



THE STUMP

INFORMATION BY THE BOARD FOOT

JUNE 2016

KNOT THE HOLE NEWS

Do Trees Sleep?

Trees probably do not sleep like us, but researchers in Austria, Finland and Hungary have documented trees do respond to light and dark cycles. We've known trees use of water is often related to sunlight exposure using less at night. So they were interested if aspects of the trees shape is also affected by the night/day cycle.

Using lasers, they measured the tree structure of two silver birch (*Betula pendula*) also call European white birch.

One tree was in Finland and the other in Hungary. After sunset, the branches of both trees drooped lower than before and returned to previous location after sunrise. The movement was small, up to 10 cm, but easily measurable by the equipment. Now the researchers want to try to figure out why this occurs. Is it deliberate by the tree or passive as a result of some process. One theory is with transpiration lower, the cells are less turgid thus the limbs and leaves droop. Read a more complete article at: <https://www.newscientist.com/article/2088833-trees-seen-resting-branches-while-asleep-for-the-first-time/>



Buzz Words

Buzz words can be helpful, but they also can carry an undesired impression and you might not even know it. To help with it's own activities The Nature Conservancy recently completed a public opinion survey to determine which terms are best accepted by the general public and decision makers for infrastructure design and development. Based on their research they created some quick rules to follow.

- Do NOT use "green". Green was found to be considered over-used and related to marketing products.
- Do use "Nature-based Solutions". People like this phrase in terms of describing what needs done. "Infrastructure" is viewed primarily associated with roads and transportation.
- Do position Nature-based solutions as complementary to engineering solutions.
- Do talk about how communities can make better-informed choices if they are considering nature-based solutions. It allows people to look at all options, which they like.
- Do use examples of Nature-Based Solutions. People understand and like the concept even more this way.
- Do talk about communities, not cities. People live and relate to communities, not cities.

See the full report at: <https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/Documents/TNC%20Nature-Based%20Solutions%20Communication%20Recommendations.pdf>

Now You See It

The other day, Dean Alberty with Bioforest, showed a group of us a new tool he had acquired. It wasn't expensive and really easy to use. He showed us a magnifying glass for his smartphone. The magnifying glass is attached to the outside of the phone, so it can work with any software that uses the phones camera.

The possibilities are endless. This tool can be used to educate people about plant structure on this spot, snap a picture to send to a colleague for an opinion, diagnose and document disease and insect issues, create you own person catalog of shots to assist with diagnosis in the future, and more.

My internet research revealed there are multiple designs and magnification strengths available. Some have special attachment cases, some use large clips. It is up to you to find the one best for your phone. Prices vary from under \$10 to hundreds. It just depends on what you want.



crabapple
Malus sp.

A group of small trees, crabapples are appropriate for southwest Missouri. There are hundreds of cultivars. Only a few are appropriate for landscape use. Most cultivars range from 15 feet to 25 feet tall with variable width and shapes. Leaves are single with shades of green to purple possible. Fall color is usually not showy. Flowers vary from white through multiple shades of pink and red. Some flowers are single and others are double. Fruit size varies from 1/4 inch up to 2 inches (2 inches or larger are considered regular apples). Some cultivars do not set fruit. Fruit color varies from red to yellow to green. Grows best in full sun. Prefers moist, acid soils. The key is to select cultivars with apple -cedar rust, apple scab, and firelight resistance.

Plant images from www.pinterest.com and www.grimmsgardens.com.

Book Review - The Body Language of Trees

Trees are exposed to many stresses. *The Body Language of Trees* shares over two decades of tree observation and research paired with mechanics on how trees grow and adapt to stresses. It is explained in a way non-engineers will understand. Many of the graphics are humorous; they provide the bridge to understand detailed physics issues of structure, stress, and strength. This is a useful text for those interested in how trees grow.

Fireblight



Fireblight (*Erwinia amylovora*) is a common bacterial infection of pear, apple, crabapple, hawthorn and a few others. The bacteria infect new growth via injuries and flowers. It results in foliage that looks burned. Often the branches tips droop into a shepards crook appearance. Bacteria overwinters in cankers. When moisture levels are right, orange ooze comes from canker with millions of spores. Rain splash and insects move spores. Pruning out of infected branches is the only real maintenance option. Prune 12 to 18 below



visible cankers to proper branch union locations. Sterilize tools between cuts with 10% bleach solution or 70% rubbing alcohol. Allow tool to dry before next cut.

June 3

Susan Harwood Grant EHAP workshop, Kansas City, MO, Information and Registration at: <http://tcia.org/training/ehap/20160603-sh-grant-ehap-workshop-kansas-city-mo>

June 4

Midwestern Chapter Tree Climbing Championship, Omaha, NE, Information at www.mwisa.org/tree-climbing-championship

June 22

ISA Certified Arborist, Utility Specialist, and Municipal Specialist Exam, Springfield, MO, Registration deadline June 6, 2016, Register at www.isa-arbor.com/certification/becomeCertified/

June 24

Kansas Arborist Association Summer Field Day, Clinton Lake Overlook Park, Lawrence, KS, Information at www.kansasarborist.com/events.aspx

June 23

JMCFC meeting, 7 - 9 AM, Wildcat Glades Conservation & Audubon Center, Joplin, MO

July 19

SWMCFC meeting - Wood ID class, 8:30 - 10:30 AM, MDC SW Regional Office, 2630 N. Mayfair Ave., Springfield, MO

July 28

JMCFC meeting, 7 - 9 AM, Wildcat Glades Conservation & Audubon Center, Joplin, MO

August 5

Plant Health Care Workshop, Kansas City, MO, Information and Registration at <http://tcia.org/training/phc-technician/20160805-phc-workshop-kansas-city-mo>

August 11

State MCFC meeting, 10 AM—3 PM, Jefferson City, MO

August 11 - 12

WNLA Bus Tour to Loma Vista Nursery, Ottawa, KS, Information and Registration at www.wnla.org/ev_calendar_day.asp?date=8/11/2016&eventid=27

August 13 - 17

ISA Annual Conference and Tradeshow, Fort Worth, TX, Early Bird deadline June 17, 2016, Information and Registration at www.isa-arbor.com/events/conference/index.aspx

August 25

JMCFC meeting, 7 - 9 AM, Wildcat Glades Conservation & Audubon Center, Joplin, MO

C. Mattheck
K. Bethge K. Weber

The Body Language of Trees



Encyclopedia of Visual Tree Assessment

And you, how old are you?
I asked the maple tree:
While opening one hand,
- he started blushing.

~ Georges Bonneau,
La Sensibilite Japonaise,
1935 Dodoitsu

WHAT'S HAPPENING

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