to have sufficient TPs available.

As I have often reported, the TP200 and TP360 are extremely accurate. I conducted a calibration test yesterday on my TP200 and on 4 trials had an average height error of a mere 1.9 inches. That's really good. However, I must point out that when I do calibration tests, I use a very clear target and I have to be able to measure its height with extreme accuracy, so the conditions are almost of laboratory quality. Otherwise, how do I know how large/small the measurement errors actually are? Measuring to fuzzy targets isn't likely to be as accurate, but there is good reason to believe that under the vast majority of field conditions, the accuracy of the TruPulse is within +/- 0.5 feet. Occasionally, you can be off by a foot. I'm assuming that the target is sufficiently distinct and visible to make measuring possible.

For those of you willing to wade through the worksheet, you'll notice that the sine and tangent methods are being compared. But also calculations are being called for that illuminate the reason for differences in results. The NTS faithful come to understand that measuring tree height is a problem of determining the vertical distance between two points in three-dimensional space. No assumptions are made about what might connect the two points, if anything. Dependency on a configuration that postulates a woody connection between the two points and the vertical alignment of the points is forever lifted. Thinking more abstractly and after a time, the
thought of dependency on a trunk to connect the two points seems rather unimaginative, if not down right silly. However, if one is combating decades of habit, going from tangent to sine does not turn out to be easy to do.

My solution is a step by step process that focuses attention on the two components of height (eye level to upper point and eye level to lower point). Hopefully, the worksheet, an explanation, and live exercises using convenient equipment will do the trick. Feel free to use of modify the worksheet to fit your needs. I view it as an NTS product.

SinTanWorksheet.xlsx

Robert T. Leverett

Re: Asheville Trees

by bbeduhn » Thu Sep 06, 2012 1:02 pm

The 115.7' *echinata has a cbh of 8' 5.5" I'll get a cbh on the 124.6' soon. I think it may be a bit smaller than the 115.7'. I've been trying to top 140' on pitch pine but they just aren't cooperating with me.

Here are a few more I overlooked:

Black Mountain, NC
Sequoia Giganteum 64.1' Will got a cbh. I didn't write it down, but it's growing.
Picea abies 125.1'

Asheville
Picea abies 114.0'

Brian Beduhn

Zane Moore

by yofoghorn » Tue Sep 04, 2012 1:24 pm

Hi all, this is me, Zane. Thank you all for your encouragement. I have now registered to be part of the NTS and this will be my profile! Thank you specifically, Bob, for your invitation to be a part of this.

Zane J. Moore
Undergraduate Student
Colorado State University

Photo of Zane Moore by M. D. Vaden
“The Moosewood Tree”

When fall had but shut the door and headed out,
And changing skies roiled like a mind in doubt,
   I trekked an autumn grove, alone, apart—
   And sought a golden leaf to woo my heart.
But not one yellow leaf lay on the ground
(Those crinkling under my feet were brown)—
The autumn leaves were out of reach, alas,
   Held tauntingly by ash and sassafras
   And maples tall. I had near left my plight,
When there, between the trunks as dark as night,
   Shone through a rare moosewood tree.
   It looked as lost in that far place as me—
   It surely paled amidst that noble crowd,
   Not half as tall or old, not near as proud
   As all the beech and oak (the autumn wilds
Leaned over it, as though it were a child),
   But how its leaves were bright! A lovely gold,
   The loveliest that day I did behold.
And low they hung, like the fruits of Eden’s tree,
   But not weighed down with a heaven lost to me,
   But flitting freely in an earthly breeze—
But in my reach, the same, at a poor man’s ease.
I picked the leaf as day sunk behind the wood—
   But I had my own light to do me good.
   I’ll not forget, that on that autumn day,
My mind roiling like skies at season’s change,
   Only the moosewood bent on knee for me
   And shared its only gifts so readily.

By Ryan LeClair

Posted Fri Sep 07, 2012 5:38 pm
**Forest History Society**

by edfrank » Fri Sep 07, 2012 10:54 pm

General Information About the Forest History Society
http://www.foresthistory.org/About/index.html

The Forest History Society (FHS) is a 501(c)3 nonprofit educational institution located in Durham, North Carolina, that links the past to the future by identifying, collecting, preserving, interpreting, and disseminating information on the history of interactions between people, forests, and their related resources -- timber, water, soil, forage, fish and wildlife, recreation, and scenic or spiritual values. Through programs in research, publication, and education, the Society promotes and rewards scholarship in the fields of forest, conservation, and environmental history while reminding all of us about our important forest heritage.

http://www.youtube.com/watch?v=kwDNjFCV60k

Join Larry Tombaugh, longtime member and past Chairman of the Board, as he leads you on a tour through the facilities, programs, and collections of the Forest History Society.

Since its establishment in 1946, the Forest History Society has developed numerous programs to facilitate the dissemination of information about the history of human interaction with the environment and natural resources. Each program area supports a vital part of our mission. FHS continually seeks innovative ways of enhancing its programs and new methods for promoting the study of environmental history. FHS programs center around the following broad categories:

- Research
- Publishing
- Education
- Fellowships and Awards

Edward Frank

**Jack-O-Lantern Fungi**

by edfrank » Sat Sep 08, 2012 12:03 am

Orange fungi growing at the base of a oak stump
They have reappeared every year for the last five or six years.
The first photos are from September 5, 2012
Photo of underside of fungi showing lack of rings and orange gills.

Orange fungi growing at the base of a oak stump
They have reappeared every year for the last five or six years.
Photo taken September 7, 2012 showing their growth

I checked but this patch of fungi did not glow, but that is not a definitive characteristic of the species.

This appears to be Jack O’lantern (Omphalotus illudens) - Information on Jack O’lantern - Encyclopedia of Life
eol.org  http://eol.org/pages/190094/overview

http://www.mushroomexpert.com/omphalotus_illudens.html

Edward Frank

Re: Jack-O-Lantern Fungi

by edfrank » Sat Sep 08, 2012 4:42 pm

Three more shots taken today - September 8, 2012. The fungi continue to grow and change into a more vase-shaped cap form.
These are on the edge of my lower yard. The cut-off stump was a white oak that died several years ago. Its twin was blown over in a windstorm this summer. The exposed area at the base is in the pit formed by the upturned root ball of the fallen oak.

Edward Frank

**#31** Re: European beech forests

[hamadryad](https://www.example.com) » Sun Sep 09, 2012 7:51 am

Heres a few new images of Our Eurpean beech, mainly Epping forest, some from Windsor Great Park and one or two from Knole Park all taken within the last three weeks, I tend to get around a bit! I am very fortunate to live within a short drive of some of Europe's most amazing and ancient woodlands, where man has been the driving force in the creation of unique habitats, the likes of which are rarely seen elsewhere. There are those that say that our European beech, Fagus sylvatica is a fragile beast that cant be pruned, this is of course utter nonsense and the beech is as capable a survivor as any, as youll no doubt see here! True beeches are sensitive and need a little care in management, but as long as they are understood anything is achievable.

pruning trees is not a blanket situation, it is a species specific situation, an Oak or an ash that are high demanding of light require different approaches to the shade tolerant woodland species such as beech, which with their thin bark can be highly sensitive to over exposure to light.

A fine Pollard in Epping forest

Epping forest is home to 10's of thousands of Beech pollards
defying the laws of gravity is an art!

Very ancient beech probably in excess of 500 years with Ganoderma Sp and Perenniporia fraxinea
Inonotus cuticularis, beech is its favourite host species though this can also be found occasionally on Acer Sp including Acer campestre
A beech tree that I have been stage pollarding as a compromise to felling, the client was feeling the tree was too large for the location and this is just before the second stage as you can see it is responding well.

European beech is a fragile genus? yeah right, a natural pollard!
A beech freed from forest now filling out to become and open grown specimen.

An included bark union long since failed, now occlusion tissues (embryonic) form into iterative roots due to contact with moist rotting wood rather than exposure to light which may have caused the tissues to differentiate into shoots (retrenchment).
Ganadorma sp, probably G. australe aka the southern bracket on ancient beech

The Ganoderma colonised Beech with clear die back and retrenchment, if the tree can shed enough weight before the ganoderma causes a failure in the main union she may go on for a lot longer.
Fistulina hepatica and the Oak, a study into the morphologic

by hamadryad » Sun Sep 09, 2012 1:23 pm

Hi all, I am embarking on a rather ambitious project and you guys all seem very science minded and hence I am asking for a little advice!

Now, first off I guess I should start by saying that I have no education via recognised routes (I consider that an advantage in Out of the box thinking) and therefore have no real idea how to get started other than the obvious route of finding a mentor and getting their approval for application for a PHD.

I obviously don't want to badger my mentor constantly for info and advise but am currently trying to piece together the survey record sheets and methodology to gather a data set for this study, which will take "heart rots in general into the work, as opposed to just the one of greatest interest. Now I shall tell you all a little bit about my theory and make it as easy as possible to give me advice on how I might go about proving or rather disproving my hypothesis.

I don't mind if you think this total rubbish, you wouldn't be the first! but can assure you I have studied this phenomena "the body language of decays" for many many years, and I am going to prove it one way or another, as you'll see in time!
This image shows an Oak with fistulina hepatica, the trunk is a lumpy warty old beast, I believe that fistulina hepatica is one of the longest co evolved of the oaks decay fungi and that fistulina has evolved to coerce growth in the cambium of living trees in order to maintain both its hosts life span AND thus its own source of habitat and longevity.

The body language associated with other principal basidiomycetes is VERY different altogether, with this example showing Inonotus dryadeus and the fluted discontinuous trunk also a common theme.
Some of the growths of oaks colonised by fistulina are so extreme it is almost obscene!

So any ideas regarding not just survey methodology but also any ideas on the other aspects of proving the microbiology aspect?

your help is not expected this is a rather different investigation/study and cross disciplines but appreciate any comments or advice.

Tony Croft

**Re: Fistulina hepatica and the Oak, a study into the morphologic**

diamondby edfrank » Sun Sep 09, 2012 2:37 pm

Anthony, do you see expression of this type of malformation associated with the fungus in younger trees? What you need to include as part of the study is a series of cross-sections through the affected areas. This is not practical for the old growth trees, but if the same features were beginning to develop in trees being harvested for timber, then you could conceivably get cookies from them. Also there is potential for cookies from dead old growth trees, those blown down from wind, or even from fallen infected branches.

You can look at the surface with a reflective microscope or peel off thin slices with a plane that would be viewable under a regular microscope. One technique used at times to get very thin layers, at least of the basic structure of a large slab is as follows: Sand to a smooth surface - the smoother the more continuous the resulting sample. Soak the surface with acetone, and lay a sheet of acetate (drafting material) on top of it. The acetone will melt the acetate onto the surface of the wood. When it dries after a few minutes the acetate sheet can be pulled up and will pull a thin layer of the wood surface up with it that is usable in a light transmission microscope.

Another thing you could do is take a series of stereo pairs of the features around the entire trunk. There is software that will allow you to translate the stereo pairs into 3d-maps of the surface. I will try to find copies of the software or at least its name for you. The specifications for the stereo pair requirements will be dependent on the software. In any case stereo pairs should be made for documentation and for show-and-tell for the work.

Your premise is that the fungi has evolved as a parasite that feeds from the oak, but does not kill it, and the oak has evolved a specific response to the infection. I am not sure how to demonstrate that.

For the tree itself you should do all the standard data collection - species, general location, GPS location, girth, multitrunk or single trunk, description of the outgrowth including size and location on the tree, general health of the tree. And note any other fungi that are present and anything that seems even peripherally relevant to the tree and fungi relationship. Take more detailed photos of anything interesting or noteworthy of the particular growth, tree, or location.
Re: Fistulina hepatica and the Oak, a study into the morphologic

by edfrank » Sun Sep 09, 2012 3:04 pm

Here is someplace to start with the 3d-image stuff

Agisoft StereoScan - Agisoft StereoScan is an easy to use 3D modeling tool for automatic generation of textured 3D models from individual stereo pairs. The stereo pairs are not required to be calibrated or aligned, and can be captured by hand from any generic positions

http://www.agisoft.ru/products/stereoscan/ There is both a free version and a demo version of the full program Also available here:


Article link: Surface Modeling of Plants from Stereo Images http://dl.acm.org/citation.cfm?id=1299176 You could email one of the authors and get a copy of the article. You could reference it in your report if nothing else.

A fully functional 30 day version of Topcon’s Imagemaster Pro and the Camera Calibration Software (Imagemaster Calib) is available.

http://www.terrageomatics.com/products/

You of course, would want to figure out some way to describe and categorize these growths. A uniform terminology as much as possible for various expressions, and see if you can divide the growths into different form groups that may or may not eventually be found to be meaningful.

Edward Frank

Re: Fistulina hepatica and the Oak, a study into the morphologic

by anthony.j.mills » Sat Sep 15, 2012 10:05 pm

Mr. Frank, thanks very much for your replies to Tony Croft. When he first mentioned this thesis to me some time ago, it struck me as one of those ideas which, as soon as the relationship is pointed out, one thinks is so intuitively obvious that it's a wonder no one saw it before. Though it takes the eye of someone with a deep understanding and clear reading of tree body language, and their relationships with fungi, unconstrained by conventional interpretations, to achieve such an insight. The problem is proving it... I would think myself that investigation of the biochemical basis of the modification of cell growth patterns by the fungus, in the same way that gall wasps modify the growth of acorns, buds and twigs, might be a useful way forward. We know that fungi are masters of the use of enzymes in the exploitation of their hosts, and this could be a variation on that theme, albeit a mutually beneficial symbiotic one. Tony deserves every credit and support for pursuing this thesis. I regret that I have no idea where or how such a biochemical mechanism or relationship could be researched and demonstrated.

Anthony J. Mills
Exploring the Redwood Forest (Humboldt Redwoods State Park)

I was fortunate to be able to explore another section of Humboldt Redwoods State Park over the weekend. I was focusing on finding some of the largest trees in the forest and taking their pictures.

I camped the night before and the forest was dark, dark, dark. There was hardly any noise all night either, other than a few creatures running through the duff from time to time. The frogs are quiet now, and the creeks are running low.
I awoke to one of my favorite sounds—the whistle of the Varied Thrush. They didn't seem to sing very long though, by the time I packed up my stuff and began exploring, the forest was silent again.

Of course, there were plenty of fantastic trees to see.

I like to spend my time away from the Avenue of the Giants. The silence of the redwood forest is one of its endearing qualities in my opinion. There is way too much car noise along the Avenue.
One of the highlights of the day occurred while I was heading home. I stopped my car at a completely random spot (to use the bathroom I must confess) and wondered into a rather inconspicuous section of forest. Lo and behold was the largest tree I have ever seen. I grabbed my measuring tape and got an approximate cbh of 56 feet 2 in!! This makes it the largest tree I have ever seen to date. I know there are larger ones up north, but this tree blew my socks off. (below)
Overall, another memorable trip...

Marc Collins

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**Re: Exploring the Redwood Forest (Humboldt Redwoods State Park)**

**by Mark Collins** » Sun Sep 09, 2012 9:41 pm

JRS, I usually camp near the creek and try to stay away from sleeping under the big trees. Perhaps it's to avoid the possibility of getting hit by a big branch. It's so quiet at night that if a tree fell nearby, the noise would be absolutely terrifying. So far, I've always had a fitful sleep when I camp in the redwoods. Friday night, I dreamed that I was visited by horses and a strange prehistoric animal. They were stomping around my head and snarling and sniffing around my ears. To make matters worse, as hard as I tried, I couldn't wake up!

Bob and Ed, In regards to the big tree: I was suprised how large this tree was and how it didn't seem to be visited by many folks. I did notice someone's initials carved into it though. I don't want to say too much just in case, but it wouldn't be too hard to locate it again. Here's another photo of it from a different angle...

Mark Collins
Marsh-Billings-Rockefeller National Historic Park

by dbhguru » Sun Sep 09, 2012 8:31 pm

NTS, Monica and I stopped at the Marsh-Billings-Rockefeller National Historic Park in Woodstock, VT this afternoon on our way back from Plattsburgh, NY. The plan was to rendezvous with one of the park rangers and look at trees on what is a managed forest that dates back into the 1880s. We didn't have much time, so I had to be quick. It is a unique property, I'm told, in the National Park System. I immediately saw that there were some impressive trees growing in the Park. I started by re-measuring the state champion Norway spruce for them which is at the headquarters. It is impressive. It measures 12.5 feet around and is 128.0 feet tall. The old measurement was 124.0 feet. But the taped distance was to the trunk and the high point is behind the tree in the direction of measurement. I took one image, but blew the picture. Here it is anyway. Monica is in it for scale.

After measuring the champ, I was ready to see the plantation spruce. To cut to the chase. In the short period I had, I measured only a few, but got one to 134.5 feet in height. Many of the Norways in the oldest plantation are over 120 feet. I very seriously doubt that I'll find a Norway that reaches 140.

After the Norways, I then measured several European larches to between 100 and 110 feet. I spotted skinny, tall one and got 126.0 feet. I will return and do more thorough job, but don't expect to break 130 on that species. We then went to a knoll near the headquarters that had the largest pines I saw on the property. They date to around 1880. I got three slightly over 130 feet in height. I didn't have much time so I'm unsure if I got their highest tops. Then I measured a white pine growing down the hill that looked tall and got 141.8 feet. That's the best I was able to do, but I was satisfied.

A solid partnership is developing with the Park. Lots of work to do that, but NTS should get some good publicity. Lots of important people and organizations go there. We'll be doing some programs for the Park in the future.

Tomorrow, I'll have images of Lake Champlain.

Robert T. Leverett
**NPR program about champion tree measurers**

by Andrew Joslin » Mon Sep 10, 2012 12:03 am

Heard this today on the NPR (National Public Radio) program "Living on Earth"

http://www.loe.org/shows/shows.html?programID=12-P13-00036

Scroll down to the last show entry "Trees".

trees.mp3

-AJ

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**Leveling Appalachia:**

by Joe » Mon Sep 10, 2012 9:07 pm

Leveling Appalachia: The Legacy of Mountaintop Removal Mining

http://e360.yale.edu/content/feature.msp?id=2198

first paragraph:

*During the last two decades, mountaintop removal mining in Appalachia has destroyed or severely damaged more than a million acres of forest and buried nearly 2,000 miles of streams. Leveling Appalachia: The Legacy of Mountaintop Removal Mining, a video report produced by Yale Environment 360 in collaboration with MediaStorm, focuses on the environmental and social impacts of this practice and examines the long-term effects on the region's forests and waterways.*

Joe Zorzin

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**Big Bob' - a giant eucalypt that stretches up more than 70 meters (229 feet) or about 21 storeys high is believed to be Queensland's tallest tree.**

Grow Big Bob!


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**Re: 'Big Bob' - a giant eucalypt - Queensland's tallest tree**

by KoutaR » Tue Sep 11, 2012 1:24 pm

Here is a table of the tallest measured tree species for each Australian State, compiled by Dean Nicolle in 2011:


As you can see, there has been very little tall tree measuring in Queensland and some other states. Almost 20 m gap between the "Big Bob" and the tallest tree known by Nicolle in 2011.

Kouta Rasanan
Re: 'Big Bob' - a giant eucalypt - Queensland's tallest tree

by fooman » Tue Sep 11, 2012 6:41 pm

Hi All, Although the various articles don't state the species, it is probably a Blackbutt - Eucalyptus pilularis - one of the larger Eucalyptus species in the state.

As Kotua pointed out, there is not a lot of information about tall trees in Queensland. I've spent a bit of time in the state for work - we have an office at the Gold Coast, close to the NSW border, and a number of clients spread throughout Queensland. Queensland itself is a large state - slightly bigger than Alaska, almost three times the size of Texas, spreading from the tropics (10° S) to the border with NSW at 29° S, 1300 miles from top to bottom. West of the Great Dividing Range, it is dry and arid, to the east it moist, and depending on the latitude, tropical or temperate.

Queensland has a number of interesting tree species - for me they are mostly in the Araucariaceae:

[*] Three species of Agathis - A. robusta (Queensland Kauri), A. microstachya (Bull Kauri) and A. atropurpurea (Blue or Black Kauri)
[*] Two species of Araucaria - A. bidwilli (Bunya Pine) and A. cunninghamii (Hoop Pine).

Agathis atropurpurea and Araucaria cunninghamii are supposed to get to 60 m (200 ft), with Agathis robusta, Agathis microstachya and Araucaria bidwilli getting anywhere from 40 to 50 m tall (130 to 165 ft).

Araucaria from Norfolk Island (Norfolk Island Pine) and New Caledonia (Cook Pine) are also exceedly common.

The other cool tree species I have seen in QLD are:

[*] Queensland Bottle Tree - it is similar to a miniature baobab tree (Australia does have a baobab species, but the bottle tree is unrelated).
[*] Morton Bay Fig - A huge fig species.

Some photos, including a few not from QLD!:
Hoop pine, stumpy specimen at Brisbane Botanic Gardens.

Avenue of Araucaria, includes Norfolk Island Pine, Cook Pine, Hoop Pine, and a couple of Bunya Pine. Adelaide Botanic Gardens

Cook Pine, Brisbane Botanic Gardens

Queensland Bottle Tree, Adelaide Botanic Gardens
There are some nice specimens documented at the Australian Register of Big Trees, including:


And finally, on my first visit to Australia, I drove through the SE Queensland town of Blackbutt, named after the tree, and was greatly amused by name of the local gallery, as seen in Google Street View:

[http://goo.gl/maps/xUj44](http://goo.gl/maps/xUj44)

Cheers,
Matt Smilie

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**Experts release list of 100 threatened species**

by edfrank » Tue Sep 11, 2012 11:43 pm

Experts release list of 100 threatened species

Global News and The Associated Press Tuesday, September 11, 2012 1:48 PM

TORONTO - International conservation groups have unveiled a list of the earth's most threatened 100 animals, plants and fungi and say urgent action is needed to protect them. More than 8,000 scientists from the IUCN Species Survival Commission have come together and identified the species Tuesday in a report presented to a global conservation forum on the southern South Korean island of Jeju. The species live in 48 countries and include the Tarzan's chameleon, the spoon-billed sandpiper and the pygmy three-toed sloth. The Zoological Society of London and the International Union for Conservation of Nature fear the 100 species will die out because they don't provide humans with obvious benefits. Experts say that focused conservation efforts can prevent the species' extinction in almost all cases.


Of particular interest to all of us tree folk, is that the list includes several species of trees.

**Abies beshanzuensis**

Baishan fir
Population size: 5 mature individuals
Range: Baishanzu Mountain, Zhejiang, China
Primary threats: Agricultural expansion and fire
Actions required: Ex-situ conservation and re-introduction, and establishment of a protected area
**Diospyros katendei**
Population size: 20 individuals, one population
Range: Kasyoha-Kitomi Forest Reserve, Uganda
Primary threats: High pressure from communities for agricultural activity, illegal tree felling, habitat degradation due to alluvial gold digging and small population
Actions required: Enforcement of legal protection of area, field surveys for further search and ex-situ conservation in arboreta / botanic gardens

**Dipterocarpus lamellatus**
Population size: 12 individuals
Range: Siangau Forest Reserve, Sabah, Malaysia
Primary threats: Habitat loss and degradation due to logging of lowland forest and creation of industrial plantations
Action required: Restoration of Sianggau Forest Reserve and re-introduction of species to previous range

**Dombeya mauritania**
Population size: Unknown
Range: Mauritius
Primary threats: Habitat degradation and destruction due to encroachment by alien invasive plant species and cannabis cultivation
Action required: Control of invasive plant species, habitat protection and reintroduction of propagated individuals

**Elaeocarpus bojeri**
Population size: <10 individuals
Range: Grand Bassin, Mauritius
Primary threats: Habitat degradation
Actions required: Unknown - trees are currently being closely monitored to determine level of threat and how these should be addressed

**Erythrina schliebenii**
Coral tree
Population size: < 50 individuals
Range: Namatimbili-Ngarama Forest, Tanzania
Primary threats: Limited habitat and small population size increasing vulnerability to stochastic events
Actions required: Complete establishment of Forest Reserves and continue propagation efforts, ex-situ conservation

**Euphorbia tanaensis**
Population size: 4 mature individuals
Range: Witu Forest Reserve, Kenya
Primary threats: Illegal logging and habitat degradation due to agricultural expansion and infrastructure development
Action required: Enforcement of legal protection in the Witu Forest Reserve, which has diminished due to civil insecurity

**Ficus katendei**
Population size: < 50 mature individuals
Range: Kasyoha-Kitomi Forest Reserve, Ishasha River, Uganda
Primary threats: Agricultural activity, illegal tree felling and habitat degradation due to alluvial gold digging
Action required: ex-situ conservation in arboreta / botanic gardens; enforcement of protection to contain encroachment and habitat degradation; community development programmes in areas adjacent to the reserve

**Hibiscadelphus woodii**
Population size: Unknown
Range: Kalalau Valley, Hawaii
Primary threats: Habitat degradation due to feral ungulates and invasive introduced plant species
Actions required: Survey the extremely steep terrain for additional individuals
Control of invasive species in the remaining suitable habitat so that species can be reintroduced if more individuals are located
**Magnolia wolfii**
Population size: < 5 individuals
Range: Risaralda, Columbia
Primary threats: Isolation of species and low regeneration rates
Action required: Protection of remaining population and exploration of potential for ex-situ conservation

**Picea neoveitchii**
Population size: Unknown
Range: Qinling Range, China
Primary threats: Forest destruction
Action required: Ex-situ conservation and re-introduction; establishment of protected areas

**Pinus squamata**
Qiaojia pine
Population size: <25 mature individuals remaining
Range: Qiaojia, Yunnan, China
Primary threats: Limited distribution and small population size
Action required: Ex-situ conservation and re-introduction; establishment of protected areas

**Tahina spectabilis**
Suicide Palm, Dimaka
Population size: 90 individuals
Range: Analalava district, north-western Madagascar
Threats: Habitat loss due to fires, logging and agricultural developments
Action required: Establishment of a protected area and development of a management plan

**Voanioala gerardii**
Forest coconut
Population size: <10 individuals
Range: Masoala peninsula, Madagascar
Primary threats: Harvesting for consumption and palm heart and deforestation
Action required: Protection of individuals and habitat coupled with public awareness campaigns

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**Re: 'Big Bob' - a giant eucalypt - Queensland's tallest tree**

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Re: 'Big Bob' - a giant eucalypt - Queensland's tallest tree

by KoutaR » Wed Sep 12, 2012 9:58 am

In whole Australia, over 5 million hectares (12,355,300 acres) is known to be old-growth forest as at 1996-1997. The used definition: "Ecologically mature forest where the effects of disturbance are now negligible." Source:

http://www.forest-education.com/index.php/tasmania/C233/

Two big bull kauris (Agathis microstachya) called "Twin Kauri Pines" at Lake Barrine, Crater Lakes National Park, Queensland:

According to the park web site, the girth of the bigger tree is 8.5 m (28 ft), height about 50 m (160 ft) and age about 1000 years. There has been logging in this park in the past. I saw a lot of bull kauris but these two seemed to be the only big ones.

Kouta Rasanen
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Re: Central Sierra Expedition - Big Sugar Pines Down

by Zachary S » Sat Sep 01, 2012 1:48 pm

UGGGG. Well that's disheartening. We've lost a great number of big trees recently. Although, it's not entirely shocking that the Pickering Pine fell because it had a fire scar near the base that went all the way through the trunk... a flying buttress just doesn't work that well on trees that aren't sequoia! At least they fell through natural causes, even though nearby logging may have contributed to wind stress on the trees.

Anyone can correct me or add some to the list that I may have not heard about, but since 'Forest Giants' was published 11 years ago, we have lost these trees that were in the book -
- Washington sequoia (still alive but lost half of trunk and most of foliage to fire and snow load in 2005)
- Ol' Jed douglas fir (found standing but dead recently)
- Klootchy Creek Giant Sitka spruce (snapped in a storm in 2007)
- Pickering Pine sugar pine
- One-Armed Bandit sugar pine
- Yosemite Giant sugar pine (dead from beetles ~2009)
- Sergeant RandAlly yellow-cedar (fell in 2004)
- Eureka Valley Giant Jeffrey pine (dead from beetles)
- Idaho Giant w. white pine (dead from beetles and felled 1999, before publication, but still listed in book)
- Goodman Creek Tree Pacific silver fir (fell in 1997, before publication, but still listed in book)

I also suspect one or more of the Port Orford cedars listed may have succumbed to root rot since publication, a couple of the Jeffrey and ponderosa pines may have died or fallen prey to beetles, and some of the grand fir could have died from old age as they're very short lived. Anyone have more updated information? I keep records on this stuff and am always fascinated with large western conifers.

Also, the Whelan tree is a beast.

Zachary Stewart

Re: Central Sierra Expedition - Big Sugar Pines Down

by M.W.Taylor » Wed Sep 12, 2012 12:43 pm

Zachary, We did find a 9' dbh sugar pine below the Pickering Pine bench, down by the Stanislaus River. This unknown tree rivals One Armed Bandit in size. Mike Hanushchik and I also located a large sugar pine in Eldorado National Forest. This tree has close to 6,000 cubic feet and also would make Bob's book if it were known about then. So we have 2 replacement sugar pines. However these big old sugar pines are extremely rare.

Don, I did not get an age count. The shattered remains of the trunks were hollowed out anyways. I doubt I could count more than half the actual rings given what is left of the trees. The place is a huge mess. Looks like the place got hit with a "Fuel-Air-Bomb".

Michael Taylor

Balloon Launch At Little Bear Wallow Meadow

by M.W.Taylor » Wed Sep 12, 2012 1:43 pm

Last weekend I launched a 6ft weather balloon at Little Bear Wallow Meadow, Trinity County California, to survey for big and tall trees and also test a survey platform I've been working on. In this meadow grows the 2nd largest known ponderosa pine by volume, an 8.3' dbh, 234' specimen with 5,200 cubic feet of wood volume. It's a real beast.

The area around Little Bear Wallow Meadow is arguably the finest forest in Trinity National Forest, despite it being partially cut.

The balloon was mounted with a remotely controlled Trupulse360 forestry laser and inexpensive 20x optical zoom digital camera. The Trupulse and the camera are mechanically linked so that when I look
through the video feed of the camera crosshair it is aligned with the Trupulse360. This way I can use the camera as the viewfinder for the Trupulse with a nice high-resolution wide angle picture.

I use bluetooth control to change the mode and settings of the Trupulse360 while in the air from my laptop on the ground. The range using a bluetooth amplifier aka “bluetooth wardriver” is about 500 feet. A recurring command is sent to the Trupulse to prevent it from timing out if idle on turning off.

There is full servo drive control of the zoom-in and zoom-out features of the Panasonic F25 as well as the take-picture of take-video buttons. I can even take pictures while doing video. The interface is mechanical.

This video feed goes into my mini laptop computer and also there a smaller screen on the remote control itself with the same image. Using a 3/4 watt video amplifier on the balloon platform I can get 400ft+ range line of sight. A switch on the remote control can goes back and forth between the digital camera view and the eyepiece of the Trupulse360 so I can see what is happening with the Trupulse360 in real time if I don't have the bluetooth and laptop linked up with the Trupulse.

The RC joystick turns the video of the Panasonic F25 camera on and off. This inexpensive camera from Amazon has 20x optical zoom and 1980x1080 high definition video. The joystick also activates the take photograph button, which can be pressed in continuously for burst mode.

This is a total survey platform and it works great when the winds are calm. I can download the measurements directly into Laser Technologies MapSmart program using the bluetooth so I can use the platform as a control point for 3d surveys from the sky.

Using the gear driven servo drives I can get fine tune control of the Trupulse, which is triggered by connecting serial pin#1 and pin#2 with a servo switch which is also button controlled from the remote control. Without the 5:1 gears the motion of the servo motors would be too fast to use the TP360 effectively.

This system only works in calm conditions. If windy though this system will be a total nightmare and you’ll likely lose your equipment. Also, the balloon will pop easily against sharp objects if fully inflated so keep away from trees and pines needles. A fall from 200+feet will shatter any camera or Trupulse completely...or your head! Consider wearing helmet if using this. Seriously! I popped the 6ft weather balloon as I was bringing the platform back down through the trees. Even from 8 feet up this 4lb platform fell like a brick right by my head. I was fortunate nothing broke on the platform or my head. It hit the ground with a loud thud. Scary moment.

Also, make sure to use 80lb or higher strength braided fishing line such as Pro-Line.

The platform weight exactly 4 lbs. The lift on the 6ft weather balloon was easily 7 lbs so I could have lifted more equipment potentially. The greater the lift per weight ratio, the greater the stability and control of the platform. Two or more lines can be used to anchor the platform to allow for better control and prevent balloon loss in the event of the single anchor line breaking.

scanning south at 250ft, just above the canopy
looking southeast

giant ponderosa from above. Volume of this beast is 5,200 cubic feet!

6ft cloudbuster balloon. Lift is 7lbs when slightly overinflated to 6ft. Rated diameter is 5.5ft

servo driven 5:1 geared platform without Trupulse and SLR

servo motor and differential gear driven Trupulse 360B

Will update on more balloon launches next month.

Michael Taylor
WNTS VP
California Big Trees Coordinator
http://www.landmarktrees.net
Re: Balloon Launch At Little Bear Wallow Meadow

by fooman » Wed Sep 12, 2012 5:18 pm

More cool stuff indeed.

I can think of an improvement for balloon stability (and safety): Use 3 guy lines, as separated as much as the clearance conditions allow. With appropriate controls over the winding (e.g. semi-automated motors) and sufficient lift from the balloon to maintain tension and position, you would end up with a pseudo-Stewart platform at the balloon end. You would get a reasonable amount of control on the position of the balloon during ascent and descent, within the footprint of the guy lines.

Cheers,
Matt Smilie

Re: Balloon Launch At Little Bear Wallow Meadow

by M.W.Taylor » Wed Sep 12, 2012 7:47 pm

Matt, Yes!

The 3 anchors is exactly what I am going to do next launch (minus the self winding motors). Got all the gear ready to go. Will provide a pictures of the set-up close up. I can't spread the anchors out too far though or the L bracket could contact once of the lines and get tangled. But 30 or even 40 degrees separation between anchor points should be no big deal at all.

Also, the anchor cable applies the lift force of the balloon to the top bracket to prevent counter rotation. The center of the gear drive as well as the shafts that hold the gears are hollow so the steel cable goes right through the entire mechanism and freely rotates inside. The 7 lbs of force is applied directly down on the top bar....thus preventing the counter rotation of the equipment module.

If the force were applied to the anchor on the bottom only the top would rotate because it has less mass. You could not control anything without the tension cable going all the way through. This is the secret...)

I also tried gyroscopes and they work too, but they are heavy and have power requirements...thus more batteries and weight. I need to keep the weight under 4lbs for this.

Your suggestion on the self winding motors has me thinking now. A closed loop feedback system, PID type, for 3 automated winders with dancer rollers. This is exactly what I used to do when I worked as an engineer for Alza Corp. I think the platform would be most stable if based on tension feedback as opposed to something else. The dancers will maintain constant tension. As they approach the end of their travel, then the windup spool activates to re-center the dancers while keeping tension constant. The logic on this system is well researched. It would look cool too. Little mini dancer rollers for each anchor line.

Any other ideas?

The entire set-up cost me under $1,000 if you do not include the Trupulse360 which is on loan to me from Laser Technologies Inc. The next version will be carbon fiber, not aluminum. I should be able to get the platform under 3 lbs with carbon fiber.

This is what I really need for the balloon launches... a moment control platform

http://www.gyroscope.com/d.asp?product=CMG

I've applied for a grant to get one. This is uber geek stuff.

The attached is a picture of the beastly huge pondy from the ground. Taken on the same day of the balloon launch.
I wonder how generations down the road will deal with the presence of the internet. In some aspects it broadens and enriches our discussions. In a few clicks I found the 1889 map on the range of the buffalo, and I was able to share it with those involved in the discussion. You responded with a document from 2010 on buffalo. So we have information at our fingertips.

One favorite science fiction story by Isaac Asimov is called “The Feeling of Power.” In it everyone is dependent on calculators and the fictional analog of the internet to do much of their thinking for them.

One person through old books teaches himself to add and subtract by hand, or in his mind without using a calculator – that is the feeling of power being able to do math without the calculator. This is carrying the concept to absurdum but it is food for thought. To what degree are future generations going to learn information and processes for themselves and to what degree are they going to become dependent on external readily available resources like the internet over memorization? Are we going to have a richer culture because the information is available or a more ignorant one, because why learn something when you can easily look it up?

There is the assault on intellectualism going on not only in this country, but around the world. It is going to be another cultural revolution, ala the murder of all educated people in China when Mao took over? Are we going to be pushed into another dark age where being ignorant is a virtue? Where the only things we know are what the internet tells us? And who will control the internet?

There is the No-Child-Left-Behind where the goal is to obtain good test scores, rather than teaching students to think. There is a drive to better regurgitate certain key test facts rather than understanding their context or derivation. If you don’t believe me there is in the Texas Republican platform an article opposing the teaching of critical thinking skills to students in the public school systems!!

Has the internet been a force for greater understanding among differing cultures or promoted world peace and freedom? It can be argued that it has. Many people talk with others from around the world on a daily basis. One service Harnu http://www.harnu.com/ is essentially a chat forum set up to allow anyone to start a conversation with a stranger anywhere else in the world.

The internet has its downside also. I think it has led to the increasing radicalization of our politics. Now people with beliefs different from those in their local area are not tempered in their actions by those in the surrounding community, but can reach out to others with similar ideas across the country and never hear a voice speaking a different thought than their own.
They can vent full force whatever they think and receive applause and agreement, no matter what they have said. This has most benefited those with fringe beliefs who now have access to online communities of like minded souls.

We will see what happens. I am not among those who view the past through rose colored glasses and want to return to an existence that never was. I don’t think that just because kids do something different today than how it was done when I was a child, that is the end of civilization, nor is it even in some vague undefined way automatically bad because it is different. I look for a brighter future because of things like the internet, if we can just get through the growing pains.

Edward Frank

Re: Future of the Internet and Harnu

by HarnuHQ » Thu Sep 13, 2012 1:22 pm

Hello everyone. Just wanted to say that your concerns about social media reinforcing people's homophilic tendencies i.e. "birds of a feather flock together", is the exact problem we're trying to address with Harnu. Whereas some networks help you keep in touch with friends and other like-minded people, our mission is to connect the world in direct conversation such that people can obtain perspectives they could never otherwise have been exposed to. For example, if you want to know what's happening in Kazakhstan today, you can of course read a newspaper and discuss with friends. With Harnu, you can talk directly to the people there and hear their own opinions and perspectives e.g. http://www.harnu.com/m/gm/1159.

With conversations automatically translated into everyone's preferred language, we're striving to create an environment where cultural discovery is fun, engaging, and of course educational. For more context on Harnu, here's a recent article on us: http://ventureburn.com/2012/08/harnu-is-map-based-social-networking-and-its-brilliant/

http://youtu.be/4mWZGV4FFp4

Thanks for the opportunity to weigh in and hope to see you on Harnu sometime!

/​Jason from Harnu.
http://www.harnu.com
Native American Name for Douglass Fir?

by costalpilot » Wed Sep 12, 2012 10:25 am

Hi Folks, Its fun finding groups like this that celebrate and encourage interest in our world. Thanks for being here and allowing me to join. I am working on an article about Opal Whiteley (if you don't know her, I suspect you would LOVE her: opalonline.org).

Does anyone have information about native american names for the Oregon Pine, or Douglass Fir? Especially in Oregon, the Southern Wilamette Valley? I think it is interesting that my brief research on this subject has not turned up much information as to native American names for trees. I'm sure names change with different groupings, but so far I haven't found a native american name for the Oregon Pine. thanks in advance.

Richard Speer

Re: Native American Name for Douglass Fir?

by costalpilot » Thu Sep 13, 2012 5:40 am

Larry Tucei wrote: Hi, Welcome to NTS. Bob Van Pelt would be one to contact. He is one of the leading Scientists in the north western US. I'm sure some of the other members will respond to your question. I really enjoyed her writings on the link you posted and all the photos.  http://www.opalonline.org/

Thanks Larry. The intersect index for Opal really is one of the most helpful keys to opening up a book in any format I have ever seen. For instance I wanted to post this scene for ya'll (a nod to my Southern heritage) and there were four links to get to the scene I wanted: chapter,day,scene or paragraph. Not many resources around that are more helpful than that. Personally I feel this is one of the most poignant and touching thing I have ever read, but that may just be me:). here is a link to a (beautiful) friend of mine's reading of this selection, but you have to sit thru several minutes of another reading and the quality is horrendous, but she's a pretty lady with a gorgeous voice, so its not all hard to take. (http://www.youtube.com/watch?v=lzGv-nJ5JJM)

While I did mind the baby, there was an odd sound like someone crying a great way off. The mamma says, "I wonder what it is." I know it is the death-song of that gray fir tree they are falling this afternoon. Sleeps is come upon the baby. The mamma says for me to get out of her way. I go now goes to the woods.

I did. I went on to where its growing was. It reaches up and up -- most away to the clouds. Days have been when I did sit by it to have thinks. And Thomas Chatterton Jupiter Zeus has gone goes there with me, and Brave Horatius has waited waits while I did say prayers by that great tree. And I have told it all the things I am going to do when I grow up. I have told it about the books I am going to write about wood-folks and them of the field, and about the twins I want when I grow up, and the eight other children. And always I have read to this great fir tree the letters I have wrote and put in the big log for the fairies to take to grandmére and grandpére. And night-times I have heard the little wind-song among its arms most near to the sky, and I have almost touched the big gray shadow with velvet fingers that stays close by it at night-time.

And today there I did watch and I did hear its moans as the saw went through it. And I sat down on the ground. There was a queer feel in my throat and I couldn't stand up. All the woods seemed a still sound except the pain-sound of the saw. It seemed like a little voice was calling from the cliffs. And then it was many voices. They were all little voices calling as one silver voice come together. The saw -- it didn't stop -- it went on sawing. Then I did have thinks the silver voice was calling to the soul of the big fir tree. The saw did stop. There was a stillness. There was a queer sad sound. The big tree did quiver. It did sway. It crashed to the earth.

Richard Speer
Re: Balloon Launch At Little Bear Wallow Meadow

by M.W.Taylor » Thu Sep 13, 2012 7:10 pm

Don Bertolette wrote: Michael- Re popping, how about an appropriately sized (and light) parachute (quick deploying)?

Option#1
I am working on a parachute for the balloon. My idea is to cover the top radius of the balloon with a 6fth parachute. If the balloon pops, the parachute instantly deploys. The parachute would also help give further protection to the top of the balloon.

Option#2
Use an accelerometer board, they cost about $30 on Amazon. When 0 G is detected for all 3 axis (you are in freefall) a contact switch closes and the parachute deploys forcefully.

http://www.amazon.com/L3G4200D-ADXL345- ...

I like Option#1. Simpler.

Also, if somebody wants to donate 3000 cubic feet of helium and 30 6ft cloudbuster balloons, I'll provide the lawnchair and I will deploy myself into the canopy. 3,000 cubic feet of helium will cost you about $3000 now. The military is hoarding all the helium for their new spy blimps. There is currently a severe helium shortage.

mdavie wrote: Did you get a feel for how well this is going to work for your purposes?

As an exploratory tool it works great. I can zoom in all the videos and photographs to look for big crowns, tall crowns, big trunks and I can differentiate species.

The biggest challenge will be getting the balloon close to the tree without popping it.

For point cloud mapping the side of tree trunks that remains to be proven. I suspect it will work great if I launch with no wind. Hoping to put it to the challenge soon. Need to get more helium first. That stuff is expensive!

Michael Taylor

Re: Asheville Trees

by Will Blozan » Sun Sep 09, 2012 12:40 pm

Edward Frank wrote: Shortleaf Pine (Pinus echinata) reaches 141.2 feet at Camp Branch along the Chattooga River and 140 on Tamassee Knob in South Carolina. I also think this is an undermeasured species across much of its range. Perhaps our list needs updated, it has been awhile since Jes Riddle did the last version. the tallest Pitch Pine (Pinus rigida) is at Warwomam Road on the Catooga River in GA at 136.3 and at 135.4 at Ellicott Rock Wilderness in South Carolina.

The Warwoman Road shortleaf is now 138.7’ as of last measurement (12/29/2010) with a girth of 5’10”. The neighboring pitch pine is 142.3’ with a girth of 8’ even. Next to this is a Virginia pine 122.3’ with a girth of 5’1”. The Cliff Creek drainage has very nice shortleaf:

6‘ X 131.5’
6’5” X 127.2’
6’6” X 128.1’

I have not broken 120’ yet in the Asheville area for pitch pine. Several sites have them to 118’. Of course, with rounded tops they could be 120’ I just can’t see the top.

Will Blozan
North Dakota Champion Cottonwood

by Jimmy McDonald » Sat Sep 15, 2012 12:27 am

I have been working in North Dakota lately and I decided to take a little detour on my way home back to Minnesota. I read on the North Dakota Champion trees that there was quite a large Cottonwood in Horace. 26'8". I saw a few pictures online of it. It has a name even Uncle Johns Cottonwood. It is a two trunked tree, or something like that I'm still confused as to when it's one tree or two or has two trunks. But here are some photos and I'll be interested to hear what you guys have to say about it. I gave it a measure and found it to be 28'7" cbh. You may be able to get a smaller measurement due to its shape.
those with two or more trunks even of the tree with the multiple trunks spring from the same root system.

For champion tree purposes only those trees with a single trunk - meaning it would have only a single pith at ground level should be considered as a champion tree for the species. I would like to see a separate list maintained for multitrunk trees, but for now by definition only single trunk trees should be counted as champions. There is a caveat - A single individual trunk of a multitrunk tree would be eligible to be a species champion if it was the largest known individual trunk for the species. The other trunks in the multitrunk clump would not be considered in its point calculation for girth, height, or crown spread, only the largest trunk itself.

It is a nice and impressive tree. Thanks for taking the time to visit the tree and measure it, and to post it to the BBS. I like to see large trees like this documented even if they are multitrunk specimens. They just should not be compared with single trunk individuals for champion tree purposes.

Edward Frank

**Re: North Dakota Champion Cottonwood**

by Chris » Sat Sep 15, 2012 11:10 pm

Very nice form in the first photo.

To be fair, it is probably Plains Cottonwood (a different subspecies from the eastern variety most of us are familiar with). The American Forest's register lists the largest in the amusingly named 'Hygiene, CO'. It is clearly multi-trunk too [in fact more so than this ND one].

Chris Morris
A great silence is spreading over the natural world

by edfrank » Thu Sep 13, 2012 7:15 pm

'A great silence is spreading over the natural world'
http://www.guardian.co.uk/environment/2012/sep/03/bernie-krause-natural-world-recordings

Bernie Krause has spent 40 years recording nature's sounds. But such is the rate of species and habitat loss that his tapes may become our only record of the original diversity of life.

Re: A great silence is spreading over the natural world

by michael gatonska » Sat Sep 15, 2012 11:57 am

Hi all;

Regarding Bernie Krauze, I have recently been in communication with him via email. I just called him up on a Sunday afternoon, and after some explanation about the work I have been doing, his assistant asked Bernie if she could give me his email address. Since then, he has been providing me with some helpful technical advice, in particular regarding mic's, other technical suggestions, and on sound editing and engineering. He has also pointed me in the direction of some valuable support and network resources, which include the Soundscape Support Team, the Nature Sound Society, and the Nature Recordists Group. All are west coast based.

A while back, I had posted on NTS a documentary made in 2009 on Krauze and his work:

Gordon Hempton - known as the sound tracker - is another iconic figure. His mission to find and record the last places of quiet on the Earth before they've disappeared entirely. This is a link to a recent documentary made on his work:

Natural quiet is a rapidly disappearing resource, and according to Hempton, there are only seven or eight naturally quiet places left in the United States (i.e. places where the sounds of nature are unbroken for intervals of at least 15 minutes during daylight hours). None exist in Europe any more. The voice of our planet has been drowned out.

If we consider Pythagoras’ philosophical and mathematical assumption that the universe is held together by the balance of a specific acoustic design, then the question that comes to my mind is "what are the consequences of a significant alteration in the original relationship between man and the sounds of his environment?" I suppose that this alteration was pushed into hyperspeed at the beginning of the industrial revolution.

I have recently read about the idea of the Anthropocene – which is basically defined as the new epoch in which we humans have become a force of nature, and that we are reshaping our planet on both a geological scale and at a far-faster than geological speed. We are feeling (and reeling?) from the implications of this at the social, cultural and economic level. On a somewhat positive note, however, through the work of many people (including soundscape artists like Krauze and Hempton), we are being moved to consider the impact of humanity’s collective actions on both our planet and our future.

Michael Gatonska
Jake and Joe, MTSF, MA

by dbhguru » Sun Sep 16, 2012 5:21 pm

NTS, Today Joe Zorzin and I went to MTSF to lay the grounds for his filming of the upcoming Oct 12th tree measuring event. The weather was gorgeous. We accomplished what we really set out to do - have fun. We went straight to the Jake and Joe trees. I wanted to measure Jake's new candle growth to get a better confirmation of the height gain of Jake this growing season. You can see below what was determined. Yes, Jake had a heck of a growing season. Next year isn’t so likely to be as good.

With Joe Zorzin present, I re-measured Jake's full height and again confirmed the height at 171.0 feet using the LTI TruPulse 360 exclusively. Joe peered through the TruPulse and confirmed the numbers.

While there, I also re-measured the Joe Norton tree, just a few yards away, and got 166.6 feet. I'll now re-measure Saheda in the Elders Grove to see which is #2 in the height department for all New England. I expect that Saheda is close to 167 feet.

I hope to measure the new growth of a sample of the Mohawk pines in November and December. However, my focus for next week will be the Marsh-Billings-Rockefeller NHP in Woodstock, VT. Monica and I will be returning on Sept 26th for a day of measuring on behalf of the Park. A great partnership is developing.

Robert T. Leverett

Re: New forest (The Borg's Woods) said to be over 235 years

by njstriker » Sun Sep 16, 2012 6:21 pm

Black Gum appears to be a field succession species, for instance where an old beaver pond once was. There’s a few in Borg’s Woods, and they are all big old ones in mature forest areas. Saplings appear to stay small for decades, they really need sunlight. It’s the Beech that do best in shaded areas, and also the invasive Norway Maple. The Norway Maple presents a far greater threat than most ecologists realize, because it shades out everything else. The species was threatening to alter the basic ecology of Borg’s Woods. Dozens of Norway’s, mostly in the 3” to 8” diameter range, were killed by ringing them, starting in 1994. Hundreds, possibly thousands, of saplings were pulled up. There used to be about 200 saplings per year that needed to be yanked, but now it’s only a few dozen. This is best done in early November when they stand out as green, and everything else is already turned color, or later in the month when the Norway saplings are yellow and no other trees have leaves on them. The mother tree, over 12” diameter, at the top of the hill on the preserved Landi lot, was ringed and killed over 10 years ago. A 2nd mother tree, even larger, was at the end of Woodland Ave in Maywood. It was on the west bank of Coles Brook and seeding into the woods. It could not be ringed because it was on someone’s private lawn. Maybe God is on the side of conservationists, because that tree bit it in the great October snowstorm of 2011.

Eric Martindale
A Thousand Invisible Cords

by Don » Mon Sep 10, 2012 1:30 pm

Fellow NTSers-
Have just been informed by my cousin Randy Fulton that there is a commendable PBS program making the rounds (looks like it has already played most of the East Coast, just now getting to the West Coast).

It's called A Thousand Invisible Cords...Connecting Genes to Ecosystems.

http://athousandinvisiblecords.org/broadcasts-showings

I understand from Randy that it's about the genetic properties of cottonwoods and pinon pines, and how genetic determinants are impacted by environmental factors such as soil microbes, fungi, insects and such that evolve around them.

It's playing in Anchorage later this week, at which time I'll report on the program...this program has Northern Arizona University connections, so I'm inclined to promote it.

Don Bertolette - President/Moderator, WNTS BBS

"When we try to pick out anything by itself we find that it is bound fast by a thousand invisible cords that cannot be broken, to everything in the universe."

While that's a big undertaking, Northern Arizona University's has taken a smaller bite in their "A Thousand Different Cords: Connecting Genes to Ecosystems" PowerPoint presentation. It's audience is probably most appropriately an academic one, but a lay person can pick up many of the basics.

Ed, it explains (without mentioning) "resilience", the value of biodiversity, relates individuals to populations, to communities in ways you may not have thought of before...this will be a powerful tool for informing climate change concerns, forest restoration, and far more complex issues.

I hope that at the very least, this will provide you with food for thought and discussion!

View this fairly large Powerpoint file by going to: http://athousandinvisiblecords.org/education navigating to Downloads, and clicking on Lecture Notes (in either Powerpoint or *.pdf formats).

It will take several minutes (4 on my laptop/cable connection) to download and more to view.

Don Bertolette

Re: A Thousand Invisible Cords...

by Don » Mon Sep 17, 2012 3:13 am

Ed-
Per my promise to return to NTS after viewing the PBS program my prescient cousin recommended, and report of it's content, I am here to report failure...

Not complete irrevocable failure, as I have come across a powerpoint presentation that encapsulizes many of the points of the program. I will shortly provide means of accessing this absolutely mind-challenging manner of viewing our forest ecosystems. But first, I'd like to explain that the title comes from John Muir's original and elegant quote,
Re: Asheville Trees

by bbeduhn » Mon Sep 17, 2012 11:00 am

The P. echinata @ 124.6' has a girth of 5'2". However, its needles are now all brown and it has long scratch marks down the trunk with sawdust collecting on the lower plates. I assume it is dead.

I spent some time with the pitch pine, battling prickers and poison ivy, but was able to get measurements from many different angles: 117.2' 120.6' 121.0' 122.2' 122.3' 122.8' 124.8' 124.8' was the best of the lot. It's around 5' cbh.

There are several others that could break 110' nearby but I was running short on daylight.

Brian Beduhn

Re: Biltmore Estate Trees

by bbeduhn » Mon Sep 17, 2012 11:49 am

Biltmore update #?

I remeasured the 2nd tallest dawn redwood, the larch and the Norway spruce. I wasn't able to get the highest measurements on the spruce or the redwood. I've had many different measurements supporting the revised heights and only one to support the highest reported. I'm attributing the highest figures to an inaccurate laser reading achieved when backing up and shooting at the same time.

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<th>Hemlock #</th>
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<td>107.4'</td>
<td>107.4'</td>
<td>216</td>
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63
Cryptomeria japonica  
Japanese cedar  
67.5’

Pinus resinosa  
Red pine  
118.4’  116.0’  no#

I explored the grove to the right of the house where 3 scarlet oaks of 130’+ once resided. I found just one over 100’. The 141.6’ hemlock was in that grove but it looks like the scarlets had been sacrificed for more parking lots. The 106.7’ carolina hemlock is very close to the current tallest carolina on the estate at 115.1’. I missed it before. I missed the dawn redwood before as well. There is another grove of redwoods that I wanted to hit but it started raining. They’ll be tough to get due to two superlative butternuts directly above them, so I’ll wait til the leaves are down. One butternut is NLT 126’ and the other is 120’+.

Conifer Rucker 10
white pine 158.3’
hemlock 143.6’
larch 137.8’
norway spruce 133.6’
dawn redwood 130.1’
baldcypress 126.7’
oriental spruce 122.9’
red pine 118.4’
nikko fir 115.1’
carolina hemlock 115.1’

RI 10  
130.16’

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Re: Biltmore Estate Trees

by Will Blozan » Mon Sep 17, 2012 2:42 pm

Brian, Great work! Man that place continues to grow. I am really interested in the butternuts since they will smash the current eastern height record. I can rarely find them over 100’ with a 115’ tree the lone record for many, many years. Where are they? I don't even recall any sizable ones there in my wanderings.

Will Blozan

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Re: Biltmore Estate Trees

by bbeduhn » Mon Sep 17, 2012 2:56 pm

Will,
They are on the side of the road, past the dam but before the wildlife inhibitor in the road. I’m fairly certain they’re butternuts. I called them walnuts at first but they definitely have the butternut bark. It is Biltmore, so they could be exotics but I don’t know what else they could be. I’ll double check on my ID. Correction: I had 118.8’ on one and NLT 126’ on the other.

The hemlock grove with the 4 140’s and dozens of 130’s must have been on a slope which is now a clear cut. One 140’ remains up top along with over a dozen over 110’. The grove is a pale shadow of its former self...but at least there is another parking lot. Much of the clearcut clearly didn’t need to be cut. It's baffling why it was.

Brian Beduhn

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Re: Biltmore Estate Trees

by Will Blozan » Mon Sep 17, 2012 4:15 pm

Brian, I recall black walnuts there but could be mistaken. They really look very different so it is hard to confuse if true black and butternut.

I remember the incredible hemlock grove was slated for "HWA management" (i.e kill the trees). I verbally petitioned the chief horticulturalist and arborist to treat them and even volunteered to do it if they bought the chemical but I guess the chippers won out. That single grove was poised to be the archetypal second-growth monitoring (height/volume) for the species. It also may have produced the tallest living hemlock in a few more decades with proper management. To me, it was the ultimate fruition of F.L. Olmsteds vision for a forest cathedral. Now it is an insult to his foresighted legacy.

Here is a shot from a few years ago.
Removing all of the large tuliptrees in front of the house is also an insult to Olmsted's legacy. The reasoning was that it was Olmsted's vision to have small, similarly sized trees. Yeah, I generally choose tuliptrees when I want small, uniform treescapes!? For all the wonderful trees they have and all the treatments they have done, they've also committed their share of blunders. I noticed one dead hemlock out of hundreds standing. They have put in the work but I agree that they have made some shortsighted moves as well. —

Brian Beduhn

Re: Biltmore Estate Trees

by bbduhn » Thu Sep 20, 2012 8:47 am

The trees in question are definitely black walnuts. They are quite tall as well. NLT 123' and NLT 129' The dawn redwoods are growing into their crowns. It was difficult to differentiate so these figures could be off by a few feet. When the leaves come down it should be easier to measure...and I'll get those spectacular black walnuts as well.

Metasequoia Glyptostroboides

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Tsuga Caroliniana

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<tr>
<td>91.5'</td>
<td>298</td>
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Tsuga canadiensis | 141.6' | I didn't get a #.

Will Blozan

Re: Biltmore Estate Trees

by bbduhn » Tue Sep 18, 2012 11:58 am

It truly is a shame that those hemlocks were removed. That looks like a thriving forest! Some do remain but they're either along the roadside or up on drier land. Healthy hemlocks abound on the estate but I've only seen one high quality grove similar to the one in the photo. The current grove doesn't hold any 140's though.

I'll check the nuts to make sure of walnut or butternut. I've confused them before.
I drove right by a portion of this grove. It has a 143.6', a 141.6' and a 139'. Possibly more 140's to be found.

Brian Beduhn

Late Summer Soundscapes

by michael gatonska × Thu Sep 20, 2012 10:59 am

I wanted to share two recent soundscapes that I have captured:

New England Cornfield

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

This is a 7'00'' soundscape made during the afternoon alongside the edge of a cornfield in South Windsor, CT. Taken from the info found below.

Location: South Windsor
Date: September 17, 2012
Time: 3:30 p.m.
State: CT
Description: late afternoon soundscape recording at edge of cornfield
Habitat: agricultural/along Connecticut River/
deciduous along river
VoxType: afternoon
Category: soundscape
Sample rate: 48k 24 bit
Microphone pattern: Double MS stereo-2 channel;

150°
Take# 2
Anthropony: airplane/automobile
Geophony: the rustling sounds of drying cornstalk leaves in moderate wind conditions
Biophony: field crickets (Gryllus pennsylvaniaicus)
Weather: sunny
Temp: 76 fahrenheit
Humidity: 84%
Wind: 7-14 mph
GPS: Lat/Lon: 41.75°N 72.67°W Elevation: 62 ft
Recordist: Michael Gatonska
Notes: homemade Mic suspension with windjammer and Canon tripod/monitored without headphones

Blue Moon Soundscape

http://www.youtube.com/watch?v=WntnCx6w2gE

This is an 2'30'' soundscape made during the evening of a blue moon. Taken from the info found below.

Location: South China
Date: August 30, 2012
Time: 10:45 p.m.
State: ME
Description: night soundscape recording along lakefront
Habitat: lakes/coniferous/some deciduous
VoxType: night
Category: soundscape
Sample rate: 48k 24 bit
Microphone pattern: Double MS stereo-2 channel;
Take# 1
Anthrophony: motorcycle/automobile traffic
Geophony:
Biophony: field crickets (Gryllus pennsylvanicus)
Weather: clear
Temp: 66 fahrenheit
Humidity: 70%
Wind: zero to light
GPS: Lat/Lon: 44.48°N 69.5°W Elevation: 207 ft
Recordist: Michael Gatonska
Notes: homemade Mic suspension with windjammer and Canon tripod/monitored with headphones

Position of recording at cornfield
Michael Gatonska
http://www.youtube.com/user/EcoEarSoundscapes?ob=0&feature=results_main

Recording under blue moon
**Metasequoia Glyptostroboides**  
(Dawn Redwood)

□ by bbeduhn » Tue Sep 18, 2012 4:09 pm

I've been searching out Dawn redwoods this summer and have a surprising list of those in Buncombe County. There are doubtless more but a fair number is represented here. I’ve added a couple of bonus trees as well.

Montreat

Kanawha 68.6'

Black Mountain

Blue Ridge Assembly 86.0'

Weaverville

Bochi. Chiropractic Merrimon/Reems Ck. 70.9' 80.4'

Woodland Hills/I-26/ New Stock ~108.4' ~114.8

Asheville

Red Cross Merrimon Ave. 68.8' 69.4'

Asheville Transit Authority 65.7' 70.1' 73.9'

Skate Park 73.1' 74.1'

YMCA Downtown 60.8' 62.8' 65.7'

Asheville Savings Bank Merrimon Ave. 73.5' 80.2'

Merrimon Beaver Lake ~74.5'

sadly, is coming down soon

Town Mtn. Rd. 82.4'

Edgewood, N. Avl 71.0' 72.3' 77.1'

77.3' 78.2' 80.4' 81.0'

Veterans Rehab Ctr, Oteen 89.0' 91.4'

Church St. @ Aston 85.1' 86.9' 90.8'

Aston @ Church St. 92.3' 99.1' 101.0'

Lakeshore near Beaver Lake 102.7'

Springside, Arden 112.2'

Sunset Drive, Town Mtn. 112.6' 115.3'

May be a little taller, poor vantage

TGIF, Biltmore Village 127.3' 126.7' single tree, double top

Evelyn, North Asheville 104.3'

Biltmore Forest

East Forest 76.5'

Forest, cul de sac 108.8' 110.1'

Forest 103.6' 115.2' 120.5'

Biltmore Estate

Biltmore Grove #1 95.5' 111.1' 112.5'

113.3' 115.6' 117.6' 126.4'

Gardens 83.0' 93.3' 130.1'

Biltmore Grove #2 85.4' 86.3' 87.5'

95.1' 112.5' an absolute beanpole

The crowns intermingle with those of two very tall black walnuts

Buchanan-Asheville 86.5’ cbh 14’1”

UNCA Botanical Gardens 96.0’ 103.3’ 107.1’

Biltmore Estate 100.4’ 101.5’ 105.3’

116.7’ 126.7’

Cryptomeria Japonica Japanese Cedar

Black Mountain Lake Tomahawk 90.0’ By far, the tallest I've seen

Biltmore Estate 67.5’

Update - Metasequoia Glyptostroboides

The second Biltmore grove 85.4’ 86.3’ 87.5’

95.1’ 112.5’ an absolute beanpole

Evelyn, North Asheville 104.3’

Much gratitude to Will Blozan for pointing out several of these trees.

Brian Beduhn
New record European larch

by KoutaR » Thu Sep 20, 2012 10:53 am

NTS, I wrote about the tallest European larches (Larix decidua), I had measured until then, here:

viewtopic.php?f=198&t=1533

German tall tree hunter Karlheinz Brüne recently told me about a tall European larch in Schlitz, Germany, and invited me to measure it. According to the official information this tree, dubbed as "Grand German", is as tall as 55 meters (180 ft), but Karlheinz's preliminary measurements gave only ~45 meters.

The tree grows in a 400-hectare lowland forest outside the natural range of the species. In addition to larch, the stand contains plentiful European beech (Fagus sylvatica). First larches have been planted in 1742. Now larch appears to regenerate naturally in the patches where beeches have been removed. Media articles speak about "195-years old trees" but it is unclear to me if it is the Grand German's age, too.

My measurement was very close to that of Karlheinz: 45.5 m (149 ft). CBH is 354 cm. According to the official information its volume is 20 cubic meters.

After measuring the Grand German, we concentrated on other larches and soon noticed the stand has lots of taller trees than the Grand German. And how tall! I had not known European larch can attain such heights at all. The first over 50 m tall larch was the 51.6-meter (169 ft) tree pictured below. Its CBH is only 263 cm.

Kouta, Grand German and Karlheinz
Karlheinz at 51.6-meter European larch
We found two still taller trees growing side by side. The tallest is the very thin leaning tree below, with a CBH of 195 cm. Its height **52.6 m (173 ft)** makes it **the tallest reliable measured European larch** we are aware of. The second tallest tree, height **51.8 m (170 ft)**, is on the right.

It is possible that somebody has confused the tree identities. The Grand German is undoubtedly the largest tree of the stand but it is far from being the tallest although the official information states so. Its top is also intact. Perhaps the 55-meter tree still exists, we had possibility to explore only a small part of the forest, though it should be a prime stand because it is marked as a seed collection site.

Thus, the name "Grand German" is quite misleading: the tree is not the tallest in Germany, nor the thickest or largest (e.g. the Brüsenwälder Lärche is 460 cm and 30 cubic meters).

Tall European larches exist as north as in southern Finland. In a research forest of Finnish Forest Research Institute in Punkaharju, there is a 47.1-meter (155 ft) larch measured with Riegl VZ-1000 laser scanner (price about $200.000!). The whole stand was laser-scanned and an animation of the scanned stand can be seen here (the tallest tree appears at 0:48):

[http://www.youtube.com/watch?v=FYGvF5n0dFA](http://www.youtube.com/watch?v=FYGvF5n0dFA)

It is the tallest tree of Finland. Forestry engineer Esko Oksa told me the wood volume of the stand is now over 800 m3/ha and was over 1000 m3/ha before thinning. The tree is pictured below.
Re: Tallest Tree South Of SF Bay Confirmed

by M.W.Taylor » Thu Sep 20, 2012 3:50 pm

Update:

Steve Sillett and Jim Spickler climbed the tall redwood in Big Basin State Park recently. Their direct tape drop measurement was 100.01 meters, or 328.12 feet. Zane and I missed the very "tippy" top of the highest leader, which was obscured a little from our view. Nevertheless, we got fairly close to Steve's direct tape drop measurement. His interpretation of ground level was a little lower than ours though.

This redwood is the only known 100m southern population redwood (those south of San Francisco) and the only known 100m+ tree south of 38 degrees latitude. Centurion, a eucalyptus regnans in Tasmania was last measured at 327.6 feet in 2006. This tree may, or may not be over 100 meters now.

Hyperion and Hekios Climbs, CA

by edfrank » Thu Sep 20, 2012 11:39 pm

For those of you on Facebook, On September 19, 2012, Richard Preston posted two photos, one of Hyperion taken in 2006 and one of Helios also taken in 2006, along with individual notes that read in part:

Top of Hyperion, world's tallest tree (coast redwood in N. Calif.) Height (unofficial) as measured recently by Steve Sillett et. al.: 379.65 ft (115.72m). It grew 2.4 inches this year, fast for a redwood this tall. Helios was recently measured at 376.54 ft (114.77m). It grew about 1.5 inches this year.

The assumption here being that the measurements are from this year even if the photos are from a several years ago. Does anyone know anything about this?

Edward Frank
Say Good Bye to the White Ash Tree (WV)

by russ richardson » Thu Sep 20, 2012 10:06 pm

Say Goodbye to the White Ash Tree - Death Knell By Ash Borer
(09/21/2012)
Russ Richardson

http://www.hurherald.com/cgi-bin/db_scripts/articles?Action=user_view&db=articles_hurherald&id=49623

Vandalism of Sycamore on Crulls Island, ARIW, PA

by edfrank » Thu Sep 20, 2012 11:47 pm

Friends of Allegheny Wilderness posted on Facebook

One of the ugliest things encountered during the annual Allegheny River Cleanup on Tuesday was something that is not easily cleaned up, picked up or carried away. Some misguided soul desecrated a federal wilderness area by thoroughly spray painting the trunk of an ancient sycamore tree (Platanus occidentalis) on the northwest side of Crull’s Island in the National Wild & Scenic Allegheny River.

Part of the spray painted message appears to read "RIP GRAMPA" (sic). If so, it’s certain that "Grampa," whoever that is, is looking down from heaven in shame on his grandchild who desecrated a federal wilderness area in his name!

The names "Betty" and "Joe" also appear to have been written. If you think you may know who these people are, please contact Friends of Allegheny Wilderness at info@pawild.org

http://www.youtube.com/watch?v=Zp1y4O6bsM0
**Beech blight aphids dance, Ohio**

by edfrank » Fri Sep 21, 2012 12:03 am

Duane Hook came across these Beech blight aphids while hiking in Zaleski State Forest in Ohio. He encountered this bizarre group of insects engulfing a few branches of American Beech Trees.

http://www.youtube.com/watch?v=ZSS4shS5kfo&sns=fb

Here is another video of them on Youtube:

http://www.youtube.com/watch?v=iX-UXLviqsI

"Tiny hairy white bugs dancing on a tree branch near a trail in Brandywine Creek State Park. These are beech blight aphids, grylloprociphilus imbricaptor, also known as Boogie-Woogie Aphids for obvious reasons."

Edward Frank
Re: New record European larch

Will Blozan wrote: Kouta, WOW!!! I am truly impressed with those heights and I do hope a 55m tree will be found. Did you measure any associated species? Great job and great post!

Will, the stand where we measured contains only larches and beeches. We didn't measure beeches; they were lower and very difficult to measure with leaves. Karlheinz tries to contact forestry officials if they know where the 55-meter tree is located. At the best the stand should be re-measured when beeches are without leaves.

if you meant the both forests, yes Esko Oksa and I measured other species in Punkaharju, Finland. Esko has Nikon Forestry Pro. Many tall trees, native and introduced, exist in the research forest which is located in the most favorable climate for tree growth in Finland. Below some tall trees from Punkaharju.

35.4-meter (116 ft) silver birch (*Betula pendula*). It is surrounded by taller European larches. This tree may have been taller than the tallest silver birch in Białowieża (36.4 m, 119 ft) before its top dried and broke off a few years ago.

There are taller Siberian larches in Roshchino, Russia, also outside the native range. Tangent measurements have given heights up to 53 m (174 ft). Tremendous 2000 m3/ha have been measured in the >250 years old Roshchino stand by Finnish researchers.

Kouta Rasanen
39.9-meter (131 ft) Scots pine (*Pinus sylvestris*). This tree is located in a nature reserve where no logging occurred after ~1930.

40.5-meter (133 ft) Siberian fir (*Abies sibirica*). The species is not native in Finland.
43.6-meter (143 ft) Siberian larch (*Larix sibirica*). Also this species is not native in Finland.

**Re: Asheville Trees**

by **bbeduhn** » Fri Sep 21, 2012 10:15 am

Update

Metasequoia glyptostroboides  Dawn redwood

Country Club & Griffing, N. Asheville 65.0’

Cunninghamia lanceolata  China-fir
Country Club & Griffing 89.2”

Pinus palustris  longleaf pine
Country Club by golf course 81.6’

Pseudotsuga menziesii var. glauca
Rocky Mountain Douglas-fir
Evelyn & Charlotte, N. Asheville 76.0’ 79.2’

Abies alba  silver fir
Albemarle Park, Charlotte, N. Asheville 113.8’ tough shot at the crown, the tree is almost entirely surrounded by a building.

May be a few feet taller.

Calocedrus decurrens  incense cedar
Weaverville Hwy/ New Stock 69.7’

**Reconstruction of Soundscape of 1940's Wisconsin**

by **edfrank** » Fri Sep 21, 2012 1:26 pm

Ecologists convert wildlife professor's notes into soundscape of 1940s Wisconsin
By Liat Clark, 19 September 12

* Aldo Leopold Foundation Senior Fellow Dr. Stan Temple has been working with folks at Purdue University to simulate the dawn chorus at the Shack based on Leopold's field journals. There has been a
flurry of media interest in the project this week--check it out and listen also for a story coming soon on NPR's All Things Considered!
http://www.wired.co.uk/news/archive/2012-09/19/aldo-leopold-birdsong

Re: Reconstruction of Soundscape of 1940's Wisconsin

by michael gatonska » Fri Sep 21, 2012 4:03 pm

One of the ecologists (Stan Temple, a professor of wildlife ecology at the University of Wisconsin-Madison) mentions in the article, “The difference between 1940 and 2012 is overwhelmingly the anthropony -- human-generated noise”. “That's the big change. In Leopold's day there was much less of that.” He explained that today, in 48 US states, there are no locations more than 35km from the nearest road.

Here are some additional notes on Aldo Leopold, with a couple of links worth checking out:

Aldo Leopold (1887-1948) is considered the father of wildlife ecology. He was a renowned scientist and scholar, exceptional teacher, philosopher, and gifted writer. It is for his book, A Sand County Almanac (http://en.wikipedia.org/wiki/A_Sand_County_Almanac), that Leopold is best known by millions of people around the globe. The Almanac, often acclaimed as the century's literary landmark in conservation, melds exceptional poetic prose with keen observations of the natural world. The Almanac reflects an evolution of a lifetime of love, observation, and thought. It led to a philosophy that has guided many to discovering what it means to live in harmony with the land and with one another. It is perhaps best known for the following quote, which defines his land ethic: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

Leopold is credited as the founding father of wildlife ecology, Leopold's cornerstone book Game Management (1933) defined the fundamental skills and techniques for managing and restoring wildlife populations. This landmark work created a new science that intertwined forestry, agriculture, biology, zoology, ecology, education and communication.

Here is a link to the Aldo Leopold Foundation: http://www.aldoleopold.org/, and finally, here is a link to some excerpts of his writings http://gargravarr.cc.utexas.edu/chrisj/leopold-quotes.html

Michael Gatonska

Howland Cemetary, MA

by dbhguru » Fri Sep 21, 2012 5:04 pm

NTS, I'm working to update various lists that I keep. One is list of white pines in massachusetts measured by Ents that reach 290 points or more on the champion tree formula. One tree that I keep close tabs on is a huge pine in Conway's Howland Cemetary. I haven't always appreciated this pine. But it has acquired newfound respect. First some images.
The updated dimensions are: Height = 142.0 feet, Girth = 14.75 feet, Avg Crown spread = 69.0 feet. The total big tree points come out to 337. That is not slouchy. Growth is very slow, but the tree is in good health. The 69-foot average crown spread surprised me. I'm accustomed to thinking of crown spreads for forest grown pines. Numbers between 35 and 50 feet are the norm, but these more open grown pines have much more to offer, crown-wise. What is especially satisfying is that the tree has a single trunk.

You can see in the attachment with the list of 290+ pointers that I'm up to 44 in Massachusetts. A trip to Ice Glen will give another. I couldn't find my numbers for a beast of a tree on the edge of the property. It will certainly make the list. All in good fun.

Tomorrow, Bart Bouricius and I participate in a bioblitz for a city park in Pittsfield, MA. Report pending.

![Image](290PointPinesonMassProperties.xlsx)

Robert T. Leverett
Co-founder and Executive Director
Eastern Native Tree Society
Co-founder and President
Friends of Mohawk Trail State Forest
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<td>48</td>
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</table>
NTS, Today Bart Bouricius and I participated in a bioblitz in Burbank Park, Pittsfiled on Onota Lake. I had no idea of what to expect. I'll first let some images do the talking. We found a beautiful grove of white pines. I got them to 134.5 feet. I couldn't see the crowns very well because of the hardwood canopy. They may be taller.

Grove of white pines to 134.5 feet tall, possibly taller
Black cherry anyone? This one is 106 feet tall, and is one of several in that height range.

This is a mystery tree. We couldn't positively identify it. Some kind of cherry, I think.

How about some really good-sized oaks? First a 12.2-foot girth oak.

A 16-foot girth NRO. Yeeehaaa. All are between 100 and 105 feet as best as I can determine at this point.

More oak beauties.
More white pines.

Some shots of the lake.
And one surprise.

We have lots of work to do in this park when the leaves fall. I'll be returning tomorrow to finish up. Another report to follow. I'm pooped. Going to hit the hay.

Robert T. Leverett
Re: Burbank Park, Pittsfield, MA

by dbhguru » Sun Sep 23, 2012 4:06 pm

Will, Joe, The leaves appear too fat to be black birch. I couldn't retrieve any good leaves, but as they drop, I will get some. I see hundreds of old black birch and am very familiar with the bark patterns of the oldest trees. The trunk looks a little different, but not much. Looking into the canopy, the leaves are fatter than what are clearly recognizable as black birch in the area. There are non-native species in the area, e.g. white poplar.

Here are some more images of the park.

Robert T. Leverett
**Re: New record European larch**

by KoutaR » Sun Sep 23, 2012 3:01 pm

Chris Morris wrote: Very nice! Do you know the history (or current status) of the Grand Germans stand. If outside native range, I assume originally planted as a plantation, but later not logged? Could there be future logging or is it all "preserved" now?

I discussed this with Karlheinz before replying. Yes, the larch forest was originally a plantation. Difference should be made between the whole 400 ha larch forest and the stand where we measured (probably less than 10 ha). The latter includes the Grand German stand and the neighboring seed collection site where the tallest trees are located. The local forestry officials know they may have the tallest European larches in the world and they are very proud of them. Thus, they won't certainly cut the tallest stand, although it is not legally protected. We don't know if larches have been felled in the past in this stand. Beeches have certainly been felled, you can see beech stumps in my photos, too. However, this all is not the case for the whole 400 ha forest. There is logging in other parts of the forest. We don't know if there are other super tall stands. We don't even know if the "55-meter" tree is located in the stand where we measured. Karlheinz will try to contact forestry authorities. He is also planning to go to measure there again.

KoutaRasanen

**Re: New record European larch**

by Karlheinz » Thu Sep 27, 2012 10:04 am

Hello, greetings to the forum!

After contacting the forest office I can tell you now some more details: This one respectable tree, shown by the Photo with Kouta and me, is the most formidable larch in the area of Schlitz and in Hessen (federal state in Germany). The age is defined to 190 years. Local press in former years covered this tall tree and made overdrawn statements and created the name “Grand German”. Perhaps, when forest officer during a guided tour said: This is the “General Sherman” of Schlitzerland, local press coined the similar sounding phrase “Grand German”. Across the years other papers and also the regional government press office reprinted and grow up the dimensions. Forestry Commission never corrected, but they did not spread or use this name and they will not name the tree. Confusion with other trees are excluded.

Aside from this overstatement it is undoubted that about 120 m behind this described big one there is the stand with the highest yet known larches of Germany. But they are not so eye-catching and do not stand so close to the way as this big one, its trunks are less thick and its crowns look less extended. The extremely height of this trees (by European standards) I only realized by measuring. The age is well-defined to 180 years by increment boring method. Growth in girth is 1,5 mm per annum on average of last years, that is remarkable. Growth in heights is expected not much more.

The conditions for growth at this stand are estimated by Forestry Commission to be particularly favorable. The natural ground is loess soil with optimal water saturation, situated on slightly hillside to the north. Also the beeches here are remarkable tall-growing (>40 m) with regard to this region. You will not find any other similar stand in the region.

In the near future it is planned to take out some beeches that are thronging and deforming the larches too much.

This commercial forest here was under the ownership of the “Count of Schlitz” until 1977. Assumedly the larches were not logged because Professor Dr. Reinhard Schober, a former German forestry scientist, made scientific observations here. He published a monograph about larches. Since 1978 the federate state of Hessen is the owner and the stand is left to its own resources. No commercial interests are tracked. The state of Hessen has assumed a self-commitment not to log off this larches.

Karlheinz
Re: Marsh-billings-Rockefeller National Historic Park Project

by dbhguru » Wed Sep 26, 2012 8:45 pm

Today, Monica and I spent the day in Marsh-Billings-Rockefeller National Historic Park with the ranger staff. Last night we stayed at a nearby B&B so we would be positioned to get right to work. Here are some images from the front of the B&B. Gorgeous place.

And now to the catch of the day.

<table>
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<td>150.5</td>
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I measured about twice as many trees as shown above. Most were Norway spruces between 110 and 120 feet. Folks, I haven't even begun to exhaust the resource. Here are some images.
This is the behemoth, the 13 x 150.5 footer

To say that the trip was a success would be something of an understatement. NTS now holds the records for the tallest European Larch, Norway Spruce, and White Pine in Vermont. We also know when these trees were planted. The huge white pines is 138 years old. It has a big crown. Lots of growing left to do. It's a honker.

We are laying the groundwork for a long term partnership between the NHP and NTS. The huge pine will be modeled and tracked. All the legacy trees will be measured and mapped.

Folks, this is one class-act Park. It has been a long time since I've gotten so excited about a New England property.

Robert T. Leverett
I saw some horse logging going on while there yesterday. It fit in well. Monica got an fine tour of the mansion and a real education on the history of the property and the role of the Billings women.

Interestingly, the huge 13 x 150.5 x 55-foot white pine is almost dead center on a study plot maintained by researchers to monitor what is going on with the forest. What do you want to bet that they don't have a clue as to what kind of growth that white pine is enjoying? Well, we're going to change that. The behemoth is packing on the wood and has a big broad crown with lots of growth candles. I've approached them about a possible climb and trunk modeling project. Some of them are definitely interested. Iy will all work out in time. But in the interim I have a veritable playpen filled with gorgeous Norway spruces and great whites. I'm happy as a pig wallowing in mud.

Joe, ya gotta see this place.

Robert T. Leverett

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Re: Marsh-billings-Rockefeller National Historic Park Project

Re: Marsh-billings-Rockefeller National Historic Park Project

□ by Larry Tucei » Thu Sep 27, 2012 10:16 am

Bob, I went to the Marsh-Billings-Rockefeller NHPP website to read about this fantastic place. The images you posted are very beautiful and after learning more about MBRNHP it is on my places to visit in the future. The Forests are awesome and what really talked to me was the size a White Pine can become in just 138 years. Huuuuge!!

http://www.nps.gov/mabi/index.htm  Larry

Re: Marsh-billings-Rockefeller National Historic Park Project

□ by dbhguru » Thu Sep 27, 2012 12:40 pm

Larry, MBRNHP is pure class - vintage New England. And the Norway spruce there are off the charts. Two at 140 feet! The big pine falls into a very, very exclusive club, pines in the 13 x 150 club. Here is another image from MBRNHP. More gorgeous Norways.

Robert T. Leverett

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Graphic Leaf Music Scores

by michael gatonska » Mon Sep 24, 2012 6:36 pm

Norway Maple Leaf Music

Overcup Oak Leaf Music

Yellow Birch Leaf Music
English Oak Leaf Music

Bigtooth Aspen Leaf Music

Sassafras Leaf Music

Camperdown Elm Leaf Music
Re: Graphic Leaf Music Scores

by michael gatonska » Thu Sep 27, 2012 4:32 pm

Andrew Joslin wrote: Great work Michael. Is any of the notation related to the sound the leaf makes in the wind? Sassafras is my favorite.

Thank you Andrew!
Actually, I started this project to create graphic music scores of all the leaf types that are growing in Connecticut, including some other places I have traveled to, or that I will may visit in the future. They are not related to the sound they make in the wind, but you gave me great idea in regards to that...
In meantime, I suppose I am just trying to warp the familiar -creating small scores that go 'outside the standard musical lines'.

Michael Gatonska

NTS Partnerships

by dbhguru » Tue Sep 25, 2012 9:10 pm

NTS, Marsh-Billings National Historic Park is the second National Historic Park that NTS has supported. The list of partnerships for us has grown impressively. Here are the ones that come to mind.

Great Smoky Mountains NP
Blue Ridge Parkway
Congaree National Park
Morristown National Historic Park
Marsh-Billings National Historic Park
Nantahala National Forest
San Juan National Forest
Mass Department of Conservation and Recreation
Cook Forest State Park, PA
Mass Audubon
Trustees of Reservation
Laurel Hill Association
Biltmore Estate
Holyoke Community College
City of Northampton, Look Park
Harvard Forest
Great Old Broads for Wilderness
American Forests

There are other organizations that Will Blozan could add and Michael Taylor no doubt has some groups as well. But the role that NTS is playing in support of other organizations is growing. Not a bad record.

Hopefully, others have done programs or collected data for an organization under at least an informal agreement. If so, we would like to know the names of the organizations. By the first post, I was hoping to get the ball rolling. It is through recognition by others who represent important organizations that our story is best told.

Robert T. Leverett
Re: NTS Partnerships

» Thu Sep 27, 2012 2:09 pm

Bob, Here are some other places to be added or considered for a listing:

Middleton Place, SC

You should specifically list the William Cullen Bryant Estate in addition to the Trustees of the Reservation (which doesn't mean anything to the average reader)

Jefferson's Poplar Forest (The Corporation for Jefferson's Poplar Forest)

James Madison's Montpelier Estate (Montpelier Foundation and the National Trust for Historic Preservation)

McConnells Mill State Park, PA (not just mapping, Anthony Kelly and I had a research permit to collect a basswood cross-section)

Winterthur Museum, Garden and Library, Wilmington, Delaware (I am not sure we had any kind of a formal arrangement).

I would encourage Larry to add any sites where he presented himself as a representative of the Native Tree Society as part of his Live Oak Project.

Edward Frank

Re: NTS Partnerships

» Thu Sep 27, 2012 4:08 pm

You could add the following from the Atlanta area (plus one in NC):

Highlands-Cashiers Land Trust
Fernbank Museum
Trees Atlanta
The Frazer Center and Frazer Forest

South Fork Conservancy
Piedmont Park Conservancy
Atlanta Botanical Gardens
Woodland Gardens
Brookwood Hills Community Club
Chastain Park Conservancy
Chattahoochee National Forest
Chattahoochee River National Recreation Area

.... mostly informal agreements or organizations we've shared data with (trees on their property)

Eli Dickerson

Black Walnut Soundscape, Part I

» Thu Sep 27, 2012 6:26 pm

This is a 2'35" soundscape made in the morning underneath a black walnut tree in South Windsor, CT. Taken from the info found below.

Location: South Windsor
Date: September 22, 2012
Time: 8:30 a.m.
State: CT
Description: morning soundscape recording underneath black walnut tree
Habitat: agricultural/along Connecticut River/deciduous along river
VoxType: morning
Category: soundscape
Sample rate: 48k 24 bit
Microphone pattern: Double MS stereo-2 channel; 150 °
Take# 2
Anthrophony: automobile (1:20), airplane (1:45), gunshots (1:50)
Geophony: the sound of tree leaves in moderate wind conditions
Biophony: Eastern Phoebe (Sayoris phoebe), American Crow (Corvus brachyrhynchos), Ring-billed gull, Larcus delewarensis), field crickets (Gryllus pennsylvancicus)
Weather: sunny
Temp: 68 fahrenheit
Humidity: 70%
Wind: 8-12 mph
GPS: Lat/Lon: Lat/Lon: 41.79°N 72.63°W
Elevation: 59 ft
Recordist: Michael Gatonska
Notes: homemade Mic suspension with windjammer and Canon tripod/monitored with headphones

http://www.youtube.com/watch?v=QWF5Y3GN0T8

Michael Gatonska

Re: 'Big Bob' - a giant eucalypt - Queensland's tallest tree

☐ by edfrank » Sun Sep 16, 2012 7:31 pm

NTS, David Pennisi reported today that they had measured it on September 17, 2012 at 72.84m tall and 1.44 DBH. It is Eucalyptus grandis http://en.wikipedia.org/wiki/Eucalyptus_grandis and was measured via climb/tape drop.

http://www.facebook.com/photo.php?fbid=486621121355586&set=a.415513815132984.100898.183153528369015&type=1&theater The post is by Tree Tech (David and Julia Pennisi) who were amongst the party of tree climbers who did the measurement.

The team:

Ponderosa Pines (Highway 50 Sierra Nevada)

☐ by Mark Collins » Sun Sep 23, 2012 10:37 pm

I spent Saturday in South Lake Tahoe and part of Sunday exploring a small patch of forest along highway 50 in the Sierra Nevada.
Traffic was very heavy along the 50 again this weekend, which made it difficult to stop the car and turn around after seeing large trees growing in the forest. These two Pondy's were the highlights.

Re: Ponderosa Pines (Highway 50 Sierra Nevada)

by M.W.Taylor » Fri Sep 28, 2012 1:36 pm

Wow Mark!

Those are beastly huge pondys. Were you able to get a dbh on them? If you give me a location I'll measure the volumes soon. How tall are you (or the person in the picture)? That one in pic#3 looks 8dbh +

In return for directions to find, I'll give you a complete volume report of the trunk diamters at height intervals, all the way to the top, for the 2 big pondys you found and also the GPS of the world's tallest sugar pine, which I found yesterday. Thanks for the report. Those are super impressive trees. The 1st picture looks more jeffrey to me in color. Did you give it the smell test or find a cone for verification? Sometimes big pondys look jeffreys like when they grow in serpentine soils. So maybe that is what makes tree#1 look a little different in color.

Michael Taylor

WNTS VP
http://www.landmarktrees.net
Cal Big Trees Coordinator
**Big Pines Along Highway 4 Sierra Nevada**

by M.W.Taylor » Fri Sep 28, 2012 1:52 pm

I did some exploring (with friend John) off Highway-4 a few days ago. Perhaps on the same day and time Mark Collins was exploring Highway 50? The area between Dorington and Bear Valley has some very large ponderosa pine, sugar pine, white pine and jeffrey pine near the highway. Some of these big trees are right off the road side. See attached pictures.

Michael Taylor
WNTS VP
http://www.landmarktrees.net
California Big Trees Coordinator

big sugar off Highway 4

big pondy full trunk view
big pondy further back

big pondy with slow taper right off Hwy 4

7.1’dbh Jeffrey near Bear Valley Highway 4

Michael Taylor
Tallest Known Sugar Pine Now Back In California

by M.W.Taylor  » Fri Sep 28, 2012 3:10 pm

Yesterday I did a little exploring in Yosemite National Park. About 1,200 feet from a "close road", I found a tall sugar pine. Very tall. Here are the statistics on this tall sugar pine.

Height: 261 ft (79.5m)
Dbh: about 7 ft
Location: Yosemite National Park

The tree appears young and to be growing very fast with a pointy "rocket top". It will make 80m+ soon if the tree stays healthy and undamaged.

The tallest sugar pine, Yostemite Giant, died a few years ago. The current height champion, 255 ft specimen in Umpqua National Forest - Oregon has been dethroned by a California sugar pine. I believe 270' class or maybe even 280' sugar pine are out there somewhere.

The search continues....

M. W. Taylor

New tallest known sugar pine with "Rocket Top" grows in Yosemite National Park
Re: Ponderosa Pines (Highway 50 Sierra Nevada)

by Mark Collins » Fri Sep 28, 2012 6:36 pm

Michael, I did not do the smell test or pick up a cone for the tree in the first and second picture. It could be a Jeffrey Pine, I'm not really sure though. Usually I just do a quick cbh, grab a photo, and continue looking. It's cbh was approximately 22 feet, 8 in.

The third tree had a cbh of approximately 20 feet, 2 in. I'm about 5' 8.” Here's another photo of the third tree from a distance, it's a real beauty...

Valley Oak, Covelo, CA

by Mark Collins » Sun Sep 30, 2012 11:09 pm

A friend of mine invited me to go on a hike just outside of the town of Covelo yesterday. Just before we entered Round Valley, she mentioned that the country's tallest Valley Oak was located in the valley. It was then (having never been to Covelo before), that I remembered seeing the pictures of the tree in Michael Taylor's post "Taking The Survey Into The Sky" in the Measurement and Dendromorphometry section back in June. Just when I thought I was going to go on an ordinary hike, all of a sudden, the day took on greater significance! As soon as we entered the valley, we saw the enormous oak tree scraping the sky.

It's a beast!

Mark Collins

I send you the information after I get off from work tonight. Congrats on the California Sugar Pine find!

Mark Collins
Limber Pine, RMNP, CO

by jamesrobertsmith » Sun Sep 30, 2012 9:03 pm

An ancient Limber pine we encountered in Rocky Mountain National Park. My pal Bob Johnson posing with the old tree for reference.

I took about 4,000 photos on my trip into the Park and to the Weminuche Wilderness Area. I'll post them as I can find the time to sort through them. I was there for two weeks, including eight days in the very deep back country of the Weminuche.

James Robert Smith
Mount Sneffels Wilderness Aspens

by jamesrobertsmith » Sun Sep 30, 2012 9:12 pm

Some aspens I saw in the Mount Sneffels Wilderness Area in Colorado:

The color that day was prime.
Tall, old aspens.

Bark detail of old aspen.

James Robert Smith
Deer 'cool' response of trees to warming climate

by Lee Frelich » Sun Sep 30, 2012 1:20 pm

NTS members: A paper recently published in Global Change Biology (2012, doi: 10.1111/j.1365-2486.2012.02785.x, paper online now, likely to come out in print in the October or November issue) by my recently graduated PhD student Nick Fisichelli, myself and Peter Reich show that deer are likely to alter the invasion of temperate tree species like sugar maple and red oak into boreal forests of spruce and fir. The study was done in northern Minnesota—plots with high and low levels of browsing by deer were surveyed along a climate gradient from boreal (very northern edge of the range of temperate species) to temperate (southern edge of the range of boreal species), thus including the zone of overlap in temperate and boreal species ranges, where the two species groups grow together within one stand of trees.

Figure 1. Locations of study plots in northern Minnesota (red triangles). Black points represent location of other study plots for upcoming publications.

Hundreds of saplings were destructively sampled in the field. 'Cookies' were cut from the stems throughout their height so that age, radial increment and height growth could be reconstructed for each sapling. Summer temperature and precipitation, and a measure of deer browsing pressure were estimated for each plot. The temperature gradient was about 2.5 degrees C or 4.5 degrees F.

Figure 2, cutting a balsam fir in the field.

Figure 3. A sugar maple #818--forks in the stem indicate the sapling had been browsed by deer several times over a period of several years.
The key results are shown in Figure 6. On plots with low deer browsing pressure (upper graph), boreal spruce and fir height growth was consistently less as summer temperature increased, while temperate species sugar maple and red maple grew more with warmer summers, and red oak did not respond to temperature. Most importantly, maple and oak growth rates were higher than boreal sapling growth rates at warm temperatures. On plots with high browsing pressure, however (lower graph), spruce and fir growth rates were about the same as low deer plots (reflecting the unpalatable nature of those species), while growth rates of the three temperate species was lowered compared to low deer plots, so that they all grew less than boreal species. Moreover, the positive temperature response of the maples was flattened by the deer: in warmer areas deer simply ate more. Results for radial growth were very similar.

Figure 4. A repeatedly browsed northern red oak—clearly the favorite of deer.

Figure 5. A white spruce—notice lack of deer browsing on their least favorite species.

Figure 6. Height growth of boreal and temperate saplings across the temperature gradient with low (upper) and high (lower) deer browse pressure.

We think this phenomenon will prevent temperate tree species from increasing their growth rates as the climate warms at the northern edge of their range in areas with high deer populations. This could prevent them from responding to climate change by invading the boreal forest, since boreal saplings will likely continue to grow more than temperate saplings, even when the temperature becomes less than optimal for boreal tree growth. One possible implication would...
be that boreal species will persist until a threshold temperature is reached, and die suddenly, rather than being gradually replaced by temperate species.

Lee E. Frelich  
University of Minnesota Center for Forest Ecology


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**Re: Deer 'cool' response of trees to warming climate**

by dbhguru » Sun Sep 30, 2012 3:51 pm

Lee, Wow! Outstanding. Thanks for sharing. In terms of latitudes such as here in western Mass, I presume the maples will grow faster with the extra CO2, providing more deer food. Standoff? Any predictions? BTW, my friend Tom Tying from Berkshire Community College has been seeing more young tuliptrees in the Housatonic Valley. The climate seems to be increasingly favorable for their spread. No surprises there. I have no idea how deer see young tuliptree leaves - probably as a delicacy.

Robert T. Leverett

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**Re: Deer 'cool' response of trees to warming climate**

by Joe » Mon Oct 01, 2012 11:53 am

Lee Frelich wrote: Also, it will be the tension between maple and oak that is most important in western Mass as climate warms. In areas with lower deer populations, oaks will be able to replace maples, but perhaps not in areas with higher deer populations.

I think, in addition to deer population, and maybe more so, what distinguishes an oak site from a maple site is soil fertility and past harvesting practices. Sugar maple is more competitive than oak on rich sites.

Joe Zorzin

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**Re: Deer 'cool' response of trees to warming climate**

by Lee Frelich » Mon Oct 01, 2012 10:54 am

Bob: I think that most of the enhanced growth caused by increasing CO2 is in the past--the steepest part of the response curve for rate of photosynthesis being from 180-380 ppm CO2, which is the trajectory we have been on since 18,000 years ago. Additional CO2 beyond 380, will result in only a modest increase in growth, perhaps 10-15% as we go on to 500+ ppm CO2.

Its more likely that variations in other factors and predators that control deer populations will determine sugar maple growth rates. In western Mass, I have seen a lot of variation in levels of deer browsing--almost none in some areas, so that the plant community will be able to respond. More on this in a few weeks when my next paper on trophic interactions across the temperate-boreal ecotone from MN to New England is published in the Philosophical Transactions of the Royal Society.

Also, it will be the tension between maple and oak that is most important in western Mass as climate warms. In areas with lower deer populations, oaks will be able to replace maples, but perhaps not in areas with higher deer populations.
External Links:

Tree's leaves genetically different from its roots
Cottonwood trees show genetic differences across individuals as well as within populations.
Ed Yong, 10 August 2012
http://www.nature.com/news/tree-s-leaves-genetically-different-from-its-roots-1.11156

The world's oldest clove tree
By Simon Worrall Ternate, Indonesia
http://www.bbc.co.uk/news/magazine-18551857

They're lumberjacks and they're OK! The magical photos that show brave men who felled California redwoods by HAND
By Daily Mail Reporter PUBLISHED: 22:22 EST, 4 September 2012
http://www.dailymail.co.uk/news/article-2198481/Magical-photos-lumberjacks-California-redwoods.html

Owners of landmark tree face fines if it is not cut down
By Claudine Zap | The Lookout

The Poetry in Tree Care September 7th, 2012 by Michelle Werts
http://www.americanforests.org/blog/the-poetry-in-tree-care/

Treatment With Fungi Makes a Modern Violin Sound Like a Stradivarius
http://www.sciencedaily.com/releases/2012/09/120908081611.htm

Bark Canoe Construction: In this Spanish language video there is a nice section from 12:40 to 19:14 showing natives along the Orinoco River in Venezuela cutting the bark from a tree and sewing a bark canoe.
http://www.youtube.com/watch?v=0Fjl5xU8nds

Newman puts flying fox cull back in farmers' hands, The World Today, By Caitlyn Gribbin
Posted Wed Apr 4, 2012 6:06pm AEST

NTS discussion:

Flying foxes under threat in QLD
Petitioning Queensland Premier
This petition will be delivered to: Campbell Newman and the LNP QLD Queensland Premier
http://www.change.org/petitions/flying-foxes-under-threat-in-qld

'Alien mammal' invasion of Europe by Matt Walker By Matt Walker Editor, BBC Nature
http://www.bbc.co.uk/nature/19474287

Leave Nature Alone?
Posted by Stephen Packard at 6:04 PM

Big Bob' - a giant eucalypt that stretches up more than 70 meters (229 feet) or about 21 storeys high is believed to be Queensland's tallest tree. Grow Big Bob!

Saving the rainforest: Why human rights is the key
Rainforest Foundation Norway: “Why securing the rights of forest peoples is the right way to save the forest” By Chris Lang, 6th September 2012
Download here: Rights-based rainforest protection (2.2 MB).
http://www.regnskog.no/languages/english/attachme nt/35434?_ts=13996420cd0

Leveling Appalachia: The Legacy of Mountaintop Removal Mining
http://e360.yale.edu/content/feature.ms p?id=2198

World Heat Record Overturned--A Personal Account
http://www.wunderground.com/blog/weatherhistoria n/comment.html?entrynum=89

'A great silence is spreading over the natural world'
http://www.guardian.co.uk/environment/2012/sep/03/ bernie-krause-natural-world-recordings
The Internet Pulses With the Rhythms of Human Life

At Edge of Peruvian Andes, Tracking Impacts of Warming by Elizabeth Kolbert

HIGH ART | How climbing photographers get the shots that make us gasp by Jonathan Thesenga

A Thousand Invisible Cords...Connecting Genes to Ecosystems http://athomans invisiblecords.org/

Century-old trees near Yellowstone yield clues about human, forest histories

Shropshire Apple Trust
http://www.shropshireappletrust.co.uk/orchards.php

Giant sequoia to go on display again

SAY GOOD BYE TO THE WHITE ASH TREE - Death Knell By Ash Borer (09/21/2012) by Russ Richardson
http://www.hurherald.com/cgi-bin/db_scripts/articles?Action=user_view&db=articles_hurherald&id=49623

Ecologists convert wildlife professor's notes into soundscape of 1940s Wisconsin by Liat Clark, 19 September 12
http://www.wired.co.uk/news/archive/2012-09/19/aldo-leopold-birdsong

New Cloud Variety on the Horizon? by Doyle Rice, Gannett News Service Updated: Sep 20, 2012

Ancient Forests of Nunavut May Return within a Century by: David A Gabel, ENN
Published September 21, 2012
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Automatic Building Mapping
http://www.youtube.com/watch?v=SY7rScDd5h8
Back Issues of eNTS: The Magazine of the Native Tree Society
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 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