

A photograph of a man standing in a lush forest next to a very large, ancient-looking tree trunk. The man is wearing a red t-shirt with a graphic, blue shorts, and a red baseball cap. The tree trunk is thick and textured, with some roots visible at the base. The background is filled with green foliage and other trees.

eNTS

The Magazine of the
Native Tree Society
Volume 2, Number 12,
December 2012



eNTS: The Magazine of the Native Tree Society

The Native Tree Society and the
Eastern Native Tree Society

<http://www.nativetreesociety.org>

<http://www.ents-bbs.org>

Volume 2, Number 12, December 2012

ISSN 2166-4579

Mission Statement:

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

Current Officers:

President—Will Blozan
Vice President—Lee Frelich
Executive Director—Robert T. Leverett
Webmaster—Edward Frank

Editorial Board, *eNTS: The Magazine of the Native Tree Society*:

Edward Frank, Editor-in-Chief
Robert T. Leverett, Associate Editor
Will Blozan, Associate Editor
Don C. Bragg, Associate Editor

Membership and Website Submissions:

Official membership in the NTS is FREE. Simply sign up for membership in our bulletins board at <http://www.ents-bbs.org> Submissions to the website or magazine in terms of information, art, etc. should be made directly to Ed Frank at: edfrank@nativetreesociety.org The *eNTS: the Magazine of the Native Tree Society* is provided as a free download in Adobe© PDF format through the NTS website and the NTS BBS. The editorial staff of *eNTS: the Magazine of Native Tree Society* are solely responsible for its content.

COVER: Strangler fig Urostigma species engulfs palm, Amazon basin, Peru. Photo by Bart Bouricius, 2012.

© 2012 Native Tree Society
All rights reserved

TABLE OF CONTENTS

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

Amazon Giants Fig Trees Peru report by Bart Bouricius	7
Re: Amazon Giants Fig Trees Peru report by Larry Tucei	10
Re: Amazon Giants Fig Trees Peru report by bart Bouricius	10
Re: North Syracuse Oak Groves Fall 2012 by Tom Howard	10
Re: Pictures of Fungi in the Redwood Forest by Mark Collins	11
Re: Doing Battle with Cedars (to benefit oaks), NE by Chris Morris	13
Re: Doing Battle with Cedars (to benefit oaks), NE by Edward Frank	14
Re: Once again, LARGE SIZE doesn't equal OLD AGE by M. D. Vaden	15
Age of Tropical Trees by Edward Frank	16
Aloha, HI by Robert Leverett	17
Joan Maloof North Syracuse Oak Groves by Tom Howard	18
Re: Travelogue Part 6: the Perućica Forest Reserve by Chris Morris	20
Re: Travelogue Part 6: the Perućica Forest Reserve by Jeroen Pilippona	20
Re: Travelogue Part 6: the Perućica Forest Reserve by Kouta Rasenan	20
Re: The Perućica Forest reserve in Bosnia Herzegovina by Kouta Rasenan	21
Re: The Perućica Forest reserve in Bosnia Herzegovina by Kouta Rasenan	22
Re: The Perućica Forest reserve in Bosnia Herzegovina by Jeroen Philippona	22
Re: The Perućica Forest reserve in Bosnia Herzegovina by Kouta Rasenan	23
Re: The Perućica Forest reserve in Bosnia Herzegovina by Kouta Rasenan	23
Crown Mapping Giant Sequoias, CA by Will Blozan	24
Re: Crown Mapping Giant Sequoias, CA by Will Blozan	24
Re: "The President" giant sequoia, SNP, CA By Edward Frank	25
Re: "The President" giant sequoia, SNP, CA by Brian Beduhn	25
Re: "The President" giant sequoia, SNP, CA by Mark Collins	25
Re: "The President" giant sequoia, SNP, CA by Will Blozan	25
Greensboro-The Grande/Bluffs Neighborhoods, NC by Brian Beduhn	26
Re: Metasequoia Glyptostrobooides (Dawn Redwood) by Brian Beduhn	26
Re: Photographs of Large Trees (1915) by Michael Davie	27
Re: Photographs of Large Trees (1915) by Michael Davie	27
Re: Amazon Giants Fig Trees Peru report by Bart Bouricius	28
Re: Amazon Giants Fig Trees Peru report by Kouta Rasenan	28
Re: Amazon Giants Fig Trees Peru report by Bart Bouricius	29
Re: Amazon Giants Trip Report from Peru by Bart Bouricius	29
Re: Amazon Giants Fig Trees Peru report by Kouta Rasenan	30
Re: Amazon Giants Fig Trees Peru report by Bart Bouricius	30
Re: Amazon Giants Fig Trees Peru report by Kouta Rasenan	30
Re: Amazon Giants Fig Trees Peru report by Bart Bouricius	30
Hawaii adventures by Robert Leverett	31
Re: Hawaii adventures by Robert Leverett	31
The great 31ft CBH Eastern Cottonwood of Halifax PA by ohnnyDJersey	32
Re: Crna Poda – a new height record for European black pine by Jeroen Philippona	33
Balkan Tree Expedition Travelogue Part 7 - the final installment. by Michael Spraggon	35
Re: Travelogue Part 7 - the final installment.by Will Blozan	42
Forests of the Plitvice Lakes National Park in Croatia by Jeroen Philippona	42
World's Big Trees Are Dying: Alarming Increase in Death Rate	45
Re: World's Big Trees Are Dying: Alarming Increase in Death By Darrin Wu	45
Old growth ohia forests on the Big Island by Robert Leverett	46
Re: Old growth ohia forests on the Big Island, HI by Robert Leverett	46
Fernbank Forest, GA - Rucker 10 Index reaches 136' by Eli Dickerson	48
Re: Fernbank Forest - Rucker 10 Index reaches 136' by Eli Dickerson	48
Measuring Odd Tree Forms by Robert Leverett	49

Re: Measuring Odd Tree Forms by Edward Frank	50
Re: Measuring Odd Tree Forms by Bart Bouricius	50
Re: Measuring Odd Tree Forms by Joe Zorzin	50
Re: Measuring Odd Tree Forms by Edward Frank	51
Re: Measuring Odd Tree Forms by Bart Bouricius	51
Re: Measuring Odd Tree Forms by M. D. Vaden	51
Re: Measuring Odd Tree Forms by Larry Tucei	51
Re: Measuring Odd Tree Forms by Edward Frank	52
Re: Measuring Odd Tree Forms by Robert Leverett	52
Re: Measuring Odd Tree Forms by Edward Frank	52
Re: Measuring Odd Tree Forms by Robert Leverett	52
Re: Measuring Odd Tree Forms by Edward Frank	53
Re: Measuring Odd Tree Forms by Robert Leverett	53
Re: Measuring Odd Tree Forms by Edward Frank	53
Re: No recognition for this old growth forest (patch) in NJ by Larry Baum	54
Re: No recognition for this old growth forest (patch) in NJ by John Harvey	54
Re: No recognition for this old growth forest (patch) in NJ by Edward Frank	54
Re: No recognition for this old growth forest (patch) in NJ by John Harvey	54
Considerations of old growth by Edward Frank	55
Re: Considerations of old growth by Don Bertollette	55
Re: Considerations of old growth by Edward Frank	56
Re: Considerations of old growth by Edward Frank	56
Re: "The President" giant sequoia, SNP, CA by Edward Frank	56
The spectacular Christmas Bell Lily by Fred Paillet	57
More Scenes, HI by Robert Leverett	58
Still More Scenes, HI by Robert Leverett	59
How old are these huge American Beech trees, NJ? by John Harvey	63
A HAUNTED TULIP POPLAR! Scary stuff here, NJ by John Harvey	64
Re: Travelogue Part 7 - the final installment by Robert Leverett	65
Re: Travelogue Part 7 - the final installment by Michael Spragon	65
Re: Travelogue Part 7 - the final installment by Edward Frank	65
Re: Travelogue Part 7 - the final installment by Bart Bouricius	67
Mystery of the Cathedral Pines Wisconsin Photograph	67
Re: Cathedral Pines Wisconsin by Don C. Bragg	67
Re: Cathedral Pines Wisconsin by Edward Frank	67
Hawaii - some summary numbers by Robert Leverett	68
Re: Hawaii - some summary numbers by Robert Leverett	69
Norfolk Island Cook Pines, HI by Robert Leverett	70
Re: Norfolk Island Cook Pines, HI by Matt Smillie	71
Re: Still More Scenes, HI by Robert Leverett	71
Re: Hawaii - some summary numbers by Robert Leverett	71
Re: Hawaii - some summary numbers by Larry Tucei	72
Re: Norfolk Island Cook Pines, HI by Robert Leverett	72
Re: Hawaii - some summary numbers by Robert Leverett	73
Re: Still More Scenes, HI by Robert Leverett	73
Cook Pines, HI by Robert Leverett	73
Re: Cook Pines, HI by Robert Leverett	74
Ironwood Champ, HI by Robert Leverett	74
Common forest trees of Hawaii by Edward Frank	75
The Rising Tide of Noise by Michael Gatonska	76
Re: Travelogue Part 7 - the final installment by Tom Howard	77
Adam's Beech, NY by Turner Sharp	77
Re: Adam's Beech, NY by Adam Rosen	77
Re: Adam's Beech, NY by Tom Howard	77
Re: Cook Pines, HI Kouta Rasenan	78
Re: 9 hours of Sleep Relaxation Sounds of Allegheny Forest N by Bart Bouricius	78
Re: 9 hours of Sleep Relaxation Sounds of Allegheny Forest N by Michael Gatonska	78
Re: 9 hours of Sleep Relaxation Sounds of Allegheny Forest N by Kirk Johnson	79
American Chestnut historical dimensions by Edward Frank and others	79

Re: American Chestnut historical dimensions by Will Blozan	82
Re: American Chestnut historical dimensions By Elijah Whitcomb	82
Re: American Chestnut historical dimensions by Will Blozan	82
Re: American Chestnut historical dimensions by Edward Frank	83
Re: Biltmore Estate Trees by Brian Beduhn	84
Re: Biltmore Estate Trees by Brian Beduhn	85
Re: Biltmore Estate Trees by Brian Beduhn	86
Re: Biltmore Estate Trees by Brian Beduhn	86
Re: Biltmore Estate Trees by Brian Beduhn	86
Re: Biltmore Estate Trees by Robert Leverett	91
Re: Biltmore Estate Trees by Brian Beduhn	91
Re: Metasequoia Glyptostrobooides (Dawn Redwood) by Brian Beduhn	92
Rainforest excursion by Robert leverett	92
Re: Rainforest excursion by Robert Leverett	94
Re: NPS Survey of High Allegheny National Park, WV by Turner Sharp	94
Maximum Dimensions List - WV -2012 by Turner Sharp	95
Gorges State Park, NC	95
Kenilworth Pinetum, Asheville, NC by Brian Beduhn	96
Re: Asheville Trees, NC by Brian Beduhn	96
Re: 9 hours of Sleep Relaxation Sounds of Allegheny Forest N by Kirk Johnson	97
Weird Loblolly Pine growth- any explanation? by Eli Dickerson	97
Re: Weird Loblolly Pine growth- any explanation? by Larry Tucei	97
New Tallest Bay Laurel by Zane Moore	98
Re: New Tallest Bay Laurel by Zane Moore	98
Did a metal spike kill my old growth Tulip tree? (NJ) by John Harvey	98
Re: Did a metal spike kill my old growth Tulip tree? by Edward Frank	100
Re: Did a metal spike kill my old growth Tulip tree? by Bart Bouricius	100
Witch's Brooms by Edward Frank	101
Splitrock, NJ by Larry Baum	104
400-Year Old Osage Orange in Baltimore, MD? Felled by Sandy by MickR	105
Re: 400-Year Old Osage Orange in Baltimore? Felled by Sandy by Edward Frank	105
Re: 400-Year Old Osage Orange in Baltimore? Felled by Sandy By Bart Bouricius	105
Re: 400-Year Old Osage Orange in Baltimore? Felled by Sandy by Kirk Johnson	105
Re: Balkans Expedition 2012 - Location Map (Former Yugoslavi by Chris Morris	106
Re: Balkans Expedition 2012 - Location Map (Former Yugoslavi by Kouta Rasenan	106
Re: Asheville Trees, NC by Brian Beduhn	106
Dendrochronology used to gauge the age of Viking longships posted by Kirk Johnson	107
Re: New Tallest California Sycamore by Zane Moore	107
Son of a Beech! (CT) by Ryan LeClair	108
Part II: the Sacred Spring near the Sacred Cave by Michael Gatonska	111
Re: Links Exchanges With Other Tree Groups - Trees To Breathe	112
Re: Links Exchanges With Other Tree Groups by Don Bertollette	112
Re: New Tallest Bay Laurel by Don Bertollette	112
Hawaii, Looking Back by Robert Leverett	113
Redwood NP, CA Big Honkin Douglas Fir Trees by M. D. Vaden	119
Tallest Tanoak, CA by Zane Moore	121
#13) Re: Pictures of Fungi in the Redwood Forest, CA by Mark Collins	121
Re: Pictures of Fungi in the Redwood Forest, CA by M. D. Vaden	124
St. Charles Borromeo Church Live Oaks, LA by Larry Tucei	124
Re: Guilford Courthouse-Greensboro, NC by Brian Beduhn	126
Re: Cooper Creek WMA, GA by Eli Dickerson	127
Re: Cooper Creek WMA, GA by Eli Dickerson	127
Frozen Forest, NC by James Robert Smith	131
Re: Frozen Forest by Jame Robert Smith	140
Re: Frozen Forest, Alaska by Will Blozan	141
External Links:	141
More Links from the Facebook Native Tree Society Page:	143

Editor's Corner

By Edward Frank

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

Joining the Native Tree Society

People have asked how to join the Native Tree Society. To be a formal member of the NTS go to the home page: <http://www.ents-bbs.org> of our BBS and click on the "Register" link on the upper right side of the page below the heading <http://www.ents-bbs.org/ucp.php?mode=register> Creating an account and becoming a member is free. We do not charge any dues for participation.

The form asks you to create a user name and a password, and has a short form to fill out. Most people, and it is easier for me also, use their real name as a username, but that isn't required. The system will create an account and send you a verification email to which you need to respond to activate the account.

This article explains how everything works:
<http://www.ents-bbs.org/viewtopic.php?f=166&t=23>

Submitting material to the eNTS Magazine

To submit material for inclusion in the magazine the process is pretty simple for most material. People post messages to the BBS discussion list, and I pull them off the list and compile them to create a monthly magazine. The magazine includes most of the initial posts made in each discussion thread, and those follow-up posts that seem to be relevant or add additional material I find of interest. (I like photos, so

if a follow-up has a good photo I usually include it.) So to submit something create an account on the BBS and post the report there. Posting to the BBS is in effect permission to reprint the post in the magazine, but I often follow-up with a more formal email request if there may be some question about reproduction of material or photos.

If there some special circumstances, material for inclusion in the eNTS Magazine can be emailed to me at edfrank@nativetreesociety.org

This month we have has some fantastic article. Bart Bouricius provided reports from the Amazon Basin in Peru. Kouta Rasenan, Jeroen Philippona, and Michael Spraggon continued with the final reports from the Balkan Peninsula Expedition. Eli Dickerson submitted several reports from the Atlanta area in Georgia. Brian Beduhn is a measuring machine with reports from North Carolina. Robert Leverett reports on trees and the ancient Ohia forests in Hawaii. We have a report of a new record Bay laurel from California by Zane Moore. We have reports of other sites from new members and longtime members. There was a beautiful set of snow and rime photos from the Roan Highlands on the NC TN border taken by James Robert Smith. National Geographic Magazine released an article on canopy mapping of the President Sequoia, Will Blozan was a participant in that effort.

Something different in this month's issue is that I have included a series of web links of articles posted on our Native Tree Society Facebook page that did not appear on the BBS. Be sure to check out these articles.

Edward Frank

Those interested in reproducing materials (articles or photographs) from the *eNTS: the Magazine of the Native Tree Society* should contact the Editor-in-Chief and/or the associated author/photographer directly for permission.

[Amazon Giants Fig Trees Peru report](#)

by **Bart Bouricius** » Sat Dec 01, 2012 5:32 pm

During my recent trip to Peru for work, I spent time searching for big trees and along with the most massive Ceiba species Lupunas and Wimbas, my Peruvian friends and I found some interesting and huge Fig (Ficus) species. Figs are quite fascinating and are divided into two subgenera: *Urostigma* which includes trees with aerial roots and often multiple stems or trunks such as the Banyans and hemiepiphytic strangler fig. The other subgenus is *Pharmacosycea* which is never an epiphyte and is without aerial roots. Members of this sub genus can have immense trunks with long ribbon like buttress and often huge spreading crowns. As there are over 50 species of figs in Peru, most in the Amazon Basin, I was not able to identify species in the time available. Part of the problem is that even if the tree is "in bloom", all the figs keep their flower inside small green balls, so superficially they look the same. The internal flowers are pollinated by wasps which lay eggs in these balls which then will develop into the fruits.



Vertical view of same fig



Weninger dwarfed by large fig 120' tall, 14' 7" circumference. Notice high water line on tree from 2 month high water season



Weny and Segundo with "Upside down tree" *Urostigma subgenus*



Segundo and Bart with huge fig 141' high and Circumference of 17' 3". All circumferences are measured above buttresses



probable Ficus species in Pharmacococya subgenus



Strangler fig Urostigma species engulfs palm

I will have one more post from Peru in a few days which will include a few more unusual trees, some interesting vines, and the tallest trees found yet. I hope you enjoy it as well.

Bart Bouricious



Strangler figs on adjacent palms with Jarli Huaya

Re: Amazon Giants Fig Trees Peru report

by **Larry Tucei** » Sun Dec 02, 2012 11:36 am

Bart, I second what Will said. Your postings from South America are truly awesome! The photo of the waterline is amazing. The Pascagoula Basin near where I live has a tidal change of only 10-15' at the river level spilling over to the Forest only at a depth of around 5-6'. Your photo is unreal at least 18', wow! I really enjoy those Giants you guys are discovering. Larry

Re: Amazon Giants Fig Trees Peru report

by **Bart Bouricius** » Sun Dec 02, 2012 3:14 pm

The water level can increase by 35' in the area where I often work. The glacier melt is seasonal and during high water the Piranha's and electric eels are swimming at the base of these trees which in some cases have their seeds dispersed by fish that eat the tree seeds. The species in this flood plain have adapted to this and depend on the annual inundation of huge areas of land. The forest tree species in the hilly Terra Firma Forests are a very different mix with some overlap of trees in both habitats, but less than I originally thought.

When we built the zip line system on the Tahuayo River back 15 years ago toward the end of the high water season, we had to start from canoes, lashing platforms to tree trunks to store the hardware and lumber. As the water gradually receded we had to find different boat routes, then drag boats over mud high spots and ultimately walk the whole way from the lodge as we completed the system after the water had receded. Today tourists who come during the high water season can still access the system by using our 10' high platforms where the boats can dock.

Bart Bouricius

Re: North Syracuse Oak Groves Fall 2012

by **tomhoward** » Sun Dec 02, 2012 3:37 pm

Yesterday, Dec. 1, 2012, I returned to the North Syracuse Cemetery Oak Grove:

I spent a magical one hour and 30 or more minutes in the North Syracuse Cemetery Oak Grove on this cold, cloudy, day. While I was there measuring trees, the dusting of snow on the leaf-covered ground melted away. The sun came out for a kittle while. I saw 2 small hawks flying over the tops of the Big Oaks.

These are the heights measured Dec. 1 (these heights in feet, with the sine method used by NTS):

Younger trees:

Red Oak #35	95
Red Maple east of #35	95.9
Red Oak #29	103.8
Red Oak #30	104
Red Oak east of #34	105
Red Oak #18	102.8
Red Oak #12 (big trunk)	100
Red Oak west of #17	102.84
Sassafras #41	87.7,
tallest Sassafras in central NY	

Older trees:

White Oak east of #23 93.8, 19.6" dbh, very gnarly
Black Oak #27 104.9, 45.8" dbh, biggest tree in Grove, tallest Black Oak in central NY

Tom Howard

[Re: Pictures of Fungi in the Redwood Forest](#)

by **Mark Collins** » Sun Dec 02, 2012 3:44 pm

December 1, 2012





Mark Collins



[Re: Doing Battle with Cedars \(to benefit oaks\) , NE](#)

by Chris » Sun Dec 02, 2012 3:20 am

Yep, lack of fire is main culprit blamed for red cedar expansion. But the "green glacier" [shrubs/tree invading grasslands] is also [impacting grasslands worldwide](#), and is also maybe related to seed sources, increased CO2 helping C4 species, nutrient deposition

from the air.

In the "famous" dolomite glades of the Ozarks of southern Missouri and northern Arkansas, fire frequency in the past was 3-5 years. They become, very, very thick, cedar thickets, with basically no ground cover. You have to cut the damn things out just to walk through them, because they are only 20 ft tall.



Cedar Hell

Below is from the White River Balds, near "famous" Branson, Missouri, one of the "best" glades. Includes numerous Xerothermic species far outside main range, that got "trapped" when climate got wetter 4,000 years ago. Ashe Juniper, American Smoketree, cacti, rattlesnakes, etc...



[Re: Doing Battle with Cedars \(to benefit oaks\) , NE](#)

by **edfrank** » Sun Dec 02, 2012 7:47 pm

Joe wrote: by this point- it's hard to believe there's any "native cover" anywhere in those states- it sounds like it's more a nuisance to the ranchers than

any real ecological problem- some bird species may not like the red cedar but others might

Joe, perhaps you are right, but I want to offer a different perspective. If you look along the east coast we are still finding patches of old-growth forest that had never been logged, so I would expect that there are patches of prairie/non-commercial timberland that has likewise not been altered by farming and grazing.

A second consideration is that old-growth forest can serve as a seed bank for younger forests surrounding it, so as to allow it to take on old-growth characteristics itself eventually. Since the grass and native trees in the area are smaller, perhaps it would take a smaller area of unaffected land to provide a viable seed bank. A third consideration is that much of this area is also within the cross-timbers area.

many post oak trees in this area have been shown by David Stahle and others at UArk, to be several hundred years old. So much of the land has at least not been cleared for farming, although some livestock grazing may have taken place. Overall I think there are many patches of ground that were not subject to farming and grazing.

Another line of reasoning is that large areas in the region were part of the dust bowl in the 1930's from poor farming practices and drought. Many of the areas abandoned at that time have not been subject again to intense agriculture. So they have been left to their own devices, aside from aggressive fire suppression. So in the last 80 years the annual grasses have had 80 generations to reestablish a balance with the perennial grasses, shrubs, and trees.

As a system I am not sure how long a generation might be, but certainly for the grasses as a whole there have been many generations in which to approach the same balance present prior to human utilization even in these heavily impacted areas.

How long does it take one of these systems to become an "old-growth" grassland/non-commercial timber land after having been impacted? If you can't see any of the effects of direct human impact, does that make it a natural system?

The best counterargument is that people affect everywhere, which is true. But this can be said for areas whether they were initially impacted by grazing and farming or not.

Edward Frank

[Re: Once again, LARGE SIZE doesn't equal OLD AGE](#)

by **mdvaden** » Sun Dec 02, 2012 8:52 pm

Reminds me of an Atlas Cedar in Sherwood, Oregon. It's surprising how fast it's growing wood. I measured it as near 394 points. 113 feet tall. 256 inches circumference. Canopy 93' x 111'. The **dbh is 6.8'** - just under 7 feet.

That ... in **2011**. But I found out some days or weeks later, that Robert Van Pelt had also measured it once back around **1996**. He said the last measure was 100 feet tall and 16 feet and 8 inches (**200 inches**) circumference or **5.3 ft. dbh** it seems.

So that's 1.5 feet diameter increase in 15 years. In a way, an inch a year may not seem like that much, and if split in two to a half inch per side of the trunk per year.



Copyright 2011 ~ M. D. Vaden



M. D. Vaden of Oregon

[Age of Tropical Trees](#)

by **edfrank** » Sat Dec 01, 2012 10:04 am

Larry, There are some references online about the age of tropical trees. The first are some comments by Neil Pederson from our website. There are a couple of pdf that can be downloaded. The last perhaps could be obtained from the authors.

Age of Tropical trees

http://www.nativetreesociety.org/species/sp_threads/age_of_tropical_trees.htm

Amazon Trees Much Older Than Assumed, Raising Questions On Global Climate Impact Of Region, ScienceDaily (Dec. 13, 2005)

<http://www.sciencedaily.com/releases/2005/12/05121>

[3174230.htm](#)

HOW OLD ARE TROPICAL TREES? THE PERSISTENCE OF A MYTH

Martin Worbes & Wolfgang Johannes Junk

IAWA Journal, Vol. 20 (3),1999: 255-260

http://bio.kuleuven.be/sys/iawa/IAWA%20J%20pdf%27s/20.no.1-4.1999/20.3.255_260.pdf

Tropical dendrochemistry: A novel approach to estimate age and growth from ringless trees

P. M. Poussart, S. C. B. Myneni, and A. Lanzirotti

Received 18 May 2006; revised 6 July 2006;

accepted 12 July 2006; published 9 September 2006.

http://geoweb.princeton.edu/people/poussart/downloads/Poussartetetal_06.pdf

University of California - Irvine (2005, December

13). Amazon Trees Much Older Than Assumed,

Raising Questions On Global Climate Impact Of

Region. ScienceDaily. Retrieved December 1, 2012,

from

<http://earthobservatory.nasa.gov/Newsroom/view.php?id=29027>

Age and Long-term Growth of Trees in an Old-

growth Tropical Rain Forest, Based on Analyses of

Tree Rings and Esther Fichtler, Deborah A. Clark

and Martin Worbes Biotropica, Vol. 35, No. 3 (Sep.,

2003), pp. 306-317

<http://www.jstor.org/stable/30043047>

Edward Frank

[Aloha, HI](#)

by **dbhguru** » Sun Dec 02, 2012 6:18 pm

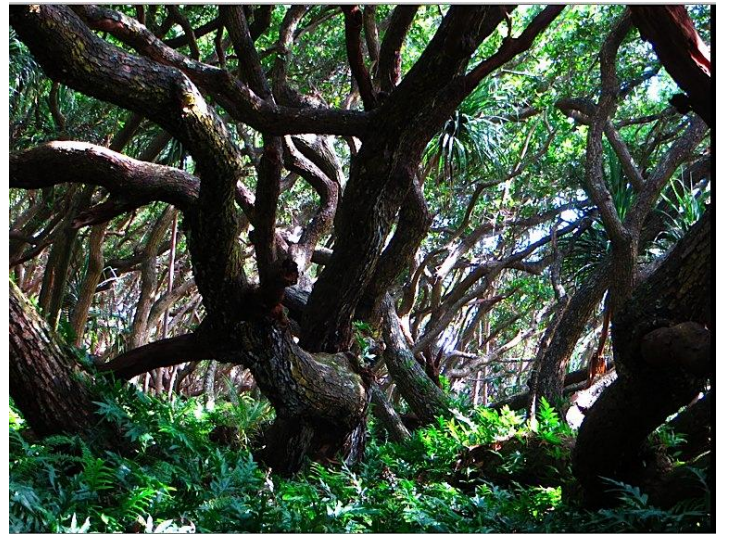
Hi Everybody, Well, here I am in Hawaii gazing at lush vegetation, live volcanoes, and the expanses of the mighty Pacific Ocean. Here is an image from yesterday afternoon, looking eastward. I have lots of images, but my Internet connection is slow, so they will come in spurts.



This image shows the lava heaped high. Just a few miles out the road, an entire development was covered some years back. People here live with the ever present expectation that they could lose their homes to Pele.



And finally, a photo of peace and tranquility.



Robert T. Leverett

Joan Maloof North Syracuse Oak Groves

by tomhoward » Sun Dec 02, 2012 3:32 pm

NTS, here is a summary of Joan Maloof's visit to the North Syracuse Oak Groves on Nov. 30:

Joan Maloof of the Old Growth Forest Network met me at North Syracuse Library. From there we visited the old growth oak groves here, first the Wizard of Oz Oak Grove, then the North Syracuse Cemetery Oak Grove. Weather – very cold, 28 degrees F., gray sky spitting snow, no snow on ground.



Robert Henry joined us at the entrance to the Wizard of Oz Oak Grove at North Syracuse Junior High School. We all took pictures at the Sign at the entrance, and briefly entered the Grove. Then Bob had to leave to take care of a patient (he is a busy LPN). Joan and I explored the Grove, walked the length of the Nature Trail. She is deeply impressed by the Grove – it was a magical time, she said it's great to have a place like this so near a school. Joan was awed by the size of the Grove's biggest and tallest tree, the Baum Red Oak (49.1" dbh, 112.3 ft. tall), but size does not equal age, as this has been alive only since about 1870. The dedicatory plaque on the Baum red Oak is gone. Earlier I showed her a small cross-section of a White Oak snag log that I counted 198 rings on earlier this year.



She was also awed by the size of the shattered stump of the fallen Poe Black Oak. The Forest Cathedral was grander than ever, and she was amazed at the size and height of the big old White Oaks; she took a stitch of an especially impressive White Oak (over 30" dbh and at least 106 ft. tall) on the east side of the trail. I showed her what (at least so far) is the tallest White Oak in central NY (29.65" dbh, 110.2 ft. tall) on the east side of the trail in the Forest Cathedral. I also showed her the 2 tallest Red Maples in the Grove, in the Forest Cathedral (18.8" dbh, 111.6 ft. tall – 2nd tallest Red Maple in central NY, the shaggy "Magic Maple" 26.7" dbh, 110.5 ft. tall). I showed her the Anne Frank Black Gum (est. 240 years old, possibly the oldest tree in the Grove), a tree which looks really old, with complex crown. The Anne Frank Tree is the tallest Black Gum I know of in NY State, measured at 94.5 ft. by Robert Henry with the Forestry 550 laser rangefinder in 2009. The plaque on the Anne Frank Tree is hanging from only 1 fastener. I showed her some of the trees with plaques still intact – Gage White Oak, Mandela Red Maple, Lennon White Oak, Rosa Parks Black Gum. When we first entered the Wizard of Oz Grove, Joan noticed a large number of Gypsy Moth egg cases on several trees in the southwestern part of the Grove. She suggested we remove them, so we used sticks to remove the egg cases from the trees as we got ready to leave the Grove.



Baum Red Oak in the Wizard of Oz Oak Grove

Joan and I next went to North Syracuse Cemetery, and entered the woods among the tall (to 105 ft.) 2nd growth White Pines behind Wells Ave. houses. I showed her the Onondaga County champion Sassafras (22.1" dbh, 87.7 ft. tall), and it really impressed her – she noticed balding bark developing on this tree, which is probably about 100 years old. She scraped the bark a little and noticed a faint Sassafras fragrance.

Then we walked into the old growth Oak Grove, a place she found to be very special. I showed her the Big Oaks of my childhood. She's awestruck – the oldest White Oaks look like they are 300 years old or older. She guessed that White Oak #16 (31.7" dbh, 109.2 ft. tall) is at least 300 years old. She was impressed by the "gnarliness", balding bark, stem sinuosity, the extraordinary density of large old trees in the Grove. They are as big and old as the oldest old growth White Oaks she's ever seen (and she has seen many). She could clearly see the age difference between these old White Oaks, Red Oak #13 (which looks like an aged Red Oak) and the large younger Red Oaks that are also abundant in the Grove. She was amazed by the huge masses of crooked timber high in the sky in the densest part of the Grove, east of the dry vernal pool in the center of the Grove. White Oak #22 (21" dbh, 105.6 ft. tall) also looks very old with its balding bark, stem sinuosity, crooked branches; she was impressed by how this tree made its way into the canopy. The balding bark, old-looking blocky bark, high sinuosity, gnarled

branches of Black Gum #34, also struck her as very old. These trees are easily over 300 years old. The great Black Oak #27, largest tree in the Grove (45.8" dbh, 104.9 ft. tall, height measured 12/1/2012) also impressed her. She noticed a long vertical scar on the lower trunk of the Black Oak, and she wonders if the scar was caused by lightning. These old Oaks are trees from the original forest. She thinks that the old Oaks of the Cemetery Oak Grove are older than the old trees of the Tuliptree Cathedral of Green Lakes – if you added up the ages of these Oaks, you'd get a greater age than from the Tuliptree Cathedral. Also, when we were among the old Big Oaks of the Cemetery Oak Grove, we talked about the Indiana section of her book *Among the Ancients*, of how she writes about how individual old trees of the same species next to each other look distinct from each other. The old Oaks of the Cemetery Oak Grove look distinct from each other. I told her that the oldest White Oak, Red Oak, Black Oak, Red Maple, Black Gum in Onondaga County could be in this 1-acre Oak Grove.

I told her that Grove's vernal pool is a likely inspiration for the magical Truth Pond in Baum's *The Road to Oz*. I told her of the mystery of this place, how an ancient vernal pool is at the center, and of the 3 concentric circles around the pool – the inner circle the old growth White Oaks, an outer circle of younger Red Oaks, an outermost circle of younger White Pines (and we could see green White Pines all around the Grove), and she thinks this may have been a native American sacred site.

Joan Maloof feels that both old growth Oak Groves in North Syracuse are special places.

I highly recommend that all NTS look at the excellent blog entry (with pictures) Joan Maloof made about this visit in her *For the Earth* blog.

<http://joanmaloof.blogspot.com/2012/12/looking-for-old-trees.html>

Tom Howard

[Re: Travelogue Part 6: the Perućica Forest Reserve](#)

by **Chris** » Sun Dec 02, 2012 3:56 pm

This question is addressed to all three of you and could apply to all the places you have visited. But has there been much "scientific" interest or study of these forests? I am aware just because there hasn't been much accurate measuring of heights/girths/etc... does not mean there has been other types of research performed. . I just get the sense that some of these places are kind of off the radar..... Does that ring true to you guys? Maybe academic forest researchers have (for reasons of location, familiarity, historical focus) worked on forest in western Europe?

[Re: Travelogue Part 6: the Perućica Forest Reserve](#)

by **Jeroen Philippona** » Sun Dec 02, 2012 9:18 pm

Chris Morris wrote: This question is addressed to all three of you and could apply to all the places you have visited. But has there been much "scientific" interest or study of these forests? I am aware just because there hasn't been much accurate measuring of heights/girths/etc... does not mean there has been other types of research performed. . I just get the sense that some of these places are kind of off the radar..... Does that ring true to you guys? Maybe academic forest researchers have (for reasons of location, familiarity, historical focus) worked on forest in western Europe?

Indeed there has been done scientific research in these forests, but part of them has been published in Serbian language. At my report of Perućica I added a small list of literature, which is scientific. Kouta has some reports and books, some reports can be found on internet. Compared to Western Europe there is probably much less study done. Because of the Yugoslavian war research since 1991 will have been much less than before. Especially the Perućica area is still very little visited by people from Western Europe, but perhaps the last few years there is done

more research again.

Robert Leverett wrote: Michael, Kouta, Jeroen, Totally absorbing. How many species of trees did you encounter in that forest?

In Perućica we mainly visited the central part at altitudes between 1000 and 1400 m, where the most tall trees could be expected. This beech-fir-spruce forest is poor in the number of species, beside European beech, European white fir and Norway spruce we saw only few wych elms (*Ulmus glabra*) and sycamore maples (*Acer pseudoplatanus*) and along streams black alder (*Alnus glutinosa*). Probably there grow some ashes (*Fraxinus excelsior*) also in these forests. At rocky outcrops and sunny, dry areas the forest consists more of black pine (*Pinus nigra*) and near the viewpoint west of Dragos Sedlo I saw hop hornbeam (*Ostrya carpinifolia*) and Turkey oak (*Quercus cerris*). In the forests at lower altitudes (between 600 and 1000 m, which we only saw from a distance) grow two or perhaps three species of lime (silver lime, *Tilia tomentosa* and broadleaved lime, *T. platyphyllos*; perhaps also *T. cordata*, small leaved lime; also several species of oak seem to grow there. Probably here grow also more maple and Sorbus species. Probably at wet locations there will be willows and at pioneer stages also birches and aspen. So we did not see much more than 12 tree species in Perućica. Till now I didn't see reports which give an overview of all tree species in the forest.

Jeroen Philippona

[Re: Travelogue Part 6: the Perućica Forest Reserve](#)

by **KoutaR** » Tue Dec 04, 2012 3:42 pm

Jeroen has forgotten a few species we encountered in Perućica. I would also have forgotten them, therefore I always write down the tree species I find in a park. In addition to those Jeroen mentioned we saw the following species: European ash (*Fraxinus excelsior*), whitebeam (*Aria nivea* = *Sorbus aria*), rowan (*Sorbus aucuparia*), black elder (*Sambucus*

nigra), wild cherry (*Prunus avium*), Heldreich's maple (*Acer heldreichii*), Norway maple (*Acer platanoides*), hawthorn (*Crataegus rhipidophylla*) and common aspen (*Populus tremula*). Thus, we encountered 18 tree species in the area we explored between altitudes 1030-1500 m:

Abies alba
Picea abies
Pinus nigra
Fagus sylvatica
Ulmus glabra
Acer pseudoplatanus
Acer heldreichii
Acer platanoides
Alnus glutinosa
Fraxinus excelsior
Ostrya carpinifolia
Quercus cerris
Aria nivea = *Sorbus aria*
Sorbus aucuparia
Sambucus nigra
Prunus avium
Crataegus rhipidophylla
Populus tremula

There are certainly a few more even at these elevations as we could explore only small parts of the area. Species richness should be higher at lower elevations with very steep slopes, with partly different species (like the lindens Jeroen mentioned), and at still higher elevations there should be again new species.

Kouta

[Re: The Perućica Forest reserve in Bosnia Herzegovina](#)

by **KoutaR** » Tue Dec 04, 2012 1:09 pm

Still one photo. The tallest (57.4 m) Norway spruce we measured is on the right next to Michael. In front of it a beech. On the left foreground a ~52 m tall silver fir. Behind it, with the left side of the base

highlighted and the top visible (top left), the tallest (54.0 m) silver fir we measured.



Kouta Rasanen

[Re: The Perućica Forest reserve in Bosnia Herzegovina](#)

by **KoutaR** » Wed Dec 05, 2012 6:57 pm

Bob Leverett wrote: I continue to be amazed at what you, Jeroen, and Michael are confirming. I'm also amazed at the quality of the forests you are exploring. It is apparent that Eastern Europe is a whole different environment and that there is far more to explore than any of us on this side of the pond could have imagined. What sorts of trips do you three have planned for the future?

Thank you, Bob! The communism was undoubtedly a bad experiment but it appears to have been good for nature: the land use was much less effective; consequently, almost all European true old-growth south from Fennoscandia is now in the former Warsaw Bloc.

In the Balkans, Jeroen threw out an idea to do a new trip to Romania and Bulgaria, but we have no actual plans. The Russian Caucasus and *Abies nordmanniana* have also been discussed but the region is at the moment so risky that I (as father of a small child) will not go there before it gets safer there. It is unfortunately the most turbulent region in Russia.

If you had in Hawaii nobody who can identify the eucalypts, you could take photos of fruits, floral buds, leaves and trunk, and we can try to identify them. Fruits and floral buds can almost always be found on the ground. I look forward to your reports, particularly of native forests.

Rand, the parks we explored have annual precipitations of around 2000 mm = 80 inches. A difference between the mountains of the Balkans and the Smokies is that in the former there is a drier period in summer.

Kouta Rasanen

[Re: The Perućica Forest reserve in Bosnia Herzegovina](#)

by **Jeroen Philippona** » Wed Dec 05, 2012 7:00 pm

Bob, thanks for this compliments, but you and your fellow ents (together with the Western tree measurers) were the most important inspiration for us to start height measuring with laser and the Sine method as well as by climbing.

Till now we did not plan new trips. Beside again visiting some of the forests we described in these reports, I would like to visit several forest reserves in the Czech Republic, Slovakia, Rumania and Bulgaria. Also the forest with *Abies nordmanniana* and *Picea orientalis* in the Caucasian are very interesting for finding height records, but also political very unstable. Very interesting I think are forests in Northern Iran south of the Caspian Sea.

So there is still a lot to explore, to much for the three of us. There are some more measurers who use laser in Europe now, but most of them just started with this and only measure trees in their own neighborhood. Michael Taylor proposes us to do more photographing of the big oriental planes at Trsteno when the leaves are off for his three-dimensional measuring method.

Rand, Indeed the Adriatic coast region and especially the mountain chains somewhat more inland have a high rainfall, the mountainforests we visited have a rainfall of 60 - 80 inche a year.

Kouta, Indeed especially the 65 m tall fir (in the small article with a DBH of only 88 cm / CBH 276 cm = 9 feet) is very enigmatic. Also confusing is that the DBH of the tallest Norway spruce is different in the different articles. So perhaps Leibundgut cannot be trusted totally or he means different trees. The 65 m fir can have grown in an other study plot than the 52 m fir.

I agree that ~60 m will be the potential max. height for white fir, but one never can be sure. For example the tallest *Pinus strobus* in the Smokeys before losing its top was more than 20 feet taller then the second tallest. The tallest *Quercus petraea* in the Forêt de

Bercé in France are 4 m taller than anywhere else measured by us.

Also interesting are the differences in max. height found of *Tilia x europaea* in the UK and the Netherlands: in the Netherlands these trees rarely are taller than 34.5 m / 110 ft, only one of 36.8 m / 120.7 ft was found, but in the UK now in one area many were found by mr. RedRob of 40 to 43.2 m / 141.7 ft. So before we can draw definitive conclusions about potential maximum heights we have to measure a lot more!

Jeroen Philippona

[Re: The Perućica Forest reserve in Bosnia Herzegovina](#)

by **KoutaR** » Thu Dec 06, 2012 11:08 am

I second Jeroen in that the NTS has definitely been our inspiration and model for starting to measure and build a Europe-wide database of reliable measured trees. Unfortunately I needed about 2 years to buy a rangefinder (from my first post to the ENTS-TREES). I have always been interested in tree heights but I couldn't believe I could do something valuable. Particularly I couldn't believe height records are still generally measured with such a stupid method as the tangent method.

Jeroen Philippona wrote: The 65 m fir can have grown in an other study plot than the 52 m fir.

Leibundgut (1982, p. 47) writes: "In den Probeflächen wurden die folgenden Maximalhöhen gemessen: ... Tanne Durchmesser 110 cm Höhe 52 m" ("In the study plots [note plural!], the following maximum heights were measured: ... Fir Diameter 110 cm Height 52 m"). I understand this so that 52 m was the height of the tallest fir of ALL the study plots.

I agree that we cannot say yet anything sure about

maximal heights. The strongest proof for me for my belief that silver fir does not get over 60 m tall is that Norway spruces have been taller than firs everywhere. I may be wrong. Actually I hope I am wrong and there are TWO native tree species in Central Europe capable to exceed 60 m.

Kouta

[Re: The Perućica Forest reserve in Bosnia Herzegovina](#)

by **KoutaR** » Fri Dec 07, 2012 10:31 am

Joe Zorzin wrote: Kouta, will the new governments protect these forests?

The post-communism-era governments are not "new" anymore. The Warsaw Bloc crashed already over 20 years ago. Anyway, these reserves are very well and effectively protected, in some cases the parks cooperate with western European agencies. Unfortunately the national parks outside these old-growth reserves are not well protected. For example, the forests of Sutjeska National Park outside Perucica Nature Reserve are logged by the national park itself. We saw a logging truck coming from the park full of big trunks. Apparently there are fairly tall forests also outside Perucica but they are being logged. Perhaps the national park and the government simply need money.

Kouta Rasanen

[Crown Mapping Giant Sequoias, CA](#)

by **edfrank** » Sun Dec 02, 2012 9:13 pm

Crown Mapping Giant Sequoias, CA
Will Blozan posted this video to Facebook yesterday

I recommend watching it full screen on Facebook if possible at this link:

<http://www.facebook.com/photo.php?v=301802163270299&set=vb.100003215538421&type=2&theater>

Edward Frank



[Re: Crown Mapping Giant Sequoias, CA](#)

by **Will Blozan** » Thu Dec 06, 2012 8:21 pm

Bart Bouricius wrote: This is just incredible, I don't know how you are able to do the physical and mental process of measuring this tree in ridiculously bad conditions while still getting this great footage. Also great sound track.

The shaky footage was mainly from shivering. I do wish I had had a better camera for the video but it was very portable and got the point across. In HD it looks much better. Music was from Malcolm Danglish; "Hymnodly of Earth".

Will Blozan

[Re: "The President" giant sequoia, SNP, CA](#)

by **edfrank** » Sun Dec 02, 2012 11:45 pm

Here is a video from National Geographic on the tree to accompany the article:



Magnificent Giant Tree: Sequoia in a Snowstorm

http://www.youtube.com/watch?v=vNCH6uhB_Bs

Published on Nov 26, 2012 by National Geographic

See more: <http://bit.ly/TVehd4> The world's second-largest known tree, the President, in Sequoia National Park is photographed by National Geographic magazine photographer Michael "Nick" Nichols for the December 2012 issue. The final photograph is a mosaic of 126 images. More video can be seen in the magazine's digital editions on iPad, iPhone, and Kindle Fire. To see Nick's photos, go to <http://ngm.nationalgeographic.com/2012/12/sequoias/nichols-photography>

[Re: "The President" giant sequoia, SNP, CA](#)

by **bbeduhn** » Tue Dec 04, 2012 10:15 am

http://www.dailydemocrat.com/news/ci_22113634/upon-further-review-giant-sequoia-tops-neighbor?source=email

This is a local article to supplement the Nat'l Geo. article.

Brian Beduhn

[Re: "The President" giant sequoia, SNP, CA](#)

by **Mark Collins** » Thu Dec 06, 2012 3:45 pm

Here's a short interview with Steve Sillett on the "California Report" about the President:

<http://www.californiareport.org/archive/R201212060850/b>

March Collins

[Re: "The President" giant sequoia, SNP, CA](#)

by **Will Blozan** » Thu Dec 06, 2012 8:18 pm

Joe wrote: Will, any reason this work was done in wintery conditions?

I suppose to coincide with research schedules, light visitor traffic, and perhaps environmental reasons such as burns. That year just happened to be one of the heaviest snowfalls in recorded history.

Will Blozan

**Greensboro-The Grande/Bluffs
Neighborhoods, NC**

by **bbeduhn** » Mon Dec 03, 2012 5:24 pm

Some numbers from a family neighborhood with a greenway through the forest:

- Nyssa sylvatica black gum 99.1'
- Liriodendron tulipifera tuliptree 124.9'
- Quercus velutina blk oak 118.2'
- Quercus alba white oak 111.8' 118.2' large spread
- Quercus rubra red oak 122.2'
- Quercus laurifolia laurel oak 107.5'
- Platanus occidentalis sycamore 111.4' 110.0'
- Carya glabra pignut hickory 111.0'
- Liquidambar styraciflua sweet gum 119.1'
- Pinus taeda loblolly pine 124.9' 127.9'
- Pinus virginiana VA pine 108.5' 102.9'

R10= 116.89'

**Re: Metasequoia Glyptostroboidea
(Dawn Redwood)**

by **bbeduhn** » Mon Dec 03, 2012 4:59 pm

More metas from Asheville

Biltmore

Nursery grove

77.9' 76.3' 76.0' 77.8' 67.8' 79.0' 80.6' 79.4'

Garden

65.3'

Kenilworth

Wilshire Park 67.1'

Lakeside 97.3'

Lakeside Pinetum 92.5'

Pisgah Academy

68.3' 116.6' 105.4' 103.2'

Warren Wilson College

62.7'

Spooks Branch

75.2'

Greensboro metas

Nature Center 65.4'

Arboretum 86.0'

Plenty more to come.

Brian Beduhn

[Re: Photographs of Large Trees \(1915\)](#)

[ille%20poplar%20chattanooga%20st.%20louis%20railroad&pg=PA94#v=onepage&q&f=true](#)

by mdavie » Sat Aug 07, 2010 11:05 am

...From another spot in Google books, "The Garden: An Illustrated Weekly", January 1898, pp. 69:
http://books.google.com/books?id=9ibmAAAAMAAJ&pg=PA3&dq=intitle:Garden&source=gbs_selected_pages&cad=3#v=onepage&q&f=false 17 MB

Wood Of Tulip Tree.—In the display of timbers representing 118 varieties made at the Nashville Exposition by the Nashville, Chattanooga, and St. Louis Railroad, and occupying 10,000 square feet of floor space and a large outside area, are two remarkable specimens of Yellow Poplar (Liriodendron tulipifera). One of these is a log 42 feet long, 10 feet 4 inches in diameter at the butt, and 7 feet in diameter at the smaller end. This specimen contains 1260 cubic feet and is about 600 years old. The other specimen is 48 feet long with an average diameter of 7 feet.

WOOD OF TULIP TREE.—In the display of timbers representing 118 varieties made at the Nashville Exposition by the Nashville, Chattanooga, and St. Louis Railroad, and occupying 10,000 square feet of floor space and a large outside area, are two remarkable specimens of Yellow Poplar (*Liriodendron tulipifera*). One of these is a log 42 feet long, 10 feet 4 inches in diameter at the butt, and 7 feet in diameter at the smaller end. This specimen contains 1260 cubic feet and is about 600 years old. The other specimen is 48 feet long with an average diameter of 7 feet.

Garden and Forest. / Volume 10, Issue 508, page 458.

[Re: Photographs of Large Trees \(1915\)](#)

by mdavie » Tue Dec 04, 2012 5:52 pm

I did just find an image of one of the tuliptrees from the Centennial Exposition in Nashville:
http://books.google.com/books?id=RZcBLTiZi_QC&lpg=PA94&dq=centennial%20exposition%20nashv

[Re: Amazon Giants Fig Trees Peru report](#)

by **Bart Bouricius** » Tue Dec 04, 2012 5:20 pm

Kouta Rasenan wrote: Great photos! Where is the location exactly? Do you consider this forest as "undisturbed" or "virgin"?

The problem with the designations of undisturbed or virgin is that, though we might consider some forest patch basically "old growth", there is little forest of that sort that is accessible without walking at least a day away from a river in the Amazon basin. Possibly some is closer in some cases where you have a smaller tributary.

In the area near the the village of El Chino across the Tahuayo River is Amazonia Expeditions lodge, and this is the vicinity of the floodplain trees in my two recent posts. The most impressive trees are mostly 1.5 to 3 hours walk from the Lodge, and off trail.

There are some places that have small patches of what you might call relatively undisturbed forest, though most would probably be considered "secondary" as opposed to "primary" forest which is the term that Biologists use for old growth forest in the Amazon and Central America. It is difficult to reach some of this area during low water season, but when the water is high, you can see most trees by canoe, and if, in the past, one had valuable lumber it was less likely to survive. Fortunately some of the largest trees have less economic value. Nevertheless, most of the largest *Ceiba pentandra* trees were felled for ply wood in past years, though some quite impressive Wimba *Ceiba samauma* still remain, as there wood was less in demand a few years back.

The figs are also not terribly valuable for much, so we have some large ones around. The forest here is sort of patchy, in that some areas were less impacted than others, and some parts are more difficult to reach without walking through swamps etc. The area with the largest Wimba and fig that are shown in my previous post was relatively untouched though, and up the Rio Blanco, a tributary of the Tahuayo, there is Terra Firma (not in the floodplain) forest. If you walk away from the River quite a ways, you can find large areas of relatively untouched forest. One

problem was that pretty much all the mahogany was logged out of all the Terra Firma forest, partly by using helicopters to locate the largest trees and sending in logging crews for long distances to retrieve them because of the great value of the wood.

Other than that, some of these areas are pretty impressive and probably would otherwise be classified as primary or old growth.

A separate issue with the term "Virgin" in particular is that humans have had an impact on forest wherever they have lived, including the Amazon Basin, so even if the forest appears undisturbed, probably the species that grow there today have been somewhat influenced by people in the past. We could, and have had long discussions on what we mean by the term virgin on our bulletin board. Using the most extreme definition, I am afraid that no forest on earth is totally chaste, and as a Native American saying goes (paraphrasing): The secret corners of the forest are heavy with scent of many men. This misuse of Chief Seattle's words is totally out of context, but I am using it to make the point that the more you are aware of the forest, the less you believe that any spot is secret or totally undisturbed. Don't forget that Yellowstone Park was made into a "wilderness" by evicting the native people who lived there, and who themselves had an impact on the forest.

I am always hunting for the least disturbed forest in this area and my next post will include some spots of minimal disturbance up the Rio Blanco.

Bart Bouricius

[Re: Amazon Giants Fig Trees Peru report](#)

by **KoutaR** » Tue Dec 04, 2012 5:55 pm

Bart, thank you for the thorough answer. I am aware of the non-existence of truly virgin forest. I meant approximately "not logged by people whose origins are in Europe" like the American old-growth definition

(or one of them).

You wrote about a relatively untouched area further away from the River. Are areas like that possible to enter by anyone? Are there still much large such areas in Amazon Basin? (You can also answer in your next post if the topic is in a better context there.)

Kouta Rasanen

[Re: Amazon Giants Fig Trees Peru report](#)

by **Bart Bouricius** » Tue Dec 04, 2012 9:06 pm

Kouta, yes there are areas that have substantially less impact, but in most cases it is quite time consuming and expensive to get there. The best areas for finding the best primary forest are in the foot hills where there are no roads and the rivers are to rough to navigate. Problem is how do you get there unless you are extremely wealthy. My best bet has been going as far as I can get with my friend Weninger, who lives up the Rio Blanco quite far and grew up

spending lots of time in the forests there. He and his brother Rafael know 90% of the large trees in that area, and when we go up river and inland, there are patches where no old stumps exist. To me this is heaven, however I would give anything to get to even more remote areas where there is even more terrain. You can find such places using google earth, but you would have to mount quite an expedition to get there. Check out googling Mark Bush Alex Correa Pre Columbian for an interesting article on early human impact in the Amazon.

Bart Bouricius

[Re: Amazon Giants Trip Report from Peru](#)

by **Bart Bouricius** » Mon Dec 03, 2012 8:04 pm

List of Ceiba trees from the Tahuayo River flood plain, heights, and circumferences. All heights are probably greater as these are straight up rangefinder measurements.

	Height (feet)	Circumference	Crown spread
#7 Ceiba samuama (Wimba)	141'	16' 6"	
#8 Ceiba s.	138'	15' 11"	
#5 Ceiba s.	135'	14' 4"	
#26 Ceiba s.	144'	15' 1"	125'
#27 Ceiba s.	154.5'	13'	
#43 Ceiba s.	165'	22' 3"	138'
#44 Ceiba s.	127.5'	12' 8"	
#45 Ceiba s.	156'	14'	
#46 Ceiba s.	138'	14' 6"	
#48 Ceiba s.	144'	13' 7"	
# 3 Ceiba pentandra	141.5'	20' 11"	165'
#9 Ceiba p.	120'	10' 9"	
#4 Ceiba p.	129'	16'	
#6 Ceiba p.	123'	11' 5"	

[Re: Amazon Giants Fig Trees Peru report](#)

by **KoutaR** » Tue Dec 04, 2012 5:55 pm

Bart, Thank you for the thorough answer. I am aware of the non-existence of truly virgin forest. I meant approximately "not logged by people whose origins are in Europe" like the American old-growth definition (or one of them).

You wrote about a relatively untouched area further away from the River. Are areas like that possible to enter by anyone? Are there still much large such areas in Amazon Basin? (You can also answer in your next post if the topic is in a better context there.)

Kouta Rasanen

[Re: Amazon Giants Fig Trees Peru report](#)

by **Bart Bouricius** » Tue Dec 04, 2012 9:06 pm

Kouta, yes there are areas that have substantially less impact, but in most cases it is quite time consuming and expensive to get there. The best areas for finding the best primary forest are in the foot hills where there are no roads and the rivers are too rough to navigate. Problem is how do you get there unless you are extremely wealthy. My best bet has been going as far as I can get with my friend Weninger, who lives up the Rio Blanco quite far and grew up spending lots of time in the forests there. He and his brother Rafael know 90% of the large trees in that area, and when we go up river and inland, there are patches where no old stumps exist. To me this is heaven, however I would give anything to get to even more remote areas where there is even more terrain.

You can find such places using google earth, but you would have to mount quite an expedition to get there. Check out googling Mark Bush Alex Correa Pre Columbian for an interesting article on early human impact in the Amazon. - Bart Bouricius

[Re: Amazon Giants Fig Trees Peru report](#)

by **KoutaR** » Wed Dec 05, 2012 10:29 am

Bart, You probably mean this slide show:

<http://www.eci.ox.ac.uk/news/events/amazon/bush.pdf>

If Bush & Correa were right there should be vast areas with very low pre-Columbian human impact (e.g. the map, p. 3, and the summary, p. 11).

You are fortunate as you have native friends! I guess the only primary forests with easier accessibility are in parks, which are allowed to enter only in guided tourist groups as the parks also function as reserves for native people (e.g. Manu). Right?

Kouta Rasanen

[Re: Amazon Giants Fig Trees Peru report](#)

by **Bart Bouricius** » Wed Dec 05, 2012 3:42 pm

Kouta, Actually Manu is sort of expensive to get to but reasonably well protected. There may well be places in the park that are not too hard to get to once you are in the park, and if you are doing research you can get to good places. Madidi in Bolivia may also be good in this respect, and the Tambopata Reserve has some good areas. These are far from where I normally work though and would require extra expense and complicated arrangements. I will take advantage of anything that comes along that furthers my goal of measuring and documenting exceptional trees in the Amazon.

Bart Bouricius

Hawaii adventures

by **dbhguru** » Wed Dec 05, 2012 2:56 pm

Hello everybody,

Well, Hawaii is turning out to be as inspiring as I had imagined and also very humbling. The variety of species is overwhelming and the forms are challenging. If ever there was reason to search for better ways to capture tree forms quantitatively, Hawaii is one place to do it. I am specializing on native species because I have that as a mission, but the exotics can hardly be ignored. There is something for everyone: species from around the world. Big trees and tall trees are everywhere to be seen, but often are not that accessible.

Today, Monica and I head to the western side of the island where I'll meet Patricia Missler who is trying to save an old growth ohia forest. I've seen images of some of the trees she wants documented, and they are not small. I'll do my best to keep information flowing, but Internet access and reliability is a problem. Regardless, I'll be concentrating on ohia, kona, and sandalwood. I'm also determined to break 200 feet on eucalyptus. I'm up to 190 now.

Robert T. Leverett



Re: Hawaii adventures

by **dbhguru** » Thu Dec 06, 2012 11:07 pm

Hi Folks, I'm using a 3G network to post this, so no images will be included. Today, I spent a fatiguing day crawling through jungle to get to old growth ohia trees. The tangle of vegetation is daunting. However, I did manage to measure one big tree that measures 24.8 feet in girth. Getting an accurate height was impossible, but the tree is about 83 feet tall. Two other ohias measured over 16 feet around: 16.3 and 16.7 feet. Most of the other large ones were between 10 and 12 feet around. The top of the canopy varies from about 70 to 100 feet, with an occasional ohia to between 105 and 110 feet. But getting every measurement is torture.

Tree ferns and other tropical plants lace the forest. The forest floor is lava, very hard and uneven, but covered with ferns and mosses, making it very difficult to know what will be beneath your foot on your next step. Then the clouds roll in and the forest becomes both magical and a little frightening.

From my initial calculations, there are about 12 to 14 big ohias per acre. There are many tree ferns. I'll have plenty of images in time. One lesson that is coming through to me is that if NTS is going to be a significant player on the world stage, we're going to have to deal with these wild tropical tree forms. The simple, compromise champion tree formula just isn't hacking it. I don't have the answer, but I'm through trying to force a design that doesn't do justice to complex tree forms. The banyons in Hilo drove that point home.

Tomorrow I return to that rain forest and try to determine the distribution of ohias better. It will be another day of crawling over, under, and around.

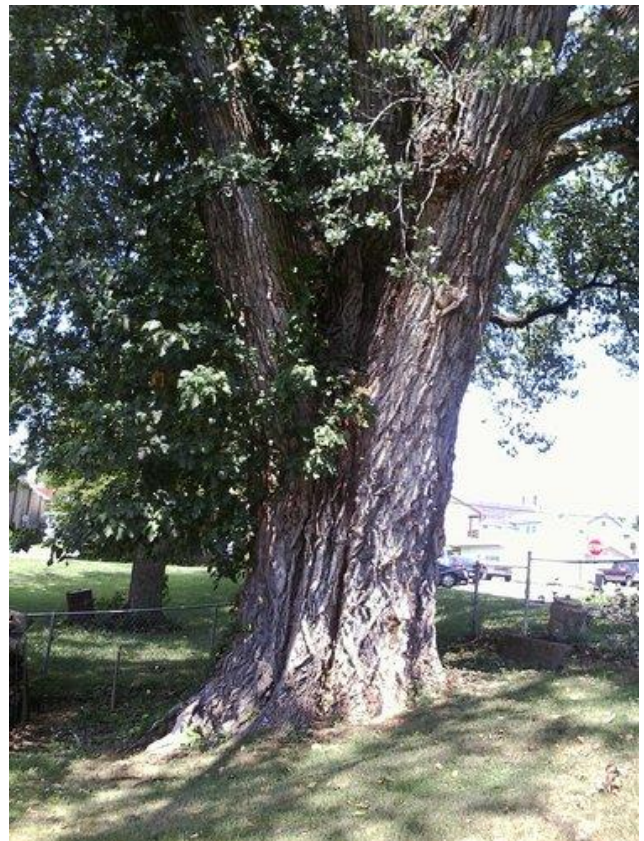
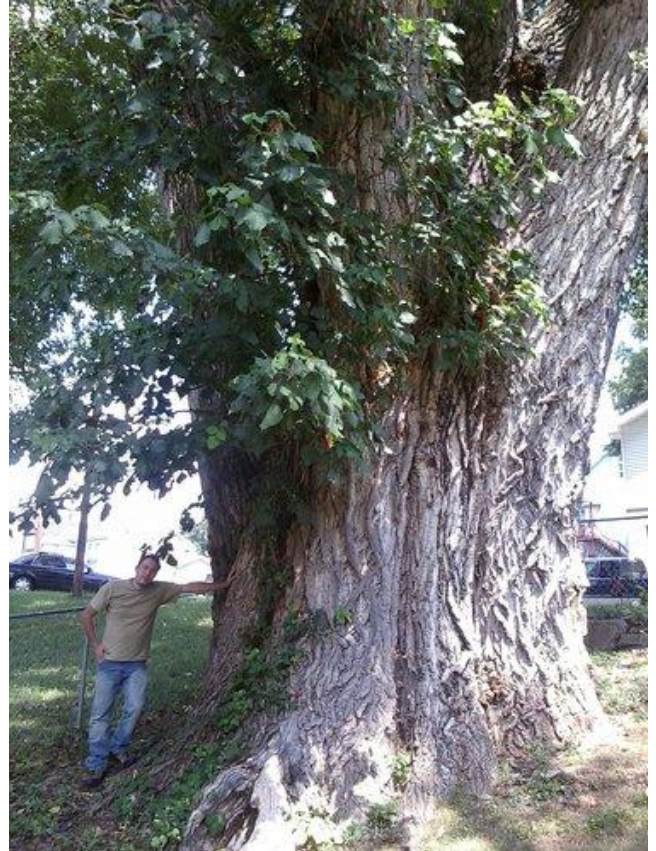
I'm still on the lookout for that 200-foot eucalyptus. At this point I've worked up to 190 feet and have measured the species on 4 sites. So many trees, so little time.

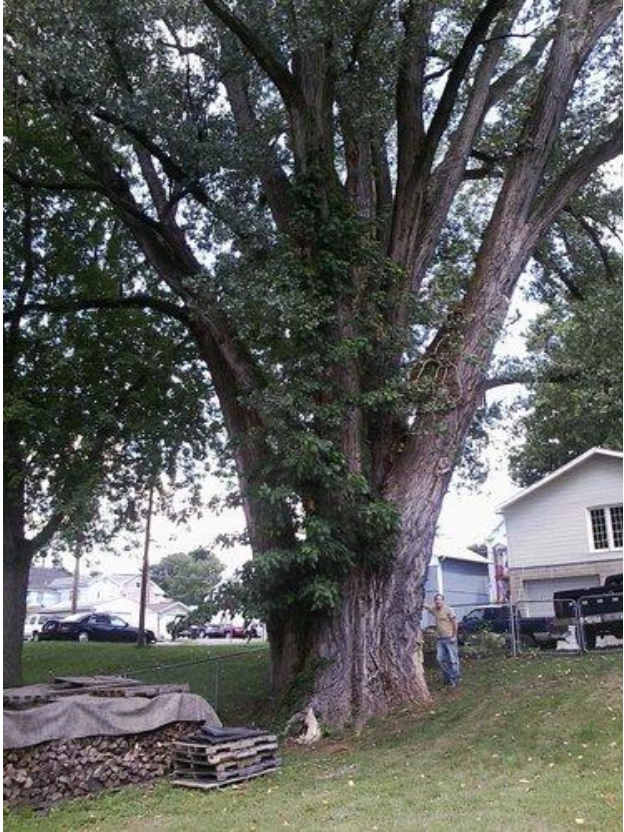
Robert T. Leverett

[The great 31ft CBH Eastern Cottonwood of Halifax PA](#)

by **JohnnyDJersey** » Tue Dec 04, 2012 2:50 pm

I made a visit to this tree a couple months ago, PA Big Trees.com lists this as the second largest tree in the state. The owner is very friendly and very proud of his tree, the week before my visit there was a thunder storm and the tree was struck by lightning 4 times in one night! The owner said it was literally "glowing" afterwards. Only a small amount of bark fell from the tree however. The size of this trunk is amazing, very few trees on the east coast can boast a CBH of over 30ft and this is one. Its height is listed at 106ft, spread 108ft and Cir 367in for a total of 501 points. I measured the trunk however at 31ft 10in. Below are a few shots. It is considered a multitrunk tree but the second trunk is rather small.



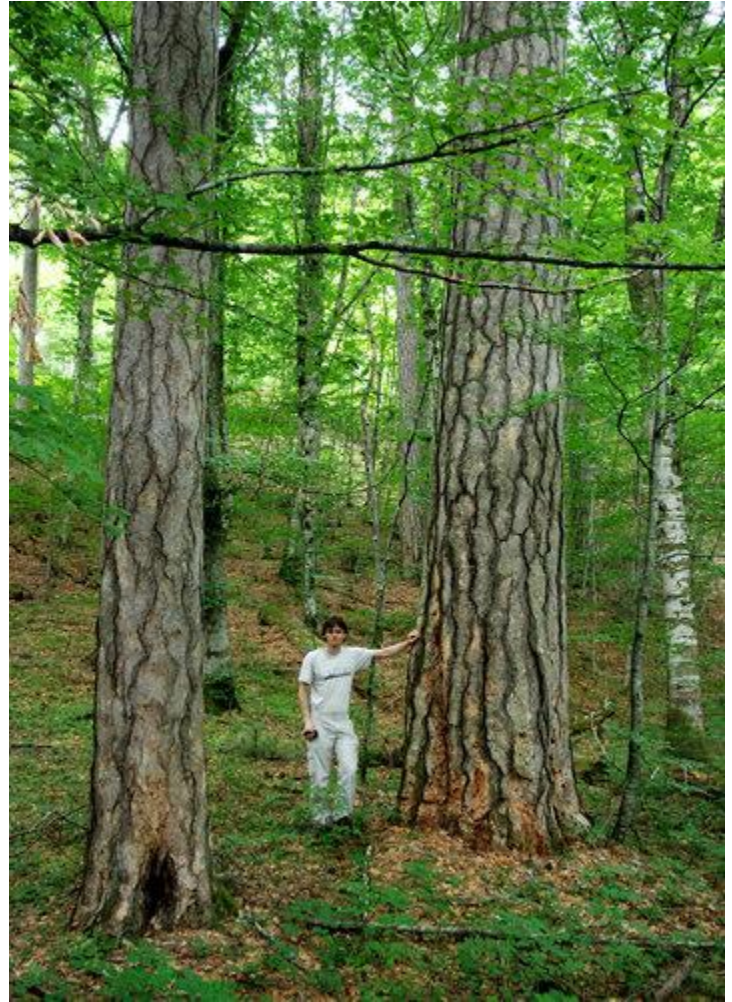


John Harvey

[Re: Crna Poda – a new height record for European black pine](#)

by **Jeroen Philippona** » Fri Dec 07, 2012 4:36 pm

Here are some more photos of black pines in Crna Poda.



Michael near black pine of 4.04 m (13.25 ft) cbh and 43+ m (141+ ft) tall



Typical forest in Crna Poda with old pines and young beeches



The biggest single black pine trunk we measured: 4.14 m (13.58 ft); this tree was already dead.



The largest trunk was a double with cbh of 5.61 m (18.4 ft).

Jeroen Philippona

[Balkan Tree Expedition Travelogue](#) [Part 7 - the final installment.](#)

by **Michael J Spraggon** » Sat Dec 08, 2012 11:11 am

Dear NTS boarders,

Here is the final part of our journey through the former Yugoslavia. It is the longest installment, covering 4 days and 3 countries, taking in the stunning Plitvice Lakes National Park along the way.

It's been a real pleasure writing about our trip each week and having to get each part done by Saturday has finally given me the kick in the pants needed to get it done! I hope I have provided a good backdrop to the technical reports so expertly written by Jeroen and Kouta. At the very least I have made contact with you guys at NTS - something Patty Jenkins at TCI has been on at me to do for a long time!

Anyway here it is - Part 7:

Michael Spraggon

 [Balkans 2012 Travelogue Part 7.docx](#) (3.52 MiB)

Balkans Tree Expedition, Part 7

Day 13 Tjentište to Plitvice Lakes National Park.

After our final breakfast at Hotel Mladost, we settle up with cash as the card readers don't work. I just have enough but am now completely out of Euros and Bosnian Marka and the next cash machine on our cross country route will be in Croatia. As we say goodbye to the staff I say to my fellow tennis fan that I expect Djokovic to win in the final. He graciously (or is it sarcasm?) says the 'small Serb' will be beaten by 'Mighty Murray'.

The road out of Tjentište passes through a gorge with the high mountains of the Dinaric Alps on the left lit up by the morning sun. I want to stop to take a

photograph so we pull over in a layby where a young woman and an old man are standing beside their rucksacks, waiting for a bus. As we approach them it is clear that the old man is actually seriously fit and lean – all skin and muscle. The girl, Ivana, tells us that he is Tomica Debilašić, probably the most renowned mountain guide in Serbia. They have just come down after climbing to the summit of Maglić to mark the anniversary of Vidovdan. Ivana is new to mountaineering but what better way to start than with a challenging peak like Maglić with one of the best guides there is.



A chance meeting with mountaineer Tomica Debilašić (right) and Ivana (left).

After a while the landscape opens out and the road climbs and winds its way up until we reach an enormous new viaduct, which we start driving along until the driver of an aggregate lorry coming the opposite way tells us that the viaduct is not yet finished and we should have driven down the road to the left, thereby avoiding an unpleasant surprise further on.

The next part of the journey is uneventful as we head south again over the mountains and cross back into Croatia. As we descend from a mountain pass, a town called Gacko comes into view, situated on the edge

of a vast flood plain. The focal point of the town is a cement works with a red and white chequered cooling tower. Far away on the opposite side of the flood plain the hills are being quarried for limestone. As we drive through the town, the road there are several memorials to men who have died in the War of Independence – more than in other similar sized towns we have driven through.

The road climbs over the mountains and eventually drops down to the Adriatic Coast. The next part of our journey is the reverse of our drive along the coast road 8 days ago. There's Dubrovnik and another luxury cruise liner coming in to dock. We pass the pretty harbour with the seafood restaurant where we paddled in the water beside our table. I want to go swimming but there's no time of course. We do however take a few minutes to stop at Trsteno again and take another look at the incredible Oriental Plane trees. I have the photo sets from last week's climb safely in my pack.

Another thing that is the same as last week is the heat on the coast: approaching 100F (38°) – if anything slightly hotter than last week. Soon we cross the border into Bosnia again and continue past the town of Neum, which stretches along the 15 miles of the country's only Adriatic coastline. This combined with lower prices than Croatia has made Neum an exceptionally popular tourist destination with the hillsides densely packed with hotels and guesthouses. In fact there are over 5000 tourist beds – more than the population of Neum itself.

Minutes later we are back in Croatia and driving further along the coast road than last week. The road is actually the E65, which at 4400km is one of the longest roads in Europe, starting in Greece. If we were to stay on this road until its end we would cross the Baltic (on a ferry, which stretches the definition of a road somewhat) and continue in Sweden to the town of Malmö. Stopping for lunch we get out of our air conditioned car and, shocked by the heat, open the sliding door of the air conditioned conservatory of Restaurant Merlot. The proprietor tells us to close the door again – quickly!

The E65 goes further inland and becomes also known as the A1, bypassing the large ports of Split and

Sibenik, before turning northwards near the Velebit mountains.

It is evening by the time we arrive at Plitvice Lakes National Park. We (and especially Kouta who has done all of the driving on this trip) are tired and beginning to argue about where to stay tonight. Having passed by several pensions advertising 'Zimmer frei' for the predominantly German-speaking tourists here, we end up at the entrance to the park itself. Jeroen asks about the cost of rooms at the hotel. It is much more than we are willing to pay so we drive back along the road and find a small pension with a little girl of about 2 years old playing in the garden. Her mother comes out to greet us and show us around. Her name is Milica.

Kouta and I have the room in the back and we talk to Milica as she makes up the beds. She worked in Italy for most of the 18 years since the war, then in Germany in a high powered marketing executive job. However since meeting her Serbian husband and having their daughter, they decided to take over the running of the guesthouse from her mother-in-law last year. She describes the house back then as 'old-style' and says that they spent the first year renovating it.

Like so many of the people we have met on our trip Milica has personal stories about the war. Her sister worked in a military hospital in Belgrade and was lucky to escape when it was bombed by NATO. She says that the fighting here was also very bad and until 6 or 7 years ago there still was no tourism and hence no jobs or money but things are slowly picking up now. Milica tells me there is a ski centre here and despite my disbelief that it could ever get cold enough to snow, she says it is very beautiful in winter but there are still very few tourists coming here for winter sports.

Jeroen and I are hungry so we decide to walk 2 miles back down the road to the National Park entrance. The light is fading and the footpath runs out. It's going to be difficult to avoid the cars and lorries on the way back but hunger wins out. The cafeteria is still open and we take our trays and are served by a large jolly woman with a ladle. It's a bit cooler outside. As we eat we have a high-brow conversation

about postmodernist music while at the other end of the terrace a very drunk man is singing traditional folk music, 'almost' in tune but definitely from the heart.

Our walk back is as treacherous as expected. We use our phones as lights but in places we can't walk behind the crash barrier as the ground drops away steeply into deep pits which were obviously excavated to build the road. In the trees there are hundreds of fireflies, their green abdomens pulsating in unison like a silent disco.

Day 14 Plitvice Lakes to Ljubljana.

The next morning Milica lays on a big breakfast on the balcony and sends us on our way with packed lunches she has made for us, free of charge. Today will be another long day: by this evening we will be in Ljubljana, Slovenia, where we first rendezvoused at the start of this trip, but this morning we will visit the world famous Plitvice Lakes.

Plitvice Lakes National Park is the oldest and largest national park in Croatia, a UNESCO World Heritage Site with over 1,200,000 visitors each year. Like a set from a fantasy film, it is an almost unbelievably beautiful cascade of 16 turquoise lakes and waterfalls, descending 133m (436ft) over a distance of 8km (5 miles). It is the result of the action of water on soluble rock and is fed by many small rivers and karst systems: subterranean water courses formed by layers of limestone being dissolved over millions of years.



One of the waterfalls of the Upper Lakes.

Our original plans to explore the Čorkova Uvala reserve in the northwestern end of the park where there are reported to be exceptionally old spruce and fir of up to 550 years, are derailed before we even begin. We didn't receive any response from the park to our requests before the trip and despite the best efforts of the man at the ticket office we are not able to obtain a guide at such short notice. We consider going there surreptitiously without a guide but there is a slight risk of landmines in the reserve and a sense of self-preservation prevails.

By the edge of a stream I see a snake in the water, similar to a four-lined snake but much smaller. It doesn't seem to mind me holding my camera right up to it and taking a picture. On a wooded bank by the path there is a collection of small wooden signs on stakes, each with a picture in a red circle with a line through it telling visitors what they aren't allowed to do: NO swimming, NO campfires, NO fishing, NO dogs off leads, NO plucking of leaves, and what looks like: NO dancing. We take a road train up a winding road to the top lake, Proščansko Jezero, the second largest lake in the cascade, where we disembark and begin our walk down.

Jeroen is trying to work out how many nationalities there are here today based on how many languages he has heard. Certainly people from much of Europe, America, India and the Far East are here today. A large proportion of the visitors making their way

down with us are young couples in their teens and twenties and I can hardly imagine a more romantic place. This feeling is not inspired between the three of us and we drift apart: I begin to pull ahead and then stop in a wooded area to record the lively fluttering song of a black-chat, a bird we have heard in many forests in the Balkans.

I wait for the others but they seem to have gone around the other side of one of the lakes and overtaken me. We meet up just before the 25m (82ft) Galovac waterfall. Below this is a boardwalk winding its way between a series of small shallow pools, some with waterfalls. This is the most idyllic part of the cascade and is exactly like one would imagine paradise to be. The water is crystal clear and shoals of small fish sit still, watching the conveyor belt of humans pass by. I feel like throwing my clothes off and slipping into the balmy waters right now, but of course we're not allowed.



A scene from many fantasy films – but where's the bathing beauty?

Back at the lower lakes we take a boat trip to a large picnic area and I mean large. It's an open area with gift shops and toilet one side and wooden cabins serving grilled and barbequed food on the other. Almost all of the benches in the shade are taken. There are some very loud girls near us, whom Jeroen refers to as the 3 Sisters. I reply that someone will have to measure their heights and girths, but it won't be me.

Our remaining journey through Croatia is similar to before: small rustic villages, some with houses peppered with bullet holes and occasional standing shells of buildings, juxtaposed with modern apartments and glass walled commercial buildings in the centres of large towns. Over the last land border of the trip, into Slovenia and the landscape and architecture soon becomes more modern and Germanic in style.



War damaged buildings, Croatia.

It is evening when we finally reach the Slovenian capital Ljubljana. We have accommodation already booked: a guesthouse in a suburb about two miles north of the centre. We haven't called to announce our arrival but the owner, a short man of about 70, must have been watching for us and comes out to greet us and show us our rooms.

Showered and revitalised, Jeroen and I are standing on the balcony above the narrow, tree-lined street watching the passers-by. Realising we are both bare-chested I imagine them looking at us in a state of half undress on the street and thinking "bloody tourists." At that moment Kouta appears in his underpants.

Fully dressed, we decide to go for a walk and soon come across Café Miriam on the corner of the next block. It is empty: they have already stopped serving drinks but decide to make an exception for us. The

owner, Marian is in his 50's and looks quite a lot like Tommy Lee Jones as well as having the same laid back manner. He and the waitress, Liliana, decide to join us for a drink. Liliana seems to have started the after work celebrations long beforehand: she is loud, flirtatious and finding innuendo in everything. Marian responds with the brow-beaten smile of a man who has learned to take the rough with the smooth – Lilian is exhausting but there's no denying that she knows how to charm the customers. She has teenage children at home but seems to be in no hurry to go there.

Day 15: Ljubljana Historic Centre.

Today I say farewell to my two companions Jeroen and Kouta. We've only known each other for two weeks but we've already packed in a year's worth of experiences. I pack my valuables into my daypack and J & K give me a lift into the centre of the city on the last leg of our 2500km journey together. By the time they get back to Kouta's home they will have driven 4100km and Jeroen will still have to travel by train to his home in the Netherlands. I am not flying back until tomorrow so I will be spending today in Ljubljana. J & K drop me off near a tourist information office and we say goodbye. From now on I'm on my own without Jeroen, the seasoned traveller and diplomat, or Kouta with his knowledge of the Serbian languages.

I'm not worried: this is a small, tourist friendly city, and easy to get around. In no time I've booked myself onto a city tour and boat trip after lunch and am walking down a side street towards the river on my way to the Castle. I cross the Ljubljanica River on one of three bridges, collectively known as the Triple Bridge. The two side bridges were added in 1932, 90 years after the original stone road bridge was constructed. The waterway is narrow and the high banks are lined with concrete balustrades behind which are the terraces of cafes. It reminds me of Amsterdam. On the opposite bank there is a large cobbled pedestrian area leading to a flower market on one side and the City Hall on the other. Beyond is Ljubljana Castle on top of Castle Hill, now accessible via a funicular railway. I decide to climb the hill instead.



The Triple Bridge.

I can see the original entrance to the castle: it is a 5-sided tower, which was designed to slow down attackers by making presenting them with a wall as soon as they get through the entrance. I breach the wall via the slightly more welcoming tourist entrance: a gently sloping all-access ramp through a wide arch into a courtyard and decide to join a group tour of the castle. Gordana our guide and I wait for the other tourists to arrive but it soon becomes apparent that I am the only one on this, her last tour of the morning. There is not much I can tell you about the contents of this tour and the walking/boat tour after lunch that you cannot read in travel guides or on Wikipedia so I will skip these details and instead write about my own personal experiences in this short visit.



The Historic Centre of Ljubljana from the Castle Tower - another aerial shot by a frustrated climber.

After the tour I just have time for a hurried lunch on the upper terrace, which is strangely modern considering it is inside a medieval castle: an area of new stone paving and cafes with glass fronted conservatories. I arrive on the steps of the City Hall, the rendezvous of the next tour with a few minutes to spare. Our guide is a small lady with glasses who ends every sentence with a questioning intonation. She jokingly tells off the teenage daughters of an American couple for not paying attention. The historic centre has cobbled streets and grand marble fountains. Many of the buildings are very ornately decorated in the Venetian style. But elements of the Austro-Hungarian influence can also be seen.

After the boat trip I go into a nearby café on the riverside. Café Lolita has to be the least masculine establishment I have ever been in. Every detail is colour-coded in varying shades of lilac and white. Along the wall are perfectly positioned, highly decorative cushions, lamps in the shape of bunches of giant black cherries hang from the ceiling, which itself is a giant print of a 19th century female model with roses in her hair and a lacework surround. Even the cakes are colour-coded, intricately decorated and arranged in perfect symmetry, as are the confectionary jars and gift boxes on the white shelves on the back wall. The entire room is a finely balanced work of art – more a boutique than a cake shop. The only male member of staff is confined to the ice cream cart outside. Feeling like an untidy blemish in

an otherwise pristine scene, and not wishing to upset the aesthetically perfect arrangement of the cakes I settle for a beer.



Café Lolita: absolutely lovely!

I have given myself two choices of entertainment tonight: Debussy at the Slovenian Philharmonic Hall or a free chanson concert at the Mansion in Tivoli Park. The price and the prospect of hearing something new lead me to choose the latter and I make my way towards the park looking for somewhere to eat and drink on the way. Before long I am distracted by some really interesting avant-garde jazz coming from a fenced off area hidden by trees. I go through a gate and find myself in the Jazz Café, not to be confused with the more famous Jazz Club Gajo. It's an informal place with drinks served from a wooden hut and music being pumped out from speakers positioned around the tables. The clientele are trendy bohemian types and I fit right in but certainly don't look the part, wearing the same clothes I wore to climb the Trsteno Plane. The girl serving at the bar wasn't a musician when she started working here but in her words 'the music has gotten under her skin' and she is now learning the guitar and bass and her colleague is learning the double bass.

The sun is setting as I walk up the Jakopič Promenade to the Mansion House. The concert won't begin for a while so I have a look around the art gallery on the first floor. There are many styles of contemporary 2D art from fantastical surrealism

reminding me of Hieronymous Bosch to giant prints of satirical drug labels by Damien Hirst.

The concert is in a small space on the corner of the first floor. About 30 of us sit on chairs arranged diagonally across the room. The singer walks in, a tall thin man with a squint, dressed in jeans and a t-shirt. He saunters about the performance space and sings unaccompanied for nearly an hour, all in Slovenian but in styles ranging from Slovenian folk, Mongolian throat singing (which is so low it can be felt more than heard), scat singing, and even pop music.

Afterwards I get talking to a young Finnish couple who were sitting beside me and we have a drink on the terrace of the Mansion House. They arrived in Slovenia today and are still getting used to the heat. Christian is an engineer, working on plant equipment for huge diesel engines, ships and buildings; Helga is a biochemist, growing cells on chemical substrates. Somehow they came to be working in the same laboratory in University and fell in love over a Bunsen burner. (I made that last bit up.) They're going from here to the Julian Alps in the north of the country. Helga introduces me to the modern concept of couch surfing, where you get to know people in foreign countries over the internet and build up a network of acquaintances all over the world so that you will have a friend or even a place to stay if you are ever in their city. I'm not convinced and point out that we're getting on like friends now without ever having met before.

It's after 11.00 now and I walk back to the guesthouse through the park. Even at this time of night there are cyclists, joggers and walkers everywhere and I feel quite safe on my own and satisfied that I have made the most of my one day in Ljubljana.

Day 16: Going home.

I am awakened at 08:00 by a text from Kouta telling me that Jeroen is already on the train. I actually think that he is making sure that I'm awake and don't miss my flight. Kouta only met me two weeks ago and already he knows what I'm like. I decide to keep my level of fitness up and walk with my big rucksack on,

carrying bulging day pack in one hand, the two miles to the bus station. It's a real challenge and I have to stop to change hands more and more frequently as I near the city. It's not clear where the airport bus is actually parked and I only just catch it after being told by a helpful lady that I'm walking the wrong way.

On the bus I take a last look at this part of the Balkans. The land here is flat and arable: field after field of maize and corn. It's been a tremendously varied journey: part expedition, part road trip. We've been in many climates: sweltering hot, dry Adriatic coasts; lush, humid virgin forests and high alpine pastures. We've crossed at least 13 borders, appeared on television, I now part-own the tallest Christmas tree on Earth and, thanks to Jeroen's slight resemblance to Sting, I've reminded myself of how much I liked The Police. This trip has shown me just how large and varied the former Yugoslavia is. I had never been to Yugoslavia before but had heard about it from my German grandparents, who grew up and raised a family there - until the Second World War happened.

I have a couple of hours before check-in so I order a meal and a drink from the café outside the terminal building. Except for the slight doubt over my unusual hand luggage contents getting past security again, everything is completed. Sitting at my table with my plate empty and my drink finished there is nothing more to do. For the first time in 16 days I let go and drift into a deep blissful sleep.

THE END

Acknowledgements

First and foremost I would like to thank Kouta and Jeroen, who planned and organized the entire trip and invited me along. Without their knowledge and passion for trees and enthusiasm for learning about the natural world bordering on obsession, a trip of this scale and variety would never have happened. I hope I contributed enough to earn my place in the car!

The people who believed in me enough to recommend my climbing and measuring skills in

glowing references: David Alderman of the Tree Register; Peter 'Treeman' Jenkins, founder of Treeclimbers International; and Mike Whitley of the Forestry Commission, Wales.

My parents for providing a reassuring correspondence from home.

Will Blozan and Michael Taylor for their advice on tree measuring, and Michael Taylor for introducing me to the concept of photo mapping and giving me one heck of a challenge.

The Sgerm-Kristan family and officials from Ribnica na Pohorju, Slovenia, for allowing me to make the first ascent of their famous tree, and for a hero's welcome of which we were unworthy!

Krunoslav Szabo, and Katica Nuspačić from the Forestry Office of the Nova Gradiška district for showing us the Prašnik Oak Reserve and making sure we didn't get blown up!

Nikolina Đangradović and Ivo Stanović of the Dubrovnik municipality for allowing me to climb the largest living thing in Europe, and especially to Ivo for his historical stories from the long lives of these giants.

Pepsi Man and Petrol Man, whose names we never learned, for getting us out of a tricky situation.

Mr No Problem and Lydia for feeding us at midnight and doing our washing.

Zoran Čančar, Director of the Sutjeska National Park for taking the time to meet with us and helping us focus our search in the extensive Perućica Forest Reserve.

Vladimir 'Vlado' Lalović, our guide in Perućica, who went far beyond his normal working day to help us over as much forest as possible.

The staff of Hotel Mladost, for looking after us, their only visitors from Western Europe, for 3 days.

...and everyone else we met along the way for

helping to make this trip so interesting and who were almost without exception friendly.

Michael Spraggon

[Re: Travelogue Part 7 - the final installment.](#)

by **Will Blozan** » Sat Dec 08, 2012 6:33 pm

Michael,

I am saddened that this is the last installment and do hope your excellent writing will appear in more richly detailed posts. I thoroughly enjoy your narrative, and when coupled with photos, I feel as close to being there as I can.

Thanks for all your hard work and dedication to getting the story out of your excellent and productive adventures! The European NTS team has set the bar really high!

I do hope you can make it to the TCI/NTS meeting next fall. Oh the stories that will come out of that one!

Will Blozan

[Forests of the Plitvice Lakes National Park in Croatia](#)

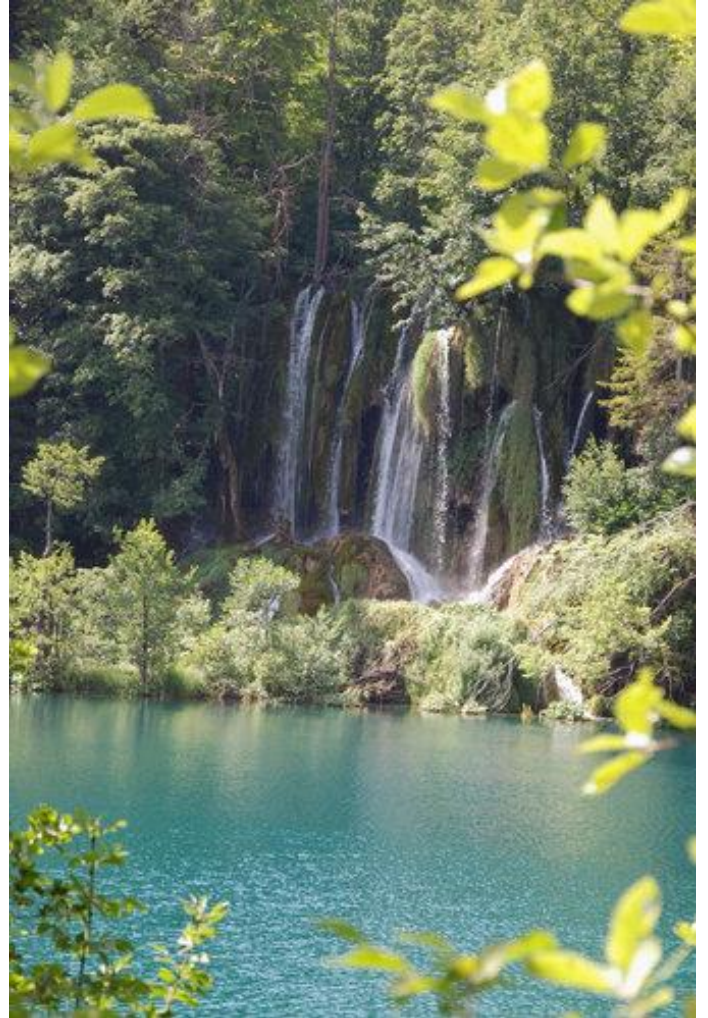
by **Jeroen Philippona** » Sat Dec 08, 2012 3:15 pm

Forests of the Plitvice Lakes National Park in Croatia

The last days of our trip to the Balkans we visited the Plitvice National Park in central Croatia. It is the largest and most visited of the National Parks of Croatia and famous for its chain of turquoise coloured lakes arranged in cascades connected by numerous waterfalls.



The upper lake, second largest of the Plitvice lakes



Surrounding the lakes are low mountains covered by dense forests. The mountains consist of karstic rock, mainly dolomite and limestone with the associated lakes, underground rivers and many caves. Altitude varies from 367 m at the lower end of the lakes to

1280 m in the western part of the park. Just to the east of the park are mountains up to 1640 m. The lakes are mostly between 500 and 636 m a.s.l.



The forests surrounding the lakes are heavy dominated by European beech, but mixed with some spruce and fir. Near the lakes sycamore maple, Italian maple, hop hornbeam, willows and black alder can be seen.

The national park has an area of 29,842 hectares, out of which three quarters (22,308 hectares) are forests.



Of these forests the most special is Čorkova Uvala, a strict reserve of 80 hectares in a rather remote northwestern part of the park. Alas visits to this are not allowed without a special permission and a guide. It consists of a real old growth beech-fir-spruce forest at an altitude of between 850 and 1000 m on limestone mountains, characterised by annual precipitations of over 1750 mm.

Several publications we knew of mention that in this reserve grow large and tall Norway spruce (*Picea*

abies) and European white fir (*Abies alba*) with heights of up to at least 50, possibly 55 m for spruce and even 58 m for fir and diameters to 1.6 m (Mayer & Neumann 1981; height measurements will have been done with tangent method). In these publications it is written that the firs and spruces can attain ages of 300 to 550 years, while beech normally lives around 200 years with maxima of over 300 years.

Whilst we had had no contact with the park authorities in advance and because it was not 100 % certain that there were no land mines in or near the reserve, we did not visit it.

So visiting the lakes and waterfalls we saw something of the forests around the lakes, which, although not being real old growth, still show a quite natural character. Being at lower altitude these forests consist of some Norway spruce but mostly of hardwood species like European beech (*Fagus sylvatica*), sycamore maple (*Acer pseudoplatanus*), Italian maple (*Acer opalus*),



Leaves of Italian maple, Acer opalus

field maple (*Acer campestre*), European hop-hornbeam (*Ostrya carpinifolia*),



A large multitrunk Hop Hornbeam, Ostrya carpinifolia

common whitebeam (*Sorbus aria*) and black alder (*Alnus glutinosa*). Of hop-hornbeam and Italian maple we saw relatively large specimens, respectively to 21 and 27 m tall and with girths of up to 3 m.

Literature.

H.Mayer and M. Neumann (1981). Struktureller und entwicklungsdynamischer Vergleich der Fichten-Tannen-Buchen Urwälder Rothwald/ Niederösterreich und Čorkova Uvala/ Kroatien.

Jeroen Philippona

World's Big Trees Are Dying: Alarming Increase in Death Rate

by **Joe** » Fri Dec 07, 2012 9:33 am

<http://www.sciencedaily.com/releases/2012/12/121206162519.htm>

ScienceDaily (Dec. 6, 2012) — The largest living organisms on the planet, the big, old trees that harbour and sustain countless birds and other wildlife, are dying.

Submitted by Joe Zorzin

Re: World's Big Trees Are Dying: Alarming Increase in Death

by **Shorea** » Fri Dec 07, 2012 8:37 pm

This is something that can easily be observed in virgin tropical rainforest areas where no logging takes place, but there are plenty of trees. It appears that regeneration in tropical rainforest in Malaysia at least, is also slowing down for the past 50 decades.

It has alarmed me for the past 15 years....and to be honest, I think the conclusion is already foregone....

What is clear is that "something" is making those big old trees die faster. Just take any photo of a patch of virgin rainforest 20 years ago and compare it with a photo of the same patch today. If you are observant enough, you will likely notice some form of "degradation" in terms of the quality of the canopy cover, which, in the old photo, will show more big trees with big crowns....

Also, if you have been visiting the same patch of forest from the ground for years, you will notice the same thing, that the mortality rate of the bigger trees seems to be rather high. And trees are not supposed to be dying off that fast, logically speaking.

Darrin Wu

[Old growth ohia forests on the Big Island](#)

by **dbhguru** » Sun Dec 09, 2012 2:01 am

Hi Folks,

Yesterday was spent exploring an old growth ohia forest that Richard and Patricia Missler are trying to save. The tangle of vegetation growing out of AA lava presented challenges for me that I had not previously faced. But our persistence paid off. We found a cache of very tall ohias and I got one to 115.9 feet tall and 10.0 feet in girth. So we have a girth maximum of 24.9 feet and a height maximum of 115.9 feet. To this point, I've confirmed 12 ohias over 100 feet tall in the research area and 4 ohias over 15 feet in girth. These numbers push the maximums for the species in the present day landscape. The forest is unquestionably significant.

From my initial visit, I thought the density of canopy trees was about 15 to 20 per acre, but today I found an area of somewhat younger ohias with up to 48 canopy trees per acres. From my present calculations, I believe that the carbon held in sequestration ranges from about 60,000 to 80,000 lbs for the trees that make up the canopy. Since the species grows very slow and is relatively decay resistant, the carbon is held for a long time. I don't think this point is sufficiently appreciated in terms of the contribution made by the species. This is only the first cut at determining the carbon load.

Today, I was taken to an old growth area on a private ranch. It was awesome. I measured many ohias between 90 and 110 feet in height and specimens with girths up to 14 feet, although the majority of stems are between 6 and 8.5 feet. The ranch covers 40,000 acres and between 5,000 and 10,000 are original growth. The location was on the side of Mauna Loa. It looks like I may be given permission to establish study plots in the forest and collect as much data as I want. That would occur next year. But the possibility is extremely exciting. I would have one or two assistants.

After the visit to the ranch, on our return trip to the

eastern side of the island, we stopped at a spot where eucalyptus had been planted. One tree measured 30 feet in girth, but was only 114 feet tall. The tallest tree I could find was 132 feet. But what can we expect when the trees are growing in a lava field?

Tomorrow it is back to Lava Tree State Park and continued measurement of acacia trees there. Then on Monday, Monica, our friend Marjorie, and I will fly to Kauai.

Robert T. Leverett

[Re: Old growth ohia forests on the Big Island, HI](#)

by **dbhguru** » Sun Dec 09, 2012 2:15 pm

NTS,

Here are some images from the old growth ohia forest that I spent time in on Dec 6th and 7th. My Internet connection is iffy, so I'm lucky to be able to post this.







I'll save the details until I return to Massachusetts on the 19th.

Robert T. Leverett

[Fernbank Forest, GA - Rucker 10 Index reaches 136'](#)

by [eliahd24](#) » Mon Dec 10, 2012 2:17 pm

Fernbank Forest is a rich 65 acre Piedmont forest on the eastern edge of Atlanta, GA. It is comprised of partial old growth, with numerous trees known to date back into the 1700's. Currently the forest is not open to the public, with one exception being docent lead forest walks every few months. I spend over 5 years as a lead naturalist with Fernbank and had the opportunity to do a great deal of exploring. I recently had the chance to re-visit and gain access to the forest and update the Rucker 10 Index (average height of top 10 individual tallest species). It's quite impressive:

Fernbank Forest, Atlanta, GA

Species	Height
LiTu	154.6
QuAl	143.2 (tallest known in GA?)
PiTa	142.2
CaGl	141.6
QuRu	135.7

LiSt	135.3
PiEc	131.6
QuFa	127.5 (tallest known in GA?)
UIAl	126.6 (tallest known in US?)
CaCo	121.7

Rucker 10 index: 136.0

Here are some links to my Fernbank Forest explorations:

<http://www.dogsfirebeerjournal.blogspot.com/2009/11/exploring-in-fernbank-forest.html>

<http://www.dogsfirebeerjournal.blogspot.com/2009/12/december-in-fernbank-forest.html>

Cheers,

Eli Dickerson

[Re: Fernbank Forest - Rucker 10 Index reaches 136'](#)

by [eliahd24](#) » Tue Dec 11, 2012 9:59 am

James Robert Smith wrote: It's not open to the public anymore??!!...

James- after a 48 year lease to DeKalb County Schools (Fernbank Science Center), Fernbank Inc. (the Natural History Museum's parent 501(c)3) has taken back control and management of the forest.

They are working on a forest inventory, survey, and campus master planning. I sure hope it can be reopened to the public soon, but in my estimation it will probably never be free. I believe it will be included with museum admission.

Eli Dickerson

Measuring Odd Tree Forms

▣ by **dbhguru** » Sun Dec 09, 2012 4:04 pm

NTS, this trip to Hawaii has reinforced in my mind the need for us to rethink the standard approach to measuring trees for champion lists. Consider the following form.

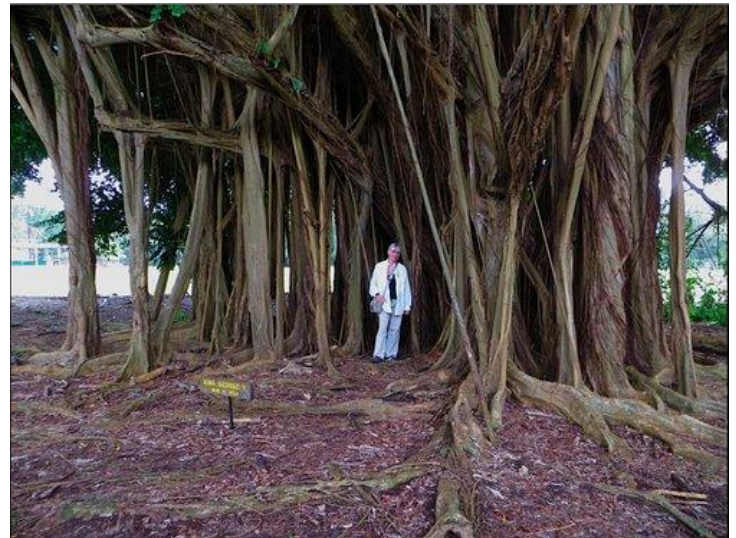


Banyans mock us and our timber-oriented rules for determining champion trees. They challenge us to think beyond conceptualizing a tree as a precursor to

lumber. We need to move on beyond the timber profession roots of comparing giant organisms with highly variable shapes. But that said, how do we proceed without incurring a level of measuring complexity that eliminates those who would measure trees by spreading their arms or hugging trunks. I haven't any answers.

In terms of the banyans, the area shaded by the crown and the perimeter distance around the root structure along with height offers us with a way of making comparisons. Or should we abandon attempts to measure this form? If so, what about the large buttressed tropical *Ceiba* trees that Bart Bouricius has been treating us to? Even though they do have recognizable trunks, the idea of a circumference measurement at 4.5 feet is positively silly.

The more we look for variant forms, the more that the current champion tree lists show their irrelevance to tropical forms. If we acknowledge this, but argue for our lists being applicable only to say the temperate zones, we still have the challenge of redwoods, sequoias, and other Pacific Coast giants for which a girth at 4.5 feet above the base leads to all kinds of technical challenges. Now back to the Banyan.



Notice that the root extensions are more spread out in this specimen. We are aware of the open space. Challenges, challenges.

Robert T. Leverett

[Re: Measuring Odd Tree Forms](#)

by **edfrank** » Sun Dec 09, 2012 4:28 pm

Bob, in the multitrunk post I made a few years ago http://www.nativetreesociety.org/multi/index_multi.htm I called these types of tree complexes Category 8.

At the time I offered no suggestions on measurements as I had not seen any personally.

What do you think? As a starting point I would suggest: 1) Height; 2) girth of largest trunk; 3) Number of trunks greater than x; 4) Crown spread; 5) Perimeter length of area including all of the trunks; and 6) Area included within multi-trunk perimeter. The best bet would be to try to figure out as many reasonably executable measurements as possible and then see what works out.

Category 8: Banyan Tree There are several examples of this tree planted as an exotic in the United States.

<http://www.panoramas.dk/fullscreen7/f23...-tree.html>

It is a member of the fig family.

<http://www.haryana-online.com/Flora/barh.htm>

"(Ficus bengalensis), a remarkable tree of India and tropical Africa sends down from its branches great numbers of shoots, which take root and become new trunks. A single tree thus may spread over a large area and look like a small forest. This tree, belonging to the family Moraceae, is considered to be sacred in some places in India. A specimen in the Calcutta botanical garden is more than 100 years old. It has a main trunk 13 feet (4 m) in diameter, 230 trunks as large as oak trees, and more than 3,000 smaller ones. The largest banyan tree known is on the island of Sri Lanka. It has 350 large trunks and over 3,000 small ones. The banyan often grows to a height of over 21 meters and lives through many ages." I would consider this to include any tree that produces multiple trunks through the growth of aerial roots that grow to form new trunks.

Edward Frank

[Re: Measuring Odd Tree Forms](#)

by **Bart Bouricius** » Sun Dec 09, 2012 4:40 pm

Yes Bob, this subgenus *Urostigma* of Figs creates many problems of classification, not just for measurement purposes. *Urostigma* species include the banyan form that you posted above, some being called the upside down trees because of the numerous stems which developed from aerial roots sent down to the ground but with a single trunk. *Urostigma* also includes the strangler figs which are also a structural mess when trying to compare them to other trees (see my Amazonian Giants Figs for images). As I said, the banyan type form will often have a single huge trunk once you get above the multiple stems and may look reasonably much like a more traditional tree form hence higher up it can be measured in the usual way, however many trees in this form category will also have several trunks in the crown (crowns?) as well, which does cause problems. We again have to ask a difficult question that can be asked of many other trees as well, are these trees single organisms or single trees. Like you Bob, I have no obvious solutions. Buttresses are much easier to deal with than these crazy but cool figs.

[Re: Measuring Odd Tree Forms](#)

by **Joe** » Sun Dec 09, 2012 4:46 pm

hmmmm..... I suppose it's all about what we're REALLY trying to capture- is it volume? mass? age? I think it's more about capturing some special character found in older specimens of all species, including we naked apes. Perhaps with these truly strange trees, the engineer's perspective of numbers just can't do it- it calls for the artist to capture the special character. And not just the character of the tree but it's surrounding in which it lives. How does it make us feel when we experience it?

the special character which we seek offers us spiritual value.... now if only there was a way to measure spiritual value..... :)