





Live Oak at Overseer's Cottage



Water Oak



Bird of Paradise



Azalea



Back of Mansion and Older Live Oak



Oak Alley

[Re: Oak Alley Vacherie Louisiana Re-Visit](#)

by **Larry Tucei** » Sun Jan 27, 2013 11:23 pm

James- Oak Alley was built by Jacques Telespore Roman in 1837-39 and was a huge sugar plantation with much history. I went back and added a link to

the posting you will find it interesting. Oak Alley was one of many, many plantations along the Ms River from New Orleans to Baton Rouge. I have been to Oak Alley, Destrehan, Houmas House, Ormond and Hermitage Plantations all which have large Live Oaks. These are only a few of the twenty or so remaining plantations in Louisiana.

Larry Tucei

[Re: Oak Alley Vacherie Louisiana Re-Visit](#)

by **dbhguru** » Mon Jan 28, 2013 9:46 am

Larry, If anyone ever doubted the dominance of the live oak as the very symbol of "oakness", I predict that this post will make converts. And your photographs are stunning. Absolutely stunning. The role of the live oak in the South as a landscape feature, symbol of power, and just a huge tree with a great personality comes through in every single image. Larry, you must have gained a heck of a reputation down there. You seem to be getting access to the very best places. You make us proud and you have humbled us up here in Yankee Land. When the weather warms a little, I'm going to hit the road in search of new white pines to measure and photograph.

Robert T. Leverett

[Re: Oak Alley Vacherie Louisiana Re-Visit](#)

by **Larry Tucei** » Mon Jan 28, 2013 11:44 am

Bob, Thank you for all the kind words and it's been my pleasure working on the Live Oak Project these past 6 years. I always look forward to new discoveries and there will be much more to come on the Live Oaks of Louisiana. I added the 19'+ CBH trees to the listing which is now at 208 Live Oaks with 19' CBH or greater. I'm also working with the owners of Oak Alley on some growth rates they have from 1977 to the present more on that later. Tyler- I had some help from a friend and we spent about 5-6 hours measuring. On the way back home I stopped to measure a large Live Oak on Hwy 18 that I saw earlier on the way in and will post it tonight.

Larry Tucei

[Photo Measuring Continued](#)


by **dbhguru** » Mon Jan 28, 2013 6:03 pm

NTS, I don't recall when I got the idea to see if I could employ photographic images and Excel to measure the diameters of trees, but from the beginning, the process showed real promise and nothing has changed. The attached Excel workbook shows two tests that I performed earlier today. It was snowing lightly, so I decided to see how well I could do, working from the upstairs looking out a picture window. I used an 18 inch ruler as the reference object. It was positioned inside the kitchen - very close. The targets were two Northern Red Oaks. The two spreadsheets in the workbook contain the photographs. The object was to measure diameters well upon the trunks of the oaks. The reference measurements were taken using the Vortex monocular. That instrument is extremely accurate, so the test of the photographic measurement used the reticle measurement as the actual.

You can see that the results are impressive. The error in the first test was about half an inch and just under an inch in the second test. There has to be a strong element of luck involved, but when these tests are combined with all the others, I think we have a way of volume-modeling trees that will get us in the ball park. The important point is that the measurer doesn't need a reticled monocular. A laser rangefinder, a reference object (ruler), a digital camera, and Excel are needed. To the point, you don't have to learn a complicated software system and fiddle with lots of file types and conversions. I can set up an Excel template for any one who is interested in using the new technique. Larry and I plan to use the method on a Live Oak. It will require more than one photograph and a system to identify the points of measurement. I have the protocol worked out and will present it soon.

Robert Leverett

 [PhotoMeasurement-OaksWindow.xlsx](#)



Object	Dist	m	Ref Dist	Ref	Ref	Ref
Ref	15.185	1.5	1.5	1.5	1.5	1.5
Target	28.5	2.85	1.5	1.5	1.5	1.5


T_a = Actual size or target object in ft (reticle)
 m = millimeter measurement from monocular

$$T_a = \frac{(T_r)(m)}{1000}$$

T_m = Measured diameter for target object in ft
 R_a = Actual diameter of reference object in ft
 R_x = Excel size of reference object in Excel units
 T_d = Distance of target object in ft
 R_d = Distance of reference object in ft
 T_x = Excel size of target object in Excel units

$$T_m = \left(\frac{R_x}{R_d} \right) \left(\frac{T_d}{T_x} \right) T_x$$

Notes
 Telex was used to measure diameter of through window oak.
 Nikon Prostaff 448 was used for distance to target with reading changeover applied.
 Bushnell G1000 was used for distance to reference object.
 Camera used was Canon PowerShot SX280 HS.



Object	Dist	m	Ref Dist	Ref	Ref	Ref
Ref	6.55	1.5	1.5	1.5	1.5	1.5
Target	116.5	12.5	1.5	1.5	1.5	1.5

T_a = Actual size or target object in ft (reticle)
 m = millimeter measurement from monocular

$$T_a = \frac{(T_r)(m)}{1000}$$

T_m = Measured diameter for target object in ft
 R_a = Actual diameter of reference object in ft
 R_x = Excel size of reference object in Excel units
 T_d = Distance of target object in ft
 R_d = Distance of reference object in ft
 T_x = Excel size of target object in Excel units

$$T_m = \left(\frac{R_x}{R_d} \right) \left(\frac{T_d}{T_x} \right) T_x$$

Notes
 Telex was used to measure diameter of through window oak.
 Nikon Prostaff 448 was used for distance to target with reading changeover applied.
 Bushnell G1000 was used for distance to reference object.
 Camera used was Canon PowerShot SX280 HS.

The world's most biomass-dense forests

by KoutaR » Mon Jan 28, 2013 3:12 pm

NTS,

I made a literature search for the most biomass-dense forests on Earth. The forest types whose highest values are over 1000 tons/hectare have been listed below. I have named the forest types after the tree species with most biomass, with the exception of the last type where the biomass distribution between the two dominant species has not been specified. In all other types the named species have over twice the

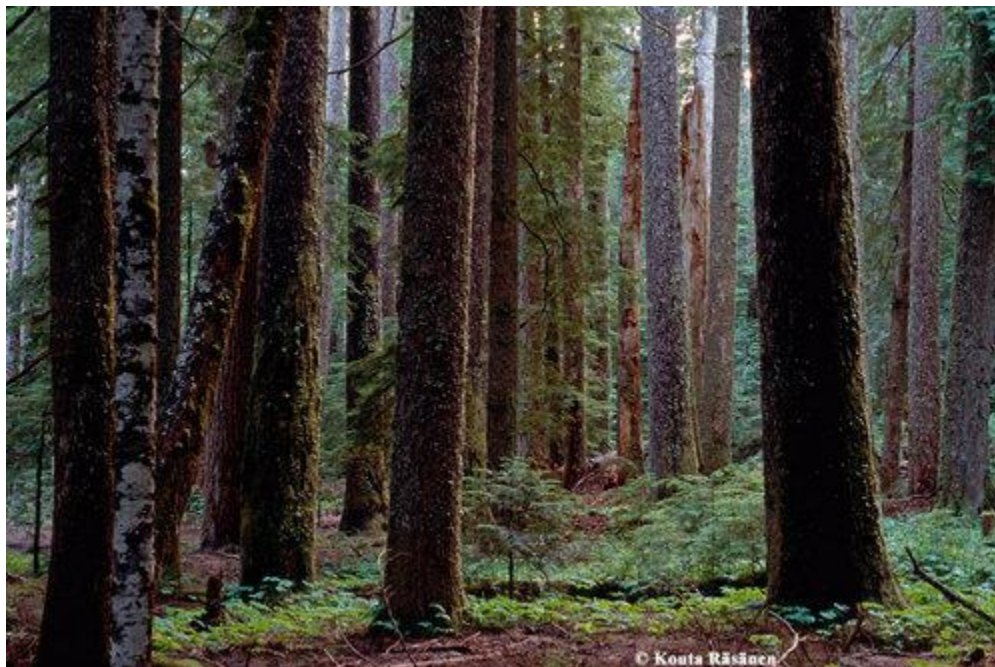
biomass of the second most important species. Other species may be more numerous, e.g. in the *Sequoiadendron* stand, *Abies lowiana* (= *A. concolor* var. *lowiana*) is much more numerous but the former contains much more biomass. It is well known that *Sequoia sempervirens* forests are the most biomass-dense but it is less well known that the best *Eucalyptus regnans* stands are not far behind, one factor being about 25% higher wood density. Only above-ground biomass is included.

Dominant tree species	Biomass (t/ha)	Location	Sample area (ha)	Source
<i>Sequoia sempervirens</i>	4283	Atlas Grove, Prairie Creek Redwood SP, CA	1	1
<i>Eucalyptus regnans</i>	3638	O'Shannassy Catchment, Victoria	3.18	2
<i>Abies procera</i>	1687	Goat Marsh RNA, Washington	1	3
<i>Pseudotsuga menziesii</i>	1591	Middle Santiam RNA, Oregon	0.96	3
<i>Agathis australis</i>	1533	Trounson Kauri Park, New Zealand	0.36	4
<i>Eucalyptus obliqua</i>	1336	southern Tasmania	?	5
<i>Sequoiadendron giganteum</i>	1243	Giant Forest, Sequoia NP, California	2	6
<i>Abies magnifica</i>	1208	Sierra Nevada, California	?	7
<i>Cryptomeria japonica</i>	1140	Kaneyama, Japan	?	8
<i>Picea sitchensis</i> , <i>Tsuga heterophylla</i>	1047	Cascade Head Experimental Forest, Oregon	0.8	9

The biomass values are not fully comparable. In some stands (especially *S. sempervirens* and *Picea - Tsuga*) the biomass of all the components, including tree leaves and herbs, has been calculated. In some stands (e.g. *A. procera*, *Pseudotsuga* and *Sequoiadendron*) only the stem biomass is included. In a few stands (e.g. *E. regnans*), it is difficult to say which components have been included, therefore I did not make any adjustments. Anyway, most of the biomass is in the tree stems (in the case of the *Picea - Tsuga* stand 88%), so the stem biomasses should be relatively close to the total biomasses. In *Agathis australis*, a much higher proportion of the biomass is in the branches; anyway, the value for the *Agathis*

stand includes branches, too. In three cases, only stem volume was given; for them, I calculated biomasses by multiplying the volumes by the wood densities I found on the Internet, mainly from source #10. Those values are shown in *italics*. The reliability of the sources may also differ.

For the *Picea - Tsuga* type, I averaged the biomasses of the two most massive 0.4 ha plots in the same location, because I wanted the stands to have, if possible, at least ~1 ha sample area to be comparable. If only the most massive plot is used, the value is 1078 t/ha.



The Goat Marsh RNA stand. Most trees are *Abies procera*. Other species visible: *Abies amabilis* (with pale trunk, left), *Pseudotsuga menziesii* (with very coarse bark, background left) and *Tsuga heterophylla* (with lower branches, center and right).

My list may well be affected by accessibility of information. It should be noted that all the stands, with the exception of the old *Cryptomeria japonica* record, are located in English-speaking countries. Other candidates for the list could be, for example, the *Taiwania* - *Chamaecyparis* forests of Taiwan and the Himalayan coniferous forests. Other *Eucalyptus* species, like *E. delegatensis*, could also make the list.

It is well known that although tropical rainforests have much higher productivity they are not as biomass-dense as the western coniferous forests. However, the best stands are not far from making the list: the most massive value I have found is 873 t/ha for lowland evergreen dipterocarp rainforest in Sebulu, East Kalimantan. The value has been achieved by a very exact destructive sampling, though the sample area is only 0.125 ha (11).

For comparison, values for the eastern US and

Europe would be useful, but I have not found (actually not intensively searched for) top values. I believe that exceptional European old-growth *Abies alba* - *Fagus sylvatica* forest could have at least 800 t/ha.

A note about the significance of high biomass values: It is too easy to draw the conclusion that an extremely biomass-dense forest is a place "full of life". However, most of this biomass is dead wood inside the tree boles where its significance to other organisms (apart from loggers and big tree enthusiasts) is limited.

If anybody has additions or corrections, please post them here.

Sources:

1 Sillett, S. C. & Van Pelt, R. (2007): Trunk reiteration promotes epiphytes and water storage in

an old-growth redwood forest canopy. *Ecological Monographs*, **77**(3), pp. 335–359.

2 Keith, H., Mackey, B. G. & Lindenmayer, D. B. (2009): [Re-evaluation of forest biomass carbon stocks and lessons from the world's most carbon-dense forests](#).

3 Fujimori, T., Kawanabe, S., Saito, H., Grier, C. C. & Shidei, T. (1976): [Biomass and Primary Production in Forests of Three Major Vegetation Zones of the Northwestern United States](#). *J. Jap. For. Soc.* **58**(10).

4 Silvester, W. B. & Orchard, T. A. (1999): [The biology of kauri \(*Agathis australis*\) in New Zealand. Production, biomass, carbon storage, and litter fall in four forest remnants](#). *New Zealand Journal of Botany*, Vol. **37**: 553–571.

5 Dean, C., Roxburgh, S., Mackey, B. G. (2003): Growth modelling of *Eucalyptus regnans* for carbon accounting at the landscape scale. In Amaro, A., Reed, D., Soares, P. (eds.) *Modeling Forest Systems*. CABI, Wallingford. *Citation in 2*

6 Van Pelt, R. & Franklin, J. F. (2000): [Influence of canopy structure on the understory environment in tall, old-growth, conifer forests](#). *Can. J. For. Res.* **30**: 1231–1245.

7 Herzog, W. (1989): Aufbau und Entwicklung von Tannenwäldern (*Abies magnifica*) in den Hochlagen der Sierra Nevada (Kalifornien). *Forstarchiv* **60**, 198–203. *Citation in* Schütt, P. & Lang, U. M. (2008): *Abies magnifica*. In Schütt, Weisgerber, Schuck, Lang, Stimm & Roloff: *Lexikon der Nadelbäume*. Nikol.

8 Mine, K. (1951): Great *Cryptomeria* stand at Kaneyama. Akita Regional Forest Office. *Citation in* Fujimori, T. (1977): [Stem biomass and structure of a mature *Sequoia sempervirens* stand on the Pacific Coast of northern California](#). *Journal of the Japanese Forestry Society* **59**: 435–41.

9 Smithwick, E. A. H. et al. (2002): [Potential upper bounds of carbon stores in forests of the Pacific](#)

[Northwest](#). *Ecological Applications*, **12**(5), pp. 1303–1317.

10 [Wood Density Database](#)

11 Yamakura, T., Hagiwara, A., Sukardjo, S., Ogawa, H. (1986): [Tree size in a mature dipterocarp forest stand in Sebulu, East Kalimantan, Indonesia](#). *Southeast Asian Studies* **23**:452–478.

KoutaRäsänen

[Re: The world's most biomass-dense forests](#)

by eliahd24 » Mon Jan 28, 2013 7:50 pm

This is very interesting Kouta. I'd be curious to see how forest of the southern Appalachians stack up—such as those old groves in the Smokies. Do any NTSers have any data on forest biomass for the eastern US?

Eli Dickerson

[Re: The world's most biomass-dense forests](#)

by fooman » Mon Jan 28, 2013 10:17 pm

Interesting stuff Kotua,

I just want to make a quick comment. You stated:

Anyway, most of the biomass is in the tree stems (in the case of the Picea - Tsuga stand 88%), so the stem biomasses should be relatively close to the total biomasses.

In terms of the NZ kauri (*Agathis australis*), this assumption may not hold true. The only full measurement of wood volume of a large kauri (that I know of) was done by Bob van Pelt on Tane Mahuta in 2002 (and reported here). The stem was 255 m³,

total wood volume 516 m^3 . Almost all other data for kauri volumes is stem or merchantable volume (generally based on cbh, height of bole and a factor for taper - generally between 5% and 10%). This method dates back to the 19th century, and somewhere there is a paper from the 50's or 60's that shows that this tends to underestimate the volume by 5 to 10% when checked by tape-wraps.

Anyway BvP measured ~ 49% of the wood volume in the stem, 38% of the wood volume in the branches, and the remainder (presumably) in the top logs above the first fork. The 255 m^3 stem measurement was a little bigger than the official 244 m^3 "merchantable" volume that kauri are ranked on. A little over half of the mass of the tree was not in the primary stem.

There is a good photo of the crown of Tane Mahuta at <http://www.flickr.com/photos/mrmunningsontour/2976976587/>

Another specimen kauri (Tane Moana), approximately 35 ft cbh, with a 25 or 30 ft bole (no official measurements exist) would have even more than 50% of its volume in the crown, as shown by a picture of its crown at http://www.panoramio.com/photo_explorer#view=photo&position=72&with_photo_id=29069400&order=date_desc&user=3056864.

The Trounson Kauri park is exceptional, in that it is the best remaining stand of kauri dominated forest. The other large forests containing old growth kauri tend to be mixed kauri/podocarp/broadleaf forests. I've only been there once, in a much younger form, but it always struck me for the density of the kauri crowns emerging from the undergrowth. I cannot find a photo looking over the park, but google street view does convey some of the majesty here: <http://goo.gl/maps/tWF8Q>. There is an old photo of similar grove, which is a favourite of mine, as it shows a kauri stand, just before it was felled for timber (see attached). Finally, there was a particular tree called the Trounson big tree, but it was not at the park, but named after the person who preserved the park. The Trounson big tree would be one of the largest, if not the largest, if it were still standing, but

it burnt down in the first decade of the 20th century. Wikimedia has an image of it, and I have attached it below.

Cheers,
Matt Smilie



Trounson Big Tree. ~ 16 m (52 ft) cbh, 13-14 m bole



Almost pure stand of mature kauri, before felling, circa 1910.

[Re: The world's most biomass-dense forests](#)

by **Chris** » Tue Jan 29, 2013 1:53 am

I would guess a lot of it is just where the calculations have been done. The two RNAs in Oregon and Washington don't strike me as places that are exceptionally unique being mid-elevation forest in the Cascade Mountains. Any number of forests in the Coastal Ranges of Oregon, British Columbia, or the Olympics of Washington would be higher, I'd think, because of wetter conditions, less severe winters, and deeper soils.

Chris Morris

[Re: The world's most biomass-dense forests](#)

by **KoutaR** » Tue Jan 29, 2013 7:33 am

Matt, The architecture of kauri is very different from the northern conifers, indeed. Anyway, branches and

leaves are included in the biomass estimate for the kauri stand. For the methods, see source #4. I added a sentence about this to my text above.

Although Trounson Kauri Park is the most massive kauri stand, the very biggest individuals (Tane Mahuta etc.) are not there? Right?

Trounson Big Tree is incredible! Could be larger than Tane Mahuta.

Chris, The Goat Marsh stand is stated by many authors as the most massive stand outside the redwoods. E.g. *Forest Giants of the Pacific Coast* by Van Pelt, p. 94: "Southwest of the mountain [Mt. St. Helens]... is another beautiful grove, which not only contains the tallest known living *Abies*, but also has the Pacific Northwest biomass record... excluding coast redwood stands."

Why are the coastal forests not as biomass-dense as some forests in the Cascades? There are better members in this forum to answer. I think one reason is that stand-replacing fires are very rare near coast due to the humid conditions. Consequently, dense Douglas-fir stands are much more rare and the main shade-tolerant species, western hemlock (*Tsuga heterophylla*) that is much smaller tree, occupies high proportions of the forests. Shrub cover is much denser, too, and may prevent dense stands of large species from being established. Note that Douglas-fir and noble fir (*Abies procera*) are long-lived pioneers; dense stands of these species are often even-aged and regenerated after stand-replacing disturbances. The dominant noble firs and Douglas-firs in the Goat Marsh stand have regenerated in approx. 1630-1655.

Another reason could be the commonness of tree falling winds along the coast.

Van Pelt tells about a dense 350-year-old Douglas-fir grove in the Olympics, called "Miracle Acre". It may be more massive than the Middle Santiam RNA stand but I haven't found any numbers.

Kouta Räsänen

Wichita Mountains Wildlife Refuge, OK

by **tsharp** » Mon Jan 28, 2013 10:10 pm

NTS:

On the way back from our Arizona sojourn Susan and I stopped and camped at the Wichita Mountains Wildlife Refuge near Lawton, Oklahoma.

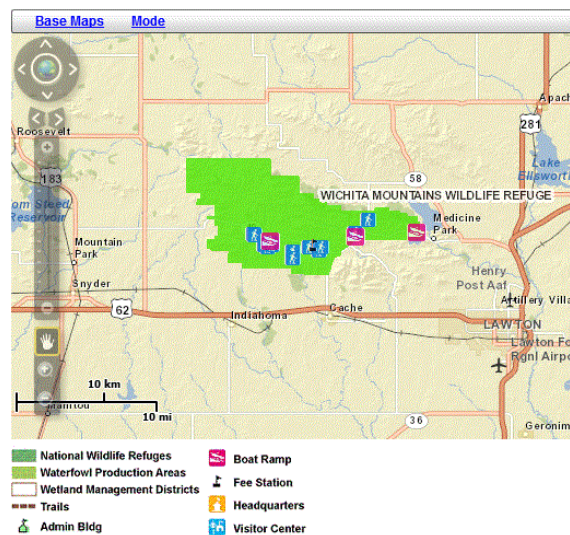
This 50,000 acre refuge features restocked herds of Plains Buffalo, Rocky Mountain Elk and Longhorn Cattle. The native Elk used to be the Merriman's subspecies until they became extinct. The Longhorns are maintained for historical and cultural reasons. 22,000 acres of the refuge are open to the public. A permit is required to visit the 8,000+ acre Charon Gardens Wilderness Area within the refuge.

Of interest was the typical vegetation of the Cross Timbers region. Extensive grass lands interspersed with oak dominated woodlands in the rocky areas. From casual observation it appeared to be about a 50/50 mix of grass lands and woodlands. Post and Blackjack Oak dominated with a fair amount of Eastern Redcedar in some areas. It was amazing to me to see three common eastern species so far west. The largest of three species measured are as follows:
 Post Oak (*Quercus stellata*) 7.8' x 44.3'
 Black Jack Oak (*Quercus marilandica*) 2.5' x 33.5',
 3.7' x 31.2'

Eastern Redcedar (*Juniperus virginiana*) 3.6' x 35.7'
 Apparently since the era of fire suppression the incidence of Eastern Redcedar has greatly increased. There was an obvious Redcedar plantation encountered. The first I have ever seen and I wonder what precipitated that effort. I did not measure any trees in that plantation.

For more information about the refuge see:

http://www.fws.gov/refuge/Wichita_Mountains/



For more information about the Cross Timbers check out the field trip reports under Oklahoma.

When in the area a not to be missed restaurant is one in Meers specializing in Longhorn steaks and burgers. The "town" of Meers is north of the refuge and is a former mining community. The restaurant looks like several old buildings were saved by cobbling them together to make an area big enough to seat fairly large clientele.

<http://www.meersstore.com>

Turner Sharp

Re: *Metasequoia Glyptostroboides* (Dawn Redwood)

by **bbeduhn** » Tue Jan 29, 2013 11:05 am

A few more metas:

Calvary Episcopal Ch.	106.8'	9'5" cbh
Bent Creek Exp. For. HQ	99.7'	
191/Cloverhook	75.3'	
Airport Rd/Watson	36.1'	
Sweeten Ck/Ballantree	65.9'	
Asheville Country Club	54.7'	49.4'
Weaverville-Yost	74.7'	
Kimberly/Griffing	53.7'	48.1' 42.4'
Country Club/Griffing	59.1'	53.5'
Red Cross Merrimon #3 previously measured)	63.4'	(69.4', 68.8'
Asheville Savings Merrimon#3 previously measured)	58.1'	(80.2', 73.5'
Merrimon/Colonial	27.2'	
Pine Needle Apts, Fletcher 83.4' 88.5' ~40 yrs old	71.1'	75.7' 81.2'
Sara Lee, Fletcher	44.0'	47.7' 42.1' 42.6'
New Stock/Nichols Hill	56.6'	52.0'

Brian Beduhn

Congaree Cypresses

by **Tyler** » Mon Jan 28, 2013 10:27 am

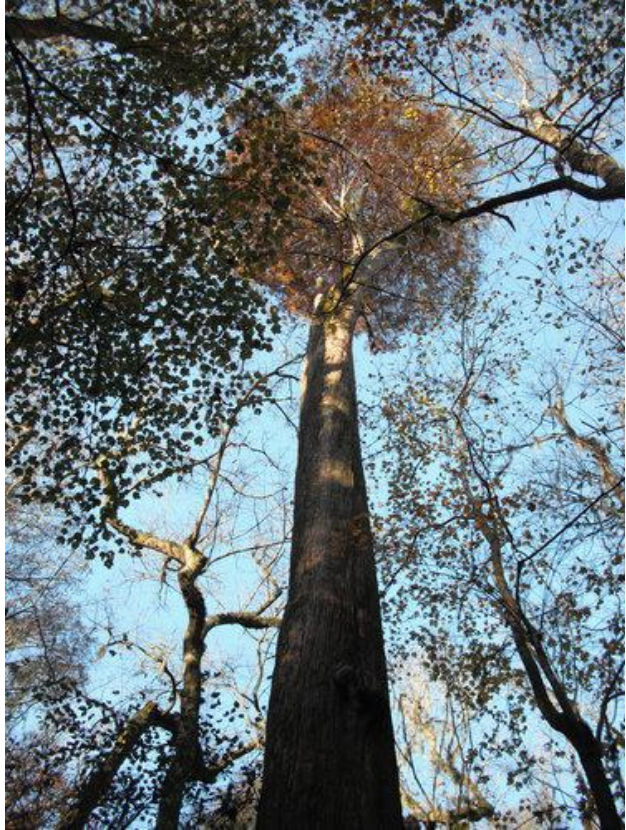
Congaree National Park contains both old growth and second growth stands of baldcypress. Logging for cypress trees started about 1890 and ended around 1915. Both the tallest known baldcypress (147.2') and the South Carolina state champion inhabit the park.

The first large cypress I came across was an old growth individual growing with other large cypress and water tupelo trees.



19' 4" cypress

This is a very old tree. The base is hollow and there is a large break at the top. Even the limbs that regrew the crown were broken.



Crown of 19' 4" cypress

Nearby I found another old growth cypress, this one appearing much younger. It also probably has more volume. Height was around 125'.



18' 4" cypress



Live cypress knee growing around a dead knee



Crown of 18' 4" cypress

Not far from these giants was a stand of 2nd growth cypresses. I was amazed that they could grow so dense and tall after only 100 years.



Dense 2nd growth cypress



Dense 2nd growth cypress I measured one of these young trees to 137'.

The wind got up while I was here and one of the dead trees actually broke, so I didn't spend too much time there. I only saw a small fraction of this stand and suspect there may be taller trees present.

State champ cypress 2006 measurement: 26' 0" X 124.9'

The majority of the old growth cypress trees are in the southeast portion of the park. There is one tree on land acquired a couple years ago that reportedly measures 29' cbh.

Tyler Philips

Colonel Leopold L. Armant Oak, LA

by **Larry Tucei** » Mon Jan 28, 2013 11:57 pm

NTS, On my way down to Oak Alley I noticed a large Live Oak growing along Hwy 18 in Vacherie Louisiana. This road runs the length of the Mississippi from New Orleans to Baton Rouge. I had enough time on my trip back home to stop and measure this beautiful tree. The grand oak is located at the old Armant sugar Plantation which burned in 1969. The tree measured CBH- 22' 4", Crown Spread- 132' x 120' and Height- 70'.



Larry Tucei



Colonel Leopold L. Armant Oak

Re: Colonel Leopold L. Armant Oak

by dbhguru » Wed Jan 30, 2013 10:34 am

Larry, Take a look at the following.



Your measurement was CBH = 22.33 ft, right? The photo measurement at the point shown is 22.47 ft. It can't get much closer than that.

Robert T. Leverett

Testing the Vortex Solo R/T 8 x 36

by dbhguru » Mon Jan 28, 2013 8:45 pm

NTS, I often attest to the accuracy of the Vortex Solo R/T 8 x 36. However, most of my tests are performed on the trunks of trees where some of the variables are hard to control. For instance, visibility is frequently a problem for trees where the background is dark. So, this time I decided to use a highly visible target and place it at a relatively close distance. I used a yardstick as the target. The distance to the center of each segment of the yardstick was measured with a Bosch GLR825, which has an accuracy of around a millimeter. Consequently, I could rule out errors in distance to target as a source of target width error. I used a tripod to insure that the Vortex was not jiggled. The image below shows the results of the test of 10 trials. In the image, Column 1 is trial number; Column 2 is distance to the center of the target; Column 3 is the millimeter reading from the Vortex; Column 4 is the computed width of the

target; Column 5 is the target's actual width; and Column 6 is the difference between actual and measured widths.

Test of Vortex Solo R/T 8 x 36					
Test #	Dist	mm	Comp Width	Act Width	Diff In
1	23.232	20	5.57568	5.5	0.07568
2	23.232	40	11.15136	11	0.15136
3	23.231	10	2.78772	2.875	0.08728
4	23.193	30	8.34948	8.125	0.22448
5	23.232	5	1.39392	1.375	0.01892
6	21.12	14	3.54816	3.625	0.07684
7	21.12	80	20.2752	20.125	0.1502
8	21.12	40	10.1376	10.125	0.0126
9	21.12	100	25.344	25.25	0.094
10	23.851	20	5.72424	5.75	0.02576
AVG	22.4451				0.091712

Notes:

1. The average difference in inches between the actual width and computed width over these 10 trials is 0.09 inches.
2. The next test will be at a long distance.

An average error of 0.09 inches for distance of 20 to 25 feet is pretty impressive. Were the distance to the target much greater, the measurement error would certainly increase, but I don't know what the proportionality factor is. I'll next try to get a fix on width errors for targets at distance on the order of 100 feet.

Robert T. Leverett

Re: Testing the Vortex Solo R/T 8 x 36

by Karlheinz » Tue Jan 29, 2013 11:57 am

Vortex is also represented on the German and European market. The solo R/T 8 x 36 costs 124 € inclusively dispatch in Germany, I ordered one.

They also offer a Rangefinder named "Vortex–Ranger 1000" for 379 €, but they give less information. Does anyone know this Device?

I do not have the expertise to evaluate the with Vortex Solo R / T 8 x 36 achievable accuracy. How do I have to rate this precision in comparison to other

measuring devices or measurement methods?
Approximate disclosures will satisfy me. Is it also a similar way to determine the diameter of a tree trunk in different heights by measuring the azimuth with TruPulse 360?

(Sorry, this surely already will be published in this forum, but it is very complicated for me to look out from older postings).

Karl

Re: Testing the Vortex Solo R/T 8 x
36

 by **dbhguru** » Tue Jan 29, 2013 12:30 pm

Karl, I found these specs on the Vortex Ranger 1000 Fully Multicoated

Specifications for Vortex Optics Ranger 1

Reflective Range:	11 to 1000 yards
Deer Range:	11 to 500 yards
Margin of Error:	+ or - 3 yards at 1000 yards
Magnification:	6x
Objective Lens Diameter:	22mm
Linear Field of View:	315' at 1000 yards
Angular Field of View:	6°
Eye Relief:	17mm
Length:	3.9"
Width:	3"
Weight:	7.7 oz
Batteries:	CR2

It appears that the readout is to the nearest yard or meter. That's not good for our work. I presume that you can move to the click-over point and be much closer, but don't know for sure. I think this unit is designed for hunters instead of tree measurers.

Robert T. Leverett

Re: Testing the Vortex Solo R/T 8 x
36

by **dbhguru** » Wed Jan 30, 2013 3:14 pm

Karl, et al, Here is the expanded test for the Vortex. As you can see, the Vortex is extremely accurate for targets that are relatively close.

Test of Vortex Solo R/T 8 x 36					
1-30-2013 Bob Leverett					
Test #	Dist	mm	Comp Width	Act Width	Diff In
1	23.232	20	5.57568	5.5	0.07568
2	23.232	40	11.15136	11	0.15136
3	23.231	10	2.78772	2.875	0.08728
4	23.193	30	8.34948	8.125	0.22448
5	23.232	5	1.39392	1.375	0.01892
6	21.12	14	3.54816	3.625	0.07684
7	21.12	80	20.2752	20.125	0.1502
8	21.12	40	10.1376	10.125	0.0126
9	21.12	100	25.344	25.25	0.094
10	23.851	20	5.72424	5.75	0.02576
11	19.647	40	9.43056	9.375	0.05556
12	19.647	20	4.71528	4.625	0.09028
13	30.995	21.6	8.033904	8	0.033904
14	32.1	21	8.0892	8	0.0892
15	15.184	44	8.017152	8	0.017152
16	11.415	59	8.08182	8	0.08182
AVG	22.1907273				0.08031475

Notes:

1. The average difference in inches between the actual width and computed width over these 10 trials is 0.09 inches.
2. The next test will be at a long distance.

The day is rather miserable today here in western Mass. I still may be able to conduct a few outside trials at greater distances. The challenge then is to see the ends of the target and be able to read the scale. I'll keep updating the above table. I'll also add a column identifying the targets. All those in the tests to date are rulers placed at a distance.

In the past, when I've conducted accuracy tests for the two macroscopes I own plus the Vortex, my targets were often tree trunks. The diameter measurements were determined using calipers, but since the trunks aren't exactly round and the edges are hard to make out at a distance, I really didn't give the monoculars a fair test. The current tests use a flat target of precise dimensions.

Karl, I'll attempt to answer the questions you raise in a future post. I think Ed and others will have useful inputs also.

Robert T. Leverett

I've watched a lot of Don Leopold's videos about tree species. Here is his Dendrology playlist, there are 135 separate videos each focusing on one species . . .

<http://www.youtube.com/playlist?list=PLBE1197A3397CAE00>

- Matt Markworth

[Re: Asheville Trees, NC](#)

by **bbeduhn** » Wed Jan 30, 2013 5:17 pm

A few updates:

Platanus occidentalis sycamore (all open grown)

Asheville Country Club	139.6'	
TGIF Biltmore Village	145.5'	
UNCA Botanical Garden	136.0'	124.6'

Taxodium Distichum Baldcypress

UNCA Botanical Garden	107.1'	
Biltmore Bass Pond Dam	132.4'	122.0'

Pinus echinata shortleaf pine

Weaverville/Reems Ck/Lake Louise	123.2'	
	107.6'	

Brian Beduhn

[Old Growth Pines and Hemlocks in Indiana](#)

by **pitsandmounds** » Tue Jan 29, 2013 9:24 pm

One minute you're driving lazily through farm fields, and the next minute you're in the midst of unusual landforms and witnessing ancient trees clinging to life on the sides of cliffs. As a Midwesterner, descending into an old growth forest of pines and hemlocks feels like heaven, despite the devilish cliff carvings and the hair-raising Devil's Backbone. Thus are the contradictions of Pine Hills Nature Preserve.

Located in west-central Indiana, the preserve boasts 200 acres of old growth including hemlocks that have been essentially undisturbed, according to [Old Growth in the East: A Survey](#). Indiana had its first confirmation of HWA last year; however it was far away in the northern part of the state. It was a privilege to hike the trails and to measure a few of these amazing trees. I definitely suggest visiting if you're in the area, but if you don't like heights I wouldn't recommend traversing the Devil's Backbone as you'll see in one of the videos below.

Trail Map and information . . .

http://www.in.gov/dnr/parklake/files/shades_pine_hills_np_trail_map.pdf

Four measured trees . . .

[#1\) Don Leopold's Dendrology Playlist](#)

by **pitsandmounds** » Wed Jan 30, 2013 7:15 pm

Jess Riddle wrote:

My favorite book for bark photographs is Trees of the Central Hardwood Forest of North America by Leopold and others.

Site Name	Species (Scientific)	Species (Common)	Height (ft)	Girth (ft)
Pine Hills Nature Preserve	<i>Pinus strobus</i>	Eastern White Pine	118.1	8.6
Pine Hills Nature Preserve	<i>Tsuga canadensis</i>	Eastern Hemlock	110.7	7.3
Pine Hills Nature Preserve	<i>Tsuga canadensis</i>	Eastern Hemlock	93.2	6.5
Pine Hills Nature Preserve	<i>Liriodendron tulipifera</i>	Tuliptree	136	10.6

 [Pine Hills Nature Preserve.xls](#)

Cliff Scenes . . .









The Devils' Backbone . . .



http://www.youtube.com/watch?v=Qz9_vtT8zcc

The four measured trees . . .



<http://www.youtube.com/watch?v=vj9TFzFTrIM>



Devil stone carving.

Slideshow . . .



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

- Matt Markworth

[Re: Old Growth Pines and Hemlocks in Indiana](#)

by **pitsandmounds** » Wed Jan 30, 2013 7:24 pm

James - Here's a video of Turkey Backbone that you might like as well . . .



<http://www.youtube.com/watch?v=LtRfw1DFthw>

Also, here's the reference link for the Indiana HWA confirmation last year . . .

http://www.in.gov/activecalendar/EventList.aspx?view=EventDetails&eventidn=55750&information_id=111925&type&syndicate=syndicate

- Matt

[Re: Arizona - southern](#)

by **Don** » Wed Jan 30, 2013 5:08 am

Turner-

After reading your posts on Arizona as you rambled through the South of it, my mind wandered back to my own times at many of the places you mentioned...one that you didn't mention has long been on my mind to return to, was a campground (Peppersauce Campground). Located on the back side of Mt. Lemmon (south of Oracle, road-wise), the campground is fitted into a drainage with clusters of the gnarliest sycamores I've seen in the Southwest.

We were there in the winter, so I was looking at the bole and limbs without leaves and they were pretty impressive.

Your comments in subsequent posts about Grand Canyon were spot on, if but a little light on the dangers of hiking the canyon during summer. While under the employ of Grand Canyon NP, I had occasion to do the South Rim to Phantom Ranch and back (Bright Angel Trail), once in July, and once in November. The latter I found preferable!

But I had the benefit of knowing what I was getting into. We had more than a dozen visitors die on Canyon trails during my time there, some were super marathoners with desert experience, some just New Jersey tourists, all were susceptible to the confusion brought about from heat exhaustion or, oddly enough, water intoxication (where the bodies electrolytes are diluted from drinking too much water).

When I went down in July (I was one of the vegetation program managers, responsible for hazard tree coordination), I left the South Rim at 7PM where it was 70 degrees. When I arrived at Phantom Ranch, around 11PM, it was 112 degrees with heat radiating off the canyon walls. Staying at the Bunkhouse in the last room available, I discovered that the evaporative cooler for my room was not operable. Knowing my body was carrying too much heat, I stepped into a cold shower until I was sure my core temperature was close to normal, and not bothering with a towel to dry off, I wrapped a sheet from my bunk around me while dripping wet...functioned as my own evaporative cooler.

I was down at Phantom Ranch with the Regional Hazard Tree expert and a ISA arborist to identify treatments for cottonwoods planted in the 1920's when Phantom Ranch was envisioned as a kind of dude ranch. Some 80 years later, they appeared structurally sound to the general public, but limbs kept breaking off with no apparent sign of distress.

We poked and prodded, scoped them with binoculars, looked for telltale signs of upcoming hazards. We'd done this from 5AM to 9AM and headed back up the Bright Angel trail...

A few more brief comments, I took a hazard tree crew down to Phantom Ranch that November...one of our members, Michael Dunn was a member of that crew. They did us proud, safely pruning and/or removing some twenty identified cottonwood hazard trees (I believe there may have been a sycamore in there too), many perched perilously over Historic Phantom Ranch Cabins (we'd have lost significant body parts if the cabins were damaged!) and other structures, and along trails with thousands and thousands of guests glorying in their shade.

I recall the hike up to the South Rim taking much less time to get up than in July, and had the added treat of hiking through an inch or so of snow on the trails last thousand foot of elevation gain. November, I say, or at least winter, is one of the best times to visit The Canyon. Of the 4,000,000 or so visitors that come to The Canyon, very few come during the winter. July? Do the North Rim, also visited by very few.

The North Rim has some of the few large tracts of reasonably little disturbed Ponderosa Pine forest, with opportunities to view the classic, open park-like stands that characterize the ponderosas natural fire-adapted forest ecosystem. But until the cross-country ski vendors who operated there in the late '90s return, you shouldn't expect to visit the North Rim in Winter...it's really a world apart. GO !

Don Bertollette - President/Moderator, WNTS BBS

[Re: Arizona - southern](#)

by **Chris** » Thu Jan 31, 2013 1:05 am

Unlike Don, I am an unbiased observer, but I would also put in a vote for the North Rim. A few years ago I was there on Memorial Day weekend (I think?) and went backpacking in the Ponderosa Pine forest on the Walhalla Plateau. Nice trees, private canyon views! The ranger I got the permit from said I was the only person with a permit for the weekend in the entire area. And unlike going down the canyon, it is pretty flat and easy going too.

Chris Morris

[Re: Arizona - southern](#)

by **Don** » Thu Jan 31, 2013 3:57 am

Chris-

As a GIS Technician/Fire and Aviation employee, I had opportunities to wander through virtually every vegetative community on the Walhalla Plateau, as it was to be the pilot (having good representation for the rest of the North Rim, but for the Spruce-Fir Zone) for mapping the rest of the North Rim. We learned much about the forested ecosystem there, noticing the co-incidence of species with land form gradients (bio-geographical islands, peninsular mesas, larger plateaus), elevational/moisture gradients, fire-adaptive transition zones, and such. One of the more interesting land forms on the North Rim were this spattering of cones/craters (for an example, if you have access to Google Earth or other such cool software, go to 36-21-12.76 N and 112-11-40.97 (DMS). They're easier to see on topo maps...I would have liked to have done some research on these, or directed some there, to bring in palynologists.

While I didn't have a chance to visit all of them, the ones I had seen had been 'grazed/trampled' by escaped cattle and buffalo over the years and top most layers would likely have had disturbed layers. Still...

Lots of scallop shell fossils too, huh?
Great place, worthy of many return visits. And across the NPS/USFS boundary to the north from say Fire Point (great old-growth, natural fire regime stand there!), and you'll find mountain biking Nirvana!

Don Bertolette

[America Forests latest edition](#)

by **dbhguru** » Mon Jan 28, 2013 9:53 am

NTS,

Please check the articles in the latest edition of American Forests magazine. You can access the individual articles on line. You'll find an article there written by someone you know. Chalk up one more for NTS.

Robert T. Leverett

[Re: America Forests latest edition](#)

by **edfrank** » Mon Jan 28, 2013 10:20 am

Bob, I figured out who was in the article:

Cook vs. Mohawk: Where the Tall Trees Grow
<http://www.americanforests.org/magazine/article/cook-vs-mohawk-where-the-tall-trees-grow/>

There also is a couple by Sheri Shannon about our NTS Rendezvous last summer (2012):

Adventures in Tree Measurement
<http://www.americanforests.org/magazine/article/adventures-in-tree-measurement/>

Cooksburg, Pennsylvania:
<http://www.americanforests.org/magazine/article/cooksburg-pennsylvania/>

Edward Frank

[Re: America Forests latest edition](#)

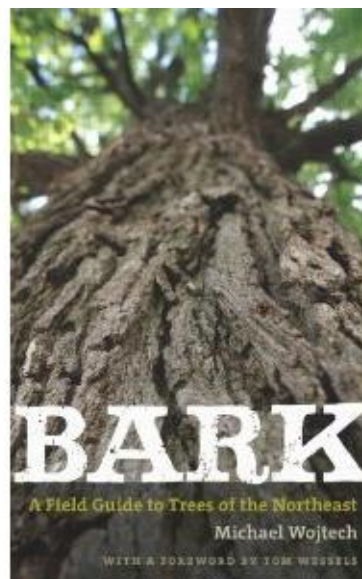
by **edfrank** » Sun Feb 03, 2013 12:10 pm

NTS, There also is an excellent article on bark by Michael Wojtech:

Winter 2013
The Language of Bark

The search for a better all-season field guide inspires a closer look at the unexpected beauty of bark.
Story and photos By Michael Wojtech

His book "Bark" may be purchased here:



[Robert Leverett Intro](#)

by **edfrank** » Wed Jan 30, 2013 11:49 am



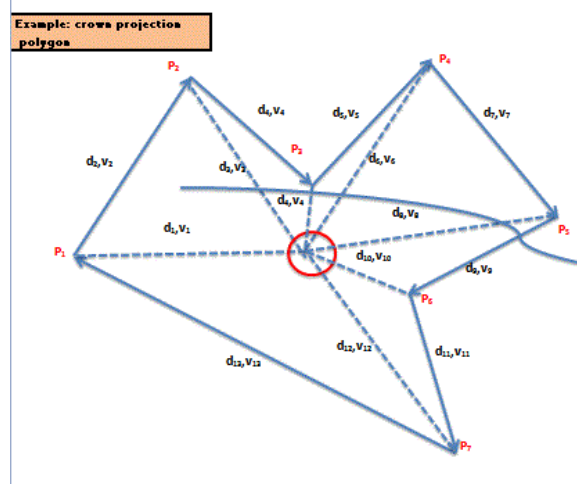
http://www.youtube.com/watch?v=R_vA_3zIYY8

[Revisiting Crown Area](#)

by **dbhguru** » Wed Jan 30, 2013 9:01 pm

NTS, In assisting Ed with his developing Wikipedia post on tree measuring, I decided to revisit the Excel workbook with the routine to calculate crown area. It is attached. The method works. To use it, you place a ribbon around the trunk at a convenient height, keeping the ribbon level. Then you establish a series of exterior points along the drip line of the crown. Starting at point #1, you shoot distance and vertical angle to the middle of the trunk on the ribbon. You then shoot the distance and vertical angle of the second point. You move to the second point, shoot the distance to the ribbon and the vertical angle followed by the distance and vertical angle to the third point, and so on until you've covered all the points and circled the tree. By convention, you go in a clockwise direction. However, that doesn't really matter. The series of measurements are entered into the spreadsheet which computes the inside area delineated by the points by breaking the space up into adjacent triangles. Since, this or something close to it

will be included in Wikipedia, it would be splendid if some of the members would give the process a good field test. Thanks in advance to anyone willing to test the process.



 [AreaCrownLaserClinometer-1.xlsm](#)

Robert T. Leverett

[Re: Revisiting Crown Area](#)

by **Don** » Thu Jan 31, 2013 4:40 am

Bob

I'm probably a little late on this, but coming to grips with what should be a simple task, like defining "big" in the context of champion tree candidates, has proven not so simple.

My thought process has been to begin with my physical approach. In retrospect, every tree that I have encountered as a potential champion candidate was 'big', and reasonably categorized by the trees emergent crown (tree height), and as I got closer, it's trunk (diameter to me is what is visible on approach, not the girth, I know separate argument, but this is still me approaching the champ candidate); and probably the most definitive aspect of a tree's bigness is it's crown.

I think we cut the crown short, or at least measure it short...when I was feeding "tree bio-mass" into

FARSITE (a fire area growth assimilation program), we took a measure of the crowns portion of the tree, taking readings on base of tree, base of crown, and the tree's top; and an average crown spread (estimates that were challenged WHENEVER a team member disagreed (two-person team).

I'll say this separately for emphasis....for conifers year around, and deciduous trees when leafed out, THE TREE'S CROWN IS FOR ME, OFTEN THE DEFINING "BIGNESS".

In the context of champion tree measurements, I like your walk-around/EXCEL table approach...my only thought on improving it would be the incorporation of the GRS Densitometer in determining the accurate "edge" of the crown.

Enough rambling...: > }

Don Bertoletto

[Re: Revisiting Crown Area](#)

by **dbhguru** » Thu Jan 31, 2013 12:35 pm

Don,

I hear you. Thinking along the lines that you have communicated, crown spread has played the biggest role for me as well, when viewing a big tree from a distance, and trunk width (diameter) has taken over as I got closer and closer. I suppose that we can always make the argument that crown spread is a surrogate for trunk girth or diameter, but we both know big trees where crown size and trunk size have become mismatched. Crown breakage or crowding has to be figured in to the equation. For the trees that stick out in my mind, height has figured in only when really significant. So, I think we are definitely on the same page.

The Densitometer has been on my list of purchases for a long time. Time for me to move on, get one, and incorporating it in the crown-area measuring process.

Robert T. Leverett

[Samuel P Taylor State Park, CA](#)

by **Ral** » Thu Jan 31, 2013 1:55 pm

Hello all, I wondered if anyone had any photos of the redwoods in Samuel P Taylor and information about the tallest trees there? There is practically no decent information about this park on the internet. A report says that the tallest redwood is just over 90 metres tall and one site claims that there are 618 acres of virgin redwoods, is this information correct?

Also, while this thread is relating to Marin County, is there any reason why the redwoods in Muir Woods have only reached 258 feet, some climatic or topographical limiter? Second growth redwoods logged in the 19th century are probably approaching this height, have there ever been any records of 90 metre, c300 feet redwoods growing in Muir Woods?

Would it be possible to see some more photos of these two redwoods at Big Basin, is it possible to see them from a distance photo or are they too tightly hemmed in by other trees? Is it likely that any other 100 metre or taller redwoods may yet be found somewhere in Big Basin State Park? Any other very tall tree species growing in Big Basin?

Ral

[Tunnel Tree - a remarkable sequoia](#)

by **F.Jakobsson** » Sun Jan 20, 2013 4:02 pm

If you've read about the Tunnel Tree in Wendell Flint's book *To Find the Biggest Tree* (2002) and wondered what to look for I have attached a photo

with the undersigned in front for comparison. The tree is, to quote Flint, "a remarkable 57 feet across its vast base" and stands in Atwell Mill Grove west of the Paradise Ridge Trail (Flint's book has a map). I have never seen a photo of it before - hope it inspires a visit!

Fredrik



[Re: Tunnel Tree - a remarkable sequoia](#)

by **F.Jakobsson** » Wed Jan 30, 2013 5:49 pm

All five photos attached are of the Tunnel Tree viewed from different angles and distances. As you will notice, it looks quite normal when seen

from above.

If you're standing below and facing the Tunnel Tree, the Paradise Ridge Trail is about a minute's walk away to the right.

Fredrik

(In case you wonder about the editing of my initial post, it consisted of adding a copyright symbol to the photo)



©F.Jakobsson 2011



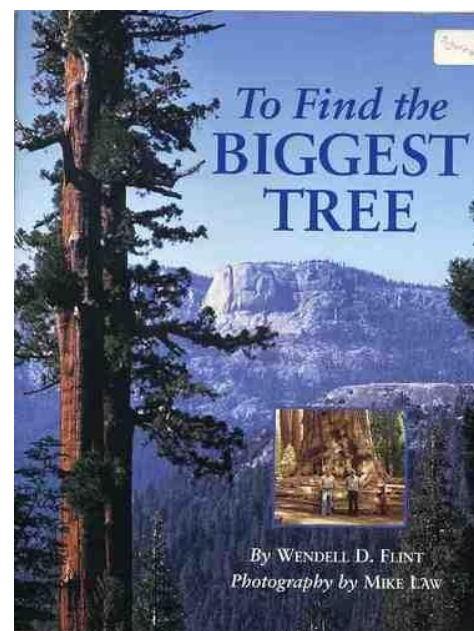




[Re: Tunnel Tree - a remarkable sequoia](#)

by **edfrank** » Sun Feb 03, 2013 12:42 pm

Here is an Amazon Link (US) for the book “To Find the Biggest Tree” by Wendell Flint:



167' Loblolly Pine Congaree, SC

by **Tyler** » Tue Jan 29, 2013 11:31 am

One of my objectives during my last few visits to Congaree has been to search for large and tall loblolly pines. I have been going grove to grove searching for trees that will challenge the maximum dimensions for the park which are 16' cbh and 173.3' tall. Well, I haven't found trees with dimensions larger than those yet, but I am getting closer. I measured this tree to 167.2' tall.



10' 9" X 167.2' Pine



10' 9" X 167.2' Pine

The tree is in one of the park's research plots with other pines. I roughed one of them to 160'. There is also a 90' holly and a 22' cbh cherrybark oak in the area.

Some other trees measured:

Holly	4' 6" X	92.7'
Persimmon	7' 7" X	109.3' State Champion
Water Oak	18' 2" X	116.6' New potential State Co-Champ
Black Willow	5' 0.5" X	87.1' State Height Record

I'll close with a few more shots of the park.



Congaree River



Flooded Slough



Old Dead River (An oxbow lake)

Tyler

[Re: 167' Loblolly Pine Congaree](#)

by **Larry Tucei** » Tue Jan 29, 2013 5:24 pm

Tyler, Wow that is just about as tall as the National Champion Loblolly at Weston Lake. When we all came up to Congaree in 2009 we measured several giants, here is a listing that I put together. I remember Will saying when they climbed the champ they could see to north and east some Loblolly that might challenge the champ in height. **Bob**, I wonder why the Park Service is not using the NTS method? I understood that one of the reasons we had a gathering there was to confirm tree measurements and to help them use our method

 [Congaree Data Feb 22 2009.xls](#)

Larry Tucei

[Re: 167' Loblolly Pine Congaree](#)

by **dbhguru** » Wed Jan 30, 2013 10:11 am

Larry and Tyler,

In the case of Congaree, I don't have the answer to the question except to say that it appears to be taking a long time for awareness of better ways of tree measuring to percolate through the system, and in particular, reach the people who are in charge. Not being experts themselves, I expect that they are unable to resolve to their satisfaction the conflict between the measurements they were given from another ostensibly qualified source with those later supplied by NTS members. The original measurers did the best they knew how and at least one carried strong academic credentials. But the original crew used a highly flawed measurement method and its leader was not receptive to having that method questioned. I expect the folks at Congaree felt

understandably grateful to the original measurers, especially the individual with the important credentials. It is a tricky situation to be in for all concerned.

Robert T. Leverett

Cumberland Yellow Birch

by **EmoryRiver** » Fri Jan 25, 2013 12:20 am

I just found a few Yellow Birch on a mountain we have managed for 4 generations. My father and grandfather have talked about finding some on other nearby tracts but this is the first for this tract.

Always fun to find new species on your place!

I have seen Yellow Birch at a few Cumberland locations but it is always a tree to remember in the Cumberland's, thoughts?

-Hugh

Re: Cumberland Yellow Birch

by **Will Blozan** » Fri Jan 25, 2013 12:00 pm

Hugh, I have limited experience in the Cumberlands but the South Cumberlands have loads of yellow birch. I have yet to see a black birch, strangely.

I am referring specifically to Savage Gulf SP. Loads of yellow birch but not a single black birch seen anywhere. Weirdest thing!

Will Blozan

Re: Cumberland Yellow Birch

by **EmoryRiver** » Wed Jan 30, 2013 11:24 pm

Thanks Will,

Interesting! We have loads of Sweet Birch (Black Birch), but Yellow Birch is not an everyday find in my area. By South Cumberlands what area is that?

We are in Morgan County and a bit in Scott County Tennessee. I have only found these guys at 2500-3000 feet on north facing aspects on my place. I know they are found in other Tennessee areas but it is not common in the 350,000 acres (Morgan/Scott County) of Mountains I grew up roaming. I need to get out more!

Thanks for the info.

-Hugh Faust

Re: Brave men who felled California redwoods by HAND

by **Ral** » Thu Jan 31, 2013 1:40 pm

Hello, nice photos, I do agree with the sentiments issued above but conversely photos of the redwoods being logged are strangely fascinating. The only silver lining will be that the trees will have re-sprouted and will continue to live and will not have actually been killed completely I imagine. What do these areas look like now, second growth forest of say around 60 metres and slim trunks? The way that the spiketops (or is the term snagtops for Coast Redwoods?) left remaining look so isolated looks as if it explains why the redwoods grow so tall in California, dense forests with the trees sheltering each other from the wind. From the photos it looks as if lone Coast Redwoods growing on those hillsides would really be vulnerable. I like looking at this site http://www.mendorailhistory.org/1_redwoods/redwoods_photos.htm the second photo is supposedly of the largest redwood logged in Mendocino County, 330 feet with a 21 feet 2 inch diameter. http://www.mendorailhistory.org/1_towns/fort_bragg/cwr.htm it is also interesting reading about the lives of the loggers themselves even down to information about their local brothel.

Ral

[Re: Brave men who felled California redwoods by HAND](#)

by **dbhguru** » Thu Jan 31, 2013 3:21 pm

NTS, One reason why these photos illicit the emotions they do is that it is in our character to be nostalgic and another reason is that we value that which is in danger of being lost. Scarcity generates a sense of value even for life forms that were historically loathed, e.g. the wolf. Another reason for the emotions is that some of us feel that we're not replacing the giant old forests with something of equal value or emotional appeal. On the other hand, it is to our immense credit as a species that we are able to come together and save these last great places.

Robert T. Leverett

[Re: Brave men who felled California redwoods by HAND](#)

by **Don** » Thu Jan 31, 2013 5:58 pm

For me, these photos also elicit many emotions such as loss, guilt, wonder, and disappointment too. Having lived there on and off between 1968 and 1983, I also have many others. As a student at Humboldt State University there, having had forestry classes in both the old Forestry Department (destroyed by arsonist, rumored to be an enviro) and the new one, several times a week we'd walk up the street to the University Forest for various forestry field labs. Caulked boots (with sharp golf shoe-like spikes), black Frisco jeans (with bottom cuffs torn so as to not get pant legs caught on broken branches), gray and white striped Hickory brand shirts, serious rain gear, and gear appropriate to task (plane table...jake staff and 4" compass...D-tape (with a 2" red rubber ball to protect your catching hand as you swung the reeled out tape around the 5-10' dbh boles, an art being required to accomplish this on first attempt...bottom side of bole often would be 15-20' below you, through nearly impassible salal and fern

well over your head)).

Friends becoming lovers were looking for a minister that would marry them in the redwoods, and as I was a Universal Life minister, I happily accommodated them. The ceremonial recitation of vows was held on Ceremonial Rock in Patricks Point State Park, in a rainstorm wearing T-shirts and jeans, and the formal ceremony held that afternoon in the Community Hall at Arcata's Redwood Community Park, with all their immediate family members (17 brothers and sisters plus mothers and fathers, etc.) and friends present.

They were hopelessly romantic, and lived their first Spring together inside a large hollow redwood stump, before obtaining more traditional housing. They went on to be pillars of the community and remain in the area still.

Pages of recall remain, but I'll wind them down with a final thought on what I did like about the brave men who felled California redwoods by hand...much like I believe that all hunters should be limited to single shot firearms of whatever caliber is appropriate for the task, I find it a lot more honest when redwoods are logged by hand, whether by ax (truly impressive) or by the 'misery whip', some 25' long...(even more impressive, if you've ever taken a hand at one even 5' long!!). Even cutting large redwoods by chainsaw is a daunting task for all but the professionals, doing it by hand is a lot more sporting and fair. There was no small amount of work and preparation preceding the operation, and significant danger during it.

Don Bertolette

Re: Recognising indigenous “sacred areas”

by **canada yew** » Thu Jan 31, 2013 11:53 pm

Getting the public to respect and understand indigenous concerns and spirituality is important. And the more we get developers and planners to understand ecology and native concerns the better...

canada yew

Changes to ITRDBFOR - new address

by **edfrank** » Fri Feb 01, 2013 11:05 am

International Tree Ring Database Forum

This is the final notice that the familiar ITRDBFOR@LISTSERV.ARIZONA.EDU address for this list is scheduled to stop working on February 1. To send messages to the list from now on, the correct address will be

itrdbfor@itrdbfor.org

For technical reasons we won't manage to forward messages sent to the old address to the new one. Over the next few hours all the addresses on the subscriber list will be signed up to the new version of the list, and as this happens for your address you should receive a message confirming your new subscription. People who have multiple addresses but only normally receive messages at one of them will see multiple messages of confirmation, one for each address, but we'll then we'll try to re-set your former delivery preferences. If you see this message, but a day or so goes by without anything coming to you from the new address, there may be a problem with your subscription, and you should contact me by a direct email.

Martin Munro

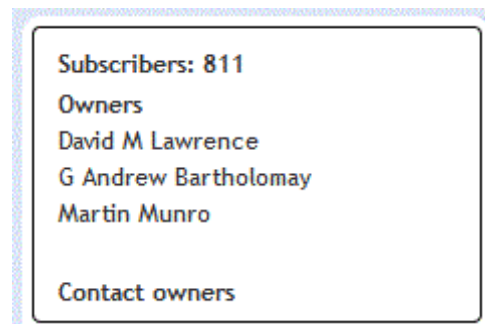
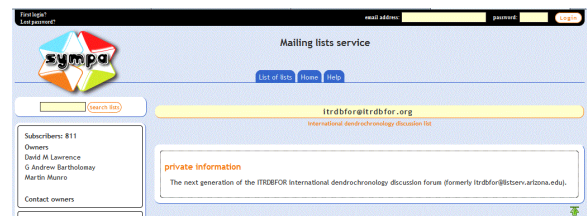
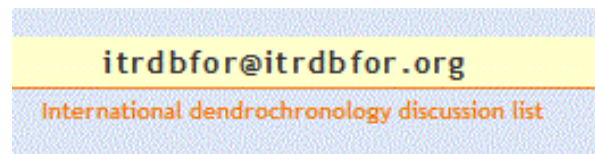
Changes to ITRDBFOR

Welcome to list itrdbfor@itrdbfor.org

The next generation of the ITRDBFOR international dendrochronology discussion forum (formerly itrdbfor@listserv.arizona.edu).

The list homepage:
<https://itrdbfor.org/www/info/itrdbfor>

General informations about mailing lists:
<https://itrdbfor.org/www/help/introduction>



Sine-based measuring with visible red laser of Disto D8

by **Karlheinz** » Tue Jan 29, 2013 7:48 am

I will report about my experience in sine-based measuring of treetops with Disto D8:

Description of the Leica DISTO™ D8 laser distance meter:

Disto D8 http://www.leica-geosystems.us/en/Leica-DISTO-D8_78069.htm is a laser rangefinder with built-in clinometer. Instead of an optical scope it has a built-in video camera with 4x zoom, they call it “digital pointfinder”. The laser works with visible red light like Bosch GLR825. The distance measurement method is not based on run time but on phase measuring and therefore very accurate, indication to

the millimeter. Specified measuring range is from 5 cm to 100 m (to 200 m with target plate). Blurring can be avoided by triggering with Timer. Continuous measuring mode (min/max detection) is provided. Measurement programs and settings can be selected in an extensive menu, among them also measuring a point with distance and angle for sine-based measuring. The internal memory holds the last 30 measurements.

The clinometer is accurate and responds to the slightest changes in the position immediately (Indication 0.05° steps) and, above all, is not fidgeting around like my Nikon 550 does. Measurements have high repetition accuracy, the values are repeatable.

Take a look to the Disto, displaying a sine-based measurement point:



The laser emits a very sharply focused beam; the footprint at 100 m distance is 6 cm in diameter. The use of visible red light has the great advantage that regardless of the digital target finder you can lead the laser directly by visual sight. The laser beam has function of pointing and measuring. At night, of course this works much better than at daylight.

With all these benefits, where is the disadvantage of this excellent device now?

The power of the laser is limited due to eye protection to 1 mW. So getting a reflex from treetop is hard to obtain! As a rule, this doesn't turn out well to high trees at bright daylight. Checking the beam

and lining exact up to treetop is a big challenge even at darkness.

In my beginner time I thought to get a reflex from the treetop wouldn't be possible at all. After some months measuring experience, however, I can report now: It works nevertheless! But I have to create favorable conditions and don't shun high effort:

- * measuring during decreasing daylight to darkness
- * continuous measuring program (min-max measurement)
- * leading and lining up exactly the laser beam under field glasses control
- * good tripod
- * less wind

Thus it is possible to obtain a reflection by a thin, leafless branch from the tip of the tree. During last months I succeeded in measuring European record trees with heights about 40 to 50 meters with my Disto in all cases. With conifers this still goes best of, but also tall deciduous trees like beeches, poplar and tulip, I could measure in this winter. As said, the effort you must bring is high. I understand that the manufacturer cannot bring such a laborious application in the manual and cannot advertise.

When I am going to measure a major tree and it depends on highest precision and time expenditure doesn't matter, this is my approach:

Preparation and Measurement with Nikon:

- * At daylight, starting already in the morning or the day before, I scout the tree and the surrounding area in all directions
- * My aids are Nikon 550, field glasses and camera with zoom-optics
- * I explore the most favorable measuring points, from where I have treetop and tree base (when possible) in the field of vision
- * With Nikon I explore the surface of the crown and find out which is the highest point of the tree
- * in many cases I put a surveyor's pole with a target plate to the trunk,
- * if needed I look for reference points or put one
- * With Nikon mounted on tripod I measure the tree height from different measuring positions and determine the best position for the later exact measuring with Disto.

Final exact measuring with Disto:

At beginning twilight I have built up my measuring station with Disto and field glasses on tripod at the best location I found out before. I direct the unit to treetop and I can start with measuring. I choose the measurement program for point measurement (with distance and angle) and start the continuous measurement with min/max recording. After receiving the first measurement point I can stop the measurement. Or I can continue to capture more data points. The measuring point with the largest distance

from the series and the corresponding angle will be stored. Also the horizontal and vertical component of the distance will be calculated, displayed and stored.



The extremely focused laser beam must be lined up very exactly to small targets like twigs in the treetop, and it must stay there at least for a few seconds. A short wiping with the beam over the branch away doesn't suffice. Holding the laser in the approximate direction as you can do with a scattering shotgun or with Nikon, will not function. When you have aligned and fixed the beam to the aim branch, have taken your fingers off and see now a persistently luminous footprint on the aim branch, you are winning! It is a fine thing, that in the dark you can see the beam when hitting the branch and that you can lead it with naked eye or even better with binoculars. However, if the beam loses the envisaged thin branch and disappears in the dark background, you will have a problem of orientation, this makes things so difficult.

At wind, it may be very difficult or impossible to capture a reflex. It is hopeless to want to follow the branch in the movement. Instead, go on measuring the once oriented device in continuous mode and wait at leisure until the aim branch sometime is behind the beam again. It pays to be patient, even after 10 min a successful reflex may still be captured.

Deepest darkness is not optimal, with some rest light from the sky it works better. In total darkness you indeed get the best reflex and can see the footprint of the red beam at best, but you don't recognize the surroundings and the tree background any more, needed for orientation. Also with field glasses you see nothing more in the dark apart from the brightly shining footprint when hitting anything. Changing the location in darkness with construction of a new measuring position usually fails, so that I manage only one measurement in one evening, but I am still practicing!

As a reward of all these efforts I will get an excellent measurement result!

Karl

PS:

A question still to the owners of the Bosch GLR825 (Hello Bob!):

Have you tested the Bosch to see if this method works as well?

[Re: Sine-based measuring with visible red laser of Disto D8](#)

by **dbhguru** » Tue Jan 29, 2013 11:32 am

Karl, Excellent post! I greatly admire your perseverance. You've done us a service in exploring the technology and developing a protocol for the use of the Leica hypsometer. In terms of your question about the Bosch GLR825, I have tried to use it to get precise distances to the top twigs of a target tree. But, I have not stuck with the process. I did find that low light was the best time to use the Bosch - by far. I

purchased a pair of laser enhancement glasses to help see the beam and found that they helped a little, but not as much as I'd hoped. For relatively close targets, the glasses increased my ability to follow the laser beam to the target, but didn't make a difference for more distant targets - at least, used casually.

The GLR825 has an extremely useful feature. It has a viewfinder that shows where the red dot is and works fine for distant targets. Unfortunately, used casually, you must bend your head down to look into the viewfinder. So precise positioning of the centroid of the instrument is not easy with the viewfinder. The tripod mount is on the back of the Bosch while the viewfinder is on the side. This results in rather awkward tripod manipulations to get the instrument pointing toward a target and be able to peer through the viewfinder, which is on the side. It can be done with some tripods, but not others. The swivel arm of one tripod I own, which is very convenient to carry, only rotates to a high of 50 degrees. However, my wife's Bogen allows for all the swivel I need. I can point the Bosch at the target and peer through the viewfinder on the side and eventually find the target. Unfortunately, this only gives me distance. I do have an instrument with a mounted telescope that is accurate to 1/60th of a degree. But it is a separate instrument.

The TruPulse 360, read at the point of reading changeover from lower to higher values is accurate to between 7 and 8 centimeters. With some statistics, I can get this to within 6 centimeters. Closer than that, I'm just fooling myself. The tilt sensor is accurate to +/- 0.1 degrees within a range of around -35 to +35 degrees. With statistics, I can get to +/- 0.08 degrees. These accuracies are probabilistic, close to 90% or slightly less.

I've found both Bosch lasers extremely useful in testing the accuracy of other instruments. However, your post has inspired me to see if I can employ the GLR825 for distances to the twigs.

Robert T. Leverett

Re: Re: Sine-based measuring with visible red laser of Disto

by **Karlheinz** » Tue Jan 29, 2013 12:27 pm

Bob, I am looking forward to your tests!

I guess whether it will go depends on particularly how much of the laser beam is focused. Can you tell me what is the footprint of the GLR825?

My Disto has a footprint of 6 cm ø / 100 m.

Karl

Re: Sine-based measuring with visible red laser of Disto D8

by **dbhguru** » Tue Jan 29, 2013 6:29 pm

Karl, Unfortunately, I don't have any information on the beam width of the GLR825. However, I know someone who may. Michael Taylor introduced me to the GLR825 and he generally thoroughly researches beam widths. I'll ask Michael to weigh in.

BTW, the Bosch GLM80 (as opposed to the GLR825) has a built in tilt sensor that operates in the range of -60 to + 60 degrees, and has a calibration routine. Degrees are shown to the nearest tenth. The GLM80 has a tripod mount. Here is what is most interesting. The instrument has a routine that implements the sine method. I don't know how good it is relative to other instruments. I hope to find out.

Robert T. Leverett

Re: Re: Sine-based measuring with visible red laser of Disto

by **Karlheinz** » Wed Jan 30, 2013 7:23 am

I think Bosch GLR825 and the European equivalent Bosch GLM 250 VF Prof are of identical construction.



GLM 250 VF Professional-60203.



GLR825_81M1Mj7QItL_AA1500k.

A comparison of technical specifications and manuals suggests that the lasers of Bosch GLM 250 VF (GLR825) and Leica Disto D8 are identical.

Technical Data

Digital Laser Rangefinder	GLM 150 Professional	GLM 250 VF Professional
Article number	3 601 K72 000	3 601 K72 100
Optical sight	–	•
Measuring range	0.05–150 m ^{A)}	0.05–250 m ^{A)}
Measuring accuracy (typically)	±1.0 mm ^{B)}	±1.0 mm ^{B)}
Lowest indication unit	0.1 mm	0.1 mm
Operating temperature	–10 °C...+50 °C ^{C)}	–10 °C...+50 °C ^{C)}
Storage temperature	–20 °C...+70 °C	–20 °C...+70 °C
Relative air humidity, max.	90 %	90 %
Laser class	2	2
Laser type	635 nm, <1 mW	635 nm, <1 mW
Laser beam diameter (at 25 °C) approx.		
– at 10 m distance	6 mm	6 mm
– at 150 m distance	90 mm	90 mm
Batteries	4 x 1.5 V LR03 (AAA)	4 x 1.5 V LR03 (AAA)
Rechargeable batteries	4 x 1.2 V HR03 (AAA)	4 x 1.2 V HR03 (AAA)
Battery live, approximately		
– individual measurements	30000 ^{D)}	30000 ^{D)}
– Continuous measurement	5 h ^{D)}	5 h ^{D)}
Weight according to EPTA-Procedure 01/2003	0.24 kg	0.24 kg
Dimensions	66 x 120 x 37 mm	66 x 120 x 37 mm
Degree of protection	IP 54 (dust and splash water protected)	IP 54 (dust and splash water protected)

A) The working range increases depending on how well the laser light is reflected from the surface of the target (scattered, not reflective) and with increased brightness of the laser point to the ambient light intensity (interior spaces, twilight). In unfavourable conditions (e.g. when measuring outdoors at intense sunlight), it may be necessary to use the target plate.

B) In unfavourable conditions (e.g. at intense sunlight or an insufficiently reflecting surface), the maximum deviation is ±20 mm per 150 m. In favourable conditions, a deviation influence of ±0.05 mm/m must be taken into account.

Technical data	
Distance measurements:	
Measuring accuracy up to 10 m (2 σ)	typically: ± 1.0 mm ¹⁾
Power Range Technology TM :	
Range (use target plate from about 100 m)	0.05 m to 200 m
Smallest unit displayed	0.1 mm
Distance measurement	✓
Minimum/maximum measurement, Continuous measurement	✓
Area/volume calculation of room data	✓
Addition / subtraction	✓
Indirect measurement using Pythagoras	✓
Trapezium measurement	✓
Tilt measurements:	
Tilt sensor:	
Accuracy (2 σ)	± 0.1° ± 0.2° ²⁾
– to laser beam	
– to the housing	± 0.1° ³⁾
Indirect measurement using tilt sensor (direct horizontal distance)	✓
Angle measurement using tilt sensor (360°)	✓
General:	
Laser class	II
Laser type	635 nm, < 1 mW
Ø laser point (at distances)	6 / 30 / 60 mm (10 / 50 / 100 m)
Autom. laser switch-off	after 3 min

Leica DISTOTM D8 LCA782205a gb

Autom. instrument switch-off	after 6 s
Display illumination	✓
Multifunctional endpiece	✓
Timer (self-triggering)	✓
Save constant value	✓
Historical storage	30 values
BLUETOOTH [®] 2.0	QD ID B0
Range of BLUETOOTH [®] CL 2	10 m
Tripod thread (Type: 1/4-20)	✓
Battery life, Type AA, 2 x 1.5V	up to 5 000 measu
Protection against splashes and dust	IP 54, dust-splash-pr
Dimensions	143.5 x 55 x
Weight (with batteries)	195 g
Temperature range:	
Storage	–25 °C up to (+13 °F up to
Operation	–10 °C up to (+14 °F up to

¹⁾ maximum deviation occurs under unfavourable conditions such as bright when measuring to poorly reflecting or very rough surfaces. Measuring between 10 m and 30 m may deteriorate to approx. ± 0.025 mm/m. Above 30 m to ± 0.1 mm/m. In long range mode the maximum deviation distance of 30 m increases to ± 0.15 mm/m.

²⁾ applies at room temperature. For the whole operating temperature maximum deviation increases by ± 0.1°.

Re: Re: Sine-based measuring with visible red laser of Disto

by Karlheinz » Fri Feb 01, 2013 8:37 am

- Footprints of Lasers -

The footprints of the red light lasers Bosch GLR825 and Leica DISTO D8 are specified with 0.06 m / 100 m.

The photo shows the footprint of my Disto D8 on a target plate 20 cm x 13 cm at a distance of 51 m:



M.W.Taylor wrote:#22) Re: Monster Pines of the Central Sierra, Postby M.W.Taylor » 17 Nov 2011 04:55 The laser beam [of the Impulse 200 LR] is a broad divergent type IR laser and not a convergent point type laser. When viewed through a night vision scope, the IR laser resembles a rectangular shaped blob that pulses. It's borders are nebulous. The inclinometer is centered to the center of the beam, which is about the size and shape of a car license plate at 1000 feet. There is a lot of slop there, especially in the windage axis

Michael describes the footprint of the Impulse 200 LR here. The center of the beam therefore has approximately the same size as the footprint of the Disto. I infer from this that both beams are bundled approximately just as strongly.

<http://www.bosch-professional.com/gb/en...manual.pdf>
http://www.leica-geosystems.com/download...web_en.pdf

Karl

TruPulse 200 and Nikon 550 I guess will have a lot more of spread, has anybody information about this? It would interest me very much how the footprint of this equipment looks. Are there pictures taken by infrared cameras? Scattering and energy of the beams, I think, will determine how exactly I have to target. Unfortunately, at IR-rangefinders I did not find information on it, neither in the product Information of the manufacturers nor somewhere else.

Besides TruPulse 200/360 and Impulses 200 LR please include in the comparison the coming up new TruPulse. It has been 3 weeks ago, as the German master dealer told me that within the next one to two months the new device with precision of few cm in the TruPulse class would be available.

Karl

Re: Sine-based measuring with visible red laser of Disto D8

by **dbhguru** » Fri Feb 01, 2013 6:29 pm

Karl, In a communication yesterday with North American Sales Manager Steve Colburn, I was told that release of the new TruPulse 200 with centimeter-level accuracy has been delayed until April. When released, it will have a two-point missing line routine built in, but in the vertical plane. It doesn't have the digital compass like the 360.

Robert T. Leverett

Appalachian Face-lift

by **jamesrobertsmith** » Fri Feb 01, 2013 2:27 pm

Here's an interesting article about relatively recent geological activity here in NC (8 million years ago). This sounds similar to what is currently going on in the Adirondacks.

Evidence of Geological 'Facelift' in the Appalachians

<http://www.sciencedaily.com/releases/2013/01/130131144413.htm>

External Links:

Broadening the worldwide talent pool through free online education: Elizabeth Slavitt

<http://www.youtube.com/watch?v=VWq2UMCoMO>

4 Published on Dec 24, 2012

How do Trees Survive Winter Cold?

Northern Woodlands

by Michael Snyder | December 28th 2012

http://northernwoodlands.org/outside_story/article/trees-survive-winter-cold

Google Researcher Finds Most-Used English Words, Letters

<http://idealab.talkingpointsmemo.com/2013/01/google-researcher-finds-most-used-english-words-letters.php>

Carl Franzen January 7, 2013, 6:52 PM 5016

The World's Oldest Living Olive Trees Are Lebanese

Linda Pappagallo | January 8th, 2013

<http://www.greenprophet.com/2013/01/noah-olive-trees-lebanon/> (The ages are likely overstated but they are really gnarly old olive trees).

Rainforest Sound Uploaded on Dec 11, 2007

<https://www.youtube.com/watch?v=anwtJ9EOF-M>

8 hours and 30 minutes

What is a tree?

http://www.as.miami.edu/qc/arboretum/what_is_a_tree.html

Hairy Hornbeam Bonsai

Posted on January 1, 2013 by adamaskwhy

<http://adamaskwhy.wordpress.com/2013/01/01/hairy-hornbeam/>

Bald Cypress Bonsai - What are you gonna do with that piece of crap? Posted on January 13,

2013 by adamaskwhy

<http://adamaskwhy.wordpress.com/2013/01/13/what-are-you-gonna-do-with-that-piece-of-crap/>

In the Eastern U.S., Spring Flowers Keep Pace With Warming Climate, Blooming Up to a Month Earlier

<http://www.sciencedaily.com/releases/2013/01/130116195344.htm>

Should Polluting Nations Be Liable for Climate Damages?

http://e360.yale.edu/feature/should_polluting_nations_be_liable_for_climate_damages/2609/

Global Warming Less Extreme Than Feared? New Estimates from a Norwegian Project On Climate Calculations

<http://www.sciencedaily.com/releases/2013/01/130125103927.htm> Jan. 25, 2013 — Policymakers are

attempting to contain global warming at less than 2°C. New estimates from a Norwegian project on climate calculations indicate this target may be more attainable than many experts have feared.

Electrical capacitance as a rapid and non-invasive indicator of root length

Tim W. Ellis¹, Wayne Murray, Keryn Paul, Laimonis Kavalieris, Jim Brophy, Chris Williams, and Manuel Maass

<http://treephys.oxfordjournals.org/content/33/1/3.full>

Ghosts of the Northsat Woods From a lovely webcomic, [Bird and Moon](http://birdandmoon.com/images/ghostthumb.jpg)

<http://birdandmoon.com/images/ghostthumb.jpg>

Spring May Come Earlier to North American Forests, Increasing Uptake of Carbon Dioxide

<http://www.sciencedaily.com/releases/2013/01/130129171427.htm>

Don Leopold's Dendrology Youtube Playlist

Here is his Dendrology playlist, there are 135 separate videos each focusing on one species.

<http://www.youtube.com/playlist?list=PLBE1197A3397CAE00>

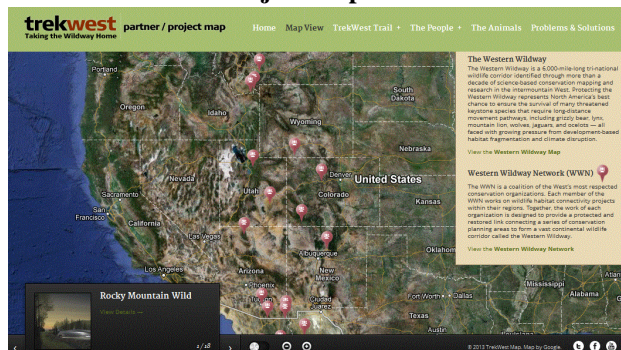
More Links from the Facebook Native Tree Society Page:

Tree Hundred Meters by Rob McBride As a final 2012 fling...Top SHropshire Athlete breaks a world record! For the TREE Hundred Metres! (yes I have finally flipped!)...



<http://www.youtube.com/watch?v=nCLfcD79-tE&feature=youtu.be>

TrekWest Partner/Project Map



<http://map.trekwest.org/>

The hunt continues for American chestnut trees,
Sun Journal Staff Leslie H. Dixon, Staff Writer,
January 1, 2013

<http://www.sunjournal.com/news/oxford-hills/2013/01/01/hunt-continues-american-chestnut-trees/1293483>

Alliance for Community Trees - Looking Back:
2012's "Top 10" Tree Stories
<http://actrees.org/news/trees-in-the-news/newsroom/looking-back-2012s-top-10-tree-stories/>

The Swedish Forestry Model

<http://vimeo.com/56146911>



The "Swedish forestry model" is highlighted as a success story and the Swedish forest industry has carefully spread the image of their products as environmentally...

Broadening the worldwide talent pool through free online education: Elizabeth Slavitt at TEDxBandra



<http://www.youtube.com/watch?v=VWq2UMCoMO4>

Le platane de Canterbury, Kent, Angleterre 2 janvier 2013, Pour continuer notre balade chez nos voisins d'outre-Manche, voici le platane d'Orient de Canterbury, ou le platane qui rêvait d'être un baobab...

<http://lestetardsarboricoles.fr/wordpress/2013/01/02/le-platane-de-canterbury-kent-angleterre/>

The Old Man and the Tree

http://www.spiritmag.com/features/article/the_old_man_and_the_tree/ Their friendship lasted 50 years. Their legacy will endure for ages. By Sarah Perry, Illustration by Jonathan Bartlett

Namatjira trees killed by 'arson', NT NEWS | January 3rd, 2013,
http://www.ntnews.com.au/article/2013/01/03/316417_ntnews.html ARSONISTS are believed to be responsible for a fire that destroyed two gum trees made famous by legendary Australian artist Albert Namatjira.

At risk Chilean trees to get safe havens in Perthshire, January 3, 2013
<http://www.bbc.co.uk/news/uk-scotland-tayside-central-20898560> Chilean tree The team will collect seeds and cuttings from Chile's threatened conifer trees as part of an initiative creating safe havens for the plants in Perthshire.

Avatar Grove Gains Protected Status - Shaw TV Victoria
<http://www.youtube.com/watch?v=GPnCkkbitKE&feature=youtu.be>

a W I L D idea, from Daniel Dancer
<http://vimeo.com/56641922> DePave is a Portland, OR based group whose motto is, "pavement to paradise". I teamed up with them in 2012 in the removal of a 5 acre parking lot next to the Columbia River. We began by carving the letters W-I-L-D in the asphalt. Various things happened on the way to the areas eventual return to a natural woodland. With a camera filming from above over the course of a few months, watch what happened!

Tarkine a question of values: mines versus ancient rainforest <http://theconversation.edu.au/tarkine-a-question-of-values-mines-versus-ancient-rainforest-10791>

Forest regeneration in the Philippines
<http://www.youtube.com/watch?v=9RPDsi7mkSE>

Pileated Woodpecker Drumming - 1080p HD
http://www.youtube.com/watch?v=Oz-oVN_9EVs
Pileated Woodpecker (*Dryocopus pileatus*) drumming on a tree at the Ipswich River Audubon in Topsfield Massachusetts. Filmed on 6/18/2011 with a Nikon D7000 using a Nikkor 300mm f/4 AF-S lens with a TC-17EIII 1.7x teleconverter.

Wollemi Pine bears cones at Wiltshire College Lackham <http://www.bbc.co.uk/news/uk-england-wiltshire-20900188>

[wiltshire-20900188](http://www.bbc.co.uk/news/uk-england-wiltshire-20900188) Woollemi pine at Wiltshire College The tree is now almost 2m (6ft 6in) tall has started producing cones for the first time since it was brought to Wiltshire.

Wood properties in a long-lived conifer reveal strong climate signals where ring-width series do not
<http://treephys.oxfordjournals.org/content/early/2012/11/25/treephys.tps111.abstract> in Tree Physiol (2012) doi: 10.1093/treephys/tps111 First published online: November 25, 2012

Google Researcher Finds Most-Used English Words, Letters (using Ngram viewer tool)
<http://idealab.talkingpointsmemo.com/2013/01/google-researcher-finds-most-used-english-words-letters.php>
Carl Franzen January 7, 2013, 6:52 PM 5016

Rains May Unlock An Enduring Mojave Mystery, by Chris Clarke, on January 8, 2013 11:43 AM,
http://www.kcet.org/news/the_back_forty/botany/rain-s-may-unlock-an-enduring-mojave-mystery.html

Australia is so damn hot that they had to add new colors to their heat maps, By Jess Zimmerman,
<http://grist.org/list/australia-is-so-damn-hot-that-they-had-to-add-a-new-color-to-their-heat-maps/>

Fantastic Fungi: The Forbidden Fruit by Louie Schwartzberg,
<http://www.youtube.com/watch?v=EDkR2HIIeBc>

The Fifth Kingdom online - Search through over 800 pictures and animations that help illustrate concepts found in the book The Fifth Kingdom. Some of the actual chapters found in the book and CD-ROM are also included on this site.
<http://www.mycolog.com/fifthtoc.html>

South Africa: International Expedition to Climb South Africa's Champion Trees
9 January 2013
<http://allafrica.com/stories/201301100351.html> This expedition is underway in southern Africa. I have been corresponding with several of the team members, David "Dak" Wiles in particular. This is their Facebook Page:
<http://www.facebook.com/ExploreTheAncie...>

[ts&fref=ts](#) and their website:

<http://exploretrees.com/> I have reposted some of their photos on the NTS Facebook page.

'Red Wave' Dust Storm Pounds Australia

<http://www.theatlanticwire.com/global/2013/01/australia-dust-storm-photos/60828/>

Journey into Ecological Resurgence: John Liu at TEDxWageningen

<http://www.youtube.com/watch?v=eE43JrCkZrc>

John Liuo found the "Environmental Education Media Project for China (EEMPC)" and to devote his energies to understanding and communicating about the environment and ecology. Since the mid-1990's, the EEMPC has distributed hundreds of existing films in China and John have made dozens of environmental and ecological films in China and around the world.

Pericopsis collaborative tree mapping and naming

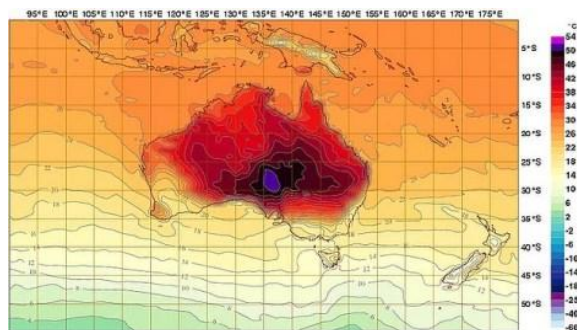
<http://pericopsis.org/>

Rains May Unlock An Enduring Mojave Mystery

by Chris Clarke on January 8, 2013 11:43 AM

http://www.kcet.org/news/the_back_forty/botany/rains-may-unlock-an-enduring-mojave-mystery.html

Australia is so damn hot that they had to add a new color to their heat maps. <http://bit.ly/11dbiTG>



Reviving Europe's Biodiversity By Importing Exotic Animals

Scientists are conducting intriguing — and counterintuitive — experiments at several sites in Germany: Bringing back long-lost herbivores, such as water buffalo, to encourage the spread of native plants that have fared poorly in Europe's human-dominated landscape. by Christian Schwägerl, January 10, 2013

http://e360.yale.edu/feature/reviving_europes_biodiversity_by_importing_exotic_animals/2608/



Ring cycles 'Woodcut' art tells tales of trees by Meredith Morris | Contributor January 24, 2013 11:04AM "Woodcut," the exhibition, includes original woodcut prints from Gill's best-selling art book of the same name, published by Princeton Architectural Press, 2012, and identified as a Best Book of 2012 by the New York Times.

<http://barrington.suntimes.com/entertainment/17659787-421/ring-cycles-woodcut-art-tells-tales-of-trees.html>

What's 80,000 years old and clones itself? Bonus:

It's on a National Forest! Click to find out:

<http://trib.al/KKW9zf7> (photo: Fishlake National Forest, USFS)

Zen and the cross-cultural art of tree-climbing by Winifred Bird

http://aws.japantimes.co.jp/?post_type=life&p=60589#

John Davis Sets Off to Hike, Paddle, and Bike the Spine of the Continent

By Adventure Ethics On January 25, wilderness advocate, writer, and adventurer John Davis will set out from Sonora, Mexico, on a 10-month journey along this spine, which is linked through a number of mountain ranges, including the Rockies, from Mexico into Canada. <http://www.outsideonline.com/blog/john-davis-sets-off-to-hike-paddle-and-bike-the-spine-of-the-continent.html>

Protest - Guiana's living treasures are more valuable than gold

<https://www.rainforest-rescue.org/mailalert/902?ref=nl&mt=1512>

Epiphyte metapopulation persistence after drastic habitat decline and low tree regeneration: time-lags and effects of conservation actions.

Swedish research states that old trees have declined in Europe due to agricultural intensification and forestry. For shade-intolerant epiphytic species occurring on old trees in semi-open landscapes, host tree numbers have further decreased because of shading by developing secondary woodland. Moreover, in this habitat, regeneration that could replace the extant old trees is low. This suggests that epiphytic species associated with old trees are declining. They advise that the best conservation approach for long-term persistence of epiphytic lichens is to ensure regular tree regeneration in landscapes with a current high density of old trees. We agree and must try harder to focus new tree establishment to restore parkland and wood pasture - not dense forestry type planting but for open-crowned trees for the future or pollards.
<http://onlinelibrary.wiley.com/doi/10.1111/1365-2664.12049/abstract>

Saving Wales' largest ancient forest, seven years on... 18 Jan 2013 11:38 Cymraeg isod... January 2013 will mark the seventh anniversary of the purchase of 353 hectares (870 acres) of Wentwood Forest by the Woodland Trust (Coed Cadw), following a high profile public fundraising campaign.
<http://www.woodlandtrust.presscentre.com/News-Releases/Saving-Wales-largest-ancient-forest-seven-years-on-d54.aspx>

Tales from the trees: Secrets of wild Yorkshire wait to be discovered by Bob Cowan, January 20, 2013. "Gilpin and Wordsworth praised it on paper; Turner painted here. Extravagant castellated follies, grottos and fountains were built in strategically considered spots to create a "Romantick wilderness" for Europe's aesthetes. But that was all long ago; the trees have reclaimed much ground."
<http://www.independent.co.uk/travel/uk/tales-from-the-trees-secrets-of-wild-yorkshire-wait-to-be-discovered-8458541.html>

Noam Chomsky: How Climate Change Became a 'Liberal Hoax' Uploaded on Jan 24, 2011 In this sixth video in the series "Peak Oil and a Changing Climate" from The Nation and On The Earth Productions, linguist, philosopher and political

activist Noam Chomsky talks about the Chamber of Commerce, the American Petroleum Institute and other business lobbies enthusiastically carrying out campaigns "to try and convince the population that global warming is a liberal hoax." According to Chomsky, this massive public relations campaign has succeeded in leading a good portion of the population into doubting the human causes of global warming.
<http://www.youtube.com/watch?v=FJUA4cm0Rck>

Gamma-ray burst 'hit Earth in 8th Century' By Rebecca Morelle Science reporter, BBC World Service, January 21, 2013. A gamma ray burst, the most powerful explosion known in the Universe, may have hit the Earth in the 8th Century. In 2012 researchers found evidence that our planet had been struck by a blast of radiation during the Middle Ages, but there was debate over what kind of cosmic event could have caused this. Now a study suggests it was the result of two black holes or neutron stars merging in our galaxy. <http://www.bbc.co.uk/news/science-environment-21082617>

World's largest natural sound archive now fully digital and fully online. "In terms of speed and the breadth of material now accessible to anyone in the world, this is really revolutionary," says audio curator Greg Budney, describing a major milestone just achieved by the Macaulay Library archive at the Cornell Lab of Ornithology. All archived analog recordings in the collection, going back to 1929, have now been digitized and can be heard at www.MacaulayLibrary.org Read more here:
<http://cornelluniversity.tumblr.com/post/40770771576/worlds-largest-natural-sound-archive-now-fully-digital>

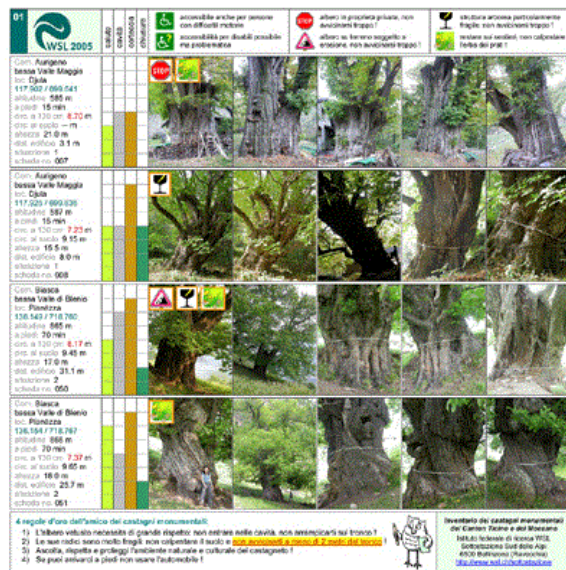
Plato's tree uprooted. The remains of Plato's tree, in whose shade the ancient Greek philosopher is said to have lectured his pupils 23 centuries ago, were uprooted by vandals on Wednesday night, Greek media report.
http://english.ruvr.ru/2013_01_18/Platos-tree-uprooted/

BIGTREES4LIFE - The key role of big trees and mature forests in biodiversity conservation. An amazing new project in Spain. The general objective of the 'BIGTREES4LIFE' project is to improve the conservation of large trees and mature forests in the Spanish Natura 2000 network and the Spanish Network of Natural Protected Areas.

http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4349

Plato's tree uprooted. The remains of Plato's tree, in whose shade the ancient Greek philosopher is said to have lectured his pupils 23 centuries ago, were uprooted by vandals on Wednesday night, Greek media report.

http://english.ruvr.ru/2013_01_18/Platos-tree-uprooted/



Inventar der Riesenkastanien im Kanton Tessin und im Misox. The main objective of this project is to make a complete inventory of all possible giant chestnuts in the Canton Ticino and Misox which have a range of more than 7 m diameter at breast height. There have been recorded to date more than 310 trees. Other objectives of the project are to collect data and photos for a detailed description of all individuals, an analysis of the distribution pattern, a dendrochronological study on age and history of individuals and the associated regional history and the awareness of the general public and the authorities on the value and aesthetics of these giant

trees.

http://www.wsl.ch/fe/oekosystem/insubrisch/projekte/riesenkastanien/index_DE#

First bat at Mammoth Cave park with white-nose syndrome. Posted on January 16, 2013 by James Bruggers. A bat from Mammoth Cave National Park has been confirmed to have developed the deadly white-nose syndrome, authorities announced today. "It grieves me to make this announcement," said Superintendent Sarah Craighead. "A northern long-eared bat, showing symptoms of white-nose syndrome, was found in Long Cave in the park. The bat was euthanized on January 4 and sent for laboratory testing. Those tests confirmed white-nose syndrome." <http://blogs.courier-journal.com/watchdogearth/2013/01/16/first-bat-at-mammoth-cave-park-with-white-nose-syndrome/>

Alemayehu's account of Meg's trip to Ethiopia in January 2013 « TREE Foundation

<http://treefoundation.org/2013/01/16/alemayehus-account-of-megs-trip-to-ethiopia-in-january-2013/>

Where Do Trees Come From?

1veritasium



http://www.youtube.com/watch?v=2KZb2_vcNTg

Worldwide decline in large, old trees alarms scientists. December 31, 2012 | Author: AAAS member -- Freelance Writer Mary Bates, Ph.D. A new study in the journal Science documents an alarming decline among trees 100-300 years old in ecosystems around the world. I spoke with one of the study's authors, AAAS Member and University of Washington professor of ecosystem analysis Jerry Franklin, about why this trend is so disturbing and what can be done to save these ancient giants. <http://membercentral.aaas.org/blogs/qualia/worldwide-decline-large-old-trees-alarms-scientists>

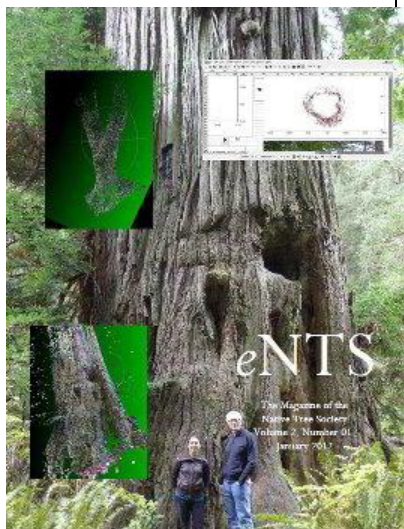
A história de um cedro que o vento levou by

Marta Portocarrero, 23/01/2013 - 16:50 O "cedro de São José", na verdade um cipreste que é parte da história da mata do Buçaco, resistiu a tudo até durante mais de 300 anos. O mau tempo de sábado deixou-o à beira do fim. A story about the big cedar and wind. The "St. Joseph Cedar," actually a cypress that is part of the history of the forest Buçaco, resisted all up for over 300 years. Bad weather on Saturday made it to the edge of the end.
<http://www.publico.pt/ecosfera/noticia/o-cedro-centenario-que-ultrapassou-um-ciclone-e-quase-nao-resiste-ao-mau-tempo-deste-fimdesemana-1581803#/0>

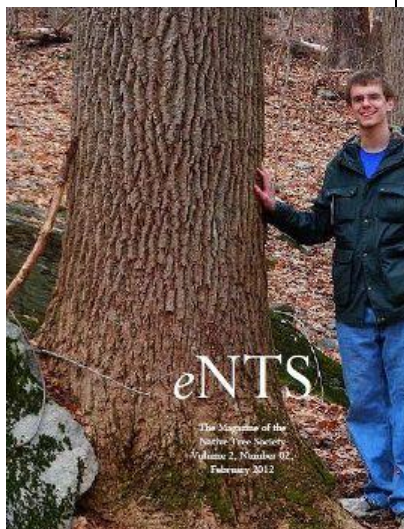
A Light in the Forest

Tips for close-up critter flash photography in the field
<http://www.nikonusa.com/en/Learn-And-Explore/Article/h91fgsqo/a-light-in-the-forest.html>

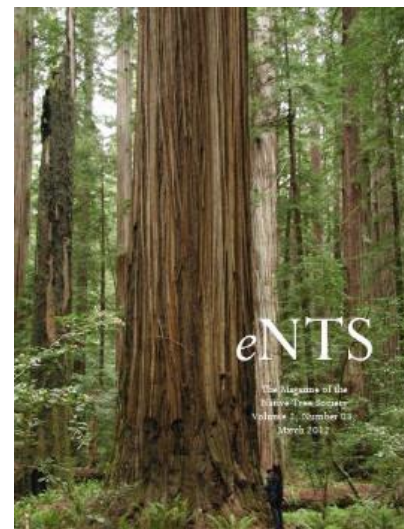
Back Issues of eNTS: The Magazine of the Native Tree Society



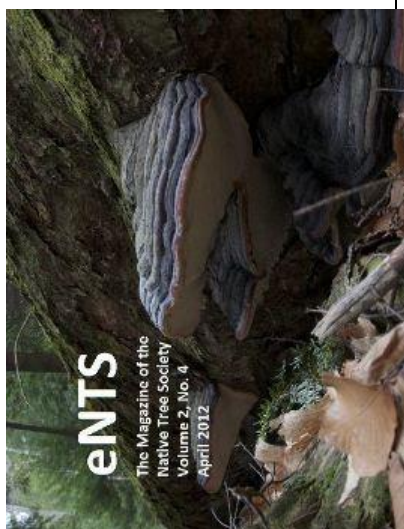
[eNTS Magazine January 2012](#) 21 MB
Broken into Three Parts: [A](#), [B](#), [C](#)



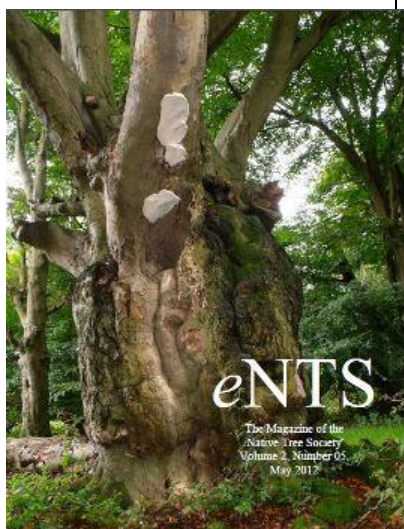
[eNTS Magazine February 2012](#) 20.5 MB
Broken into Three Parts: [A](#), [B](#), [C](#)



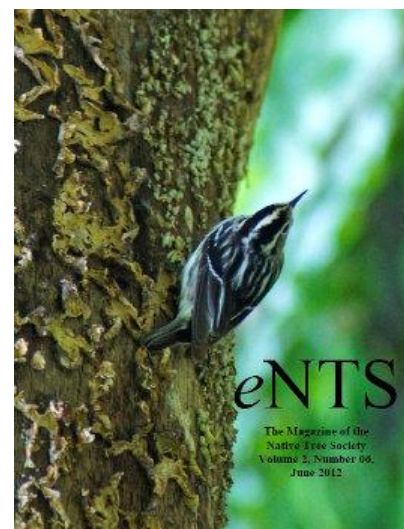
[eNTS Magazine March 2012](#) 21 MB
Broken into Four Parts: [A](#), [B](#), [C](#), [D](#)



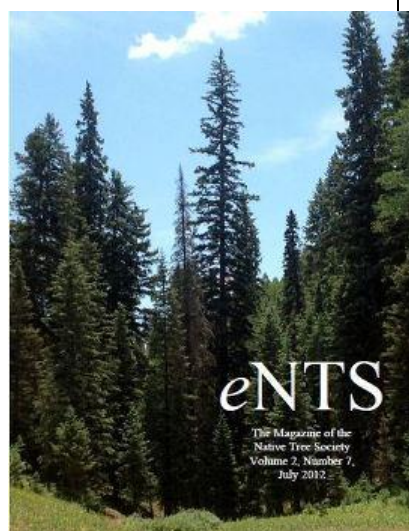
[eNTS Magazine April 2012](#) 17.6 MB
Broken Into Three Parts: [A](#), [B](#), [C](#)



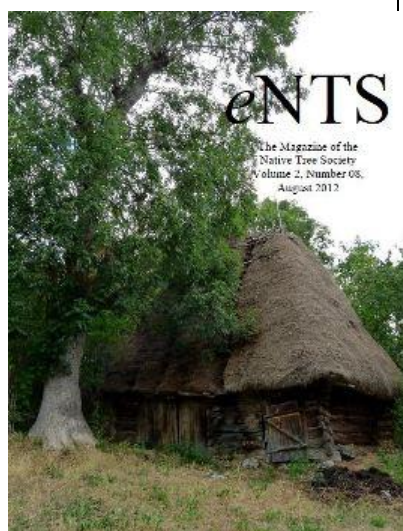
[eNTS Magazine May 2012](#) 16.6 MB
Broken into Four Parts: [A](#), [B](#), [C](#), [D](#)



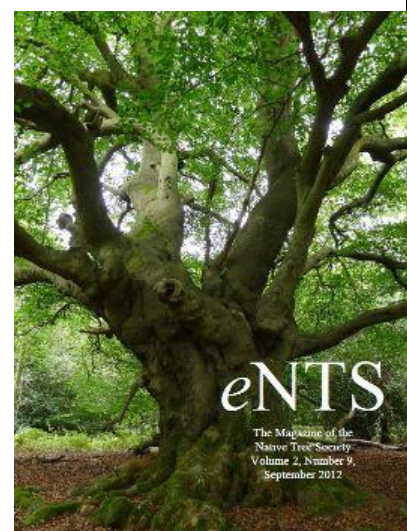
[eNTS Magazine June 2012](#) 8.7 MB



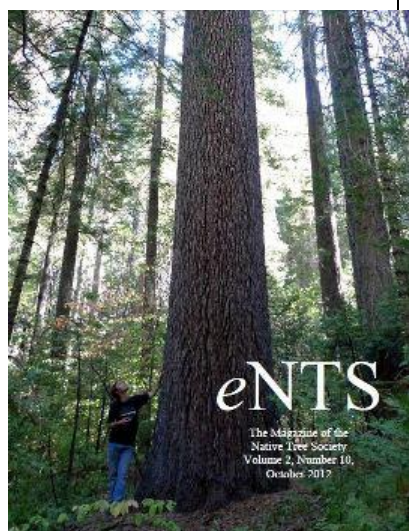
[eNTS Magazine July 2012](#) 10 MB
Broken Into Two Parts: [A](#) [B](#)



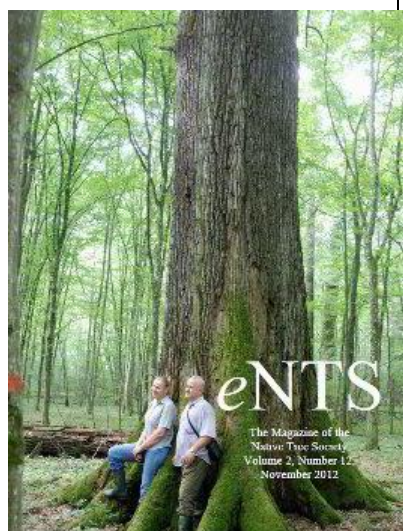
[eNTS Magazine August 2012](#) 13.3 MB
Broken into Three Parts: [A](#) [B](#) [C](#)



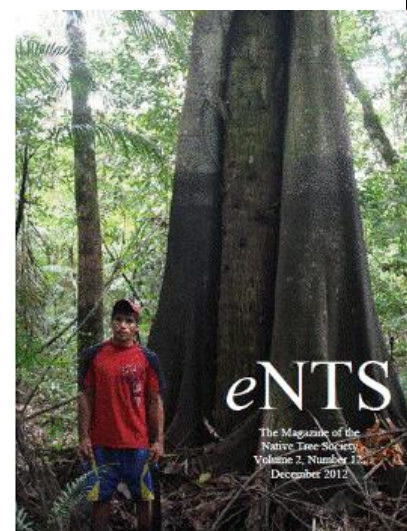
[eNTS Magazine September 2012](#) 13 MB
Broken into Three Parts: [A](#) [B](#) [C](#)



[eNTS Magazine October 2012](#) 18 MB
Broken Into Four Parts: [A](#) [B](#) [C](#) [D](#)



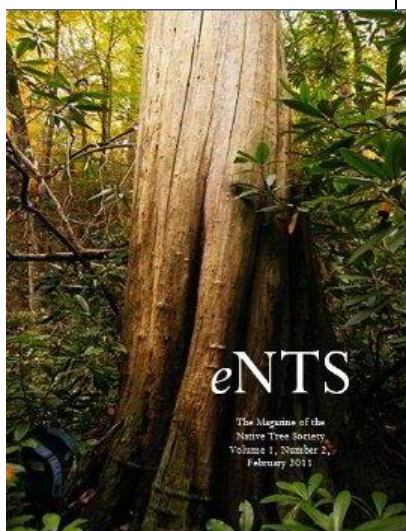
[eNTS Magazine November 2012](#) 21 MB
Broken Into Three Parts [A](#) [B](#) [C](#)



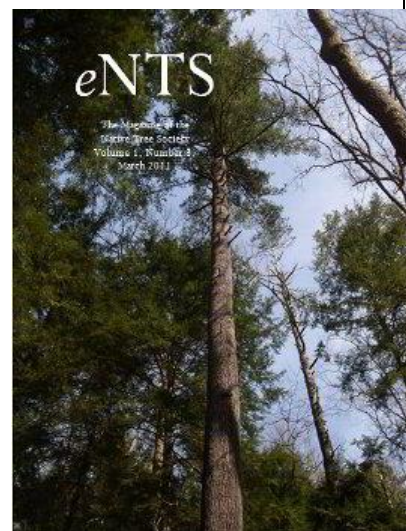
[eNTS Magazine December 2012](#) 17 MB
Broken Into Three Parts [A](#) [B](#) [C](#)



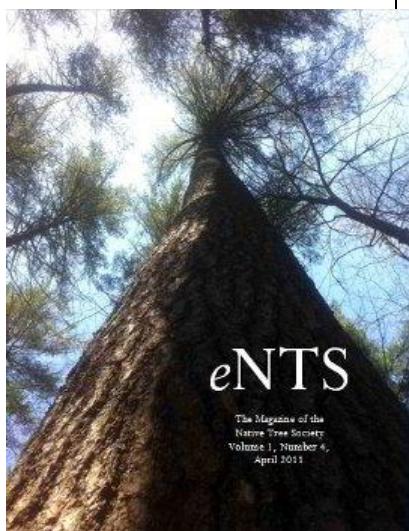
[eNTS Magazine January 2011](#) 12 MB



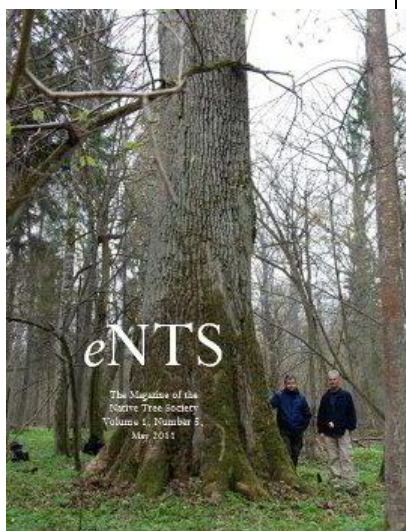
[eNTS Magazine February 2011](#) 8.5 MB



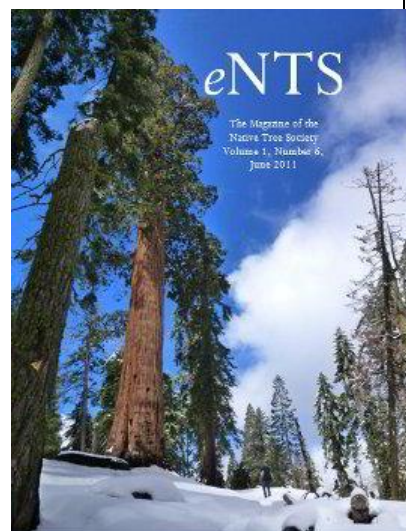
[eNTS Magazine March 2011](#) 4.2 MB



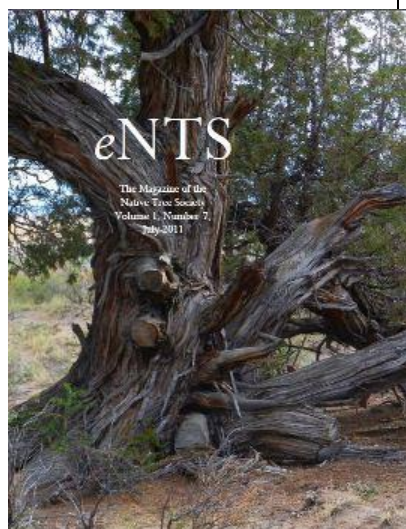
[eNTS Magazine April 2011](#) 6 MB



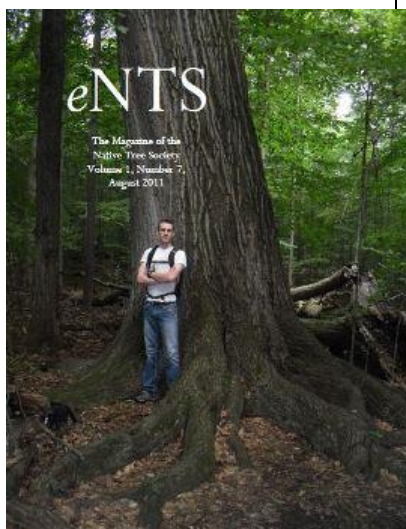
[eNTS Magazine May 2011](#) 9.5 MB



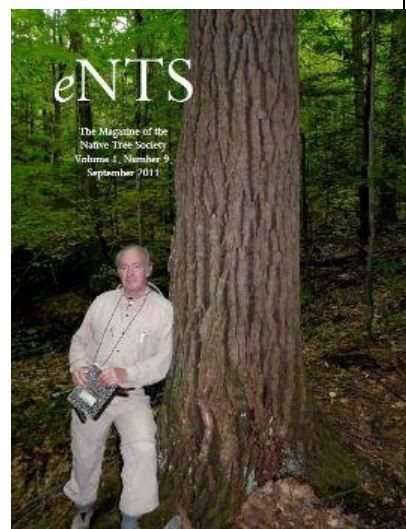
[eNTS Magazine June 2011](#) 8.9 MB



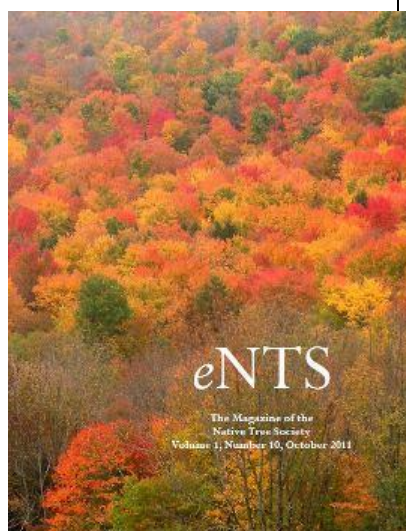
[eNTS Magazine July 2011.pdf](#) 28 MB
Broken into Four parts: [A](#), [B](#), [C](#), [D](#)



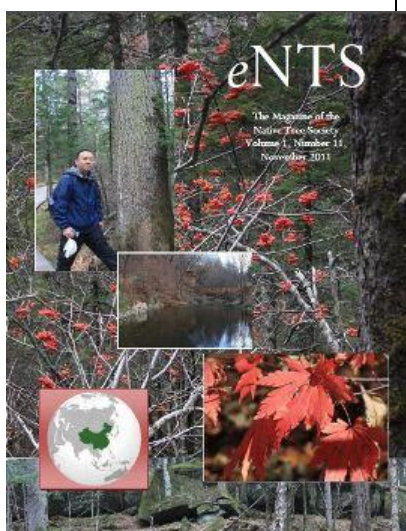
[eNTS Magazine August 2011](#) 21 MB
Broken into two parts [A](#), [B](#)



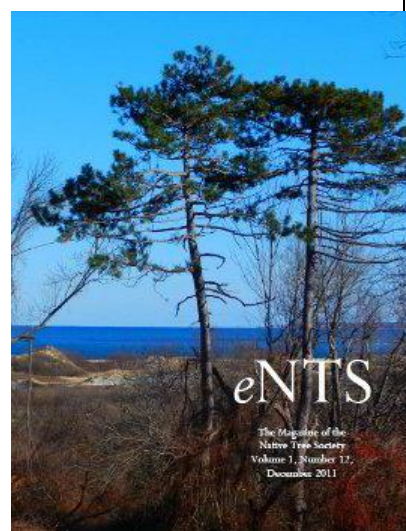
[eNTS Magazine September 2011](#) 13 MB



[eNTS Magazine October 2011](#) 25 MB
Broken into Four Parts [A](#), [B](#), [C](#), [D](#)



[eNTS Magazine November 2011](#) 18 MB
Broken into Four Parts [A](#), [B](#), [C](#), [D](#)



[eNTS Magazine December 2011](#) 13.7 MB
Broken into Two Parts [A](#), [B](#)

About: eNTS: The Magazine of the Native Tree Society

This magazine is published monthly and contains material that is 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