

[Freakin Big Oak, MA](#)

by dbhguru » Thu Oct 18, 2012 8:31 pm

NTS, Today Bart Bouricius and I met Eric Morgan in Whately, MA to see a large northern red oak he wanted us to measure. Here is what we saw.



Measurements for the big oak are girth = 20.1 feet, height = 83.5 feet, Avg spread = 90 feet. Not half bad. The tree grows just above the Connecticut River and appears to be fairly old. I'd say approaching 200 years if not older. There is a scattering of large trees on the slopes going down to the Connecticut. When

the ground freezes, we'll look for more big trees along the river corridor.



There is a chance that the tree is a double. Seams can be seen on several areas of the trunk. From the uphill side, it looks like it is going to be a double, but all evidence disappears when viewed from the downhill side. At this point, we're giving it the benefit of the doubt, but the jury is still out. I plan to return and take more photos.

Robert T. Leverett

Re: Asheville Trees

by **bbeduhn** » Fri Oct 19, 2012 3:45 pm

Update

I've included a few Weaverville locations as well, just north of Asheville.

Calocedrus decurrens incense cedar

Montford, Cullowhee/Cumberland	86.3'	
Kenilworth, Waverly	96.7'	
Weaverville, cemetery	63.2'	9'2" cbh
Weaverville, Main St.	70.6'	
N. Asheville, Norwood	75.2'	

Taxodium distichum baldcypress

Montford, Cullowhee/Cumberland	98.1'	79.6'
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Chamaecyparis pisifera Suwara falsecypress

Montford, Cullowhee/Cumberland	75.5'	
near downtown, Baird	69.3'	
N. Asheville, Beaver Lake, Lakeside	83.6'	

Juniperis virginiana Eastern redcedar

Weaverville, cemetery	74.4'	7'9" cbh
Weaverville, Main St.	74.2'	9'0" cbh

Brian Beduhn

Re: Metasequoia Glyptostrobooides (Dawn Redwood)

by **bbeduhn** » Fri Oct 19, 2012 3:13 pm

I have another handful of Meta Glyphs:

UNCA Asheville quad	63.1'	69.3'
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Renaissance hotel downtown Asheville

84.6' 84.8' These are twins...and I can't believe it took me this long to notice them!

College downtown, Renaissance property	60.3'
Just makes my threshold of 60'	

Brian Beduhn

Re: Bear attack! (On my Doug-fir tree?!?!)

by **PAwildernessadvocate** » Fri Oct 19, 2012 2:44 pm

If anyone is interested/curious, my tree lived through the summer just fine. A number of small branches died, and it didn't really put on much new growth, but lots of new tissue grew over almost all of the deep claw marks on the trunk of the tree.

To help the tree, I immediately staked it upright on the morning I found it tipped over, fertilized it with four Jobe's evergreen spikes (this was May), watered it whenever there was dry weather, and fertilized it again with four Jobe's evergreen spikes in mid-July.

I will want to leave it staked for at least another growing season. Ideally I should probably leave it staked through the 2014 growing season as well, but I'll probably just take it off about this time next year and leave it at that. Should be ok (unless another bear attacks it, ha ha!).



Kirk Johnson



Ents Mascot

by **Rand** » Sat Oct 20, 2012 3:48 pm



Large Tree Troll Sculpture by Kim Graham. This tree troll is entirely made from Paper Mache! The Troll measures in at 12 feet tall and was built by Kim and a group of volunteers with completely non-toxic materials.

<http://kimgrahamstudios.com/troll.html>

[Re: The tallest tree of Europe?](#)

by **KoutaR** » Sat Oct 20, 2012 8:00 pm

A video of climbing the "Karri Knight" (possibly the tallest tree of Europe, *Eucalyptus diversicolor* in Portugal, 72 m):



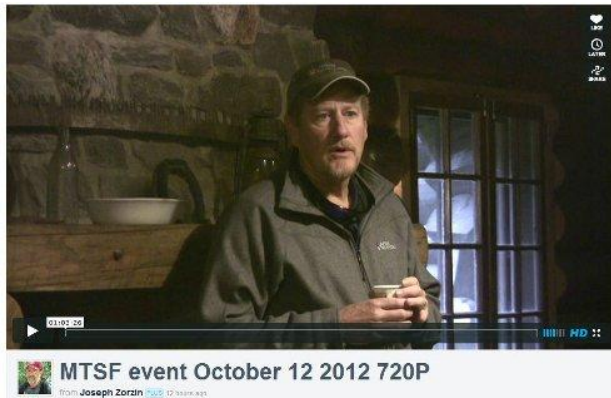
<http://www.youtube.com/watch?v=3W9dxSTSXHI>

Kouta Rasnen

[Re: October 12th Advanced Tree Measuring Workshop](#)

by **Joe** » Sat Oct 20, 2012 4:02 pm

I have just uploaded my video of the October 12th event: <https://vimeo.com/51807708>



It was raining early so most of the video consists of the speakers in the lodge. I tried filming the group in

the woods but there were too many people so I gave up on that effort except for a short clip. At the end, Joan Maloof presents a certificate to Bob and the DCR indicating that Mohawl Trail State Forest is now part of the Old-Growth Forest Network.

I have other videos of just Bob measuring trees and explaining the techniques, one at Look Park in Northampton and one at MTSF which I may turn into another video.

Joe Zorzin

[Re: October 12th Advanced Tree Measuring Workshop](#)

by **edfrank** » Sat Oct 20, 2012 8:42 pm

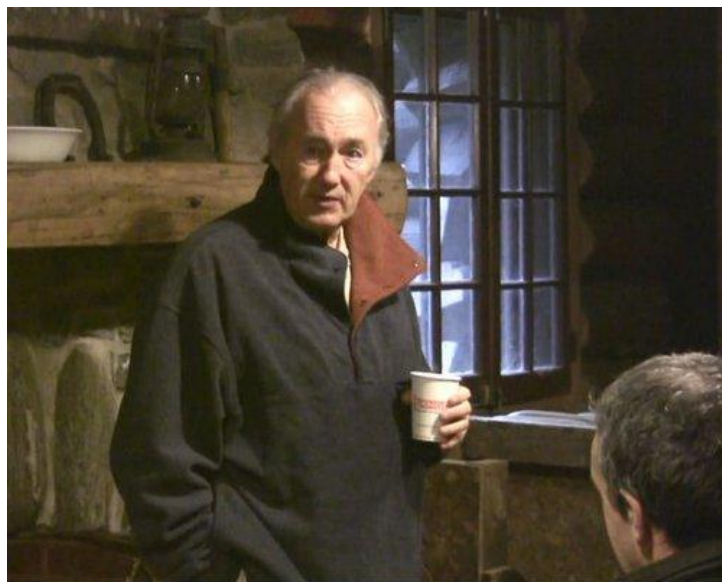
Here are some shots pulled from the Joe Zorzin video:



Dave Miller



Tim Zelazo



Bob Leverett



Tim Zelazo



Steve Colburn



Bob Leverett



Joan Maloof



Joan Maloof and Old Growth Forest Network
dedication plaque



Joan Maloof and the audience



Group photo at Old Growth Forest Network
Dedication

Photos by Joe Zorzin



Practice Makes Perfect

[The vanishing groves](#)

A chronicle of climates past and a portent of climates to come – the telling rings of the bristlecone pine
Ross Andersen 16 October 2012

<http://www.aeonmagazine.com/nature-and-cosmos/ross-andersen-bristlecone-pines-anthropocene/>

[Re: The vanishing groves](#)

by **Don** » Mon Oct 22, 2012 3:15 pm

Ed-

Good find (and current too!), Will and I are in accord, this is a very well written piece, on my next to most favorite five-needle pine. Anderson's writing style reminds me of Michener, who once a topic was selected, chose to start at the very beginning and bring the topic through time providing perspectives along the way.

Over the last decade, I've spent much of my free travelling time visiting the bristlecone pines of the White Mountains, and the foxtail pines across the Owens Valley, in the high reaches of the Sierras. I find it very interesting that these two tree species seem to have a North/South divide along the Owens Valley...foxtail pines are found nowhere East of the Owens River (although relicts are found in wilderness areas in very northwestern California), and bristlecones are found only East of the Owens Valley (including small relict populations in Nevada and neighboring Utah).

The foxtail pine (*Pinus balfouriana*) age maxima appears to be around 2000 years, about half that of the bristlecone pine (*Pinus longaeva*) maxima. The mystery for me is why the foxtail pines don't age back as far as the bristlecone pines, with such similar genetics and environments (little more than 20 crow-flying miles and both with elevation minimas of 10,000'). They do have distinct bedrock formations, foxtails growing primarily on granitic based soils, while bristlecones favor dolomitic based soils almost exclusively.

Last comment...Anderson might have considered investigating whether or not the bristlecone dendrochronology contained records of similar global warming periods...are we in fact experiencing a rate of climatic change outside the normal range of variation?

Don Bertollette - President/Moderator, WNTS BBS

[Made greatest trees you tube video...](#)

by **JohnnyDJersey** » Mon Oct 22, 2012 5:00 pm

I was playing around with windows movie maker and put this together...most of the photos aren't mine but enjoy...

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



[American Chestnuts, Pepperell, MA](#)

by **EMorgan** » Mon Oct 22, 2012 10:08 am

Hello, I'm new to this forum and this is my first post. Bear with my while I try to figure out all of the bells and whistles.

I found two mature American chestnut trees behind my house in Pepperell, MA. These are not the average scrawny root sprouts. I figured I'd share with everyone since there is a dearth of material on American chestnuts on this site.

The two trees are full-sized and appear to be from new seeds, rather than from shoots. The larger tree has a girth of 26 inches; the smaller is 17 inches. I haven't measured their heights but I think they are both in the 40-45 foot range and are blight free. This entire area is filled with chestnuts of varying sizes but these two are by far the largest. I have already contacted The American Chestnut Foundation about them.

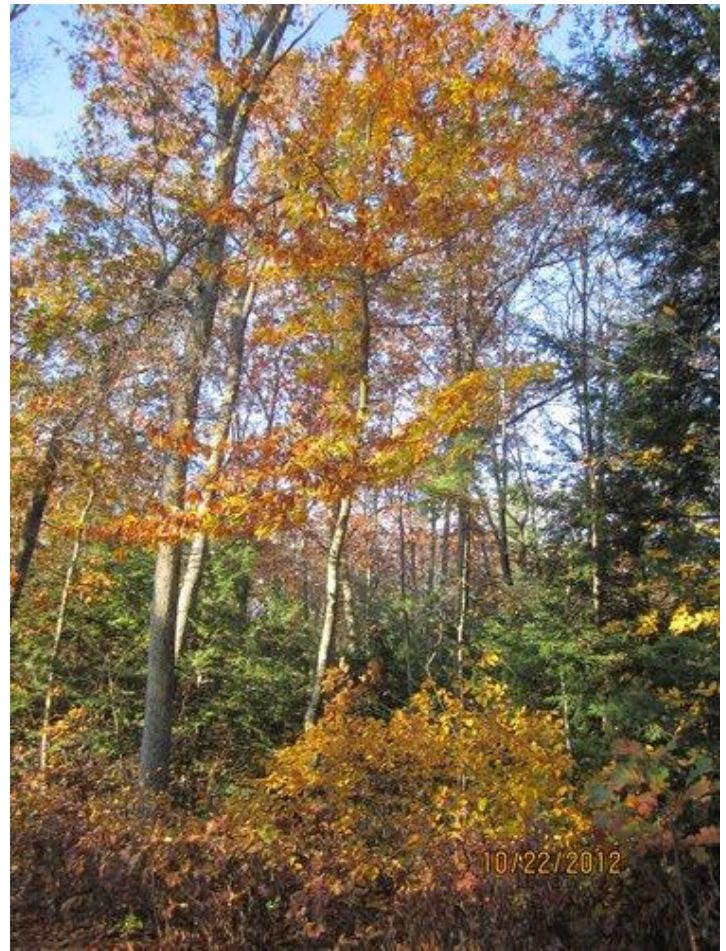
You can see a bunch of pictures here:

<https://docs.google.com/folder/d/0Bw1ZerQEvrM0NUwzZENCcEdQeDg/edit>

I also uploaded an attachment of the larger tree. I'm trying to figure out the gallery situation.

The larger one dropped burs in September; the smaller one did not flower because it's under canopy. Since I only discovered them in late June, I don't have pictures of the flowers. This fall I was only able to find one viable seed on the forest floor; most of the seeds were sterile. I'll plant it in a pot next spring.

I'm confident that TACF will reintroduce blight-resistant chestnuts into the wild in the coming decade. They have made a lot of progress in the last 35 years to bring back this iconic tree. The Redwoods of the East will rise again.



From what I've read the number of American chestnut trees that survived the blight was close to, but not, zero. It's obvious that some still thrive in certain environments, though it's not clear why. It would be great if you could post some pictures of the one there in NC. Do you know if it produced viable seeds?

There's a chestnut orchard nearby my house. The trees are now about 10 years old and producing flowers and nuts. They're elegant. But it's strange that almost no one knows what they look like anymore. Most people think of horse chestnut rather than American chestnuts. Prior to the blight, American chestnuts supported some economies in Appalachia by giving wood, food and feed for animals. The chestnuts were practically currency. They'll be back.

(October 23, 2012): I added some pictures of the American chestnut burrs that dropped from the tree. I included some Chinese chestnut burrs for comparison. For all of you Western MA folks, there are three flowering Chinese chestnuts in South Deerfield. There are two at Ward Cemetery which is east of Sugarloaf Mountain on River Road. There is also one at the private residence adjacent to the cemetery. In September they produce edible nuts. They would also fertilize any nearby American chestnuts to form hybrids.

[Re: American Chestnuts, Pepperell, MA](#)

by **EMorgan** » Mon Oct 29, 2012 10:04 pm

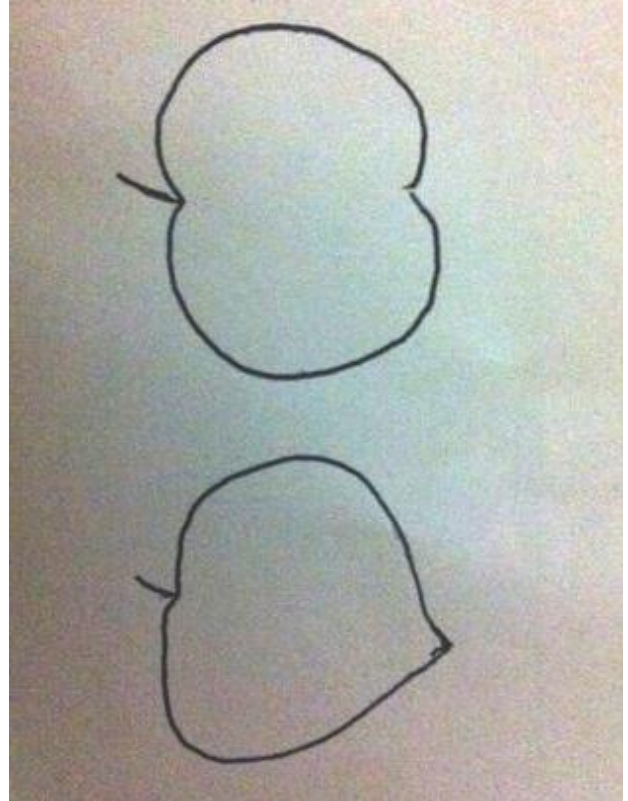
Quick update: the American Chestnut Foundation confirmed that the trees are real American chestnuts. Also, I found a third 40' tree about a quarter mile away. Unfortunately, it broke at about 10' and bent over to the ground. My theory is that it flowered in years past and pollinated the one in my yard. That didn't happen this year because it probably broke last October in the snow storm.

[Vine ID help, Georgia](#)

by **eliahd24** » Sun Oct 21, 2012 8:12 pm

I found a woody vine creekside in a east facing rich hardwood forest on the campus of Emory University in Atlanta, GA, but I cannot for the life of me identify it. I've tried numerous websites to no avail. This forest where the vine is located is quite nice and has rare Bay Starvine (*Schisandra glabra*), but this vine is different. It's a large liana with grayish-tan bark that splits with age (see pic). The leaves are the really unique feature. They seemed to have two forms- see attached pic of my drawings (leaves were too high to get photo's of). The leaves are quite large too- some maybe 6" or more across. Any ideas??

~Eli Dickerson



[Crane Beach, MA](#)

by **dbhguru** » Tue Oct 23, 2012 8:30 pm

Hi Everybody,

Monica and I are at Crane Beach. No big trees, just ocean beauty. Wanted to share some of the scenes.







Robert T. Leverett

[Re: Crane Beach](#)

by dbhguru » Thu Oct 25, 2012 8:05 pm

NTS,

Some final images from the Castle on the Hill property of the Trustees of Reservations taken this morning before leaving this fabulous place. First, three images from the castle and surrounding grounds.



Now for the Inn where we stayed.



Tomorrow, more beach, estate, and tree scenes.
Folks, you can't go wrong staying at the Inn at Castle Hill.

Robert T. Leverett

[NTS Tuliptree study in NPS news 10/24/12](#)

by **Will Blozan** » Wed Oct 24, 2012 8:56 am

NTS, This just came out today.

Tallest Native Hardwood Tree In North America Is Located In A National Park

Submitted by Jim Burnett on October 24, 2012



The screenshot shows the top of a web page from National Parks Traveler. The header includes the site's name and navigation links. The main article title is 'Tallest Native Hardwood Tree In North America Is Located In A National Park', submitted by Jim Burnett on October 24, 2012. The article text begins with 'If you were looking for the tallest native hardwood tree in temperate North America, where might you begin? A group of dedicated volunteers from the Native Tree Society has found the answer, and it's in the Great Smoky Mountains National Park.' It then describes the members of the Native Tree Society (NTS) as 'tree hunters' and mentions their current project to locate and measure large tulip trees (*Liriodendron tulipifera*) in the Smokies.

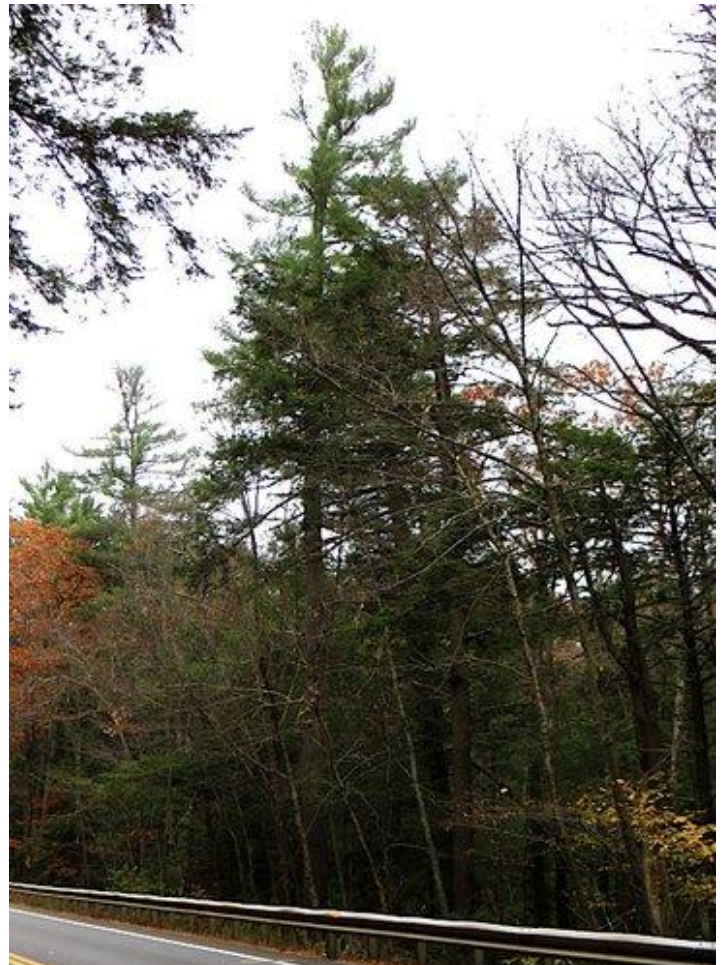
<http://www.nationalparkstraveler.com/2012/10/tallest-native-hardwood-tree-north-america-located-national-park10714>

Will Blozan

[The Fisher Pine, MA](#)

by **dbhguru** » Thu Oct 25, 2012 7:06 pm

NTS, On our return trip from Crane Beach, Monica and I detoured to visit a large white pine on the property of Harvard Forest in Petersham, MA. I have monitored the pine for a number of years. Well, today, I confirmed it as a new 140-footer. It measures 12.4 feet in girth, and earns 301 points on the champion tree formula. It's a biggie.



I'm proposing that the pine be named for Harvard Forest's Dr. Fisher. I'm hoping that Harvard Forest will go for the name and dedicate the tree. We'll see. The preceding two images show the pine. It is pretty old. I'm thinking between 180 and 230 years with the likelihood of the high end.

With the confirmation, Harvard Forest becomes the 27th site in Massachusetts with a tree of any species reaching to 140 feet. It pick up a tree over 12 feet around and over 140 feet is an even more selective club. There are 9 sites statewide with trees of any species that combine a girth of 12 feet or more with a height of 140 feet or more.

Robert T. Leverett

Beginnings of Laser Rangefinder Sine Based Tree Height Meas.

by **edfrank** » Fri Oct 26, 2012 3:03 pm

NTS,

I prepared this document over the last month. I tried to forward this final copy to the various people mentioned prior to posting here, but it appears that the email have not gone through to the addressee's inboxes. I think the ISP, Comcast, in its infinite wisdom, has decided through its email filters that this post with an attachment is some sort of a phishing scheme. This is in spite of the fact that I get dozens of junk emails every day that are obvious phishing schemes that make it through the company's email filters. I have tried to email this through the BBS and my cc copy comes back labeled a phishing scheme. I give up. If any of the people mentioned have additional comments or corrections, please post a reply here, and I will revise the document.

Edward Frank

Beginnings of Laser Rangefinder Sine Based Tree Height Measurements

By Edward Frank, October 9, 2012

For years the standard method of measuring tree heights in the forestry industry was to first measure the distance to the base of the tree, then measure the inclination to the top of the tree with a clinometer.

The height of the tree above eye level was equal to the tangent of the inclination times the distance to the base. This is the tangent method of tree height measurement. Indeed many clinometers were sold with a percentage slope scale, or even a scale that allowed a direct tree height reading using this method when the observer was a specified distance from the base of the tree – generally 66 feet. The method works adequately for measuring the height of marketable timber on these trees, but does not provide a good measurement of the total tree height for champion tree purposes or as data for scientific research and modeling.

Height above eye level = $\tan(a) \times \text{distance to tree trunk}$

People with an engineering or surveying background will realize that if the point sighted using the clinometer as the top of the tree is not directly over the base of the tree, a right angle triangle is not formed, and the tree height measurements will be incorrect. The amount of error in the height will be equal to the amount of offset in the direction of the observer times the tangent of the inclination to the top. Common errors even when the measurements are made perfectly may be in the range of ten to twenty feet or more in the case of many broad crowned trees. In addition if the top of the tree is not correctly identified, the resulting height will also be wrong. For example sighting on a forward reaching branch can result in errors of up to 50 feet or more.

A simple solution to the methodological problems of the tangent method became available with the development of laser rangefinders. The first hand-held total station, which included a laser rangefinder and an electronic clinometer, was the Criterion released in 1992 by Laser Technology, Inc.

<http://www.lasertech.com/default.aspx>



At this time there were a number of big tree hunters that already were measuring tall trees using the improved surveying techniques to replace the inadequate tangent method. There are several approaches to problem of accurately measure tree heights. One approach is to locate the point on the ground directly underneath the topmost point of the tree. Once this point is located, rather than just arbitrarily using the base of the tree trunk, the tangent based methods can be used to obtain true tree heights.

If the point on the ground is directly under the top of the tree, then a right triangle is formed. The height of the tree above eye level in this right triangle is the tangent of the inclination to the top times the distance to the point at eye level directly under the top. The position on the ground directly under the top was found through cross-triangulation methods.

Alternatively regular surveying techniques could be used to measure tree heights. If a direct line of sight to the top could be found from two different locations, and a direct line of sight could be obtained between the two or more) observation points, the angles between the survey stations, the angles from each to the top of the tree, and the distance between the survey station measured, then the position of the top of the tree in space relative to the survey station can be calculated. A third viable measurement technique is to climb the tree and directly measure the tree's height using a long tape measure. All of these methods are time consuming and difficult to implement.

When using a laser rangefinder a much easier, quicker, and more straight forward methodology can be used to measure tree heights. It allows the surveyor to directly measure the distance from his

position to the top of the tree. The using a clinometer the inclination to the top of the tree can be measured from the same position. The height of the tree above eye level is simply the sine of the inclination times the distance as measured by the laser rangefinder.

Height above eye level = $\sin(a) \times \text{distance to the top}$

With the use of a rangefinder, the height of the top and base above or below eye level can be measured independently. It no longer made any difference in the accuracy of the measurement if the top of the tree was not directly over the base or trunk of the tree.

Nor did the amount of offset make any difference. This eliminates one major source of error present in the tangent method.

The other major source of error when using the tangent method is misidentifying the true top of the tree. Even with practice it is difficult to determine based upon visual clues alone which of several tops is actually the tallest. In addition to directly measuring the distance to the top, a laser rangefinder allows the surveyor scan the top of the tree to correctly identify which sprig is actually the tallest point of the tree visible from that position. In general, among several potential tops at similar angles, the sprig that is farthest away is tallest of the group.

The basic trigonometry of the situation shows the overall superiority of the sine based height measurements over the tangent based measurements.

This should be readily apparent to anyone with a mathematically oriented background. Indeed the engineers at Laser Technologies built a Vertical Distance (Vd) routine into the Criterion instrument.

Unfortunately they also included a tree height measurement routine based upon the tangent method as a paen to this long ingrained methodology typically used by forestry professionals.

At least three different people began using the sine based methodology to better pursue their tree measurement exploits. These people, Robert Van Pelt

<http://www.humboldt.edu/redwoods/faculty/vanpelt.php>, Michael Taylor

http://en.wikipedia.org/wiki/Michael_Taylor_%28forester%29 and <http://www.landmarktrees.net/>, and

Robert Leverett

http://www.nativetreesociety.org/people/ents_executive.htm each began using the method independently in the late 1990's. The first person to use the sine method, via the vertical distance routine in the Criterion, was Robert Van Pelt in northwestern Unites States.

Will Blozan

<http://www.appalachianarborists.com/default.html> (email 2012-10-01) talks about a conversation he had with Robert Van Pelt around this time:

I met BVP in 1993 when he stopped by a display I was presenting on big trees (in GRSM) at an ESA meeting in Knoxville. He gave me some leads on some trees which he had measured via tape drag triangulation. His display had some early versions of his GOPC drawings and he suggested getting a laser for measuring. This facet of tree documentation was then brought home at Cook Forest with the Longfellow Pine. [Longfellow Pine measurement was taken in 1997]

Steve Sillett

<http://www.humboldt.edu/redwoods/sillett/> (email 2012-10-01) writes:

I remember in the early 1990s working with Michael Taylor and he was using the tangent method because neither of us had a laser. In the mid-90s we started working with Van Pelt who had Jerry Franklin's Criterion. I think that was the first time any of us started using the sine method, which was obviously superior to the tangent method. All along my preferred method has been direct tape drop, which is the most accurate, though not always practical!

There are more accounts of the Longfellow Pine measurement available to confirm this event: Longfellow Pine Update, Cook Forest, PA, by Dale Luthringer, April 10, 2008, History of measurements of the Longfellow pine: 11.1 178.1 July 1997 avg height of Impulse laser, surveyor's transit, laser rangefinder/clinometer by VanPelt, Leverett, Blozan, Soban
http://www.nativetreesociety.org/fieldtrips/penna_cook_forest/longfellow_pine_update_pa.htm

Michael Taylor another west coast tree hunter in an (email 2012-09-29) also confirms that Robert Van Pelt was the first person he saw using a laser rangefinder to measure tree heights. He can also fairly be considered an inventor of the use of the sine method. He writes (email 2012-09-29):

I was also using an optical range-finder [and Suunto clinometer] which I bought in 1993 (1994?) and was using the sine method with the optical rangefinder then as well. I still have that old thing. It was just accurate enough to be of some use.

I purchased my first reflector-less laser in 1994 (1995?), a Lytespeed-400 for \$350. It was one of the first ever sold by Bushnell in California. I was on a waiting list for almost 6 months. I knew right away the benefits of finding the hypotenuse to the top with a reflector-less laser after I saw Bob using his Criterion 400. The price range had finally come into my reach. In 1994 the Criterion 400 was way out of my price range.

I used the sine method immediately with the Lytspeed 400. It was the obvious choice due to lean of tree being already figured out when you take the hypotenuse to the top.

In the eastern United States Robert Leverett was already by this time an obsessed tree measurer.

Robert had been measuring tree heights using the standard tangent method as part of his documentation efforts to locate patches of old growth forests in the eastern United States. The story here is more detailed because of his extensive writing in the forums of the Eastern Native Tree Society and its successor the Native Tree Society. In 1992 he met with Jack Sobon, a professional surveyor among other skills, to measure the height of the Jake Swamp white pine and Joe Norton white pine at Mohawk Trail State Forest in MA. Jake Swamp is currently the tallest known tree, as of fall 2012, at just over 170 feet tall. In February 2006
http://www.nativetreesociety.org/native/jake_swamp.htm he wrote:

The Joe Norton and Jake Swamp Pines are both white pines. Back in November of 1992 when Jack Sobon and I first measured the two trees with a

transit. Before that, I'd only measured Joe, using crude techniques. Yep, I think that was in 1990. Am I obsessed or what? When Jack and I measured the two, Joe was 155.6 feet tall and Jake was 155.3. Joe has suffered more crown damage over the years.

This experience brought home the problems with the tangent method of tree height measurement and he set out to find ways to get better height measurements. Jumping to 1994, Robert Leverett wrote

http://www.nativetreesociety.org/entstrees/early_ents_history.htm in July 2006:

Will Blozan, who worked for the GSMNP at the time, got into tree heights in a big way as a consequence of a joint mission we spawned in 1994. I'm sure Will had measured literally thousands of trees for diameter before that - far more than I had. We really got going as a team on our tree height mission in 1995 first as a consequence engineering the crown cross-triangulation method and later through acquiring the LiteSpeed 400 Laser Rangefinder from Bushnell, courtesy of information we got from BVP (who else?). The LiteSpeed 400, the Suunto Clinometer, the scientific calculator, and the proper application of nothing more than high school-level trigonometry has since revolutionized the measuring of tree heights.

Robert Leverett (email 2012-09-30) write more about the introduction of the laser rangefinder into the process:

I, like Michael, independently saw the application of the sine method with the Litespeed 400, and introduced it to ENTS in 1996. Will and I both bought Bushnell Litespeed 400s as a consequence of that model being recommended to Will by BVP at their first meeting in Tennessee...

The history is admittedly a little convoluted, partly because it is the obvious technique to employ if you can measure hypotenuse and angle. I would imagine countless scientists and engineers would just do it without giving thoughts to names. However, in terms of introducing the method by name to ENTS, i.e. sine method, that's me...and me alone.

I came to understand Bob's methodology in a later conversation when we discussed how we were actually measuring tree height. In the course of the conversation Bob explained that he used the "sine" method as one of the returns of the Impulse laser despite the traditional tangent method, which is programmed into the Impulse as an official tree height method.

I expect that BVP and possible Steve Sillett were the first to actually use the technique with infrared laser measuring equipment. Steve will have to explain when he first entered the picture. But, as it now stands, I would say that the sine method appears to have been arrived at independently by BVP, Sillett?, Michael Taylor, and yours truly. If there are others, they have not revealed their identity to us in conversation or writing.

Now, here is an important point. The sine method is the logical choice for measuring tree height if you have the equipment to measure hypotenuse distance and angle regardless of what name you affix to what you are doing. It is a no-brainer. Basic trigonometry. The forestry profession's fixation on tree trunks and insistence in establishing a common baseline to measure both the top and bottom height components turned a simple problem in basic trigonometry into an ocean of errors, as we have all witnessed.

I hope this sheds light on the issue. I cannot speak for others, so if they have additional information or clarifications, I do hope they'll come forward and speak for themselves. I'll close with a final point. I suppose sine method is as much a political name as an engineering or scientific one coined by me to hammer home the inefficacy of the slope or tangent method in measuring tree height.

Will Blozan (email 2012-10-01) confirms and expands upon this account of the methodology coming to ENTS:

I bought my first laser a few months after Bob L. after numerous phone conversations- who explained to me on the phone what to do (I still have my notes). I toyed around with some Smokies trees but my first major survey with the laser was in CONG, December 1996. Bob L. introduced the SINE method to me.

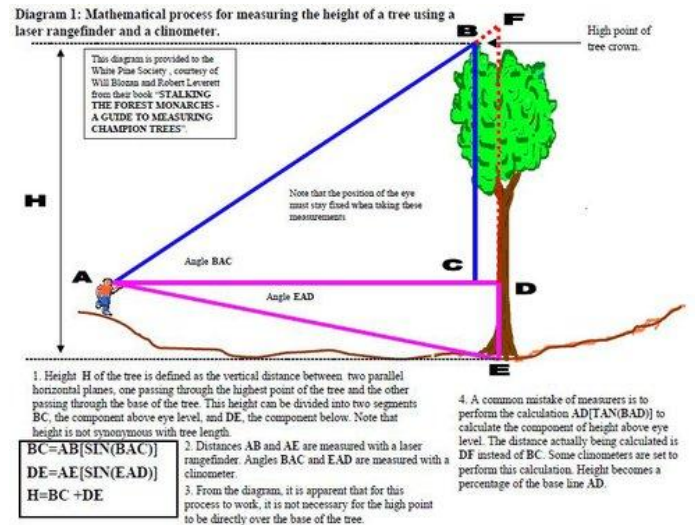
A description of the method was first published in 1997. Robert Leverett (email 2012-09-30) writes:

In terms of explaining the sine method in a publication, so far as I am aware, that occurred in "Stalking The Forest Monarchs - A Guide to Measuring Champion Trees", published by Will, Jack Sobon, and myself and brought to the 1997 old growth conference in PA in June 1997. However, we had been using the technique since sometime in 1996 - thanks to the Litespeed 400, which again, was recommended to Will by BVP in their initial meeting. Here is a for instance in the chronology. In Dec 26, 1996 Will went to Congaree for the first time to measure those trees using the Litespeed 400.

Robert Leverett wrote in January 2004 http://www.nativetreesociety.org/threads/looking_back.htm more about the publication of this book:

Back in 1995, Will Blozan, Jack Sobon, and I set out to write book. We researched the available material on eastern big tree sites and individual species such as the white pine, tulip tree, American sycamore, baldcypress, etc. We wanted to set the record straight about the giants of yesteryear. We also wanted to describe methods by which an interested person could accurately measure tree dimensions. We were on a holy crusade to clean up the champion tree registers, principally the National Register of Big Trees. The book, published in 1997, was entitled "Stalking the Forest Monarchs - A Guide to Measuring Champion Trees."

Even though it is currently out of print an excerpt from the book can be found online here: Excerpt from Stalking the Forest Monarchs <http://www.whitepines.org/Tree%20Measuring%20Guide.pdf>



Since these beginnings the use of the sine method of measuring tree heights has spread among many big tree hunters in the western United States, among the measurers of Native Tree Society, and among scattered people around the globe associated with these groups.

An interesting example of this methodology spreading can be documented from Australia. After the introduction of laser rangefinders in the mid 1990's, there were a number of publications from the Australia that detail the use of lasers for tree height measurement. Two examples from Tasmania are: Tasmania's tallest trees by J.E. Hickey, P. Kostoglou and G.J. Sargison, in Tasforests Vol. 12 December 2000 http://117.55.239.235/assets/0000/0184/tasfor_12_09.pdf and A survey of ultra tall eucalypts in southern Tasmania, A report to Forestry Tasmania By Parry Kostoglou, June, 2000 http://www.forestrytas.com.au/uploads/File/pdf/tall_trees_survey_report.pdf. In both of these investigations they used a laser 'Impulse Series 2000' rangefinder manufactured by Laser Technology Inc. It is clear from the descriptions that the tree height function utilizing the tangent method was being used by the investigators based upon their description of usage and the errors generated.

The change to the sine method was documented in a publication from 2002: Victoria's tallest trees by Brett M. Mifsud in Australian Forestry Vol. 66, No. 3 pp. 197-205, Revised manuscript received 25 November 2002, <http://svc043.wic023v.server->

web.com/pdf/pdf-members/afj/AFJ%202003%20v66/AFJ%20Sept%202003%2066-3/Mifsud%20final.pdf Brett Mifsud writes:

Measuring tree heights

New techniques for measuring tall trees were used in this study. Initially, a Bushnell '500 Yardage Pro' laser rangefinder was used in conjunction with a Suunto clinometer to estimate tree heights in all regions. The previously-used 'simple tan' method of measuring tall trees was discarded in favour of the 'sine' method (M. Taylor pers. comm. 2000; A. Goodwin, Forestry Tasmania, pers. comm. 2001). In order to measure the height of the tree from eye level to the top-most leaves or dead branch, a direct distance from the ground to the top was measured with the rangefinder, then the angle to the top was measured by the clinometer, and trigonometry was used to calculate the vertical height. The same technique was used to calculate the difference in height between ground level at the base of the tree and eye level. Ground level was determined as the average between the high and low points of ground at the base of the tree. The rangefinder was also used for a second check on potentially tall trees: it was fired from directly below the canopy at an angle of elevation of close to, or exactly, 90°. As many mature mountain ash have open irregular crowns, it was often possible to record the tallest leaves in this fashion from directly below, thereby confirming the height assessed from a distance. When trees of extreme height were found, that is those ≥ 88 m, an arborist climbed the tree and used a tape measure to get an accurate height figure; that is, to the nearest 10 cm. (Fig. 3). The arborist also was often able to locate taller or equally tall trees across the skyline of the forest canopy. The difference between the height estimated by laser and the arborist's direct tape drop never differed by more than ± 75 cm and was usually within 30 cm, so the laser-estimated heights for trees that were not subsequently climbed can be considered to be accurate ± 75 cm.

Acknowledgements

Special thanks to Tom Greenwood for his tree climbing expertise, Michael Taylor for his generosity

in providing both the rangefinder and the knowledge of how to use it properly, and James Ashton for invaluable assistance in the presentation of this report.

It is particularly interesting to see these comments documenting the point at which the sine method was adopted halfway around the world from its multiple birthplaces here in North America.

In a more recent publication, The Effect of the Black Saturday Bushfires - on Victoria's tallest trees by Brett Mifsud, The Forester, Volume 55, Number 1 - March 2012 Mifsud comments on the effect of laser rangefinders on tree surveys:

However, the assumption that Cumberland did indeed have the tallest trees was proven quite incorrect with the advent of laser rangefinders in the late 1990s. By using a rangefinder, a single surveyor could accurately measure hundreds of trees in a single day. Following the first major surveys of the old growth E. regnans forests in Melbourne's water catchments, it was found that many hundreds of trees in the Wallaby Creek and O'Shannassy catchments far exceeded the heights of those in the Cumberland Tall Trees Scenic Reserve (Mifsud 2003).

<http://www.forestry.org.au/pdf/pdf-members/forester/The%20Forester%20March%202012.pdf>

The Native Tree Society continues to promote the adoption of the sine method through our website, BBS, Facebook page, publications, events, conferences, personal communications, interviews, and measurement workshops. A more detailed explanation of the methodology and discussions can be found in Tree Measuring Guidelines of the Eastern Native Tree Society by Will Blozan (October 2004, revised 2008)

http://www.nativetreesociety.org/measure/Tree_Measuring_Guidelines-revised1.pdf and in "The Really, Really Basics of Laser Rangefinder/Clinometer Tree Height Measurements" by Edward Frank, January 12, 2010

http://www.nativetreesociety.org/measure/really_basics_3a.pdf Critical reviews of the sine method have been published by U. S. Forest researchers: Bragg, Don C., 2008. An improved tree height measurement

technique tested on mature southern pines. South. J. Appl. For. 32(1): 38-43.

<http://www.treesearch.fs.fed.us/pubs/29564/> and

Bragg, Don C., 2007. The sine method as a more accurate height predictor for hardwoods. P. 23-32 in Proc., 15th Central Hardwood Forest Conf., Buckley, D.S., and W.K. Clatterbuck (eds.). US For. Serv. Gen. Tech. Rep. SRS-101.

http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs101/gtr_srs101-03.pdf

Edward Frank

Archaeology of Autumn

by **edfrank** » Fri Oct 26, 2012 7:30 pm



Archaeology of Autumn by E. Forrest Frank

An archaeology of autumn covers the ground.
The story told as if pages in a book.

The first and deepest layer are the acorns of late summer,
The remembrances of squirrels and chipmunks working,
gathering these gifts for the winter to come.
Perhaps they paused now and then for a bit of play.

Black gum was the first to color in the latest summer,
reds, brilliant, fluorescent,
First to color and first to fall.

Maples came next. They flashed their flash of color,
yellows, oranges, and red. Then their moment passed.
Down they fell to crisp a carpet on earth.

Next came the grandest of the grand,
tuliptrees with leaves turned gold in the autumn light,
big leaves, bold leaves, the color of the sun.

The oaks are the last bastion of summer,
their leaves a muted rainbow of warm browns.
They hold tight to the limbs, clinging to the past,
waiting to release their grip
under the late fall rains or early snows of winter.
At last they drop.

The season completes its cycle,
The beginning and the end of the tale.
to form this archaeology of autumn.

Balkans Expedition 2012 (to the region of former Yugoslavia)

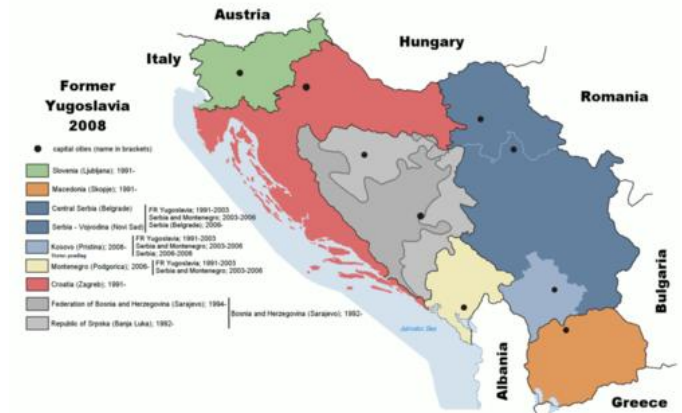
Balkans Expedition 2012 - Location Map (Former Yugoslavia)

by **edfrank** » Fri Oct 26, 2012 9:19 am

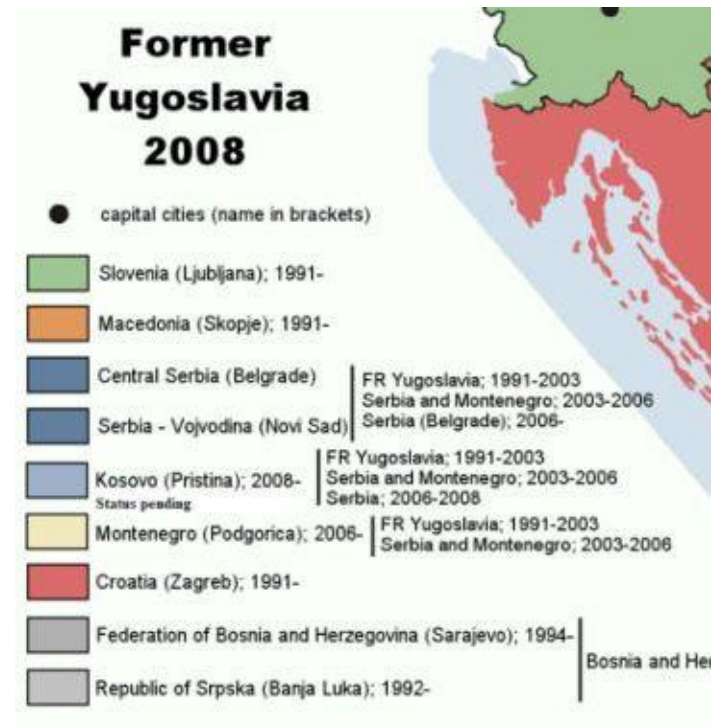
The area occupied by the SFR Yugoslavia – a strip of land stretching from Central Europe to the Balkans – lies in a region with a history of ethnic conflict. The country was a conglomeration of six regional republics and two autonomous provinces roughly divided on ethnic lines and split up in the 1990s into several independent countries. These eight federal units were the six republics Slovenia, Croatia, Bosnia and Herzegovina, the Republic of Macedonia, Montenegro and Serbia; and the two autonomous provinces Kosovo and Vojvodina within Serbia. http://en.wikipedia.org/wiki/Breakup_of_Yugoslavia



Location of the former country of Yugoslavia



Present day political boundaries in the region



Legend

Introduction – Balkans Expedition 2012 (to former Yugoslavia)

by **Jeroen Philippona** » Sat Oct 27, 2012 8:07 am

Introduction - 2012 Expedition to the region of former Yugoslavia

This year from June 19th to July 3rd Kouta, Michael Spraggon (treeclimber from England) and Jeroen made a very nice trip to four of the former Yugoslavian countries: Slovenia, Croatia, Bosnia-Herzegovina and Montenegro. Our aim was to visit several old growth forests as well as some outstanding individual trees in each of these countries.

We visited eight locations, among which were five old growth forests, and measured and photographed many trees. At several locations we were guided and informed by local people, sometimes experts. Two outstanding trees were climbed by Michael. During the two weeks we discovered some very interesting results.

Michael is making a travelogue of the whole trip and Kouta and I have written 'technical reports' about each of the locations visited.

We will send the travelogue and corresponding reports in installments as Michael finishes them. These will be published on this forum in their entirety, but the reports can also be found within the forum sections for each of the four countries. The reports will be as follows:

- A. The travelogue, in seven chapters.
- B. The technical reports (in chronological order as we visited them):
 1. The Sgerm spruce in Slovenia
 2. The Prašnik Oak Forest in Croatia, remnant of the once huge primeval Slavonian Oak Forests
 3. The Oriental Plane trees at Trsteno, Dubrovnik, Croatia
 4. The Biogradska Gora National Park with primeval forest reserve, Montenegro
 5. The Crna Poda black pine forest and a forest

reserve near Žabljak, both in Durmitor National Park, Montenegro

6. The Perućica primeval forest reserve in Sutjeska National Park, Bosnia & Herzegovina

7. The Plitvice National Park in Croatia

Michael, Kouta and Jeroen

Balkans Expedition 2012 Travelogue Part 1

by **Michael J Spraggon** » Sat Oct 27, 2012 9:31 am

Hi everyone,

Here is the first thrilling installment of the Balkans Expedition travelogue, the story behind the reports if you will.

(This is my first ever post so hopefully the attachment will upload properly.)

 [Balkans 2012 Travelogue Part 1.docx](#)

There will be about 6 further parts to follow every few days. These will be a bit shorter - about 2-3 pages each.

We hope you enjoy reading it!

Michael J Spraggon

European Champion Tree Forum Balkans Expedition 2012: A Travelogue

by Michael J Spraggon

Introduction

I had been considering a trip to the Mzymta Valley in the Russian Caucasus for some time since reading tantalising reports of *Abies nordmanniana* growing to heights of over 70m or even 80m. After some email

discussions with Jeroen Philippona of the Netherlands and Kouta, a Finnish tree enthusiast, we decided that it was probably best (and safer) to leave these plans until after the Sochi 2014 Winter Olympics as the area seems at present to be a hot spot of development and environmental protest.

Besides which Jeroen and Kouta had already been planning an expedition, as members of the newly-formed European Champion Tree Forum, to the Balkans to survey some of the increasingly rare old growth forests of Europe and when Kouta asked me if I would like to join them I was obviously going to say yes. The plan was to have 3 pairs of eyes scanning for potential champions and if a 60m+ tree was found then I would climb it to provide a definitive tape measurement.

With our itinerary finally in place and having obtained contacts and climbing permits for at least some of the areas we were due to visit, our expedition began in the northwestern corner of the Balkans, near the Slovenian city of Maribor.

What follows is a travelogue, a day by day account of the places we went to or passed through, interesting people we met, things planned or unplanned that happened to us along the way and of course the exceptional trees and forests we explored.

It contains only the bare minimum of technical detail about the forests and ecosystems we explored, mainly because Jeroen and Kouta have covered this much better than I could have in their reports on each area, which can be found on the Native Tree Society website on the internet. I've also avoided going into the long flights of descriptive writing you might expect from 'real' travel writers, instead just putting in enough detail to give you a feel for the continuous and varied experiences you will inevitably encounter when travelling through so many extraordinary places in such a short period of time.

Day 1: Travel to Maribor

At London Heathrow airport I'm relieved to find that my green pack does fit in the hand luggage tray, just, but the tense moment comes at the security check. Sure enough my bag comes through the x-ray machine and is diverted into the 'naughty' line, as is

the hand luggage of the young lady standing beside me. We are called to one side and have to unpack our things. Her transgression is a bottle of perfume; mine was eccentricity. With my best attempt to appear smiling and carefree I unpack, explaining to the official how the lead shot bags are used to install a rope up to 100ft up in a tree. The tension is diffused when she laughs and says 'Interesting hobby you've got there!'

Ljubljana Airport is modern but very small, serving a country of just 2 million people. The Slovenians are very proud of their cultural identity. Apart from a 4-year period under Napoleonic rule when Slovene was allowed to be taught in schools their language was suppressed by the ruling Austrian Empire. Today Slovenians are quick to tell you that Slovene is a very different language to Serbian so as I wait for Kouta and Jeroen to arrive (they are delayed due to a tunnel through a mountain in Austria being closed) I try out some of my hastily-learned internet Slovene on the girl at the information desk. Her laughter tells me that my pronunciation wasn't quite there and with a handful of correctly pronounced words learned I go outside and order an ice cream.

Jeroen and Kouta arrive within an hour and I squeeze myself and my two packs into the back of the thankfully air-conditioned Golf. This is the first time I have met either of them. Kouta is a fairly tall slim man in his early forties, originally from Finland, with a narrow face punctuated by a neat goatee beard, a resonant but staccato voice and, as I soon find out, an obsession for being precise - why else would he be so interested in measuring trees?

Jeroen is in his mid-fifties, of similar height with a slightly more laid-back manner. He says he looks a bit like Jack Nicholson but I think he bears a closer resemblance to Sting and this resemblance manifests itself in my consciousness as an intermittent soundtrack of songs by The Police playing in my head over the next 2 weeks as we trek through the various forests.

We can all speak German and English, which is convenient as these are the two secondary languages in much of the Balkans, and Kouta, who had previously been to some of the places on our itinerary four years ago, had also learned some basic Serbian.

Kouta insisted that our default language should be English as he wanted to practise his grammar which was fine with me.

Our Pansion for the night was in a village on the outskirts of Maribor, Slovenia's second city and the 2012 European Capital of Culture. It has 95,000 inhabitants and a notable ski-resort, which seems impossible to imagine in the 35° heat today.

We arrive slightly dehydrated and are promptly shown though to the bar where we are given a complimentary shot of very strong fruit liquor by the manageress who speaks German.

After dinner and messing about with the laser rangefinders trying to guess the heights of nearby trees and buildings we take a short walk through the village. There is a man-made platform on a pole about 10 metres tall by the roadside and on top are two Storks sitting on a nest full of eggs, oblivious to the noise of the traffic passing by right beneath them. It seems perfectly normal to J & K but I am very impressed by the spectacle and regret not having my camera with me.

We walk into a wooded area in the dark and immediately I see lots of fireflies for the first time in my life. The silent pulsing of these eerie green lights in the warm still air is enchanting and I can understand why woodland myths of faeries exist.

Day 2: Ribnica na Pohorju and the Sgermova Smreka

After another short night's sleep due to the heat I'm up at 06:30. I'm more tired than yesterday now but there is no time to worry about that, I'm hitting the ground running today (probably not the best saying in this case). Today I'm climbing the tallest Christmas tree in the world.

As we travel west towards the town of Ribnica na Pohorju Jeroen calls our contact, Matic Kristan, son of the owner of the tree. He is very polite and speaks near perfect English and instructs us to meet him in the town square. When we arrive there is no one around except for a shy teenager of about 14 so we drive around and come back to the square only to

find that the teenager we had driven past was in fact Matic.

He shows us into the town hall where we are greeted by a welcoming party, including town officials, the land owners and the Deputy Major. We are shown into Mayor's office and sit at a long table with Slovenian and Municipal flags at one end. Jeroen is our spokesman, explaining who we are and the purpose of our visit. Blaž Kristan, a short, broad man with an even broader grin who is the father of Matic and husband of Damijana (whose late husband's father discovered the tree growing on his land 40 years ago) in turn tells us about the history of the tree. Matic translates for both parties with astonishing ease.

We arrive at Sgerm farm, a pretty, rustic place on the hillside with fine views across the valley. There is a huge St. Bernard dog walking around and lots of tiny kittens, which the dog seems to have adopted. To our surprise a film crew from Slovenian Television are waiting and with our expanding party now joined by Damijana's oldest son Grega (who will eventually inherit the farm and the tree), daughter Tanya and two local foresters, we drive in a convoy down the hillside to the tree.

As we descend on foot, Blaž points to a thick silver trunk near the bottom of the slope. "50 metres" he says. The tree is a silver fir, not the champion tree. Moments later a much larger trunk comes into view. I follow it up from the base...and up...and up. It doesn't seem to be getting any thinner. This must be it: the Sgerm Spruce.

The film crew start setting out their gear, and so do I. The crown of the tree within the 100ft reach of my Big Shot is dense and packed full of dead branches. Behind it the steep slope is densely packed with other tall trees and in front there is a thick understory of Beech. From one small patch of ground to the side I can see a small window of opportunity about 85 feet up. With the cameras watching I eventually get the line over the one limb I could see. Actually it passes over 2 limbs – the other is dead but is pointing outwards at a different angle which will help prevent the rope from sliding down the sloping live branch. I hang on the rope with Blaž who claims to weigh 100kg. It's a good anchor so up I go.

At 80 feet, dangling below the branch holding the rope, I look for the next live branch to put one end of my lanyard over. The next few limbs are dead and obscure the path of my throws. Eventually I decide to put the lanyard around the same branch as the rope so that I can surmount it can have a better shot at the next live branch. I unfurl my lanyard. This is the first time I've ever used my new system. It uses two hitchclimber pulley systems, one for each side of the lanyard. I had just had time to put it together and pack it before I left. I soon realise that I had tied the hitches on the wrong sides of the pulleys so while still dangling below the branch I have to take apart and rebuild my system. By now Jeroen shouts up "everything okay Michael?" "Oh yes! Just sorting my gear out." I shout back casually, although I'm secretly annoyed at having wasted so much time.

Finally I get onto the branch and begin climbing on my lanyard. This tree is very different to the tall spruces and Douglas firs back in the UK. For a start it is twice as old and the climate is drier. My style of climbing is to delicately weave my way around every branch and twig, rather than pushing through them. It is much harder in this tree, with dense thickets of dead twigs and branches in places and stretches of dead stubs in others, each perfectly adapted in its own special way for snagging the free end of my lanyard, and everywhere: dry abrasive lichen lobes, which are exfoliating my bare arms very effectively.

From about 130 feet onwards it's business as usual and the climbing is easy from here to the top. The feeling of excitement as the huge mast becomes thinner and I climb far above the surrounding canopy into the light is the same as it always was since I first reached the top of a tall tree nearly 30 years ago. This one is very special though – it's the first time anyone has been on top of the world's tallest Christmas tree. Perched just a few feet from the summit, where the trunk is no thicker than my wrist, I must be the highest fairy on Earth!



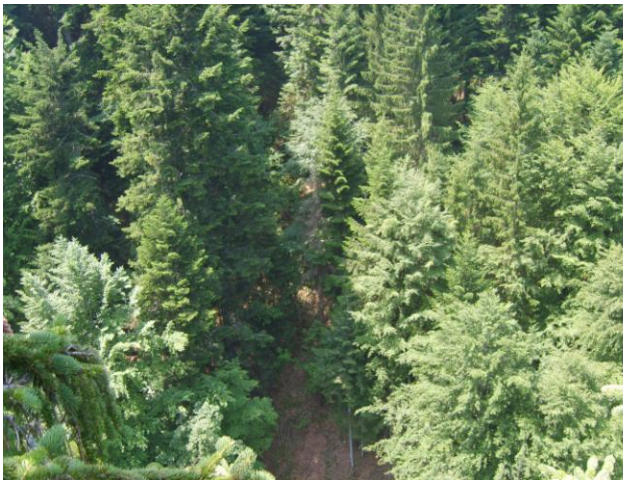
Summit of the Sgerm spruce.

Fittingly, I begin unfolding my wand, a 3 metre long tent pole with the top section bent over so that I can touch the top of the leader shoot while the pole is vertical. Kouta (or is it Jeroen – hard to tell over the crackling) comes on the radio: "the owner would like a talk from the top". The first thing I can think of saying is "There's snow on top!" They don't understand, so I try it in German. They still don't understand. I say it again. Now they're confused. "I'm making a joke!" By now any chance of humour has long since evaporated. Then they seem to understand: "Can you bring some down?" "Yes" I say, "but it will have melted by the time I get down." Now they're confused again...I decide to get on with the task at hand.

The tape with the weight on the end is unwinding. I watch the numbers go by...48...49...50...51...the total height will be about 6 metres more than the tape measurement so when Kouta tells me to stop at 56.23 metres I know that this tree is every bit as tall as they said it was. Jeroen and Kouta still have to determine the distance from the bottom marker to the mid slope point on the trunk base and they refuse to tell me their laser height measurement either until I get down.



Above: The view from the top. Below: Looking down.



I finally abseil to the ground and, in a Pope-like gesture, kiss the ground only to end up with a mouth full of dirt and needles. As I look up Slovenian television is standing beside me filming it all. I'm asked to say a few words and manage some heartfelt drawl about how impressive this tree is and then someone, the Deputy Mayor (I think) hands me a can of beer: phew!

Someone asks me if I brought the cone down from the top. Now I understand the earlier radio confusion: they had asked for a *cone*, not a *talk* from the top, or *snow*!

J & K break the news to me: 62.26 metres (204.3 feet) - this is indeed the tallest reliably measured native tree in Europe and the tallest tree in Slovenia. The irrepressibly energetic Blaž declares that I'm

now co-owner of the tree and we are all invited back to Sgerm Farm for lunch where Blaž presents us with gifts and Damijana revives us with the best meal we've had for ages. It's going to be hard to leave this place but we have to be in Croatia by evening so reluctantly we say goodbye.



The Sgerm-Kristan family and friends back at the farm.

By early evening we have reached Zagreb, the sprawling industrial capital of Croatia, and take a short break in the main park. Sitting on the park bench, watching one after another of some of the most attractive women in Europe walking past, each a pristine picture from the pages of an up-market catalogue, I suddenly become conscious of my appearance. I'm covered in green dirt, my arms are scratched and raw, my hair contains enough lichen and algae for an undergraduate botany project and my filthy, sweaty, sap-stained t-shirt clings to my body. I try to smile at some of them and they glance dismissively to the side and keep walking.

It is dark by the time we arrive in the town of Kutina, where our hotel for the night is. After walking round the town 3 times to find a place that sells biscuits (because I'm hungry as always) I go to my room. It's been an extremely long day and each of us can't wait to get cleaned up and go to bed.

[Re: Balkans Expedition 2012 Travelogue Part 1](#)

by **Michael J Spraggon** » Sat Oct 27, 2012 9:56 am

Here is a link to the TV article, as it appeared on a Slovenian rural affairs programme.

The article begins at 42:43 and lasts approximately 6 minutes.

<http://tvslo.si/predvajaj/ljudje-in-zem...143078743/>

Michael J. Spraggon

[Re: Balkans Expedition 2012 Travelogue Part 1](#)

by **edfrank** » Sat Oct 27, 2012 3:01 pm

The video is excellent and worth watching, even if not in English.

It can also be seen here on Youtube beginning at 42:57:

<https://www.youtube.com/watch?v=e9rs6YA4Ci8&feature=relmfu>

I am unable to download a copy of the video, but here are a few screen grabs from the video itself:





The Sgerm Spruce – the tallest native European tree?

by **KoutaR** » Sat Oct 27, 2012 4:04 pm

NTS, The Sgerm Spruce (Sgermova smreka) in Ribnica na Pohorju, west of Maribor, Slovenia, is named after the farm where it is located.



Vista from the farm. Fruit trees, foreground; Norway spruce dominated forest, background.

The tree is quite well known and cited as one of the tallest (or even the tallest) Norway spruce (*Picea abies*) in the world. At an altitude of around 500m, the tall spruce is growing near the bottom of a valley in a slight side valley on the NW facing slope.

The forest was originally dominated by European beech (*Fagus sylvatica*), but Norway spruce and European silver fir (*Abies alba*) now dominate due to forest management. Beech and sycamore maple (*Acer pseudoplatanus*) occur, as well as common hazel (*Corylus avellana*) in the shrub layer.

The spruce is estimated to be 250 years old. The estimation is based on a ring-count of a neighbouring similar-sized spruce which was felled by wind.



Grega Sgerm, the owner's son; Blaž Kristan, the owner; and Matic Kristan, the owner's son, at the Sgerm Spruce. Also European silver fir sapling, foreground, and European beech, right.

Websites say that the last measurement in 2006 gave its height as 61.8 m. The owners, Blaž Kristan and Damijana Sgerm-Kristan, showed us the report of the measurer, Božo Koler from University of Ljubljana. We saw from the report that the Theodolite measurement had been done very carefully, but it was to the high-slope point, so the tree could be even taller as it is growing on a slope. The owners also gave us earlier height measurements:

1938: 51 m
1980: 57.5 m
1995: 61.7 m; DBH 108 cm

Another spruce on the opposite slope was measured by Koler as 54 m tall.

Laser measurements by Jeroen and Kouta gave 62.2 meters above the average soil level and 61.4 m to the high-slope point. We had been given permission for Michael to climb the spruce and this was the first time that the spruce was to be climbed. Over 10 Slovenians followed the climb: the owner's family, foresters, the vice mayor of the town, TV cameraman and reporter.



This is Jeroen's photo. The other photos are Kouta's. Part of the "audience". From the left: Matic Kristan, the owner's son; ?; Miha Mrakič, local forester; the town's vice mayor; Damijana Sgerm-Kristan, the owner; Grega Sgerm, the owner's son; ?; Blaž Kristan, the owner; TV cameraman.

From the summit, Michael measured the highest part of the tree with a folding pole and placed a marker at 4.50 m below the tip. The next part to the point about one meter above the high-slope point was measured by lowering a tape and was 56.23 m. As Michael descended, Jeroen and Kouta defined the average soil level (which was not an easy task!). It was 1.53 m and the high-slope point 0.96 m below the tape measured part of the tree. This gave the total height of the tree as **62.26 meters (204.3 ft.)** above the average soil level and 61.69 m (202.4 ft.) to the high-slope point. This is **the tallest reliably measured native European tree** we are aware of. The original top is still intact.



Michael climbing Sgerm Spruce at about 20 metres. Also young silver firs; sycamore maple foliage, left.

Girth: The CBH is 390 cm (DBH 124 cm) above the average soil level and 361 cm (DBH 115 cm) above the high-slope point.

A 48.4-meter silver fir grows nearby.

Kouta, Michael & Jeroen

Re: The Sgerm Spruce – the tallest native European tree?

by **KoutaR** » Sat Oct 27, 2012 5:03 pm

Robert Leverett wrote: What kind of precipitation falls in that region? How about temperatures? I'm wondering if the the climate there is similar to around Woodstock, VT where I have the two Norways at 140.5 and 140.0 feet in height. The Woodstock tree were planted around 1877. So in 135 years, they've reached 140 feet or 42.7 meters. If the Vermont trees can average no more than 4 inches of new growth annually, at an age of 250 years, they would be around 178 feet (54.4 meters). At some future date, the Norway may challenge the native white pine as the tallest northeastern species. Who knows?

Bob, Climate charts for Maribor:

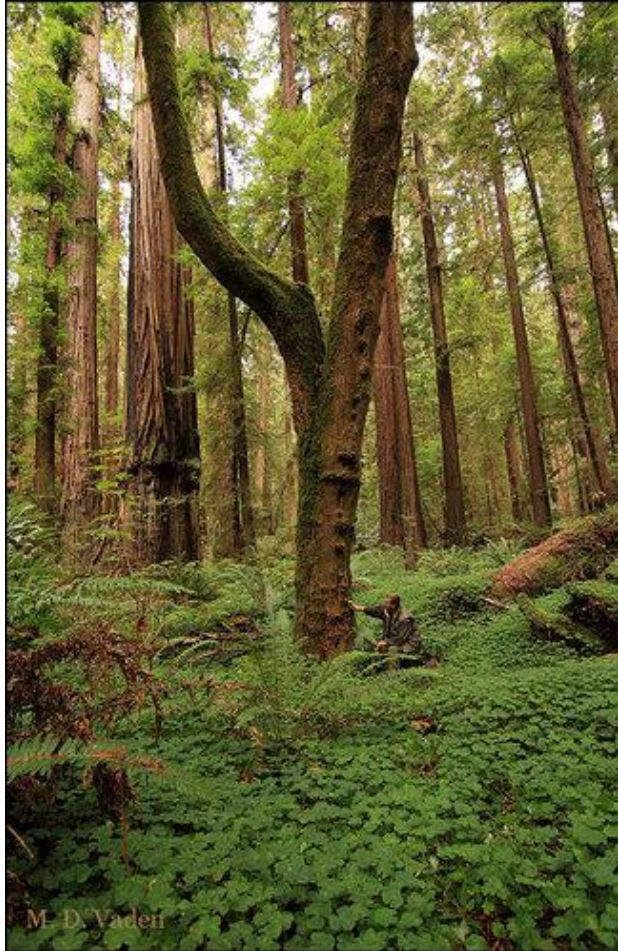
<http://www.worldclimateguide.co.uk/climateguides/slovenia/maribor.php>

As the elevation of the Sgerm Spruce is ~200m higher, the temperatures should be ~1 degrees lower and the precipitation probably a bit higher.

Kouta Rasenan

Maple Height Record - Humboldt Honey - 157.8 ft. (CA)

by **mdvaden** » Sun Oct 28, 2012 9:41 pm



Howdy y'all ... I'm typing from the coast redwood area, at the Curly Redwood Lodge. Earlier on the drive up, I called Michael Taylor about the Bigleaf Maple I found near Avenue of the Giants, which I finally measured this morning. It's one I previously estimated like 155' if memory serves, and mentioned in an earlier topic.

Here's the measurements, and **name** ...

"Humboldt Honey"

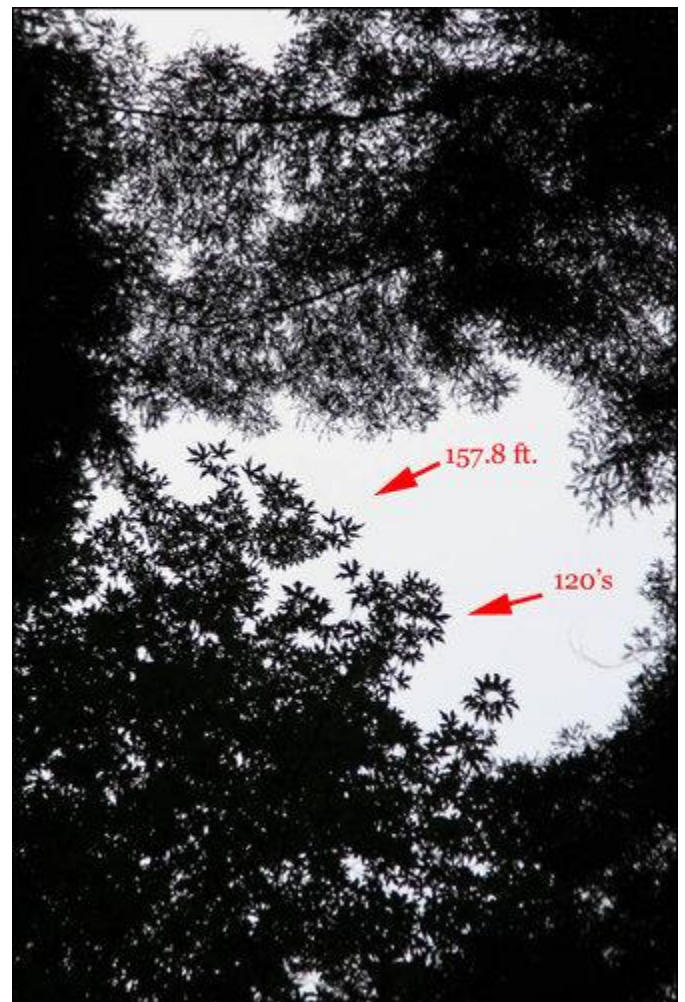
Acer macrophyllum / Bigleaf Maple
Height 157.80 feet
Circumference @ dbh 9.50 feet

Wouldn't surprise me if Zane Moore comes up with a rash of these now. Although, I'd actually like to hunt for more of these with Zane, or with Michael in 2013. A maple excursion.

I've plastered tree forums the UBC botanical forum with questions about *Acer* heights worldwide, and from what I've gleaned, there isn't one known taller. None anybody has mentioned anyway.

Here is the previous topic related to this maple

>>> <http://www.ents-bbs.org/viewtopic.php?f=144&t=4393>



M. D. Vaden of Oregon



[Big Pines Hwy 89 \(Lake Tahoe\)](#)

by **Mark Collins** » Sun Oct 28, 2012 10:25 pm



After visiting the Kokanee Salmon, I drove past an awesome section of forest along Hwy 89 with several goliath trees.



Above is beautiful Emerald Bay.



The tree [to the left] above was the King of the Weekend. It's the first Ponderosa Pine I have found with a cbh greater than 22 feet. This tree measured in with a cbh of approximately 23 feet, 9 in. You can just barely see me standing next to the tree for scale on the right side. If anyone is interested, I recorded GPS coordinates of this weekend's trees as well.

[Re: Big Pines Hwy 89 \(Lake Tahoe\)](#)

by **Don** » Sun Oct 28, 2012 11:43 pm

Mark-

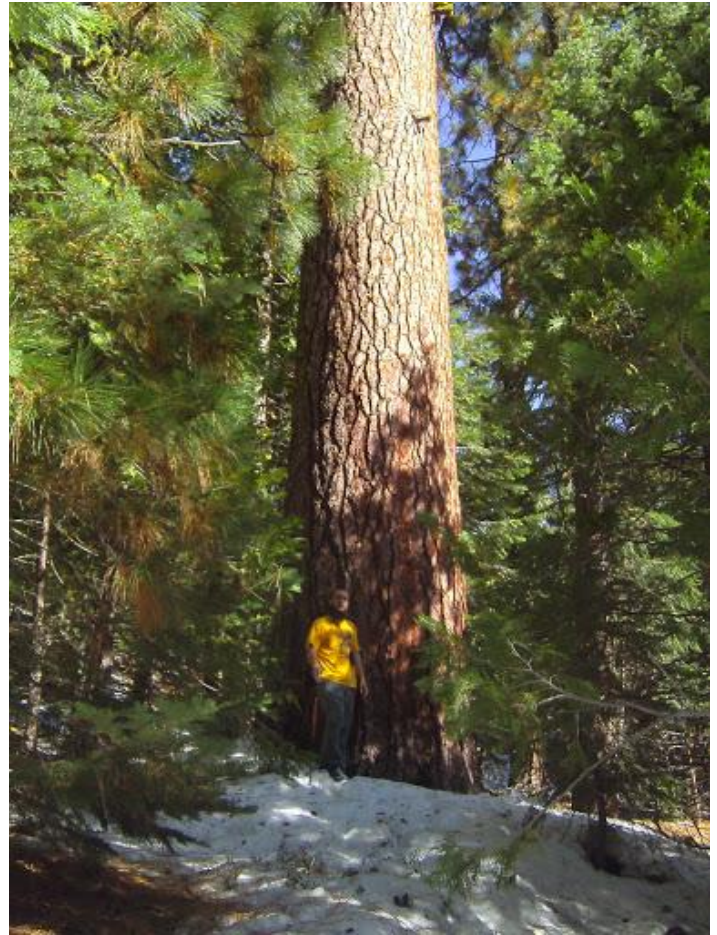
Recently walked among a cove of some giant western white pines (5-6' dbh, not near champs) in a cove near the Crystal Basin, North of Highway 50 out of Pollock Pines. No photos of them, but can add an interesting lake picture (even though a dry one...:>)



In an area known for harsh winters and occasional high winds, this top broke off during a storm, and was blown over 50' into this dry lake/pond, and stuck top down with some force...

[A Few More Big Pines Along Hwy 50: Kokanee Salmon \(Lake Tahoe, CA\)](#)

by **Mark Collins** » Sun Oct 28, 2012 10:11 pm



(Big Sugar Pine: above)

I drove out to Lake Tahoe again this weekend to do a little tree hunting and to visit Taylor Creek. The Kokanee salmon are spawning this time of year. Turns out, peak spawning was about two weeks ago. The party was literally dying down when I arrived this morning.



(Big Red Fir: above)



Snow already arrived in the Sierra this past week, but temperatures were quite warm this weekend during the day. Once again, the ponderosa pines grabbed my attention. I attempted the smell test on the last three tree photos. I did not smell the vanilla fragrance of the Jeffrey's. Also, the cones beneath them all were rather prickly.





The tree above is a fantastic giant growing right next to the road.



Taylor Creek is located along Hwy 89. It appeared most of the salmon had already spawned and passed away by this morning. There were a few pockets of activity remaining in the creek. In those spots, there were many ducks attempting to eat the fresh salmon eggs, and handfuls of bright red salmon thrashing about. The Kokanee Salmon are not native to Lake Tahoe. One account I read mentioned that it is believed that they were introduced in the 1940's.



[Re: A Few More Big Pines Along Hwy 50: Kokanee Salmon \(Lake Tahoe, CA\)](#)

by **Don** » Sun Oct 28, 2012 11:57 pm

Mark-

Two special images! Few see Kokanees in California anymore, used to be nearly common. And even rarer is to see such large pines (ponderosas, and in image of pine along road, a Jeffrey in my opinion (brownish hue, shorter needles), if not a hybrid) in the Lake Tahoe area, as it was heavily logged during the previous two centuries. Nice country to be wandering in!

Don Bertollette

[Climbing the biggest eucalypt in the world, Tasmania](#)

by **edfrank** » Sun Oct 28, 2012 7:22 pm

Climbing the biggest eucalypt in the world

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



Published on Oct 24, 2012 by IntoTrees

Climbing the largest eucalypt in the world (by volume), in the Florentine Valley of Tasmania. Canopy scientists Prof. Steve Sillett and Dr. Bob van Pelt (and team, most of whom managed to avoid the

camera!) are engaged in an ambitious, long term project to study how giant trees grow and change over time. Here, they were carefully preparing an exact 3D map of the entire canopy of this vast and beautiful tree.

[Re: Middleton Oak, SC](#)

by **bbeduhn** » Mon Oct 29, 2012 2:49 pm

The Middleton Oak.

