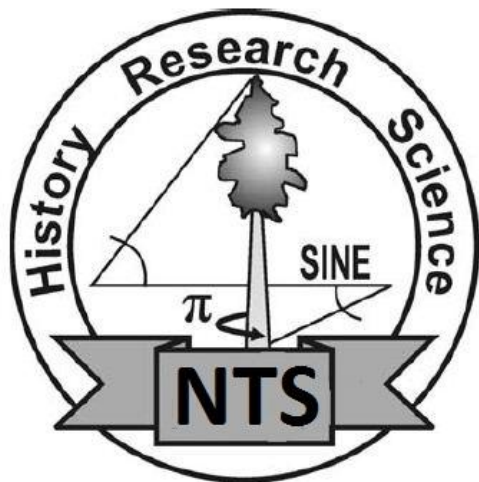


A photograph of a forest scene. A massive, ancient-looking tree trunk with deeply furrowed bark and a thick layer of green moss at its base dominates the center of the frame. Two men are standing to the right of the tree's base, providing a sense of scale. The man on the left is wearing a dark blue jacket and dark pants. The man on the right is wearing a dark blue jacket, light-colored pants, and has a yellow tag or device hanging from his belt. The forest floor is covered in green moss and fallen leaves. Other trees with bare branches are visible in the background, suggesting a late autumn or winter setting.

eNTS

The Magazine of the
Native Tree Society
Volume 1, Number 5,
May 2011



eNTS: The Magazine of the Native Tree Society

The Native Tree Society and the
Eastern Native Tree Society
<http://www.nativetreesociety.org>
<http://www.ents-bbs.org>

Volume 1, Number 5, May 2011

Mission Statement:

The Native Tree Society (NTS) and its parent organization the Eastern Native Tree Society (ENTS) are 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. ENTS is the premiere tree measuring group of the eastern forest of the United States. 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 parent organization the Eastern Native Tree Society is free and open to anyone with an interest in trees living anywhere in the world.

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COVER: Biggest oak in Bialowieza Forest, Poland, cbh 24 ft, height 134 ft, photo submitted by Jeroen Philippona

TABLE OF CONTENTS

Editor's Corner- My Home, Reynoldsville, PA <i>by Edward Frank</i>	4
Derivations <i>by Robert Leverett</i>	6
Knarly Black Birch, WV <i>by Turner Sharp</i>	6
Progress on Blue Ridge Parkway Book <i>by Robert Leverett</i>	7
Kenneth M. Dubuque State Forest, MA <i>by Robert Leverett</i>	10
Big Sycamore off of 283, Lancaster County, PA <i>by Ryan LeClair</i>	12
Burr Homestead Beech, CT <i>by Ryan LeClair</i>	13
Re-examining sources of measurement error <i>by Robert Leverett</i>	14
Strange ring/wood in scarlet oak (<i>Quercus coccinea</i>) <i>by Will Blozan</i>	14
F3 tornado damage in western Smokies <i>by Will Blozan</i>	16
Springtime Leaves <i>by Edward Frank</i>	19
Dysart Woods spring pictures <i>by Randy Brown</i>	21
The tallest tree in the east is probably in Tennessee <i>by Ian Breckheim</i>	24
Tall poplars of Mainau, Germany <i>by Kouta Räsänen</i>	25
Abrams Creek, TN- new shortleaf pine and paw-paw record <i>by Will Blozan</i>	27
Live Oak Cedar Stump <i>by Larry Tucei</i>	28
The Adirondack North Country <i>by Robert Leverett</i>	28
Big Conifers at Cheraw State Park, SC <i>by Tyler Phillips</i>	34
Big Sitka Spruce, OR <i>by Mario Vaden</i>	37
Curtis Creek Old Growth Area, NC <i>by James Robert Smith</i>	38
Wildlands Network: The Use of the Internet in TrekEast <i>by Edward Frank</i>	40
Monroe Magic, MA <i>by Robert Leverett</i>	42
Bialowieza Forest, Poland April 2011 <i>by Jeroen Philippona</i>	43
Extended Base Line Method <i>by Robert Leverett</i>	49
Cascades Recreation Area, VA <i>by James Robert Smith</i>	52
The Grandfathers, MA <i>by Robert Leverett</i>	55
Here it is - the Triangle Solver <i>by Michael Taylor</i>	56

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Editor's Corner

By Edward Frank

Webmaster - BBS Administrator
ENTS Magazine Editor-in-Chief
edfrank@nativetreesociety.org

My Home, Reynoldsville, PA

by edfrank » Sat May 07, 2011 1:55 pm

Thomas Wolfe says: "You can't go home again." In a metaphorical sense that is true. home has changed because you have changed. Your experiences have colored and shaded your perceptions. You are informed by what you have learned. Many people have lost the sense of curiosity, wonder, and discovery they had as a child. These have been replaced by the dull gray of pragmatism. Even if you have retained the sense of wonder and curiosity, the focus of those values will have changed. The people you knew as a child have changed over time, as have your relationships with them. Even the places themselves have changed as the old is lost and replaced by new. I am back at my childhood home watching over my elderly mother. I suppose in a sense I have never really left, because this has always been my and always will be my home.



I was an only child and my interest lay in the wooded landscape around me. Early on I discovered Golden Guides. I had a golden guide for trees, for insects, for butterflies and moths, flower, fungi, stars, reptiles and amphibians. When I found a new one I would beg my parents to buy it. I was interested in everything. I knew the trees of my woods pretty well. I identified them by comparing the leaves illustrated in my Golden Guide to Trees with what I found. I did pretty well in that regard. I got most of them right and could name them by sight. One small error was what I called yellow birch. In my added years of experience of walking in the woods and the added knowledge gained from better books and knowledgeable people, I have figured out what I was calling yellow birch is really sweet birch *Betula lenta*. I think I did pretty good for someone who was interested in everything as a child.

When I first purchased a laser rangefinder in the fall of 2004, I went out and did a Rucker Height Index of the trees around my home - just for practice. I wrote about this the following March

<http://www.nativetreesociety.org/fieldt...ckyard.htm>

We own about 3/4 of an acre on a generally west facing hillside in Jefferson County, Pennsylvania, near the town of Reynoldsville. The coordinates of my house are 41 06.382N by 78 54.045W, elevation 1591. All of the tree measurements are within a short distance of my house, considering the property size. My goal today was to obtain enough measurements to calculate a Rucker index for the property. The property is on the outskirts of a small town. The hill above my house is flat topped and wooded, with the forest rolling part way down each side. On the west side this forest changes to private lots with individual houses. The east side of the hill leads to abandoned fields and the local Vo-Tech school. Several of the trees on my property of reasonable size, and there is a fair amount of diversity, so I was off to measure a few trees.

The area is second growth forest that had been cut perhaps 80 years ago. The canopy lies between 80 and 100 feet in height. The most common canopy trees are red maples, with a smaller number of oaks. The shrubs in the area include dense patches of mountain laurel and a few great rhododendron,

transplanted from nearby areas. Patches of shrub sized black cherry sprout here and there. A few starts of sassafras still sprout, although it has been years since any tree sized sassafras grew in the area. In the spring the herbaceous layer includes mayapples, trillium, wintergreen, and pink lady slippers. I remember a few yellow lady slippers from my boyhood, but they are no longer present. Lady slippers are a native orchid. Ferns are plentiful and include among others: maidenhair, common bracken, etc, as well as several species of club moss.

At the time I did the measurements, the leaves were still on the trees and I know I was not hitting the tops of many species. I calculated a RI 88.81 The past couple days with the leaves still not open, I decided to redo the Rucker Index. I went a little farther afield with the measurements this time, but none used in the Rucker Index is more than 100 yards from my house. I remember as a child thinking how big many of these trees were. Now as an adult they seem smaller. I have seen bigger trees, but they are still my trees. Some of the oaks are still respectable in size, even with my broader experience. What has changed since the initial RI is that i lost a 30.5 foot tall American Chestnut. There are still sprouts, but the biggest is now gone. I also remember there once were some Flowering Dogwood present in the woods, but they too are now missing.

For most of the trees that I remeasured I found an additional eight to ten feet of height with the leaves off, and several more years of growth. I have become more proficient in finding tops as well with practice and with a better Nikon 440 rangefinder. I found taller specimens of several species than were included in the initial RI. Still I can only come up with an RI of 99.34. I am not sure where I can find the extra 6.6 feet needed to reach 100.

May 6, 2011 - Edward Frank Residence/ Indian Rocks			
Species	Height	Grith	notes
American Beech	102.6	6.54	below yard
Black Cherry	77	3.33	
Black Gum	75.4	3.75	
Black Gum	70	3.33	
Chestnut Oak	96	5.92	triple 1 of 3
Chestnut Oak	96	7.42	triple 2 of 3
Chestnut Oak	94	6.5	triple 3 of 3
Chestnut Oak	91.5	6.67	
Chestnut Oak	90	8.67	
Chestnut Oak	84	6.42	
Chestnut Oak	81	5.75	
Cucumber tree	93.5	6.38	50 yards to house
Eastern Hemlock	105.6	5.54	below yard behind rock
Eastern Hemlock	81.2	4.42	by garage
Red Maple	102	7.58	behind garage
Red Maple	97.8	5.83	
Red Oak	102	4.17	
Red Oak	96	9.5	
Tuliptree	115.6	9.1	
White Oak	112.6	6.25	below yard behind maple
White Oak	105	7.92	
White Oak	102.8	7.42	
White Pine	97.9	6.33	behind house
Sugar Maple	83.4	3.75	
Sweet birch	86.5	3.17	
Sweet birch	79.5	4.75	
Sweet birch	84	5	

Species	Height	Girth	RI 10	
Tuliptree	115.6	9.1	115.6	
White Oak	112.6	6.25	112.6	below yard behind maple
Eastern Hemlock	105.6	5.54	105.6	below yard behind rock
American Beech	102.6	6.54	102.6	below yard
Red Oak	102	4.17	102	
Red Maple	102	7.58	102	behind garage
White Pine	97.9	6.33	97.9	
Chestnut Oak	96	7.42	96	triple 2 of 3
Cucumber tree	93.5	6.38	93.5	50 yards to house
Sweet Birch	86.5	3.17	86.5	
Sugar Maple	83.4	3.75	101.43	
Black Cherry	77	3.33		
Black Gum	75.4	3.75		

For most of the species there are only limited numbers or even just a single large specimen, so I have the best height for these. The only real shot I would have is finding a red maple 109 feet tall - possible, but I have looked pretty hard over the last couple days without finding better. I guess I will just need to wait a few years for the existing trees to grow taller.

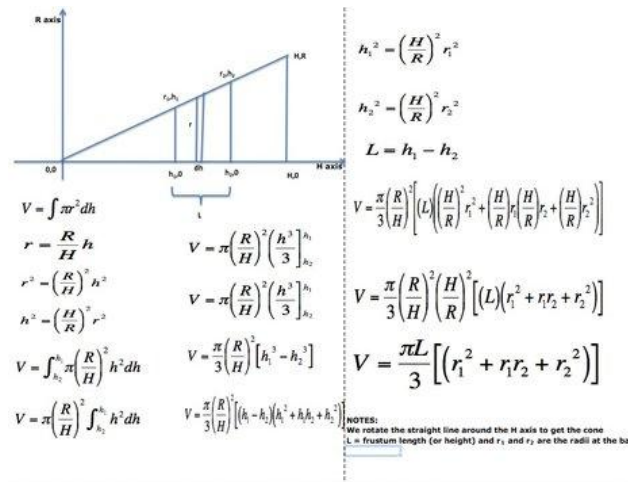
Woo Hoo!! I found that I accidentally left the white pine of the list and the Rucker Height Index is 101.43 !!! I broke the 100 foot level!!

Edward Frank

Derivations

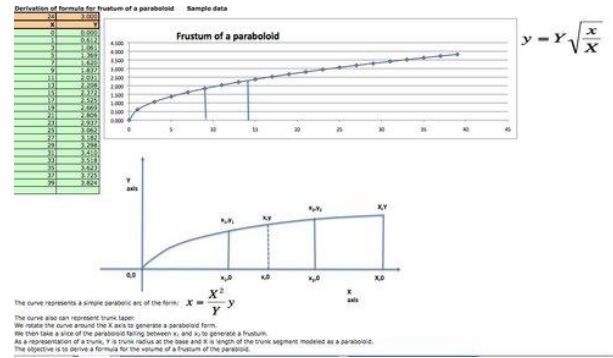
by dbhguru » Mon May 02, 2011 6:47 pm

As we go forward with the dendromorphometry book, I will be presenting topics here on the BBS that will be developed fully in the book. Most of the material will not be of general interest. However, I want to create a clear piecemeal record of the topics we will cover. Maybe someone out there will find an error in a process or formula. At the least it will document our approach to tree measuring at the high end of the measuring spectrum. The following insert shows the development of the formula for the frustum of a cone using integral calculus. The cone is laying on its side. I found it easier to derive the formula working in a typical Cartesian plane. I derived this formula several years ago while struggling with the shingles. I wanted to start with the simpler derivations and work forward to create a library of common frustum formulas.



Here is the derivation of the formula for the volume of a frustum of a paraboloid.

There is some obvious reinventing of the wheel going on here, but the objective is to derive frustum formulas for important curves, curves that we can use to model trunk taper. The first objective was to derive a base taper formula that would generate cones, neiloids, and paraboloids. A future post will present the baseline taper formula.



We first solve the basic taper equation for different values. We will make use of the different forms as we go.

$$1. Y = Y \sqrt{\frac{X}{X}} \quad 2. X = \frac{X^2}{Y^2} \quad 3. Y^2 = Y^2 \frac{X}{X} \quad 4. Y^2 = Y^2 \frac{X}{X} \quad 5. \frac{Y^2}{X} = \frac{Y^2}{X} \frac{X}{X}$$

The volume of the frustum can be expressed by the following integral:

$$6. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 7. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 8. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 9. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx$$

$$10. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 11. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 12. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 13. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx$$

$$14. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 15. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 16. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 17. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx$$

$$18. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 19. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 20. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx \quad 21. V = \int_{x_2}^{x_1} \pi Y^2 \frac{X}{X} dx$$

Robert T. Leverett

Knarly Black Birch, WV

by tsharp » Sun May 01, 2011 7:35 pm

This is a picture of a *Betula lenta* (Black or Sweet Birch) found along the Blackwater River floodplain in Tucker county, WV. The person submitting the picture is of the opinion that the growth on the right hand side of the tree is root growth and thus this tree should not be considered a fused multi-stem because of that growth. Ignoring the possibility that the other forks may make it a fused multi-stem tree. I am interested in other ENT opinions on how to classify this tree

The Girth of the tree is 14.1' and the other measurements would make it the biggest in WV. So I guess I am asking for purposes of big tree listing if it should be footnoted as Girth inflated because of fused multistem/anomalous growth reasons.



Photo by: Amy Cimarolli

Turner Sharp

[Progress on Blue Ridge Parkway Book](#)

by dbhguru » Mon May 02, 2011 8:39 am

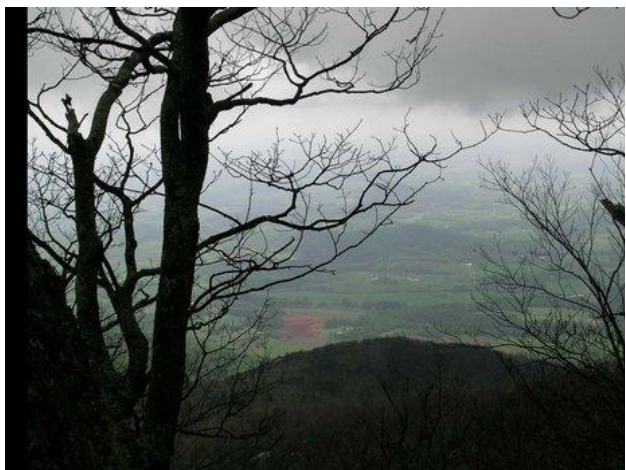
Monica and I have returned from our VA adventure where we met with friends of the Blue Ridge Parkway, all of whom were very supportive of the book concept. So, it is a go. There are many details on which to inform ENTS members and I shall not launch into them here. I'd just like to share some images with you all that speak to the Parkway, the general region, and what motivates me to return year after year. The may apples and trilliums were gorgeous. They form part of that early spring flower festival. The first image is from Apple Orchard Mountain. There is an area near the parking lot that is loaded with the vivid green of may apples and the ever beautiful trillium.



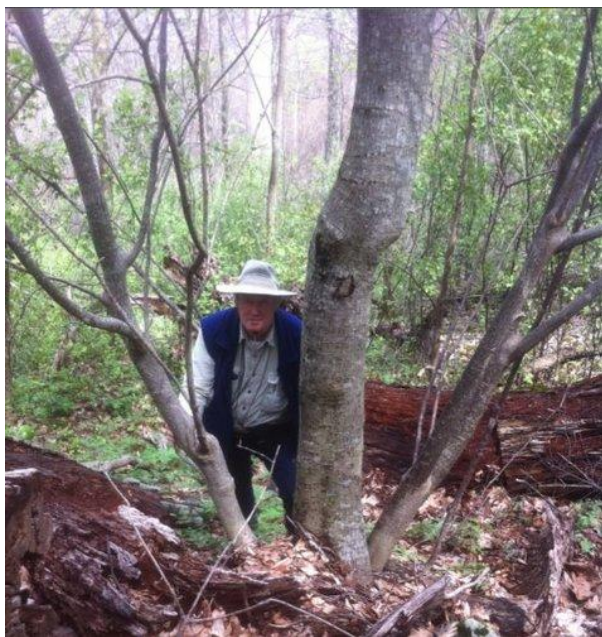
Want more, you say. Okay. Here is what we saw in only one spot.



Changing focus, the clouds rolled over Sharp top as we reached the summit. But the gods decreed that from each summit, a little window of light must appear. We were grateful.



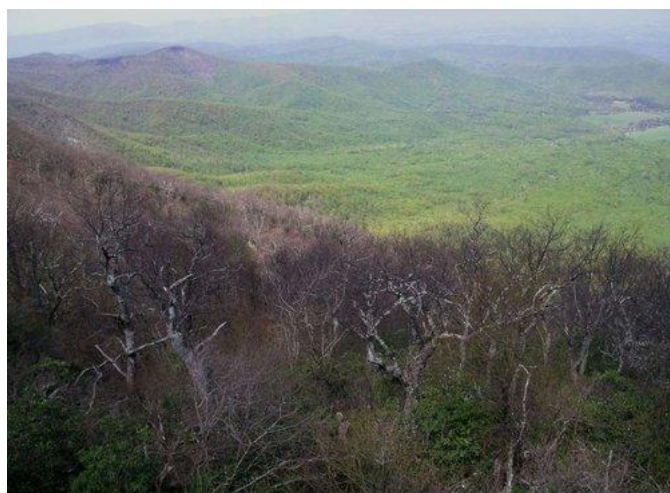
Who says that old growth must always be manifested in the tall and majestic. Let's make room for some striped maple.



Oh yes, and how about gnarly yellow birches? So much of the Parkway's old growth story will be told in these gnarly forms.



Gnarly forms in abundance often look like these venerable twisted northern red and chestnut oaks.



Did we merely drive around and snap the easy pictures? Not so.



But by day's end, we did wimp out. Here is a shot from the comfort of the Peaks of Otter Lodge.

I will be writing a lot about the Falling Waters Cascade to Flat Top Mountain trail. It is a jewel and it is loaded with ancient tree forms. Here is a section of the trail. Downed, huge chestnut oaks reminded us that the story of the old growth must be told in the downed as well as the standing, the dead as well as the living. Images of hulking forms, standing dead, are a bit sad, but these old forests have long memories.



One of the small, dainty flowers that blooms in profusion along the upper part of the trail - Dutchman's Breeches. Their blossoms are small and hard to capture, but from the trail, the scene was most compelling.



And last, but certainly not least, the trillium in all its regalia - a southern Appalachian specialty.



I didn't include my usual cumbersome quota of numerical entries in this post to prove to myself that I can converse without spewing out a stream of numbers. But Man, I'm bursting at the seams.

Robert Leverett

[Kenneth M. Dubuque State Forest, MA](#)

by dbhguru » Tue May 03, 2011 6:48 pm

Today John Eichholz and I visited a couple of sites in Kenneth M. Dubuque State Forest in the Berkshires. Dubuque is managed by Mohawk Trail State Forest and cover about 7,300 acres. It is close to MTSF, but much of it is rather high in elevation. I have never given that state forest much attention because most of it was pastured and heavily logged. However, it turns out that some of the lower elevations, the coves, have good growing conditions. A week ago, or so, John Eichholz was biking the back roads of Dubuque when he spotted some promising pines. He measured a few, sent the numbers to me, and I knew I had to see them. Here is a summary of the trees we documented today.

Girth -ft	Total Tree Height-ft
11.8	150.8
10.15	146.7
11.4	145.3
13.3	144.5
11.0	143.2
9.0	142.2
	140.7
13.4	140.3
11.9	140.1
9.9	136.8
	126.3
	122.2

The numbers speak for themselves, and they don't include two 140-footers that John measured on his first visit. The two sites have big, tall trees and they aren't that old. I estimate the larger ones are between 120 and 150 years old - at most. We measured most

of the more conspicuous pines, but there are other spots to search. I expect that before we're through with Dubuque, we'll locate a few more sites with big pines. Here is an image of the 13.3-foot girth, 144.5-foot tall pine. It is the one John discovered on his bike ride.



This shot looks into the canopy of the 150-footer. It is a great tree.



After a return from the South, it can be a little disheartening were it not for the great whites. They are the glory of New England, and the Deerfield watershed is flush with fine pines. I personally believe the area is one of the great white pine growing locations.

Robert T. Leverett

[Big Sycamore off of 283, Lancaster County, PA](#)

by rddl1990 » Thu May 05, 2011 1:17 am

To any Ents in the Lancaster County PA area, here is an impressive sycamore that is visible from I-283. It's right next to the Lancaster County Public Safety Training Center, standing in front of a condemned house. It's quite big tree -- it looks to be 85 feet tall and 6 feet thick. -- Unfortunately, I could not confirm these approximations. Didn't have measuring tools :(

Anyways, anyone in the area looking for an arboreal treat should check this one out. Mr. Scott Wade, if you're on the forums, this might make a good addition to the PA Big Trees site :)

Ryan LeClair



Is the tree wider than the car??? Eh, not quite, but close



My mom with the sycamore.



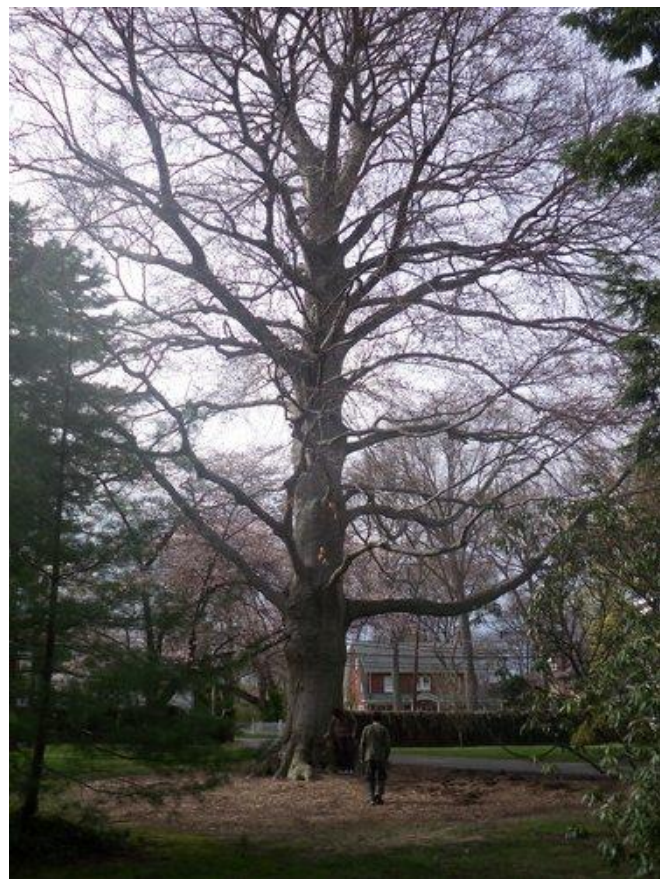
Big Sycamore

Burr Homestead Beech, CT

by rddl1990 » Thu May 05, 2011 1:28 am

Here's a look at a nice European beech (copper?). It's located in Fairfield, on Old Post Rd, at the old Burr Homestead.

Ryan LeClair



The old hard tree breaks and falls when the wind blows. The young tree bends and does not break.

Re-examining sources of measurement error

by dbhguru » Thu May 05, 2011 7:28 pm

One part of the dendromorphometry book will be the examination of sources of measurement error and their magnitudes. In the early days of these discussions, I set out to determine if sine and tangent-based calculations differed in the sensitivities to small changes in distance and/or angle. For example, assume a vertical structure that is 100 feet tall. For a baseline of 100 feet, we know that the angle to the top as viewed at ground level would be 45 degrees. The slope line to the top would be 142.42 feet. Suppose the angle measurement is 0.25 degrees high. Had we measured the slope distance with a laser rangefinder and gotten 141.42 feet (a very accurate laser) and measured the angle as 45.25 degrees, we would compute a height of 100.43 feet for the structure. Had we used the tangent method on the 100-foot baseline, we would compute 100.88 feet. The impact of the error affects the tangent slightly more, but perhaps not enough to get worried about.

Now let's assume the structure is 200 feet high and our horizontal baseline is still 100 feet. The impact of an angle error grows. Is there a way to efficiently analyze the impact of errors in distance and angle for both measurement methods? Yes, and we've done a lot of that. Here are screen shots of some analysis of hypothetical heights. In the first shot, we see the impact of distance and angle errors on the two methods for several scenarios. In the second attachment we look at a convenient method for analyzing the relative impacts of angle and distance errors for the tangent method. I will say more on the method of the total differential in a future post.

Hgt	Lev	Baseline	Slope Dist	Angle Degrees	Angle Error	Angle with Error	Radians	Tan Hgt	Sin Hgt	Diff
100	100	141.421356	45	0.25	45.25	0.78976149	100.876495	100.433799	0.4411562	
200	100	223.606788	63.4349488	0.25	63.6849488	1.11151204	202.200882	200.434427	1.76654729	
100	100	141.421356	45	0.5	45.5	0.79412481	101.760739	100.868944	0.89189344	
200	100	223.606788	63.4349488	0.5	63.9349488	1.11587336	204.440945	200.865038	3.57590681	
100	100	141.421356	45	0.5	45.5	0.79412481	101.760739	100.868944	0.89189344	
200	100	269.25824	69.1595905	0.5	69.6585905	1.1990166	256.448095	250.861341	5.60496035	
100	100	141.421356	45	0.5	45.5	0.79412481	101.760739	100.868944	0.89189344	
200	100	262.617498	70.0168935	0.5	70.5168935	1.23075197	262.658118	275.862182	6.79393646	
100	100	141.421356	45	0.5	45.5	0.79412481	101.760739	100.868944	0.89189344	
200	100	316.227766	71.5630512	0.5	72.0630512	1.25777242	308.961485	300.86123	8.1002544	
150	125	189.296242	50.7944289	0.5	50.8944289	0.8867847	153.696624	151.085102	1.60475818	
150	125	230.488511	49.8012945	0.5	49.9012945	0.71735292	152.889154	151.521432	1.14776158	
150	125	270.416448	33.6900675	0.5	34.1900675	0.59672925	152.852813	151.957759	0.8950700	
150	125	313.249103	29.6104397	0.5	29.7104397	0.50807123	153.128799	152.940486	0.7247120	
150	125	212.132934	45	0.5	45	0.78539816	155.329527	152.595015	2.7453101	
184.7	125	223.022622	55.9109135	1	56.9109137	0.99128282	181.829473	186.85342	4.9760528	
184.7	100	210.033545	61.5680632	1	62.5680633	1.09201874	192.636603	186.41711	6.23955195	

Total differential for height using tangent method									
$h = D \tan(a)$ $dh = D \frac{\partial \tan(a)}{\partial a} da + \tan(a) \frac{\partial D}{\partial D} dD$ $dh = D \sec^2(a) da + \tan(a) dD$ $dh = \frac{D}{\cos^2(a)} da + \tan(a) dD$									
Height formula									
Total differential									
Angle error only									
D	a	tan(a)	cos(a)^2	da	dD	dh			
100	15	0.26794919	0.9330127	0.5	0	0.9330127	0	0.9330127	
100	30	0.57735027	0.75	0.5	0	1.16355283	0	1.16355283	
100	45	1	0.5	0.5	0	1.74352925	0	1.74352925	
100	60	1.73205081	0.25	0.5	0	3.4906585	0	3.4906585	
100	65	2.14450692	0.1786062	0.5	0	4.88597064	0	4.88597064	
Distance error only									
D	a	tan(a)	cos(a)^2	da	dD	dh			
100	15	0.26794919	0.9330127	0	1	0.26794919	1	0.26794919	
100	30	0.57735027	0.75	0	1	0.57735027	1	0.57735027	
100	45	1	0.5	0	1	1	1	1	
100	60	1.73205081	0.25	0	1	1.73205081	1	1.73205081	
100	65	2.14450692	0.1786062	0	1	2.14450692	1	2.14450692	
Angle and distance error									
D	a	tan(a)	cos(a)^2	da	dD	dh			
100	15	0.26794919	0.9330127	0.5	1	1.20326832	1	1.20326832	
100	30	0.57735027	0.75	0.5	1	1.7409031	1	1.7409031	
100	45	1	0.5	0.5	1	2.74532925	1	2.74532925	
100	60	1.73205081	0.25	0.5	1	5.22270931	1	5.22270931	
100	65	2.14450692	0.1786062	0.5	1	7.03047756	1	7.03047756	

Robert T. Leverett

Strange ring/wood in scarlet oak (Quercus coccinea)

by Will Blozan » Sat May 07, 2011 8:35 pm

I recently did a hazard tree assessment on a large scarlet oak in Swannanoa, NC. I had cored the tree seven years ago and found evidence of slight decay and ring shake (separation of annual rings). The client was still uneasy about the tree and my last visit with a sounding hammer indicated a hollow near the base. The tree sounded like a drum and the pronounced lean over the neighbor's house justified a removal.

As I removed the tree in pieces I began to notice a strange pattern in the wood. It was as if the current tree had swallowed another tree. Not really of course, but within the cross section of the tree from up in the top to ground level was a smaller "tree" complete with sapwood. At the edge of the sapwood of the "swallowed tree" began the heart wood of the "outer tree". The delineation of these sections was demarcated by a pronounced ring separation or dark discoloration. It looks as if perhaps the cambium detached from the tree when it was smaller and a new, "separate" tree began to grow from there on out.



Swallowed tree



Near base, completely separate "trunks"

That time appears to be Spring, 23-24 years ago. The tree has grown tremendously since then but not any faster (radially) than before. I found it very interesting that the sapwood of the "swallowed tree" was not decayed and seemingly fully functional as it was wet and full of sap just like the outer area of sapwood.



Ring separation and two sapwood regions



Lower trunk with closed pruning cut (also with swallowed sapwood)



Swallowed section higher up



Another section

Does anyone have any idea what could have caused this, or seen it in other trees? Could it have been a late freeze event or torsion damage from twisting?

Will Blozan

Reply by Steve Springer (May 09, 2011):

Here is a link discussing Ring Shake:

http://www.woodweb.com/knowledge_base/Cutting_shake_out_of_logs.html

Note the "straw inside of a straw" description. Perhaps a major wind event (i.e. tornado) occurred

causing the ring shake some 23-24 years ago on Will's Scarlet oak.

Steve Springer

F3 tornado damage in western Smokies

by Will Blozan » Sat May 07, 2011 9:25 pm

Last weekend I was part of the annual Smoky Mountain Wildflower Pilgrimage. I did two trips, this one not with the event, and one I'll post on later.

In need of a break I went solo to the western Smokies to check on some trees I had not seen in 13 years. I'll post on the ones I relocated in yet another post but for now I will relate some photos of the incredible tornado damage sustained the previous Wednesday, April 27th.



First sign of trouble - Straight-line wind damage perhaps.

I arrived at the ranger station which had signs up indicating the Abrams Creek Trail was closed due to storm damage. No problem, I decided to do a loop hike up Cooper Road to Hatcher Mountain and back down along Little Bottoms Trail. None were posted as being closed so I headed out (clockwise) to explore new territory and some potential tall white pine sites on Hatcher Mountain. Boy, was I in for a

surprise! About 1/2 mile in on the Hatcher Mountain Trail I began to see numerous downed trees.



Typical damage - Hatcher Mountain damage

Since I was already six miles in to my 11 mile loop I was not inclined to return the way I came. I figured it couldn't be TOO bad... so I crawled along and hoped for the best. My optimism was soon squashed as the trail was no longer navigable and the entire FOREST was laying on the ground. I had my GPS so I had an idea of where to go and I did catch glimpses of the trail or previously cut logs.



Sad day for the pines- Flattened old-growth pine forest.



Old growth Shortleaf pine



One tree made it!



"Right-of-way" quality swath of carnage on adjacent ridge- Clearly define swath on Hatcher Mountain

It soon became clear after ~one mile that I was paralleling a tornado swath and NOT passing across it. I was super tired, hot, and a bit alarmed at the many miles to go to get back. Trees were down in every direction and no path seemed better than another. I decided to stay on the trail when I could but lost it completely once I reached the junction with Little Bottoms Trail. At this point the trail was obliterated from fallen trees and massive rootballs torn out of the ground. Trees were still creaking and cracking and the smell of death was in the air. Trees were not the only victims in the carnage zone.



Where is the trail? Abrams Creek Trail



Near where I lost the trail- Abrams Creek Trail

Fortunately I found the campsite on Abrams Creek which was just about 200 feet from the edge of the swath. From there back I welcomed the open trail. I did not measure anything noteworthy since all the large/tall trees were down. Bummer.

Will Blozan

This is the first trip with my new camera (Panasonic FX700) and unfortunately the subject was a bit gruesome. I did take some full HD video of the carnage which is pretty impressive.



Tornado swath over dead hemlocks, across Abrams Creek and onto Hatcher Mtn

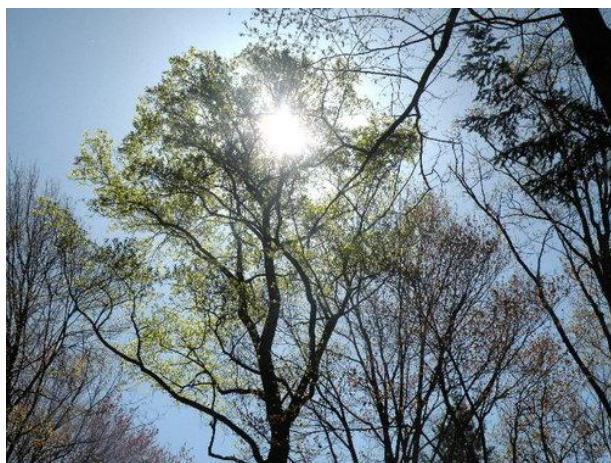
Springtime Leaves

by edfrank » Mon May 09, 2011 11:33 am

Springtime Leaves - These photos were taken around my home in Reynoldsville, PA on May 09, 2011.



Northern Red Oak



Tuliptree



Tuliptree



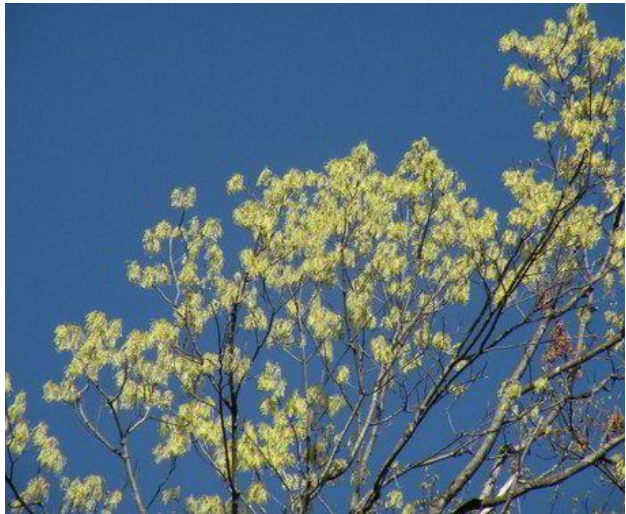
Sweet Birch



Sweet Birch (Betula lenta)



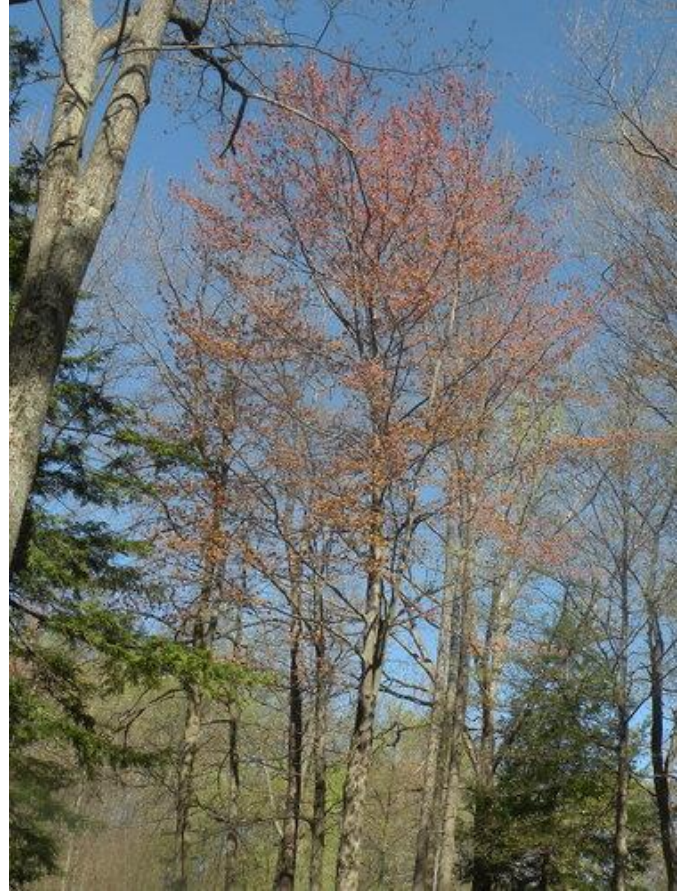
Sugar Maple



Sugar Maple



Red Maple



Red Maple



American Beech

Dysart Woods spring pictures

by Rand » Wed May 11, 2011 9:51 pm

Tom Diggins reported on this site in 2007:

- 1) Tulip 144.4' x 9'2"
- 2) Tulip 141.8' x 9'9"
- 3) Tulip 133.0' x (oops, forgot to go back and check)
- 4) Tulip 128.8' x 12'0"
- 5) Tulip 124.9' x 8'10"

- 6) NRO 128.8' x 9'1"
- 7) NRO 123.8' x 11'8"
- 8) NRO of 16'2" CBH, total crown blow out, branches reach 91'

- 9) White oak 125.2 x 13'6" Nice!
- 10) White oak 121.0' x 11'6"
- 11) White oak 114.3'

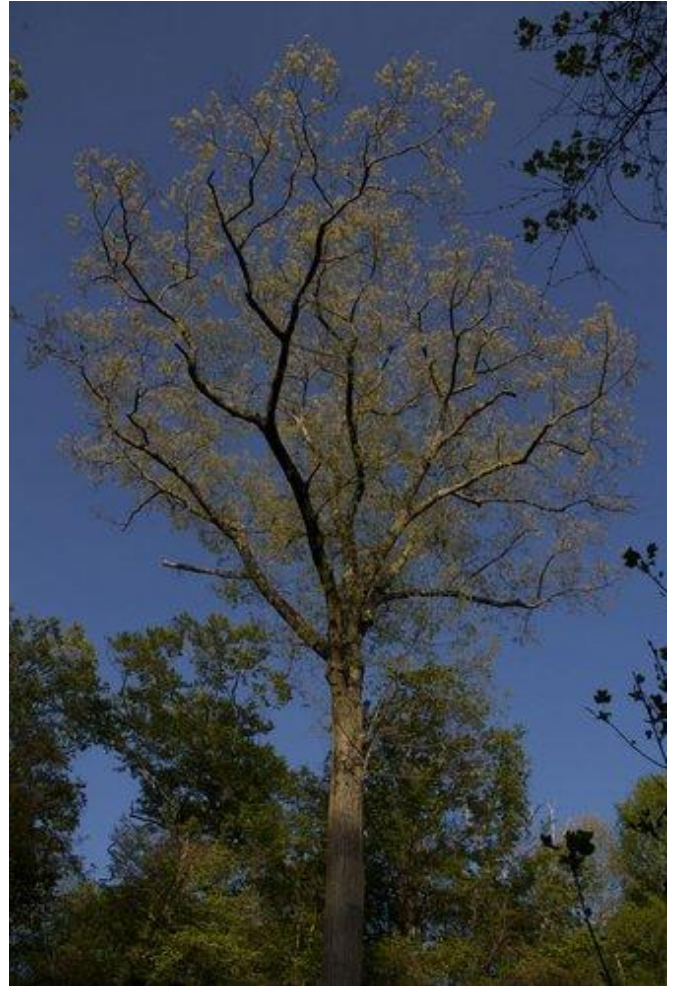
- 12) White ash 129.2' x 7'3"
- 13) White ash 109.9'

- 14) Beech 114.1' x 8'0"
- 15) Beech 108.3' x 9'0"

- 16) Cucumber 119.3' x 7'2"
- 17) Sugar maple 109.5' x 5'5"
- 18) Black cherry 111.6' x 5'10"

http://www.nativetreesociety.org/fieldtrips/ohio/dysart_woods.htm

I got there a little late to make measurements but got some nice pictures of the big white oaks that dominate the canopy:





Also of interest was a test planting of ACF hybrid chestnuts. They're maybe 3 years old. They are still getting established so it's too early to tell how well they are going to do. A handful have made it to the top of their tree shelters:



Also of interest was the large Tuliptree that grew here up until the mid nineties, when decay caused by a large lightening scar got the best of it, and the trunk 'unwound' along the spiraling, unhealed scar and snapped in half. Purportedly this tree reached 164' at one time. However, I am skeptical because this tree had a large crown like the oaks and also grew at the top of a ravine, unlike the bottom or midslope like the other 160' class tuliptrees we've found in ohio. Also going against it, is the 144' maximum of the remaining tuliptrees on the site. Much to my surprise, there is still enough deadwood at the site to make a plausible estimate of the tree's former height:



Measuring the two downed pieces (15.5yards + ~ 24-26yards) I come up with 120-125' of dead wood (the trunk attached to the crown is largely disintegrated, but there are enough bits to show it's former extent). Now the remaining branches are 2-3" in diameter so we're losing some substantial height there. Maybe 7'-10'? (Any better estimate Will?)

In it's favor, it's by far the most massive tree on the site. I also measured the nearest white oak to 123' (picture #3 above), which is also among the largest and tallest for that species, so there is obviously something favorable about the location. Given this, I'm prepared to be a little generous with the fudging, but I have a hard time believing this tree exceeded 145'.



The tallest tree in the east is probably in Tennessee

by ianb » Mon May 09, 2011 8:54 pm

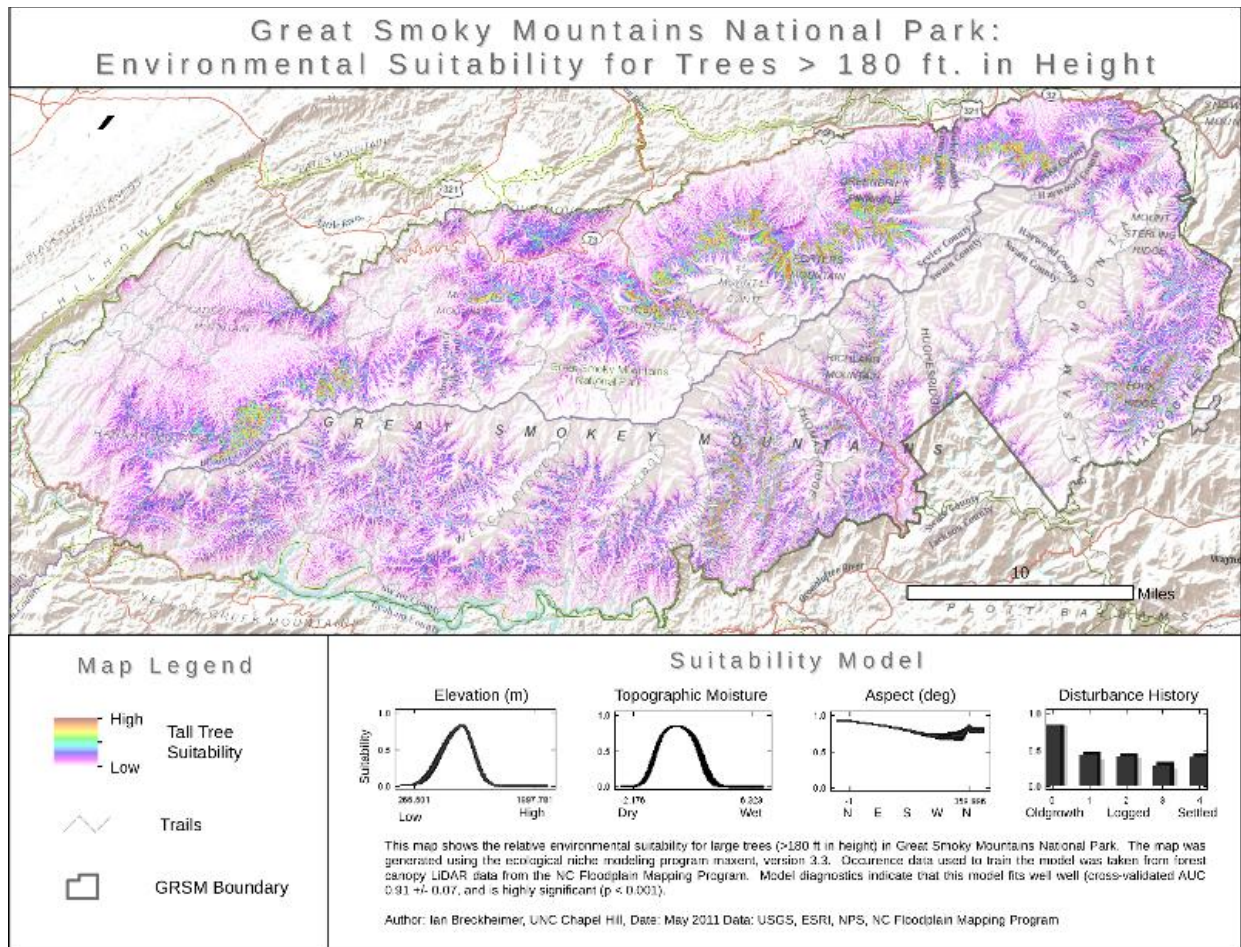
I've been working a little bit more with the lidar data in the vicinity of Great Smoky Mountains National Park, and what I've found suggests that we haven't exhausted the Smokies trope of tall-tree riches.

My father and I got lucky last year when one of the first tall lidar points we visited turned out to be the [tallest known native hardwood in North America](#) (measured thanks to Will and his team). Its a tree that we would be unlikely to stumble on without the assistance of lidar. Unfortunately, we don't have that

kind of data (yet) for the Tennessee side of the park.

Given the venerable trees and large rugged oldgrowth stands over there, what is the likelihood that the tallest tree in the east waits patiently for us, undiscovered, on the TN side of the border? I've done a little bit of analysis that suggest that the likelihood is high indeed. Let me explain.

If you were to plot all of the lidar returns in the NC side of the park that are greater than 180' above the surface, they form a somewhat messy contour band at approximately 3500ft in elevation. If you were to look a little closer, you might also notice that they are nearly all located near the bottom of small coves, and a great number of them are located on sheltered north- or east-facing slopes.



Habitat Suitability Model for Trees > 180 ft., Great Smoky Mountains National Park

To build on these observations, I built a habitat suitability model for these lidar tall tree points using

a popular species distribution modeling program called Maxent and a bunch of environmental GIS

data that I had lying around from a previous research project. I'll skip over most of the messy details, but it turns out that the model performs extremely well at predicting where we will find these (presumably) large trees. It turns out that the "niche" of forest giants in the Smokies is surprisingly narrow. As I expected, the most important variables in this model are elevation, topographic moisture index, aspect, and disturbance history. Tall (180' +) trees are most likely to be located in mid-elevation oldgrowth coves, and are most likely to be found on north and east-facing slopes. So far, the analysis simply confirms what we can see qualitatively in the data.

The advantage of having a model is that you can project it to areas where you don't have data. In this case, Tennessee. It seems as if there are quite a few more areas that are potentially suitable for forest giants in the Tennessee section of the Park than in North Carolina. The model highlights a few of the tall stands in the Tennessee side of the park that I know (for example the Porter's Creek / Ramsey Cascades area), but does it also highlight areas that haven't been thoroughly searched? I'll have to defer to folks with more on-the-ground experience.

Hopefully this map will be a new subject for discussion and debate, and (perhaps) a tool to guide further exploration.

Cheers,
Ian Breckheim

Tall poplars of Mainau, Germany

by Kouta Räsänen » Tue May 10, 2011 5:28 am

I visited last week Mainau Island in Lake Constance (Bodensee), a popular tourist destination in southwestern Germany, and found new record specimens of two of Central Europe's three native *Populus* species. The climate of the island is said to be the most favorable for the plant life in whole Germany: besides being in the very south, the large lake balances climatic extremes.



Vista from Mainau over Lake Constance; the Alps in the distant background.

White poplar (*P. alba*) is actually aspen (section *Populus*) and naturally hybridizes with the another European aspen species *P. tremula* (which is closely related to the American *P. tremuloides*). Unlike the other aspen species, white poplar grows naturally also in floodplains. A two years old book says a group of large white poplars close to the lake shore is over 35 meters tall. So, it was a great surprise to me that the tallest tree was 45.4 m (149 ft) tall! CBH was 576 cm. This is the tallest reliable measured *Populus* sp. in Europe we are aware of.

Black poplar (*P. nigra*) belongs to cottonwoods (section *Aegiros*) and is closely related to the American *P. deltoides*. The normal form has become a rarity because of 1) loss of floodplains, its natural habitat, and 2) hybridization with much planted *P. x canadensis* (syn. *P. x euramericana*, *P. nigra* x *P. deltoides*). However a cultivar, Lombardy poplar (*P. nigra* 'Italica') is a very common park tree. A specimen of Lombardy poplar in Mainau was 39.2 m (129 ft) tall making it the tallest *P. nigra* tree we are aware of. CBH was about 360 cm. I did not get an exact CBH measurement because the base was very densely overgrown with ivy (*Hedera helix*).



White poplar, 45.4 m x 576 cm; note me at the base.

There is also a collection of exotic trees in Mainau. For example, a lot of giant sequoias (*Sequoiadendron giganteum*) up to 47 m tall, a few coast redwoods (*Sequoia sempervirens*) up to 40 m, a whole allée of dawn redwoods (*Metasequoia glyptostroboides*) up to 30 m,



Lombardy poplar, 39.2 m x ~360 cm; note the ivy "crown" around the lower trunk.

Atlas cedars (*Cedrus atlantica*) up to 36 m, western redcedars (*Thuja plicata*) up to 33 m and many others I did not measure. I measured the heights with Nikon 550A S.

Kouta Räsänen

Abrams Creek, TN- new shortleaf pine and paw-paw record

by Will Blozan » Sat May 14, 2011 12:02 pm

During my horrid trip thru the tornado damage I posted on last week, I did measure a few noteworthy trees. I had not been to the area for 15 years and at that time had measured some tall pitch (*Pinus rigida*) and shortleaf (*Pinus echinata*) pines. I had also measured a large paw-paw (*Asimina triloba*) that was a priority for a revisit. Paw Paw is not common in GRSM and is only known from a few locations.



Tallest Shortleaf Pine

The first tree I tried to locate was a 130'+ pitch pine. It was down. I did measure a 131.5' tree not too far away. Nearby though was the shortleaf pine I had measured in 1996 or 1997 to ~136'. This slender tree 23.4" dbh (59.4 cm) is now a record-breaking 149.2'

(45.5m) tall- currently the tallest known specimen. Others in the area were in the mid 130's.

The Abrams Creek Campground and vicinity has perhaps the best example of low-elevation mixed conifer forest in the Smokies. Although not old-growth, it is very mature and contains numerous examples of tall (120'+/36.5 m) and mature pines of primarily three species; pitch, shortleaf, and eastern white (*Pinus strobus*). An occasional Virginia pine (*Pinus virginiana*) can be seen but the most impressive species (these days) is healthy eastern hemlock (*Tsuga canadensis*). The park service has a large and very successful hemlock conservation area along the creek, and the forest is quite intact and nearly pure conifer. I highly recommend a visit to this area. These days it is so refreshing to see and experience healthy hemlocks. They add a great touch of towering green and lower canopy foliage to this preserved example of cathedral conifer forest. The canopy is a constant 120' with emergent white pines to ~150' (45.7m). Years ago I did measure a 170' (51.8m) white pine but I was not able to relocate it.



Intact conifer forest Abram Creek, TN- GREEN
HEMLOCKS!!!

I did relocate the paw-paw and it surprised me as being the tallest I have ever measured. At 62.2 (18.9m) feet it is an eastern height record for the moment- as I think Darian Copiz has a taller one to report from VA or MD. It is also large enough to be a National Champion with a big tree score of 96 points (30" X 62' X 16').



Paw paw record

Will Blozan

[Live Oak Cedar Stump](#)

by Larry Tucei » Tue May 17, 2011 12:25 pm

ENTS, I saw a young Live Oak growing from a Cedar tree stump this weekend. I thought it was cool. With death there is also new life. This is in the Biloxi Ms., Cemetery. The Cemetery has many big Live Oaks but none large enough to make the listing. Hurricane Katrina brought some but there are still many more. Larry



Live Oak in a Cedar Stump

[The Adirondack North Country](#)

by dbhguru » Fri May 13, 2011 9:24 pm

After returning from our highly successful Virginia trip, Monica and I opted for a change of venue. Monica needed a north country water experience and a return to her Mecca, the Adirondacks of upstate New York. The Dacks, as they are known for short, comprise that historic region in northern New York that forms the roof of the Empire State.

I unabashedly share Monica's enthusiasm for the Adirondacks, albeit by a different discovery route. Monica's connection to the Adirondack country is largely aquatic. She is a canoeist and a darn good one, and an ardent canoe camper. The Dacks

connection is therefore a natural for her. The Adirondacks are simply unsurpassed in the Northeast for canoeing opportunities. Depending on what is counted as a lake, as opposed to a pond, the Adirondacks have probably 1,500 lakes or near lakes, i.e. big ponds. Monica has canoed many of them, and with one harrowing experience. She was caught in the great 1995 Derecho along with several companions, and fortunately, almost miraculously, nobody was injured.

Me, I'm basically a landlubber, so my connection to the Dacks comes predictably through its abundance of mountains and forests. Many of you probably are aware that the Dacks harbor the greatest reserves of old growth forest in the East - somewhere between 350,000 and 500,000 acres. So the attraction of this outstanding natural feature for me was a given from the outset. But the Adirondack country is more than old growth forest. The Adirondacks offer glacier-sculpted peaks, ancient forests, lakes and streams, gorges with waterfalls, and sky. In the Dacks, you get it all and the opportunity to savor it in an uncrowded environment, save tourist havens like Lake George. Ah yes, and this time of year, those lovely little bloodsuckers, the black flies are there to greet you. Well, with the good must come at least some unpleasantness.

Before getting more deeply into the Dacks, I should mention that we first visited my son and his family in West Chazy, NY, just north of Plattsburgh. We have made that trip before and I have reported on it, but this time was different. Lake Champlain is still at a historic flood stage, and it was eye-popping to see. The following sequence of images captures a bit of what we witnessed at Point au Roche on the western shores of Lake Champlain.





Roads, ferries, and even railroads were closed. But now that the weather has settled down, the lake will recede, leaving tons of debris on the shores including human trash. For us the flooding was a novelty, but for the local folks, it is an economic blow and a powerful reminder of how much in the long run we are held captive by Mother Nature's moods. Residents will be left to ponder the meaning of it all. Is this a statistical anomaly? Is it global warming? Are the gods punishing the mortals? We were just thankful that the damage was not worse. There were no tornados or derechos with loss of life. Still, looking at the homes of people standing in water is a sad, sad sight.

On Tuesday we canoed on Alice Lake near the town of Chazy. The terrain is flat and the lake shallow, so the scenery is subdued. In terms of vegetation, there is an abundance of white ash, red

maple, northern white cedar, white pine, yellow birch, and even species like hop hornbeam. But the real show this time of year is the wild flowers. Trillium grandiflorum, trillium erectum, white and blue hepatica, bellwort, bloodroot, at least three species of violets, and half a dozen other species held our attention. It was almost as if we were back in the southern Appalachians viewing their spring finery. As I mentioned, Alice Lake presents no overpowering scenery, but a sense of tranquility prevails, and the imprint of people on the area is light. It is a hunting refuge. It is not a teenage hangout. We put our canoe, named Spirit, in the water and we paddled around the small lake for about a mile and a quarter, then we called it a day. I took a number of iPhone shots, but none captured what we saw, plus I held the iPhone a little off level, so most of my images are tilted. Here are the best two. I promise to do better next time.

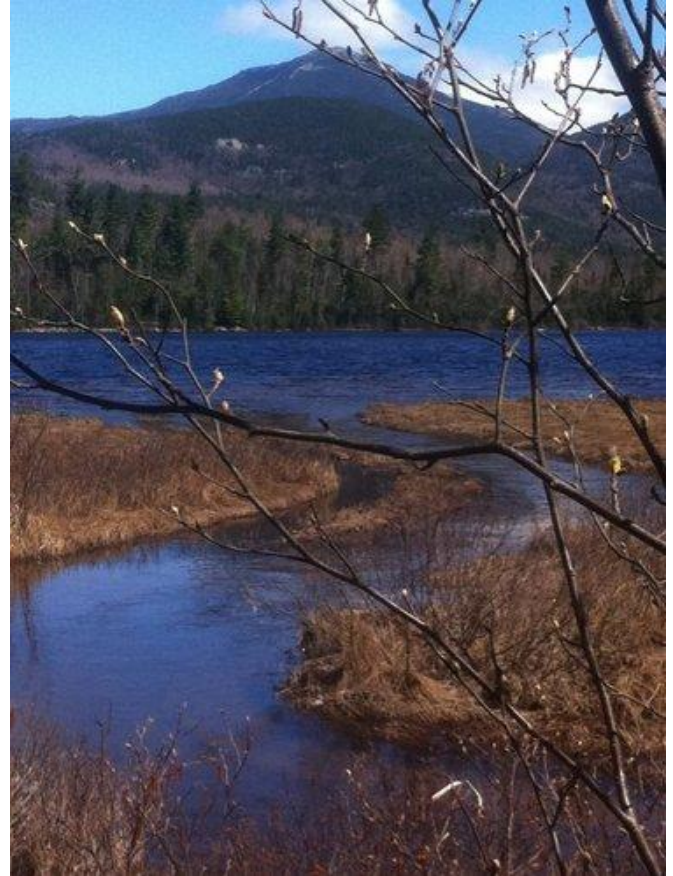




On Wednesday, we headed for the Adirondacks, which begin only a few miles to the West of Plattsburgh and the Champlain Valley. The transition from river valley to uplands is quick. You hardly realize that a major geological shift has taken place, but once you penetrate the Adirondack vastness a few miles, you reach the shadows of the High Peaks and begin to appreciate just how extensive the Adirondack country is. The Park covers an area roughly the size of Vermont; almost half is state owned and development is severely restricted in the remainder. That is a godsend to the rest of us who want the Dacks to remain unspoiled, but curtailment of development opportunities is a constant irritant to residents.

As we approached Lake Placid, the pleasing form of Whiteface Mountain dominated the view. Whiteface is a mountain devoted to skiing, and the ski trails detract from its visual impact, but you have to respect the statistics. Whiteface boasts the longest vertical descent in the East. The descent is listed by one source as 3430 feet and by another as 3166. Either way, that compares well with the vertical descents offered by many Rocky Mountain ski resorts. The top

of the mountain is private property and developed, so we elected to see Whiteface from a distance. We drove and hiked to Connery Pond, well away from the developed region. The next scene shows Whiteface from Connery.



The altitude of Connery is 1700 feet. The pond to summit rise of Whiteface is not less than 3,167 feet. But the highest vertical rise of Whiteface from any side is almost 3,700 feet. That is impressive. So, while Whiteface has been largely sacrificed to skiing, it is none the less a very impressive mountain to view from a distance. And it gives me a good feeling to know that there is at least one eastern mountain that can compete with the western ski resorts in terms of elevation drop. How is the skiing? Well, Whiteface averages a respectable 230 inches of snow per season.

Pushing westward, our route took us along a relatively developed corridor through Lake Placid and Saranac Lake - lots of private land. Beyond Saranac, we passed Paul Smith College and

eventually reached a small lake named Black Pond. We had been told that it was an ideal small lake for safe canoe travel (no rough water) with views of surrounding peaks - just what we were looking for. Once there, we discovered that camping was no longer allowed. The property is now being managed by Paul Smith and the college has elected to restrict camping - their prerogative. However, the water continues on the opposite side of the access road. So, we settled on the narrows of Upper Saint Regis Lake. It is a lake, but with long fingers that are ideal for canoeing on tame waters - my style. You have to paddle for over two miles to reach big water, which can get plenty rough when the winds come up. Neither of us was in the mood for that.

Before putting Spirit in the water, we explored the start of a trail into the back country that goes to the top of Saint Regis Mountain, a famous place to see into the High Peaks from a relatively accessible perch. But alas, the disappointing aspect for me is that this region of the Dacks has been heavily logged for years. There are large private in-holdings. The re-growth on the private lands is uninspiring. Nonetheless, the Saint Regis region is excellent white pine territory. The abundance of crowns of the great whites is a mitigating circumstance for me to what is otherwise a severe forest disappointment. In the Lake Placid-Saranac Lake-Paul Smith region, there are constant reminders of the degree to which we humans have a penchant for spoiling good country, and the little tree plantations scattered about, courtesy of Paul Smith College, doesn't fix things. The boring plantations of red or white pine serve as a constant reminder of just how myopic our view of forests has become. I don't question that the college's silviculturists know how to get more timber per acre per unit time than Mother Nature can produce when only natural processes are at work, but after repeated cutting, forests lose their character - in fact their identity. No great hulking forms of trees are to be seen in or around the plantations. Trees that have endured three hundred winters and more don't make money for the timber interests, so the re-growth areas are never substitutes for what once prevailed. Wildness has been eliminated. The tradeoffs may benefit a human society dependent on wood products, but thinking like a forest, the tradeoffs don't work. So the public part of the Adirondack Park, with its

abundance of wild forests, is absolutely essential to retaining forests with character and a continuous natural history.

As we drove along the main road between Lake Placid and Saranac Lake and on the side roads, I saw white and red pine generation in the age range of 30 to 60 years, but there are exceptions. Much older trees form the borders around the edges of the less developed lakes. For the most part, tree heights aren't exceptional, with the most conspicuous pines are between 90 and 120 feet tall, with an occasional one toying with 130. These borderlands serve as reminders of when a far nobler forest held dominion. I was on constant lookout for relicts of the past, and once at the trailhead to Saint Regis Mountain, my wandering eyes beheld a significantly taller pine. It towered. I had to take its full measure. Once I succeeded in finding a vantage point, I calculated a height of 151 feet. The pine's girth is a substantial 11.8 feet. I was a happy camper. The tall tree represents the 4th location in the Dacks where we have broken the 150-foot threshold. Pack Forest has one tree. The Cathedral Pines had one tree. The Elders Grove has 7 or 8, and now we have the Saint Regis Pine.

Our camping experience was satisfying, especially for Monica. We canoed to a lean-to nestled among mature re-growth white and red pines. We were alone with the exception of one fisherman who drifted by and a fellow training for a canoe race. I gathered downed wood and built a fire that I kept going until around 9:30PM. Throughout the period, the loons blessed us with their haunting calls. Nothing advertises the north woods like the loon. Still later, the barred owls let their presence be known to us, and an otter or beaver disturbed the water late at night. Our campsite was a near idyllic setting. I was happy especially for Monica. She had returned to her Mecca and I was enjoying her enjoyment as much as my own.

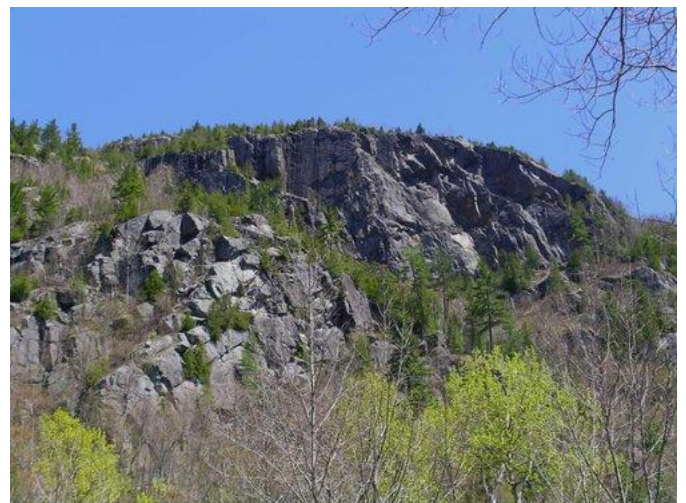
On Thursday, we packed up, canoed out, and headed back to Lake Placid for a hearty breakfast. Lake Placid is upscale and a major summer and winter tourist destination, but it is nice and laid back in the off-seasons. We were visiting in the off-season, and consequently, were able to enjoy Lake Placid at

its best. Then down route 73 we went, headed for a rendezvous with I87. However, we weren't quite finished with our mountain communing. We stopped at Roaring Brook Falls trail on the western side of Giant Mountain for a short hike to the bottom of the falls. I had not seen the falls, though I had read brief descriptions of them. Well, the descriptions don't quite do the cascades justice. The water tumbles down for a good 270 vertical feet. The average angle is close to 50 degrees. That kind of incline can appear even steeper than it is. One book on the waterfalls of the Dacks lists the height of Roaring Brook as over 100 feet. I'm unsure of what criteria the author uses, but as a cascade, Roaring Brook is not less than 270. So, my pronouncement is that the Roaring Brook cascades are not light weight entries in the waterfall competition. The forest near the falls is no slouch, either. I measured a number of sugar maples, hemlocks, and white ashes to between 95 and 110 feet in height, and one white ash to 120.1. I very seldom see the 120-foot threshold broken in the Adirondacks among the hardwoods. However, I have a feeling that I haven't even scratched the surface. The Roaring Brook area is part of the Giant Mountain complex, which is rich in large, protected coves. They will take years to explore. I expect to become a Giant Mountain convert.

After leaving the Roaring Brook cascade, our next stop was Chapel Pond, a short drive away. I had visited the pond a couple of times before, but had forgotten its charms. I'll let the images do the talking for the pond.



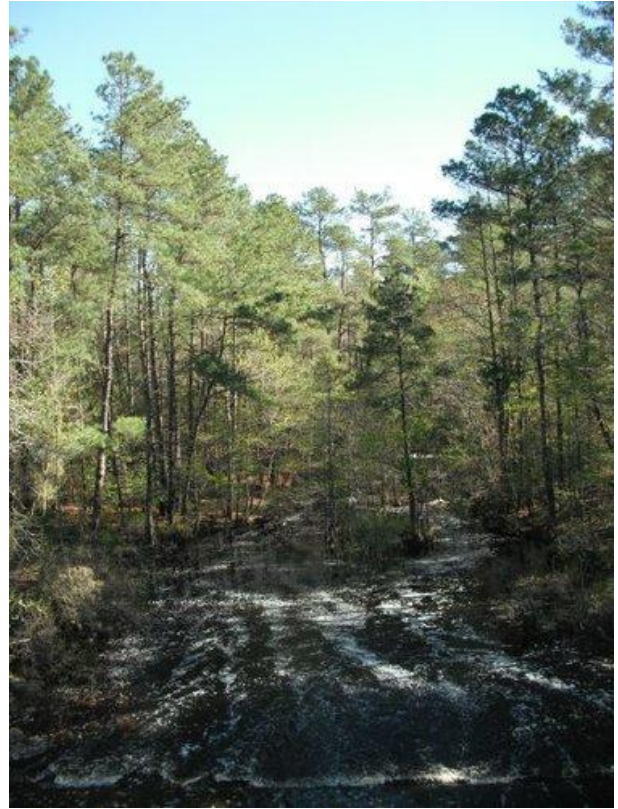
Turning the camera around, I took a shot of a rocky region on the lower slopes of Giant Mountain. I'll first present the image.



I will conclude the Adirondack description with a few words about Giant Mountain. The huge peak rises to 4,629 feet in elevation, and as such, is the 12th highest summit in the Adirondacks. But this elevation does not tell the story. Giant Mountain ranks #1 in terms of base to summit rise. The trail on the west side gains 3,350 feet. That's a lot, but not the bottom of the mountain complex. From the Boquet River on the east side, the Giant rises fully 4,000 feet from base to summit. None of the other high peaks quite match this elevation gain - not even Mount Marcy and Algonquin Peak. From the Keene Valley and beyond, we were treated to exceptional views into the High Peaks region as we gradually exited the Adirondacks and entered a completely different geological province.

Monica and I will likely return to her mountain Mecca for another canoe adventure in September. The Adirondacks will be calling us by then. Come to think of it, they are calling now.

Robert T. Leverett

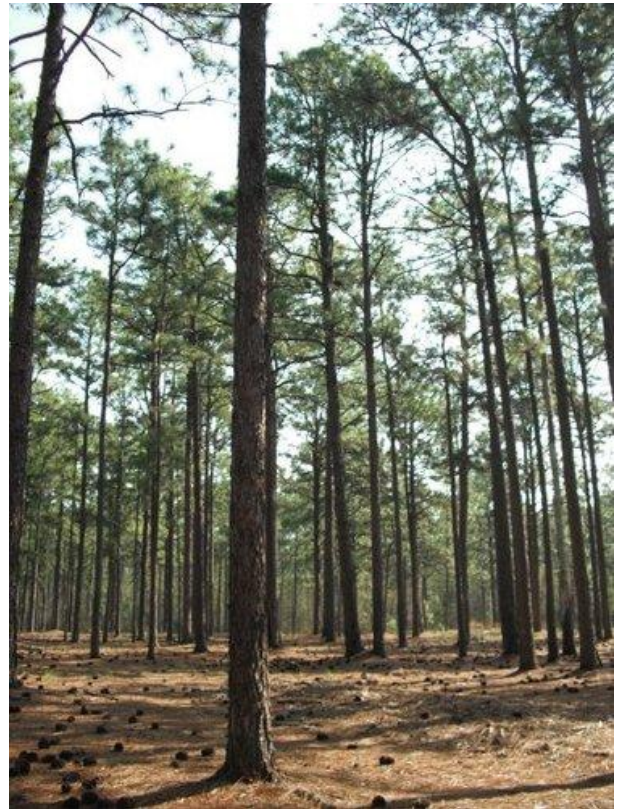


Juniper Creek

Big Conifers at Cheraw State Park, SC

by Tyler » Sun May 15, 2011 2:35 pm

Cheraw State Park was the first state park designated in the state in 1934. Located in northeastern South Carolina, the habitat ranges from rolling sandhills with longleaf pines to dense swamps. The park contains some of the best stands of atlantic white cedar in the state. At 7,362 acres it is also one of the largest state parks.

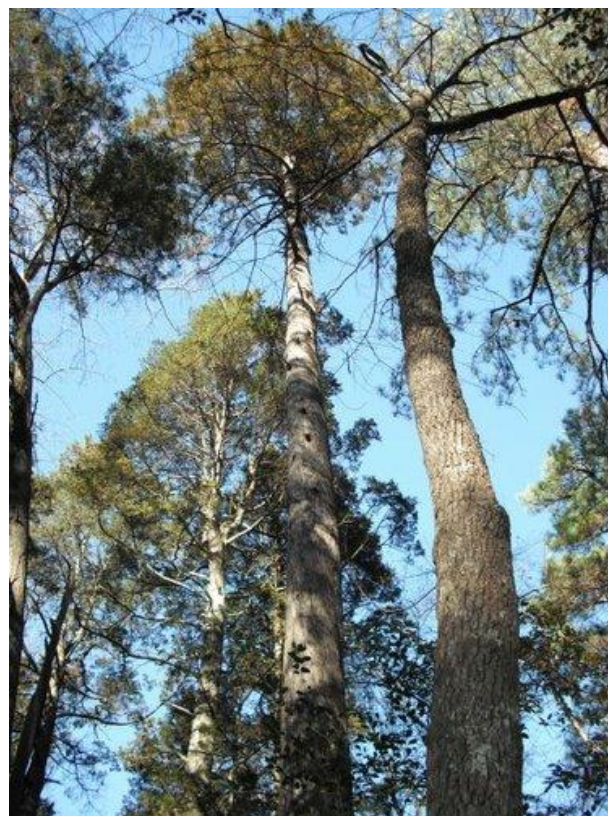


Longleaf Pines

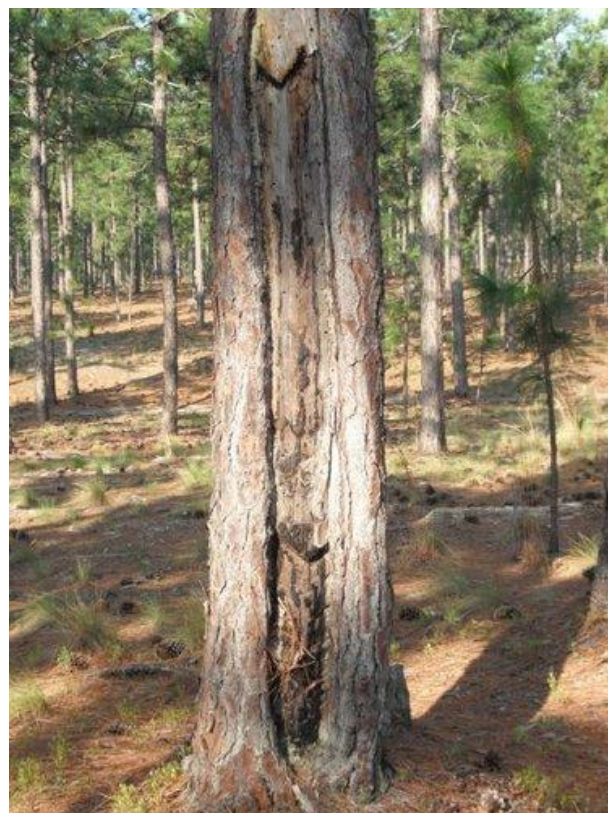
I made several trips to the park this measuring season. At first I was looking for large cedars and longleaf pines, but soon realized other species reached large sizes as well.

Species	CBH	Height
Atlantic White Cedar		
	6' 10.5"	76.8
	6' 9"	94
	6' 5"	98
	5' 6.5"	99.9
American Holly		
	4' 4.5"	76
Longleaf Pine		
	8' 3"	63
	8' 0"	87.6
	7' 2"	87.9
	5' 0.5"	89.7
	5' 9"	97.4
	7' 1"	98.1
	5' 5"	100.2
	4' 11.5"	101.7
	6' 6"	104.7
	4' 3.5"	105.3
Pond Pine		
	7' 5.5"	96
	7' 7.5"	97.9
	7' 2"	99
	6' 10"	102.6
	6' 4.5"	102.9
	6' 10"	105
Turkey Oak		
	2' 8.5"	48.9
	3' 4.5"	50.7
	4' 3"	52.5
	2' 10"	54

Sparkleberry		
	1' 0.5"	21.6
	1' 6.5"	22.8
	2' 4.5"	26.8
	1' 3.5"	29.4
Pondcypress		
	11' 0"	79.2
	5' 5.5"	99.3
Sweetleaf		
	1' 11"	39
	1' 8.5"	47.4
	1' 7.5"	50.1



98' Atlantic White Cedar



Old turpentine tree



8' 0" Longleaf Pine



11'0" Pondcypress



105.3' Longleaf Pine

All of the cedars grow near Lake Juniper.

The tallest longleaf pine has a small break at the top and was likely near 107' before it died.

The largest pond pine and sparkleberry has enough points to be state champions.

In addition to the trees listed, loblolly pine, tuliptree, sweetgum, and cherrybark oak all exceed 110'. None of these species were thoroughly measured but loblolly pine or tuliptree will be the tallest species at the site with some individuals 115-120'.

Tyler Philips

Big Sitka Spruce, OR

by mdvaden » Sun May 22, 2011 10:01 pm

Sent Ascending the Giants an email today. Had an urge to go to the Oregon coast, and while there photographed a fairly huge Sitka Spruce that I found in Oswald West State Park. Not sure if it's ever been compared by anyone. But I was also curious about the numbers for the Sitka here, whether all 93 crown points should be added as were, or, just 1/4 of those crown points.

Oregon Big Tree Registry

The one I found is roughly 210 feet tall, 480 inches circumference, and maybe 70 feet wide in the crown. Possibly 706 points. Maybe less, maybe more with fine-tuned two-person measuring. Definitely no Klookchy Creek proportions, but substantial.

Cool looking tree either way. Sure like these old spruce.



UPDATE - JULY 2011

Went to hike at the Oregon coast today. And our oldest daughter came along. That meant help too. So first we stopped by this spruce again. Calling it Raven's Tower.

Ended up getting 747 points for a preliminary. Notes added to this page:

http://www.mdvaden.com/klookchy_spruce.shtml

Had thought it was around 706 points, in May.

The hardest part for me is the crown spread. I stepped back to a spot that opened a view to huge lower limbs I did not realize before. Looks to be near 110 feet wide south to north. I can't even see east to west clearly, and guessed 70 feet.

I have not yet decided whether to nominate this Sitka Spruce for a champion or co-champion. Partly because the Cape Meares Giant has a sign and trail for it. Similar to the Klookchy Creek Giant, before. This Raven's Tower is not easy to get too. No bridge, no trail, and literally treacherous from one access point.

But I'm wondering if there would be temptation to put a sign to it, if it is indeed climbed, measured, and qualifies. And this tree looks like it may possibly need climbing to ascertain the crown spread.

Amazing - the park has 220 foot Sitka Spruce just a few hundred feet from the surf. Not this one, but other in the same park.

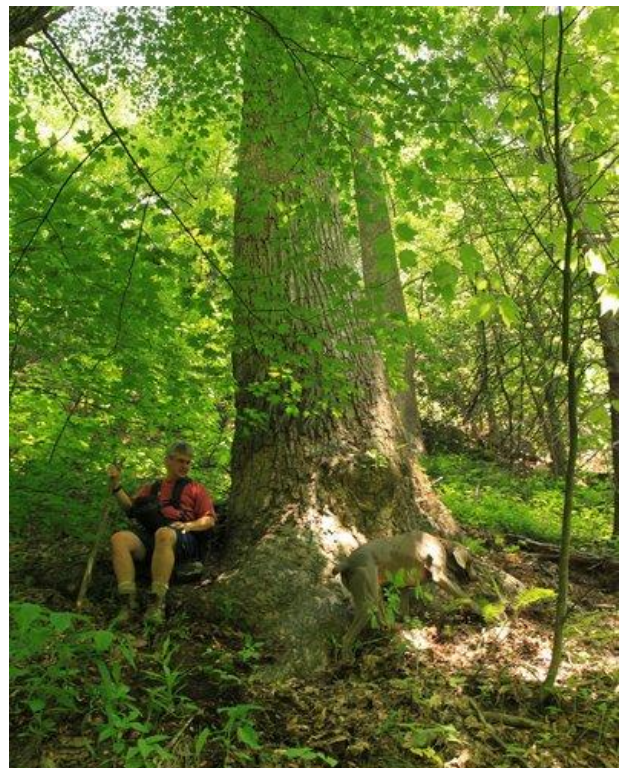
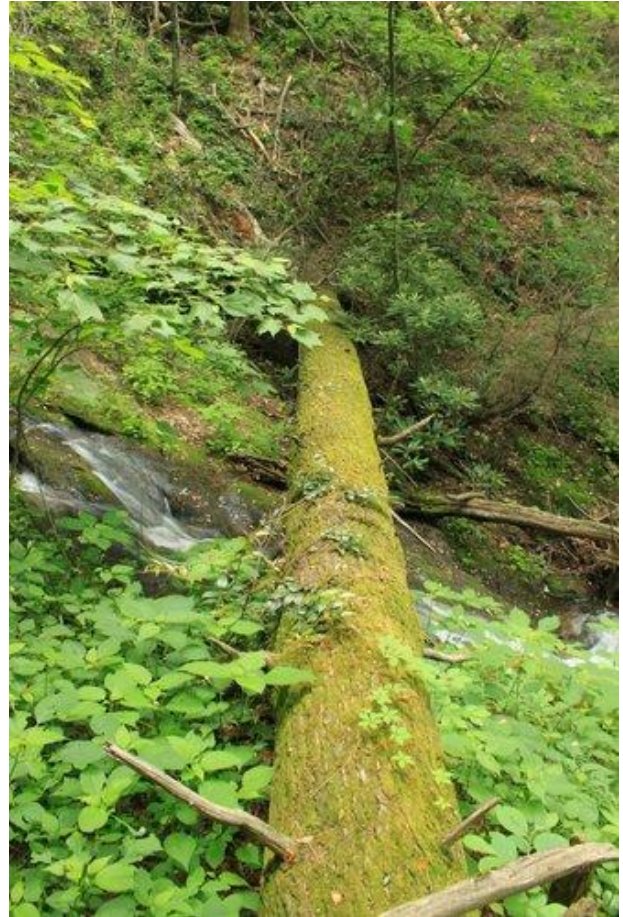
Mentioned in the linked page, the Cape Meares Giant is 743 points @ 144 feet tall.

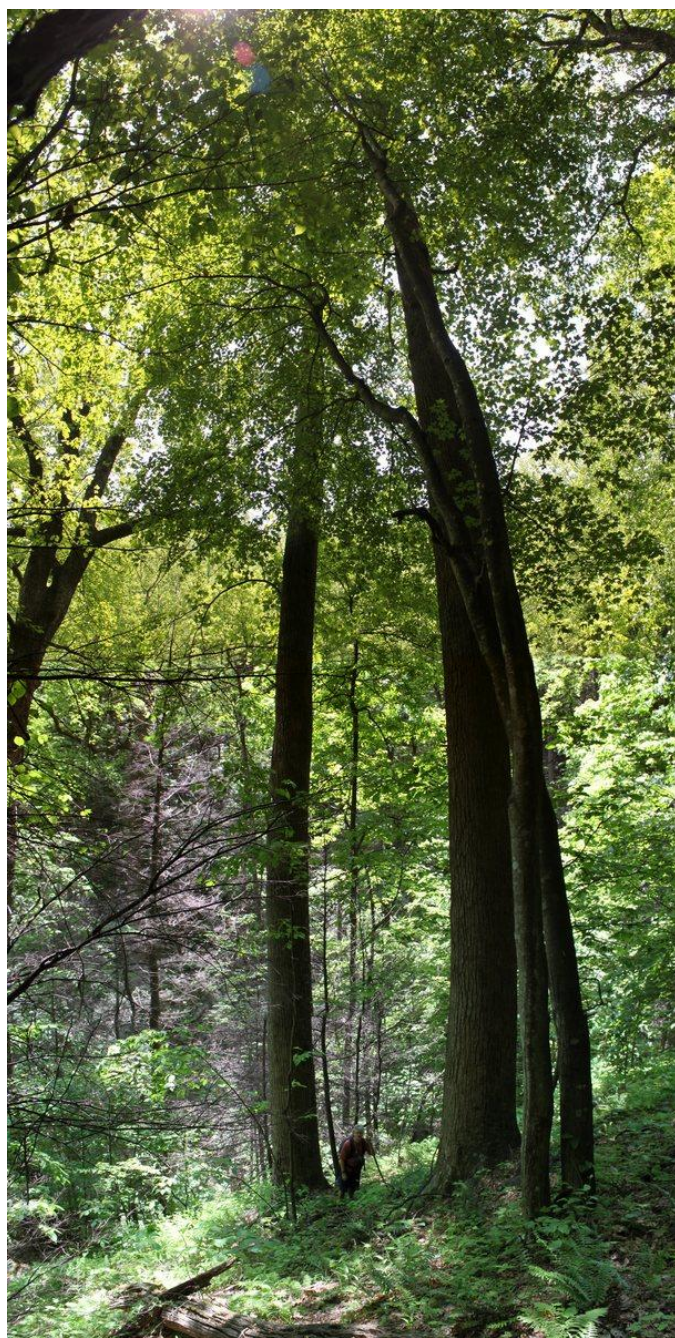
M. D. Vaden of Oregon

Curtis Creek Old Growth Area, NC

by jamesrobertsmith » Sun May 22, 2011 9:37 pm

Intrigued by Josh Kelly's comments on the old growth forests in Pisgah National Forest at Curtis Creek/Mackey Mountain, I went with a friend to bushwhack into the unnamed tributary just north of the Curtis Creek campground. We were astounded. The higher we climbed the more huge trees we found. The terrain was really steep, rugged, and tough to negotiate. We spent about six hours in the forest and only turned back because my pal Andy had to catch a flight to Seattle tomorrow morning and he had to return to town to pack. We'll return and are already planning our subsequent bushwhack routes.







[Wildlands Network: The Use of the Internet in TrekEast](#)

by edfrank » Mon May 23, 2011 8:50 pm



Wildlands Network is using a wide variety of internet media and exploring the ways to connect with the general public and inform them about John Davis's TrekEast adventure. I am wondering how ENTs could better use these new media resources now and in the future? What will prove to be a useful tool and what will fall by the wayside? I will start with a listing of what Wildlands Network is doing in this regard.

About Wildlands Network and TrekEast: Inspiring networks of wildlands in North America and around the world since 1991.

Wildlands Network, formerly Wildlands Project, was created in 1991 when scientists, led by founder and father of conservation biology, Michael Soulé, began to realize none of North America's protected areas are large enough to sustain wildlife and nature for the long-term. Animals, especially wide-ranging species, need Room to Roam© so they can find a mate, locate

food and breed.

Our favorite wild places are shrinking. Protection through connection is the answer to saving them for future generations. John Davis, our one of our most influential conservationists, is taking an incredible trek through what could be America's Eastern Wildway—5,000 miles of future connected habitat stretching from the Florida Everglades to Canada's Gaspé Peninsula. Why? To inspire you to join our network to help connect nature in the East.

Postal Address: Wildlands Network | P.O. Box 5284, Titusville, FL 32783

Facebook Page - Wildlands Network
<http://www.facebook.com/wildlandsnetwork> The page says 1, 543 people have liked the page. People can like the page and receive updates through Facebook - no cost.

Facebook Photo Albums: Currently there are 32 photo albums on the Wildlands Network page.

Trek East Page: There is a separate "page" for TrekEast -
<http://www.facebook.com/wildlandsnetwork...7038199977>

Website: <http://wildlandsnetwork.org/> People can sign up for the network and follow TrekEast.
- There is an E-Newsletter available through the website: <http://wildlandsnetwork.org/news-resources/emailsletters>.

- People can sign up to for the network here: <http://wildlandsnetwork.org/trekeast/follow>
- There is a TrekEast Blog: <http://wildlandsnetwork.org/trekeast/blog> with an option to get email updates when new blogs are posted.

- An RSS feed is available for Wildlands Network here: <http://wildlandsnetwork.org/rss>
- There is an app that allows the blogs to be shared on Facebook and other social networks.
- There is a contact page with the organizations mailing address, phone, fax, and email.
- There is a site search box.

Separate web address for TrekEast: <http://www.trek->

[east.org](http://www.wildlandsnetwork.org/trekeast) with a redirect to <http://www.wildlandsnetwork.org/trekeast>

Youtube videos: Wildlands Network has 72 videos on Youtube. The Wildlands Network Channel is here:

<http://www.youtube.com/user/wildlandsnetwork>
People can subscribe to the networks channel and receive notice when new videos are posted.

Twitter Account: <http://www.twitter.com/trekeast>
This account from John Davis @TrekEast reports 472 tweets, 159 followers, and 9 lists following John Davis @TrekEast

Wildlands Project on Wikipedia:
http://en.wikipedia.org/wiki/Wildlands_Project

yfrog photos: <http://www.yfrog.com> TrekEast photos: <http://yfrog.com/search/search/term/trekeast>

Cirbit audio clips: John Davis/TrekEast on Chirbit at <http://www.chirbit.com/trekeast>

Survey: A survey was conducted using Survey Monkey - <http://www.surveymonkey.com/> Wildlands Network/Trek East Collaboration Survey <http://www.surveymonkey.com/s/HVNS8JX>

Bookclub: <http://www.facebook.com/IslandPress> Island Press/Wildlands Network TrekEast Book Club at: <http://www.islandpress.org/trekeast/>

twaudio - Audio for Twitter (Listen to my advice for traveling bears in Georgia.. <http://twaudio.io/qPLS>) There are 19 sound clips available from TrekEast on twaudio <http://twaudio.io/users/TrekEast> They have had 959 listens. They can be played directly from the web browser or as m3u, podcast, or subscribed to via iTunes.

Wildlands Network sponsored a video contest on Facebook - <http://apps.facebook.com/contestshq/contests/79757> via the app Contests on Facebook.

Things that are missing at this point include independent blogs like Wordpress or Blogger in favor of hosting the blog on their own website. That is a reasonable choice to make. There aren't any photo

albums on Flickr or Photobucket, but they do have albums on Facebook. The videos are posted to Youtube, rather than Vimeo. Youtube has more viewers and in that regard may be a better option to reach more people. Vimeo has its own strengths also, but the choice of only use one service is reasonable. I do wonder why early audio posts were on twaud.io and the more recent on Chirbit.

Edward Frank



[Monroe Magic, MA](#)

by dbhguru » Tue May 24, 2011 8:22 am

Today, Monica and I went to Monroe State Forest, part of the Massachusetts State Forest Reserve System. Monroe is a forest gem. I have posted on it many times before. It is a wild woodland that makes visitors from populous eastern Massachusetts think that they've been dropped onto another planet. I always get a kick over that, but they are some of the most appreciative visitors. Here are some images from along Dunbar Brook.





I won't attempt to update Monroe's Rucker until fall. As of now, it hovers around 124, with the great Henry David Thoreau Pine leading the pack at 156.5 feet, courtesy of Andrew Joslin and Bart Bouricius's climb. When we do update the Rucker, there is an area of outstanding stand of 120+ year old northern red oaks that need to be revisited. One could be about 125 feet now.

Robert T. Leverett

Bialowieza Forest, Poland April 2011

by Jeroen Philippona » Tue May 24, 2011 9:27 am

Between April 22 and 27 Leo Goudzwaard and I together with 4 other persons from the Netherlands visited the Bialowieza Forest. There we met Tomasz Niechoda, who for years now is making an inventory the big trees in the forest and especially in the Bialowieza National Park and served as a guide to find the most interesting places in the forest and the largest and tallest trees.



The biggest ash in Bialowieza, height 132.5 ft, cbh 17.22 ft, with Astrid Werdmuller

Oncemore I'll explain the situation in this forest: nearly the half of the forest (58.000 hectare / 580 square kilometre = 145.000 acre or 224 square mile) is in Poland, over the half is in Belarus.



The tallest ash in Bialowieza, 145.7 ft



typical open oak - lime - hornbeam forest

Of the Polish part, 10.502 hectare is the Bialowieza National Park (BNP). It is totally protected, so there is no tree cutting at all except for trees which have fallen over the few paths inside the BNP.

Outside the BNP, there are 20 other nature reserves covering 3430 hectare (8575 acres). There are more reserves (at least 8500 hectare) proposed. Outside the BNP and the nature reserves harvesting of wood is still the case. For over 20 years there is quarreling between ecologists and wood companies about this. The politicians do not dare to decide the whole forest a nature reserve.



Tallest oak in Bialowieza, 143 ft

We had a great time, while Tomasz (Tomek for friends) had got permission to go for three days everywhere in BNP with us in the parts normally closed for tourists.



Biggest oak in Bialowieza, cbh 24 ft, height 134 ft, with Tomasz and Jeroen



Tallest living wych elm in Bialowieza, 126 ft

There are 21 treespecies in the BNP. Of 11 species we measured heights: the others are either low species or scarce inside the forest or found only in special parts, like sessile oak (*Quercus petraea*) wich is only found in one reserve in the west of the forest. Of some of them we found new heightrecords for Bialowieza as well as Europe. Tomasz led us also to the tallest specimen he had found before of several species.



Biggest Wych elm 33 m, 108.27ft, cbh 438 cm / 14.37 feet

Here is a list with the height and girthrecords at the moment we left Bialowieza. We did not visit the tallest Norway spruces measured before by Tomasz, the tallest we measured was 48 m / 157.5 feet.

1. Norway spruce - *Picea abies* - 50.2 m / 164.7 feet - cbh 408 cm / 13.4 feet - Bialowieza heightrecord - 47.0 m / 154.2 feet - cbh 442 cm / 14.5 feet - Bialowieza girthrecord

2. Scots pine - *Pinus sylvestris* - 45.3 m / 148.6 feet - cbh 210 cm / 6.9 feet - European laser-heightrecord - 40.0 m / 131 feet - cbh 378 cm / 12.4 feet - Bialowieza girthrecord

3. European ash - *Fraxinus excelsior* - 44.4 m / 145.7 feet - cbh 408 cm / 13.4 feet - Bialowieza heightrecord - 40.4 m / 132.5 feet - cbh 525 cm / 17.22 feet - Bialowieza girthrecord

4. English oak - *Quercus robur* - 43.6 m / 143 feet - cbh 385 cm / 12.6 feet - European laser-heightrecord (new found) - 41 m / 134 feet - cbh 732 cm / 24 feet - Bialowieza girthrecord

5. Black alder - *Alnus glutinosa* - 39.2 m / 128.6 feet - cbh 280 cm / 9.2 feet - European laser-heightrecord (new found) - 31.6 m / 103.7 feet - cbh 388 cm / 12.7 feet - Bialowieza girthrecord

6. European aspen - *Populus tremula* - 38.8 m / 127.3 feet - cbh \pm 250 cm / 8 feet - European laser-heightrecord (new found) - cbh 395 cm / 13 feet - Bialowieza girthrecord

7. Wych elm - *Ulmus glabra* - 38.4 m / 126 feet - cbh 385 cm / 12.6 feet - European laser-heightrecord (dead tree of 39 m / 128 feet) - 33.0 m / 108.27 feet - cbh 438 cm / 14.37 feet - Bialowieza girthrecord

8. Norway maple - *Acer platanoides* - 37.2 m / 122 feet - cbh 370 cm / 12.1 feet - European laser-heightrecord 34.8 m / 114.17 feet - cbh 413 cm / 13.54 feet - Bialowieza girthrecord

9. Small-leaved lime - *Tilia cordata* - 36.6 m / 120 feet - cbh 365 cm / 12 feet - European laser-heightrecord (new found) - 32 m / 105 feet - cbh 585 cm / 19.2 feet - Bialowieza girthrecord

10. Silver birch - *Betula pendula* - 35.2 m / 115.5 feet - cbh 208 cm / 6.8 feet - European laser-heightrecord (new found)

- cbh 280 cm / 9.18 feet - Bialowieza girthrecord

11. Hornbeam - *Carpinus betulus* - 32.4 m / 106.3 feet - cbh 267 cm / 8.76 feet - Bialowieza heightrecord (new found) - cbh 415 cm / 13.6 feet - Bialowieza girthrecord

Among the treespecies not measured were several willowspecies (*Salix*) tall specimen of wich are only

to be found in special, wet parts of the forest we did not visit.



Norway spruce 47.4 m (155.5 ft) tall, cbh 12.27 ft

The European height records of several species are probably found here because of at least two reasons:

1. Bialowieza is the largest old growth forest left in the lowlands of Europe outside the Boreal (northern) areas.
2. In many old forests in large parts of Europe no laser measurements have been done till now.

I think for several species taller specimen will be found in more southern countries with longer growing season, warmer summers, milder winters and / or higher rainfall in the growing season. This was the case already for ash, where Kouta found taller trees in southern Germany.



Tallest Norway spruce height 50.2 m, 164.7 ft. Photo Tomasz Niechoda

Taller Norway spruces have been found in the mountains of middle and southeastern Europe with much higher rainfall.

Probably taller common oaks can be found in Croatia if there have been left old enough forests. In the nineteenth century the oak-ash forests in Croatia were famous because of huge oaks but most of them have been felled before 1900.



Biggest lime, cbh 585 cm, 19.2 ft, height 105 ft



Biggest Norway maple, height 34.8 m-114.17 feet -
cbh 413 cm / 13.54 feet



riverine forest flooded by a beaver dam

The Bialowieza forests are comparatively open because there is no European beech (*Fagus sylvatica*), which is a very aggressive and dominant species in large parts of middle and western Europe. It is only native in western and southern Poland, where rainfall in summer is higher.



Biggest black alder, height 31.6 m / 103.7 feet - cbh 388 cm / 12.7 feet

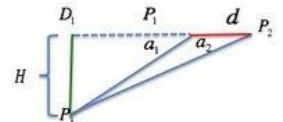
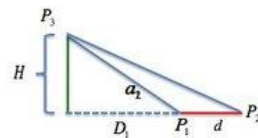
Several other species like large leaved lime (*Tilia platyphyllos*), field maple, sycamore maple (*Acer pseudoplatanus*), sweet cherry (*Prunus avium*), sweet chestnut (*Castanea sativa*), etcetera also are not native in Bialowieza either because of the cold winters as well as cool, dry summers.

Jeroen Philippona

Extended Base Line Method

by dbhguru » Thu May 26, 2011 9:22 am

The next issue of the Bulletin will have two articles on tree measuring if Michael Taylor and I get them to Don Bragg in time. Michael's article will be on his Triangle Method and it will be an eye-opener. It pushes the whole package of envelopes. My submission will be on the Extended Baseline Method (EBLM) for measuring the height of an object above or below eye level. I struggled with the article, eventually seeking to justify the method as another, though fairly selective tool in our collective toolkit. The method and article evolved from an initial, simplified measurement configuration where the measurement baseline never extends to the point directly beneath the target or to the trunk, and is level, i.e. an external baseline. Imposing the level condition led me to a relatively simple formula. Here are the two configurations that satisfy the level condition.



$$H = D_1 \tan(a_1)$$

$$H = (D_1 + d) \tan(a_2)$$

$$D_1 \tan(a_1) = (D_1 + d) \tan(a_2)$$

$$D_1 \tan(a_1) = D_1 \tan(a_2) + d \tan(a_2)$$

$$D_1 \tan(a_1) - D_1 \tan(a_2) = d \tan(a_2)$$

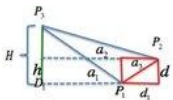
$$D_1 (\tan(a_1) - \tan(a_2)) = d \tan(a_2)$$

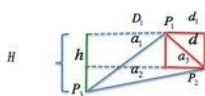
$$D_1 = \frac{d \tan(a_2)}{\tan(a_1) - \tan(a_2)}$$

$$H = \frac{d \tan a_1 \tan a_2}{\tan a_1 - \tan a_2}$$

I tested the above formula out many moons ago, and found it generally satisfactory for baselines of 20

feet or more. Shorter baselines are very risky. However, long or short, we can seldom set up the measurement in such a way as to guarantee a level baseline. So, it became necessary for the level baseline restriction to be lifted, which led to a more complicated formula. At the time, the whole thing was more of an academic exercise than a serious effort to breath life into tape and clinometer methods. However, recently I drew inspiration from Michael Taylor's Triangle Method and his devotion to obtaining higher levels of accuracy. After participating in testing the Triangle Method, I returned to EBLM with the intention of exploring all possible measurement configurations. I came up with 8 that led to what appeared to be 4 separate formulas. However, in pursuing mathematical simplification, I found that the 4 formulas reduced to one. That formula is presented below for 2 of the 8 configurations.



$$\begin{aligned}
 H &= D_1 \tan(a_1) \\
 h &= d \sin(a_3) \\
 d_1 &= d \cos(a_3) \\
 H + h &= (D_1 + d_1) \tan(a_1) \\
 D_1 \tan(a_1) + d \sin(a_3) &= (D_1 + d_1) \tan(a_1) \\
 D_1 \tan(a_1) + d \sin(a_3) &= D_1 \tan(a_1) + d_1 \tan(a_1) \\
 D_1 \tan(a_1) + D_1 \tan(a_1) &= -d \sin(a_3) + d_1 \tan(a_1) \\
 D_1 (\tan(a_1) - \tan(a_1)) &= -d \sin(a_3) + d \cos(a_1) \tan(a_1) \\
 D_1 (\tan(a_1) - \tan(a_1)) &= d (-\sin(a_3) + \cos(a_1) \tan(a_1)) \\
 H &= \frac{d \tan(a_1) (\cos(a_1) \tan(a_1) - \sin(a_3))}{\tan(a_1) - \tan(a_2)}
 \end{aligned}$$


$$\begin{aligned}
 H &= \frac{d \tan(a_1) \cos(a_1) (\cos(a_1) \tan(a_2) - \sin(a_3))}{\cos(a_1) (\cos(a_1) \tan(a_2) - \sin(a_3))} \\
 H &= \frac{d \tan(a_1) \cos(a_1) (\cos(a_1) \tan(a_2) - \sin(a_3))}{\tan(a_1) - \tan(a_2)} \\
 H &= \frac{d \tan(a_1) \cos(a_1) (\cos(a_1) \tan(a_2) - \sin(a_3))}{\tan(a_1) - \tan(a_2)} \\
 \tan(a_1) &= \frac{\sin(a_1)}{\cos(a_1)} \\
 H &= \frac{d \tan(a_1) \cos(a_1) (\tan(a_2) - \tan(a_2))}{\tan(a_1) - \tan(a_2)}
 \end{aligned}$$

The challenge in 6 of the 8 measurement configurations (level baseline is a no-brainer) is measuring angle a_3 and distance d without extra equipment such as poles used to mark the position of the eye at each end of the baseline. However, if the measurer marks each end of the baseline with some type of reflector that can be seen from the position of the opposite reflector and uses caution in measuring distances and angles, a_3 and d can be computed by standing at one end of the baseline and shooting the distance and angle of the other reflector. The distance and angle are eye position to reflector. One can imagine several configurations as shown below.

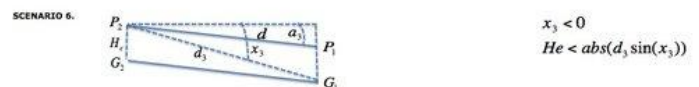
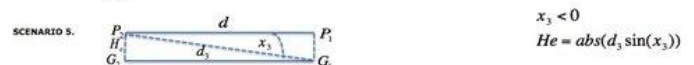
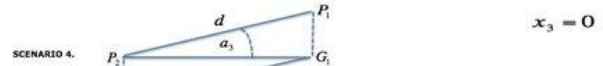
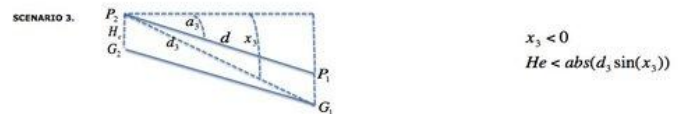
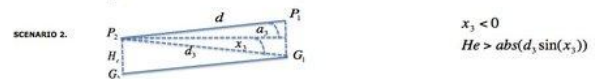
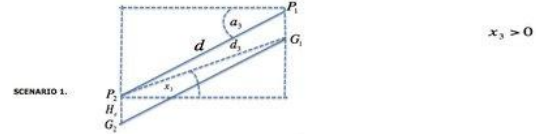
Derivation of formulas for distance and angle between ends of an external baseline

Definitions

G_1 = point on ground at the end of the baseline nearest the target
 G_2 = point on ground at opposite end of baseline
 P_1 = position of eye above G_1
 P_2 = position of eye above G_2
 d_1 = distance from P_2 to G_1
 x_3 = angle from P_1 to G_1
 a_3 = angle from P_2 to P_1

Objective

To compute the eye to eye angle and distance between the ends of the baseline. Each scenario below gives a different configuration of P_1 , G_1 , and P_2 leading to formulas for a_3 and d . Measurements are all taken from P_2 to G_1 . P_1 is the eye position closest to the measurement target.



Notes on scenarios:

Scenario 1. Ground slopes up, $x_3 > 0$, $P_1 < G_1$
 Scenario 2. Ground slopes up, $x_3 < 0$, $P_2 > G_2$
 Scenario 3. Ground slopes down, $x_3 < 0$, $P_2 > G_2$
 Scenario 4. Ground level, $x_3 = 0$, $P_1 = G_1$
 Scenario 5. Ground level, $x_3 < 0$, $P_2 > G_2$, $P_1 - G_1 = H_1$
 All the baseline scenarios allow a_3 and d to be computed.
 a_3 and d are then used with angles to the target from P_1 and P_2 using one of four formulas to get height of lite target above or below P_1

Scenarios reduce to:

$$\begin{aligned}
 a_3 &= \tan^{-1} \left(\frac{H_1 + d_3 \sin(x_3)}{d_3 \cos(x_3)} \right) \\
 d &= \frac{d_3 \cos(x_3)}{\cos(a_3)}
 \end{aligned}$$

All scenarios lead to the two formulas shown in the last image. In these formulas, the variable He is the vertical distance of the measurer's eye above the ground. Obviously this distance can change if the measurer wears shoes of different thicknesses, hunches over, etc. So, the application of this method does require discipline and consistency. In addition, the distance d_3 and angle x_3 must be accurate. With my Bosch GLR825 and my TruPulse 360, these requirements can be sufficiently met. The GLR825 is dead on, and the TruPulse angles are to ± 0.1 degrees.

So what is the bottom line? Well, with the above conditions met, I am thrilled to report that I can consistently get results with EBLM that are within +/-0.5 feet of what I get using the TruPulse 360 using the sine-sine method. The method works and works well. That claim is not debatable. I ran 36 tests and the average absolute difference between EBLM and sine-sine was 0.48 feet.

I am not suggesting that we substitute EBLM for sine-sine. The latter is quicker and easier. However, EBLM provides the measurer who owns a tape, clinometer, and scientific calculator, but is on a tight budget with a method that can produce accuracy comparable to sine-sine. This is a leap forward. In addition, EBLM provides all measurers with a method that works when the laser won't penetrate clutter obscuring the target. We've all encountered that. But admittedly, EBLM suffers from its own clutter situation - ground clutter, hiding the reflectors. There are variations of the method presented here to get around ground clutter, such as the use of eye-level poles, but even in its simplest forms, EBLM is more labor intensive than sine-sine. So, I emphasize, EBLM is not a substitute for sine-sine, but an alternative when sine-sine can't be applied successfully.

I should end this post here, but can't resist the urge to be a little testy. If EBLM accomplishes nothing else, the method illustrates the degree to which the measurer must go to get reliable measurements of the height of a target above/below eye level when using only tape, clinometer, and calculator. The absurd oversimplifications of tree measuring that are springing up on the Internet need to be countered. These dumbed-down, misleading sources would have us believe that with nothing more than a ruler and tape measure, the measurer can tackle serious measurement situations. Of course, any Ent worth his/her salt knows that not to be the case, but the myths persist, and are promulgated by two groups, both of which should know better.

I hope at least some of you will perform your own tests of EBLM. If you have an Iphone, I can give you a mySoft BASIC program to do the calculations. That helps a lot. I also have a spreadsheet solution, and

can provide a Chipmunk BASIC program to do the calculations. That's where things stand now.

Where do we go from here? When I get a new angle measuring device that measures accurately to about 1/60th of a degree, I hope to take EBLM to a new level, exploring external baselines that may not point directly at the target, but don't require sophisticated equipment for measuring horizontal angles. For the present, if we can get angles to 1/10th of a degree and distances to +/- 0.1 feet, we have an alternative to sine-sine when that tried and true method fails because of intervening clutter.

As WNTS President Don Bertollette takes the Alaska Champion Tree Program to greater heights, he plans to present a variety of measuring techniques on his website. Don correctly insists that each technique should be presented as clearly and concisely as possible. My job will be to develop a series of one-pagers. I hope other Ents will join in and help us. But just the facts, Ma'am. Don insists on clarity and brevity. He will ultimately decide what is presented and what is not. But as he has often explained, there needs to be a graduated listing of techniques from the simplest to the most sophisticated, each with explanation, caveats, cautions, etc. Such an Internet presentation would go far toward countering the dumbed-down big tree websites that we are commonly seeing.

Robert T. Leverett

Cascades Recreation Area, VA

by jamesrobertsmith » Sun May 29, 2011 8:58 pm

My wife wanted to hike to see The Cascades, regarded by many as the most impressive waterfall in Virginia. I hadn't been in over 28 years and I don't need an excuse to go to the high country. So we drove up there yesterday afternoon, checked into a hotel, had a great dinner at a restaurant across the street from Virginia Tech, got a good night's sleep, and hiked to the Cascades this morning. Good thing we went early as the empty parking lot we'd parked in at 9:00 am was packed beyond capacity when we returned there from the four-mile hike at 4:30 pm. Literally hundred and hundreds of people.

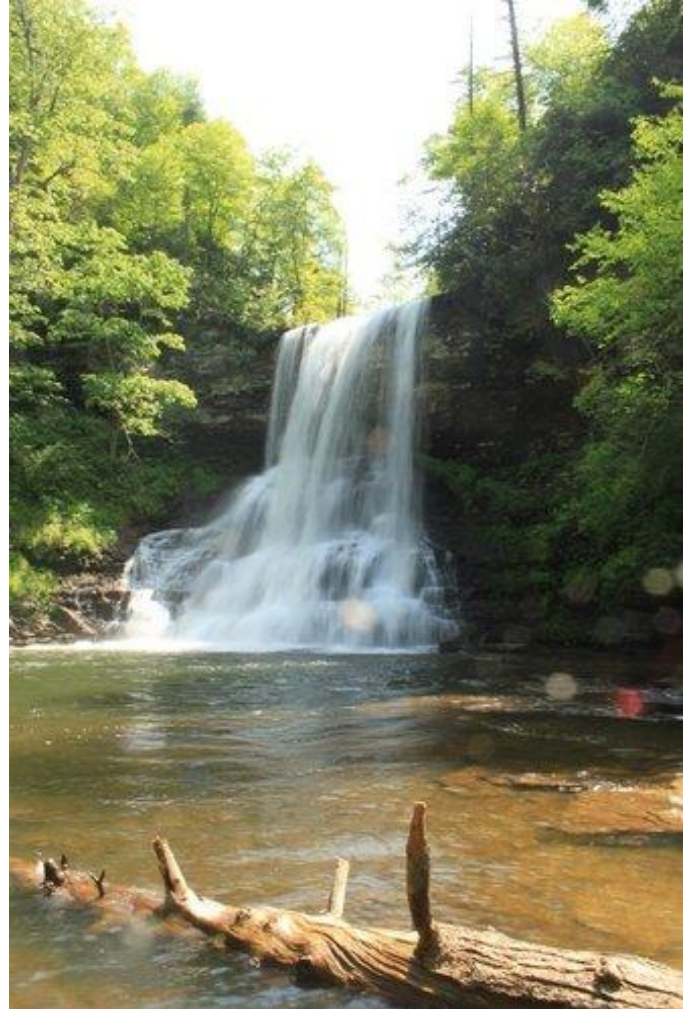
ALL of the hemlocks there are dead. 100% mortality. They've obviously all been dead for some time as I didn't see any of the "ghost" hemlocks--the ones that are dead but look all grey with limbs intact and bark still on. There were some standing giants, but not a lot of them. Even the holes in the forest canopy where many had fallen were all filled in so you didn't have the glaring gaps of sunlight such as what I'd witnessed in the old growth on Laurel Knob last week.

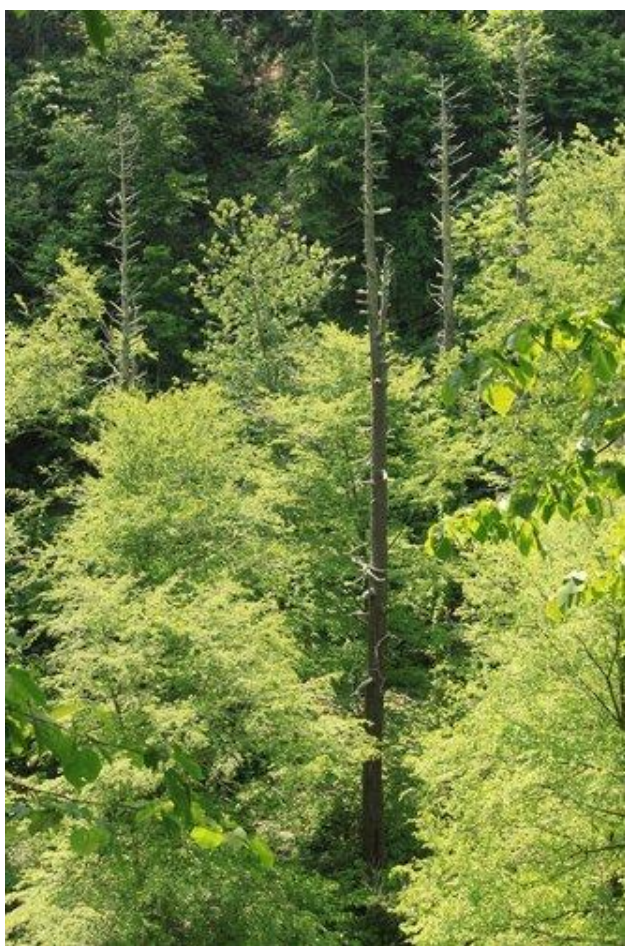
However, the main creek was packed with hemlock logs in many places. And all of the islands in the creek that had once been wonderful hemlock habitat were now buried in hemlock corpses.

Here's a video I took of a medium-sized waterfall packed with dead hemlocks:

<http://youtu.be/OBEpbIu3vK0>

Here are some photos of the forest and environs I took along the hike:







The Grandfathers, MA

by dbhguru » Fri May 27, 2011 9:18 am

Yesterday Bart Bouricius and I met Sarah and Liza Bellows at the Hall Tavern Farm and they took us to Jay Healy's Grandfather Pines. I had visited them many years ago, but had lost their exact location. The Hall Tavern Farm sets between Shelburne Falls and Charlemont, MA. It is a regular farm, an also a tree farm. Jay has some big pines that he protects and the Grandfather Pines are among them. Liza took the photos as Bart and I did the measuring. Here are a couple of Liza's images.



Two of the three Grandfather Pines are really huge. Altogether, I recorded 6 trees on the outing. I measured more, but didn't record them. Here is the catch of the day.

Tree #	Girth	Height	Comments
1	13.0	147.2	A
Grandfather Pine			
2	13.1	140.2	A
Grandfather Pine			
3	8.7	142.7	Near the
Grandfathers			
4	8.5	139.1	
5	11.4	138.5	
6	10.9	132.0	

We will return in the fall when we can see the crowns better. I expect that there are a couple more 140s and half dozen more 130s. Remember, this is a tree farm. So, the existence of a few large and tall pines is a blessing.



The Hall Tavern farm makes the 9th location in the Deerfield River corridor with great whites that we have measured to 140 feet or more. One of these locations, Savoy Mtn State Forest, lost its lone 140-footer. I am slowly coming to the belief that this region historically grew some of New England's largest white pines. In addition to the 140s, consider that we have measured 8 white pines in the region to girths over 13 feet, all forest-grown. If we expand the area to include the township of nearby Rowe, MA, we have 9 great whites over 13 feet in girth. None of these white pines are very old. I'm sure we haven't found them all. So, the case continues to build. It is a question of landowners allowing the trees to reach ages of 150 to 200 years. In needy times, that's a tall order.

Robert T. Leverett

Here it is - the Triangle Solver

by M.W.Taylor » Sun May 29, 2011 1:27 pm

I put together another home-built digital transit with a "Slopeview TLL-90" instead of the DigiPas-180s. The unit, despite being so ugly, is now calibrated and giving +/- .01 degree accuracy and repeatability (with averaging). I am ready for Triangle Method testing out to 1+ mile on the 368'+ Rockefeller Tree. The scope I used on this set-up is the new Vortex Solo RT, which is similar to the Macroscopic-25, but just has 50% more tick marks and in both X and Y axis. make sure to get the Vortex that has separate focus for both the lense and crosshair.

I was planning to test this weekend but just too busy with work. Will give it a shot in mid June of this year.

This time, I aligned the center of the scope with the center yoke's pivot axis, so that there is no pivot wobble of crosshair relative to the pivot axis. Thus no need to use your Pivot Adjustment Formula for this model.

On the same subject, I have posted a few Visual Basic programs on my website that will solve for the Triangle Method. I have also posted a few other new tree survey tools including a volume calculator. You must enable macros in Excel to use these programs.

<http://www.landmarktrees.net/newmeasure.html>

I will have a write-up on the Triangle Method Posted here soon and other survey equipment and tall tree news as well.

I wanted my first posting on ENTS to be to the guru, Bob Leverett.

Michael Taylor



About: eNTS: The Magazine of the Native Tree Society

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

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

Edward Frank, Editor-in-Chief