**Introduction**

Concealed decay and structural defects in urban trees present a serious risk to arborists and urban forest residents. Tree failure during arborist climbs or onto property or people can have disastrous consequences. The science of using sound waves to uncover hidden internal decay or defects in standing trees is well-established. Some tools are on the market for that purpose, but have been too expensive and complicated for most arborists to purchase and use regularly in the field. Working with scientists at the USDA Forest Products Laboratory and the University of Wisconsin School of Engineering, I have developed a new tool that not only solves the problem of high cost, but is fun to use. This tool, in the hands of many arborists, will advance our understanding of tree decay and structural integrity of urban trees. Tree Check is designed for arborists and urban foresters as a low-cost, simple to use, reliable field tool to detect the likely presence of significant decay, cavity, or cracks in standing trees. Used properly, it can “see inside the tree” revealing areas of concealed, severe deterioration that undiscovered, could result in tree structural failure and resultant property damage or personal injury. The tool consists of two sensors that are connected to an electronic circuit board box by simple telephone cables. The sensors are secured with set-screws on carpenter’s awls that penetrate through the bark and slightly into the tree wood on opposite sides of the trunk. After turning on the device, the user taps the start sensor awl with a light hammer creating a sonic or stress wave traveling through the trunk, and at the same time creating an electronic signal to the circuit board box starting the “stop watch” timer. When the leading edge of the sonic wave arrives at the opposite sensor, it creates an electronic signal to stop the timer. The circuit board box displays both the wave transit time in microseconds and a graphic representation of the waveform itself. The user measures the distance between the sensors, calculates the transit time per inch or centimeter, comparing it to an expected transit time for defect-free wood of that species. Longer than expected transit times can be an indication that the sound wave movement was obstructed by internal decay, cavity or cracks.

**How it works**

The science behind its operation is simple and well-researched. The tool measures the time it takes for an impact-induced stress wave to travel from one sensor to another across the diameter of a trunk or large limb. Defects such as decay, cavities and cracks create obstacles requiring the wave to bypass the defect thus taking more time than a wave moving directly through defect-free wood between sensors. Average transit times across defect-free wood varies by tree species. Published tables with transit time’s normal range and average reference numbers for select species can be found in Chapter 7, “Nondestructive Testing of the Urban Forests” by R. Bruce Allison and Xiping Wang, from the USDA publication Nondestructive Evaluation of Wood: Second Edition edited by Robert Ross (2015). (http://www.fpl.fs.fed.us/docs/docs/fpl/pubs/fpi_gtr238.pdf)
I love being an arborist. The list of reasons is long and diverse. Being outside every day, working with majestic trees, diagnosing stressed trees, figuring out each and every day how to safely and efficiently get the job done, experiencing the change of seasons up close and personal, working with diverse clients to fulfill their individual needs and working with great people each and every day are on the top of my list. I could go on, but I think you get the drift.

I’m half-way through my job as President for this year, and I’ve realized that I am truly thankful and proud to be part of this fine organization and the community of arborists that it represents. I recently was lucky enough to go down “Deep in the Heartwood of Texas” to participate in the ISA Annual Conference in Fort Worth. The educational aspects and CEUs were great, but it was the conversations with fellow arborists that I appreciated the most. Their trees may be different, but their challenges, exhilarations, and experiences are the same as mine and I felt right at home. To me, this is what the WAA is all about, getting together with like-minded individuals that share the same trials and tribulations as I do.

Our organization is chockful of great people that are passionate about trees and proper tree care. There is a lot of power in our combined energy and we can and will continue to accomplish great things as a community of arborists. The importance of the WAA may be different for each individual, but for me the organization brings us together. WAA educates our work force, raises the awareness of our profession, develops a unified message about the importance of trees and creates a sense of place. I come from a commercial arborist background where competition can be fierce, but at the end of the day, there are enough trees out there for everybody, especially with the WAA spreading the word about tree care and the importance of hiring a professional arborist.

My hat’s off to our volunteers and staff that allow this organization to continue to thrive, run successful events and create the vision to pursue future goals with focus and vigor. Our Day of Service continues to grow, our last summer conference had near record attendance, and we now offer more educational opportunities than ever before (TRAQ, Certified Arborist Study Group, and three conferences a year). Our public outreach efforts to spread our message of arboriculture are expanding as well. Examples include our kids’ climbing event group (join our volunteer list on the Public Outreach tab on our website), Wisconsin State Fair climbing demo and numerous other events where our traveling WAA booth and smiling volunteers are present.

Your Board of Directors keeps looking to the future to allow for WAA members to get more and more out of their membership. This year we’ve created a new position. This includes a Student Organization Liaison (Luke Scheberl) to help keep arboricultural students knowledgeable about the workings of the WAA and prospective employers. Recently we’ve brought another new position into the fold—Volunteer Coordinator (Anna Birmischen)—to help bring in new talent and find the best places for them in our organization.

So thanks again to everyone who volunteers their precious time to the WAA, and I hope you enjoy this fall edition of Wisconsin’s best and #1 quarterly Arborist newsletter!

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Mug Shot
by Randy Krouse, WAA President-Elect

Congratulations to Zac Eckberg for receiving the first official WAA Mug Award (Outstanding Volunteer 2016)! Zac is an Arborist for the City of Madison and has been an energetic volunteer on many special projects in the Madison area throughout the years. He has participated in WAA days of service, planting events with public volunteers, and many of the popular Kids’ Climb events. Most recently, he took the lead in coordinating the Kids’ Climb volunteers for the Earth Day Celebration at Henry Vilas Zoo. Zac has been described as, “...a force of nature with an infectious enthusiasm, sense of humor and zest for life that is ever present in everything he does. He naturally seems to know just what to say or do at just the right time, whether he’s coaxing kids to go a little higher in a tree or helping volunteers plant trees correctly. He makes a lasting and positive impression on everyone he meets.”

The Mug Award program was started this year to recognize outstanding volunteers who contribute their time and expertise to support the WAA mission and the arboriculture industry. Many of these individuals help to serve the WAA as members of various committees, assisting in public outreach programs, assisting with conference set up, volunteering for the Tree Climbing Competition, etc. If you want to nominate someone for a Mug Award, please contact Randy Krouse at randy.krouse@milwaukee.gov with a brief description of why you think the nominee is deserving of this award.

WAA New Members

| Crystal Carter | Philip Hoffmann | David Munsell Sr. | Jessica Schultz |
| Benjomin Flood | Robert Ingish  | Samuel Neterval-Quel | Tony Seidl |
| Luke Haas       | Jared Johnson | Jamie Pedretti     | Charles Shouse |
| Tony Hayden     | William Kiewit Jr. | Eric Raven | Brian Stankiewicz |
| Jordan Hermann  | Kyle Mallon    | Jason Schatzman    | Eric Toth   |
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Please join the WAA for the 2016 Fall Conference at West Bend Mutual Insurance in West Bend on October 6, 2016. The Program Committee has tried to outdo itself again by offering another amazing lineup for this event. We are offering Two Tracks of Education to include underground issues, nursery stock types and the handling of them, abiotic disorders, and how the City of West Bend has dealt with EAB. A special outdoor session on soils and site indexing is also on track.

This year’s lineup includes Dr. Les Werner who will shed some light on a dark subject – the soil! He will show how soil can be used to determine the site index to describe the potential for trees to grow at a particular location. Dr. Laura Jull will discuss the many types of abiotic disorders including deep planting, lightning damage, frost injury, hail damage, improper pruning, and root disturbance.

Ever wonder about an easier way to handle bare root nursery stock? A panel of municipal foresters will explain their use of Community gravel beds as a root growth medium, allowing them to extend their planting seasons. They will provide options and information for various budgets. Jeff Wolters and Paul Schwabe from Johnson’s Nursery will also be in the house to talk about different nursery stock types, including balled-and-burlapped, bare-root, and container-grown stock types and the pros and cons of each. The City Forester of West Bend, Mike Jentsch, will be around to explain how the city has battled the arrival of the notorious emerald ash borer and give us an update on where they are now in the fight. Finally, Andrew LaTona from We Energies will reinforce the importance of calling Diggers Hotline and will explain what happens when you don’t call in.

Most of us don’t want to find this out personally!

Just to make sure you can catch every topic, they will be repeated during the day so you won’t have to miss a thing. A lunchtime taco fiesta will be enjoyed by all – build your own to create the perfect concoction! As always, CEU’s will be available. Information and registration can be found on our website at http://www.waa-isa.org/events-programs/fall-conference/

Finally, stay or come back to West Bend on Saturday, October 8th to cheer on this year’s competitors during the Tree Climbing Championship at Regner Park. Watch and learn how the competitors make the tasks seem effortless. For more information about TCC, check out our website at http://www.waa-isa.org/tree_climbing.htm.

We look forward to seeing you at both events in West Bend!

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Summer Conference 2016 Recap

by Adam Alves, WAA Vice President

We really hope you enjoyed this year’s summer conference and BBQ picnic. It was a huge success shared by over 280 people that joined us on a beautiful day at the Lussier Heritage Center. Those numbers are nearly double the number of attendees from five years ago. It says a lot about the strength of our Association and the programs that we put on. This summer we had two tracks of education that covered climbing techniques, proper planting procedures, and insect and disease information.

Chris Williamson did an excellent job discussing insect pests, including an update on new developments with EAB. While Brian Hudelson brought us up to speed on common and emerging tree diseases and how to treat them.

Outside, Laura Jull and Dan Traas showed us how to make trees thrive, not just survive, with proper species selection and planting techniques.

Aaron Schauer and Ryan Rodefer presented the basics of tree support systems and gave us some hands-on experience. While Colin Bugg and Pete Rabenstein demonstrated how to approach a tree to most efficiently get your work done...and look good doing it.

Most importantly, we had the opportunity to come together as an arboricultural community, enjoy some good food and education.
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As we all know, every tree has its own unique characteristics. Whether it be branching structure, preferred environmental conditions, or PHC considerations, it varies from one species to the next. The same holds true for the work zones we find ourselves in on a daily basis.

One work zone not often thought about is zoos. Arborists working in zoos need to balance many critical skills to successfully work in this setting. They require a high level of communication skills and the ability to perform a professional level of tree care amid a myriad of environmental stresses. These areas often include ultra-sensitive habitats for a large range of animals. Earlier this year, the WAA sponsored a ‘Day of Service’ at the Milwaukee County Zoo. As a Zoological Arborist at the Henry Vilas Zoo in Madison, I thought it would be good to highlight some of those challenges that arborists working in zoos deal with.

Foremost, the safety of the visiting guests and the animals is always the highest priority. Frequent inspections and documentation of the tree population serve to ensure specimens are healthy and concerns can be addressed promptly.

Second, environmental conditions created by patrons and the animals alike need to be addressed, sometimes creatively. Zoo horticulturists and arborists try to select and install plants that the animals will not likely damage. Other means used to protect green spaces from their animal cohorts is hot wire or hot grass (electrified decoration), woody debris, thorny shrubs, and other exclusionary measures are commonly part of the zoo arborist’s tools for protection. Soil compaction is a frequent issue. Many tree specimens are located between exhibits, adjacent to public pathways and facilities, and within event spaces. This means they are subject to constant foot traffic from guests, staff, and animals. Construction activity in these areas also compacts the soil. We have implemented the use of an air-powered excavator to reverse soil compaction issues.

Proper pruning practices are, of course, very important in maintaining healthy and safe trees. The zoo environment adds another element to these practices. Trees often exist next to and within enclosures that house animals. The most intelligent of these animals are the big cats and primates. They are also very capable climbers, and given the opportunity, they may use these trees to escape. It is important to understand the abilities of these animals as arborists, to effectively prune trees to an acceptable height and proximity away from enclosure fences and walls. We also need to prune trees outside the enclosures to ensure no humans enter the exhibits by climbing trees.

Many zoos have greenhouses or aviaries that can typically see 80-degree-plus temperatures, which can be quite nice during the long, cold Wisconsin winters. These conditions also allow us to plant many unique species in our aviary. Among them are Norfolk pine, avocado, ficus, cacao and a variety of palm trees—presenting a learning curve for arborists trained in the ‘frozen tundra’ of Wisconsin. Climbing trees in a greenhouse or aviary can be extremely difficult, as well. Tie-in points are often non-existent; tree stability can be questionable because root zones are artificial and can be very difficult to judge.

Zoos however provide more arboricultural opportunities than challenges. For instance, we are doing some creative urban wood utilization for animal enrichment with what would previously be thought of as wood waste. We provide large chunks of oak logs for the rhinos to interact with, platforms for the goats to stand on, hollow logs for the porcupines to traverse, and branches for parrots to perch on. We even save the brush from invasive mulberry trees that have been removed throughout the County Parks as a dietary additive for the giraffes. The animal keepers are extremely imaginative in their applications for reusing all parts of a tree.

As you can see, a zoo creates unique work zone challenges that need careful coordination and planning. It also creates the opportunity to interact with the public in a different and positive way. The end result of all this behind-the-scenes work translates into an enhanced guest experience that is both beautiful and safe!
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So Everyone Can Soar
by C. Brodbeck, Editorial Chair

There was a high level of anticipation as the last few hours of sunlight appeared through the branches of the treasured Henry Vilas Zoo’s Kids’ Climb tree on Friday, June 3rd. With set-up and last-minute pruning complete, the volunteers eagerly awaited the guests and one particular volunteer to arrive, the team of arborists all secretly knowing that one of WAA’s own would be making his first ascent into a tree following an accident many years ago.

Learning to Fly

This marks the second year Dane County area arborists participated in “Dream Night at the Zoo.” This internationally held event occurs the first Friday night in June, when the only invitees are limited to chronic or terminally ill children and their families. The mission was simple enough: get children in trees and put smiles on their faces.

Making sure everyone is able to participate became somewhat of a challenge as traditional climbing equipment truly doesn’t fit everyone and every situation. With a little research and creative thinking WAA Kids’ Climb aficionado Adam Alves found a solution in a product designed for rope course challenges.

The adaptive harness was designed to allow anyone with severe disabilities to be able to participate in a ropes course where they are often used for team building activities or personal development. There was no question that the addition of an adaptive harness at this year’s event meant the team of volunteers intended to have local arborist, Jeff Olson, in the tree first. Removing barriers and witnessing Jeff Olson’s first ascent in twenty years is a moment we’ll never forget.

There’s something truly inspiring when kids or even a fellow comrade, who were a bit apprehensive initially, summon the courage to face their fear and trust in the team of volunteers. “Our ability to take children who are unable to walk and give them a chance to soar is truly a moving experience,” noted Adam Alves. It’s their joy that makes events such as this one likely to leave a permanent impression in our hearts.

A special thank you to Tracy Mueller of Candid by Tracy for documenting the evening with powerful images and a beautifully arranged YouTube slide show featuring the song “Flashlight” by Jesse. You can find this on YouTube https://www.youtube.com/watch?v=wj1-A6ObvRw or on WAA’s Facebook page.

Dream Night Volunteers at the Henry Vilas Zoo.

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Wisconsin Arborist
Apprenticeship Program

by Randy Krouse, WAA President-Elect

The State of Wisconsin is leading the way in our industry by providing the nation’s first Arborist Apprenticeship Program to include plant health care as well as tree care. Currently, there are three apprentices signed on with two private tree care companies who are learning and developing their skills under the direct guidance of certified and skilled arborists, but more apprentices are needed in order for this program to grow and be successful. Apprenticeship is a proven method in numerous industries and the benefits greatly outweigh the commitment incurred by employers of all sizes by providing a structured training program for developing safe, skilled, and productive employees and workforces. This program brings additional benefits such as: providing a career pathway for individuals to join and grow within our industry, getting the arborist profession recognized as a skilled trade with the U.S. Department of Labor, and helping our private businesses and municipalities find and retain qualified employees.

The Arborist Apprenticeship Program was designed by industry professionals from the private, municipal, and educational sectors with assistance from the Wisconsin Bureau of Apprenticeship Standards (BAS). Overall, the program is 42 months (3.5 years) of not less than 7,000 hours, including 440 hours of paid related instruction and a minimum of 6,560 hours of on-the-job learning in nine mandatory work processes. Apprentices are trained by skilled employees designated by the employer and eventually will become skilled workers who can train future apprentices. Paid related instruction will be provided initially by Milwaukee Area Technical College and will expand to additional colleges based on industry demand. Apprentices are also required to study for and pass specific certification exams required by the program and their employer.

The program is flexible and can be tailored to meet employers’ needs and schedules while maintaining the minimum requirements needed to develop a competent, safe, and productive employee. The Wisconsin Bureau of Apprenticeship Standards will designate an Apprentice Training Representative to assist the employer in setting up the contract for each apprentice and provide guidance throughout the apprenticeship program. Each apprentice undergoes an initial six-month probationary period where both the employer and the apprentice can make sure it’s a good fit. This program can be used for brand new or current employees who show potential and future promise. Job task hours can be retroactively applied, and it may be possible for apprentices with prior Arboriculture/Horticulture education to be given credit for some of the classroom instruction. Each employer is obligated to establish their apprentice’s pay scale at 60% of what a typical skilled worker in that company earns. Apprentices also earn their wage while attending the classroom instruction.

Apprentices are also required to study for technical college and will expand to additional colleges based on industry demand. Paid related instruction will be provided initially by Milwaukee Area Technical College and will expand to additional colleges based on industry demand. Apprentices are also required to study for and pass specific certification exams required by the program and their employer. The program is flexible and can be tailored to meet employers’ needs and schedules while maintaining the minimum requirements needed to develop a competent, safe, and productive employee. The Wisconsin Bureau of Apprenticeship Standards will designate an Apprentice Training Representative to assist the employer in setting up the contract for each apprentice and provide guidance throughout the apprenticeship program. Each apprentice undergoes an initial six-month probationary period where both the employer and the apprentice can make sure it’s a good fit. This program can be used for brand new or current employees who show potential and future promise. Job task hours can be retroactively applied, and it may be possible for apprentices with prior Arboriculture/Horticulture education to be given credit for some of the classroom instruction. Each employer is obligated to establish their apprentice’s pay scale at 60% of what a typical skilled worker in that company earns. Apprentices also earn their wage while attending the classroom instruction.

Normal defect-free wave transit times are largely influenced by wood density, but moisture, growing conditions, and temperature also influence transit times. Ideally, one would make a reference check for comparison on a known defect-free part of the subject tree or a same species tree growing nearby.

However, as a preliminary inspection for concealed severe deterioration during a pre-climb safety check, tree risk assessment or urban forest inventory, it is enough to know that researchers observe normal defect-free transit time ranging from 600 microseconds per meter (183 microseconds per foot) on more dense hardwood to 800-900 microseconds per meter (245-274 microseconds per foot) on less dense softwoods. Transit times greater than 20% longer than expected could indicate some internal defect and justify additional tests such as micro-drill resistance or acoustic tomography.

Waveform

A unique feature of this new tool is that it displays a graph of the waveform as it passes through the wood. By displaying the waveform graph, Tree Check offers the user additional information regarding the sonic wave and its relationship to the wood properties of the subject tree. There is need for more data to research the correlation of waveform characteristics to internal tree decay. This tool offers researchers that opportunity and arborists and urban foresters using the tool regularly in the field a chance to serve as citizen scientists making observations and seeing relationships between waveform variations and tree wood defects.

Waveform characteristics to observe:
1. Amplitude—the vertical distance between the crest and the trough of the wave;
2. Wavelength—the horizontal distance between the oscillations of the wave;
3. Frequency—the total number of vibrations or oscillations made within a certain amount of time;
4. Attenuation—the gradual loss of a wavelength intensity due to absorption within the wood medium; exhibited as the waveform flattening.

Researchers may want to transfer field data from the tool into a computer program for further analysis. They can do so by selecting the SAVE option on the touch screen rather than the DISCARD option. This records the last measurement taken to the memory card inserted into the top panel of the main circuit board box. There is a real time clock within the main circuit.
board that will stamp the time and the chronological number of the test onto the file. The file can be downloaded into an analytical program on the researcher’s computer for analysis.

**How to purchase the tool**

The tool is easily purchased on-line at allisontree.com. It costs less than a good chain saw and can be paid for with a check or a credit card using Pay Pal. Once you have taken your newly acquired Tree Check tool out of the shipping box, give yourself plenty of time to become familiar with its proper use. Have fun tap testing a variety of trees, some you know are defect-free and others with obvious cavities or defects. Note how the transit time and waveforms vary between test areas. With practice you will develop a steady, regular tap strike with the hammer; not too light, not too hard, one that gives consistent transit times in the diameter tested. The more practice time you have with the tool, the more experienced you will become in its use and interpretation, and the more useful it will become as a tool to reveal significant concealed and potentially dangerous tree structural defects.

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**Now Offering the 2016 Certified Arborist Study Group!**

by Paul Fliss, Certification Chair

The WAA has been receiving many requests for additional education to help the working arborist get the information needed to pass the Certified Arborist Exam. This seemed like the perfect way for us to fulfill our mission and give the communities in which we serve the highest level of service through well-trained and knowledgeable arborists. Therefore, we bring you the second offering of the Certified Arborist Study Group. It will be held at the Mequon Nature Preserve on Tuesday evenings starting September 27, 2016. The workshop will be held for nine weeks and on the tenth week, November 29th, we will hold the ISA Certified Arborist Exam for those who want to take it.

This is not an easy test. The pass rate for the Certified Arborist Exam is 60% internationally and set for a cut score of 74%. However, with the combination of studying the recommended material, taking the CASG Workshop, and some actual time in the field, the likelihood of your success is greatly increased. This is why we are here – to help you attain this credential and raise the level of tree care in Wisconsin.

The workshop covers the ISA Certification Exam domains including: tree biology, tree identification, soil science, water management, tree selection, pruning, plant health care, and so much more. Our instructors include Melinda Myers, The Plant Doctor; Don Roppolo from Davey Resource Group; John Wayne Farber, Special Projects Coordinator for Hoppe Tree Service; Denny Fermenich, City Forester of the City of Greenfield; and Cindy Schwab, a Certified Arborist with Grow Rite Landscape Management.

The registration deadline is September 20th, so please register soon! The class syllabus and registration form can be found on our website at www.waa-isa.org/certification/arborist-study-group/. Single session participation is available with 2.5 CEUs offered for each class. Exam registration is separate and paid for directly through ISA at www.isa-arbor.com. Please contact Tina Johnson at waa_adm.asst@yahoo.com with any questions. We hope to see you in Mequon!

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Current Wisconsin Certification by the Numbers:
Certified Arborists ................. 720
Utility Specialists ....................... 85
Municipal Specialist ..................... 23
Board Certified Master Arborists ... 24
Certified Tree Worker/ Climber Specialist .......... 2
Certified Tree Worker/ Aerial Lift Specialist ........ 1

The Wisconsin Arborist Association is taking the next steps in providing the credentialing needed to give the best service to our members. The ISA has created several tiers of credentials including Certified Arborist and Board Certified Master Arborist which can easily be attained at the Chapter level, however, the remaining credentials of Certified Tree Worker/Climber Specialist and Certified Tree Worker/Aerial Lift Specialist were only available by going outside of the WAA. This represented an issue to our organization that was identified both in the local Chapter. We will also try to host this test later in the fall. The ISA Certified Tree Worker Aerial Lift Specialist® certification requires candidates to demonstrate their ability to perform as a competent aerial lift operator. The knowledge gained with this certification can improve the productivity, quality of care, and safety practices of those who earn the credential. Along with proven knowledge of CPR and first aid, candidates have been tested on safety procedures, and must be able to complete thorough truck and tree inspections.

The WAA is extending a challenge to our members to be a component of this, as a volunteer evaluator for either credential, because none of this can happen without support from the arborist community. We are also looking for Certification Exam Proctors, a great way to give back a little time to afford others the opportunity to gain these Certifications. Watch the WAA Events Calendar for information on this and other credentialing information.

Certification Update
by Paul Fliss, Certification Chair

2017 Day of Service
Applications are now being accepted. Deadline to apply is January 13, 2017.
www.waa-isa.org/events-programs/day-of-service/

Legislative Summary
by Larry Axlen, Legislative Chair

2016 is an election year. The biggest change is that you will need a photo ID to vote. Approved photo IDs include, WI DOT Driver’s License, WI DOT Photo ID, US Military Photo ID, your US passport, WI Tribal ID, and some school Photo ID with proof of current enrollment. If you do not have a photo ID, you can receive one, for no cost, at any WI DMV Service Center with proof of residency (utility bill or rental agreement, etc.).

Fall General Election
November 8, 2016. Select our new officials to represent us on the national, state, and local levels.

A300 ANSI Accredited Standards:
The following A300 standards are currently being revised, developed, or have recently been adopted.

- Part 1 - Pruning (Under review – Open for Public Input)
- Part 2 - Soil Management (Fertilization) – (Under review – Open for Public Input)
- Part 9 - Tree Risk Assessment – (Under Review – Open for Public Input)
- Part 10 - Integrated Pest Management (IPM) – (New Standard)
- Part 11 - Urban Wood Products – (New Standard)

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Ask any gardener or landscaper in the state what their least favorite insect is, and the Japanese beetle will probably be near the top of the list. Think of the plants that this insect feeds on: ornamental trees and shrubs like lindens, birches, crabapples, and roses, fruit crops like apples, pears, plums, raspberries, and strawberries, and garden and vegetable crops like beans and corn, as well as hundreds of other plants. If the Japanese beetle were a political candidate, it’d be leading the way with a record low approval rating. On the other hand, a clever campaign manager might try to spin the “job creation” aspect this pest provides to the lawn and landscaping industry. Whether you support this candidate or not, it looks like the Japanese beetle will be “in office” for the long haul.

Ironically, there is an important milestone to “celebrate” for this invasive pest this year––the Japanese beetle was detected for the first time in New Jersey 100 years ago, in 1916. Slowly, but surely, this insect spread through many parts of the eastern US, and has been spotted on occasion in isolated spots in the western states. We also have an interesting history of Japanese beetles in Wisconsin. Technically, our first detections occurred in the southeast part of the state in the 1960’s, although these populations struggled to take hold. At the time, this seemed to be a comforting sign—perhaps, our famed “frozen tundra” was simply too cold for them. However, by the 1990’s, Japanese beetles had gotten a solid foothold in the state, and they’ve been around ever since.

So why the resurgence of Japanese beetle activity this year? Every winter, a common topic I’m questioned about is my “insect forecast” prediction for the coming year. For reasons that will be discussed shortly, there was a good reason to believe that the Japanese beetle would pop back up in the landscape in 2016—and Mother Nature may be to blame. Japanese beetle larvae (white grubs) spend the winter in the soil below ground. In July, August, and September, these grubs can be found in the upper portion of the soil where they feed on the roots of turfgrass. As winter approaches, the grubs tunnel deeper into the soil where they can avoid getting clobbered by the frost. In most parts of the state, we had a reprieve from Japanese beetles the past two years. I suspect this may be due to the brutal winter of 2013-14, which had some extended periods of sub-zero temperatures. It’s quite feasible that this deep frost killed many grubs and led to lower adult populations the following summer (2014). Given enough time, the Japanese beetle populations were destined to rebound at some point, but the mild (el-Niño) conditions this past winter might have been just what they needed to bolster their numbers. Unless we face another brutal winter in the next few years, I suspect that Japanese beetle numbers will be up for the foreseeable future.

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The Pied Pipers of Piedmont
by Jeff Edgar, WAA Member

We all know the story of the Pied Piper of Hamlin and how badly that turned out for the people of that village. The Piper contracted with the good people of Hamlin to rid the town of rats. As agreed upon, he then blew his pipes and lured all the rats from their town. Because the people of Hamlin refused to pay the piper for his services, he blew those same pipes, leading the enchanted children of Hamlin away, never to be seen again.

There’s a lesser known story of the Pied Pipers of Piedmont, where everything turns out well. The pipers call to the people and their children of the region, helping them gain an appreciation for the trees of their landscapes, parks, and streets. The pipers take nothing but their memories of a week in the Piedmont region of North and South Carolina, yet leave a legacy of their knowledge of trees and their benefits. They also leave a wee bit of shade from the newly planted trees as a reminder of their visit.

So, who are these Pied Pipers? We (yes, “we” includes me) are bicycle riders from all walks of life who are dedicating a week of back-to-back days in the saddle. For me, October can’t come soon enough! I am lucky to count myself among these bicycle riders from around the world joining “Team Wisconsin,” which is made up of fellow tree and bicycle enthusiasts Dick Rideout, Andy Schoofs and Doug Drysdale. Other riders from Wisconsin include Don Roppolo and Cindy Schwab. Each rider is challenged to raise a minimum of $3,500, 100% of which is used to support research and education programs administered by the TREE Fund. By the way, some of these research and scholarship dollars have found their way to Wisconsin. Besides the $3,500, each rider puts in thousands of dollars and hours in equipment, travel and training. We just don’t get on a bike and go—it takes months of concentrated time on a bicycle to get in shape for a 600-mile week of back-to-back days in the saddle. I rode in the 2014 Tour when it was held in Wisconsin and did OK. In preparation for the 2016 Stihl Tour des Trees, I lost 50 pounds and have been training hard, on the road and in the gym. Instead of bringing up the rear, I now expect to be among the leaders each day.

For me and the other Pied Pipers, our reward is gaining new friends and a treasure trove of international connections. Our reward is to know we are contributing to the future of healthy public and private landscapes across the world.

If you wish to follow me on a daily basis while on the Stihl Tour des Trees, consider “friending” me (Jeff Edgar) on Facebook, where I will try to post daily updates from October 9-15, 2016. Expect to read a followup story later this fall. If you wish to contribute to the TREE Fund, consider being a sponsor of my efforts. Go to: https://www.crowd rise.com/STDTteamwisconsin2016/fundraiser/jeffedgar.

Healthy trees are rooted in research!

Team Wisconsin is fundraising to endow the TREE Fund’s Bob Skiera Memorial Fund which seeks to build bridges between urban tree professionals and the other professions that impact urban trees, such as planners, engineers, landscape architects and elected officials.

Please direct your donation by writing “Bob Skiera Fund” in the comments section of the donate page. Not on the web? Give me a call at: 888-858-9927 and I’ll help you with the donation process.

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2016 TREE Fund Information
by Adam Alves, TREE Fund Liaison

Events:

2016 STIHL Tour des Trees
October 9-15, 2016, North and South Carolina
Donations to Dick Rideout, Doug Drysdale, Andy Schoofs, Jeff Edgar’s or Team Wisconsin accepted through December 31, 2016, at stihltourdestrees.org.

TCI Expo 2016
November 10-14, 2016, Baltimore, MD
www.treefund.org/events/show-specials-at-tci-expo

TREEdex Workshop featuring our very own Dr. Bryant Scharenbroch (UW-Stevens Point) November 30, 2016, at noon

(Mountain Time). CEUs available. Watch treefund.org for more information.

Priority Campaign(s):
Take the PG&E Challenge. Help build a brighter future for utility arboriculture!
The Utility Arborist Research Fund (UARF), established at the TREE Fund in 2010 by the Utility Arborist Association, supports research specific to utility arboriculture. Now PG&E is leading the charge to build the UARF to $1 million. They’re challenging you to help jumpstart new utility research and empower its future. In 2016 and 2017, for every $2 donation made to the UARF, PG&E will match $1, up to $125,000 per year. Take the PG&E Challenge and make your gift go 50% further. Donate to the UARF today at treefund.org.

Grants & Scholarships:
Apply for these grants at treefund.org:
- Research Fellowship Grant Program
  www.treefund.org/grants/research-grants/fellowship (up to $100,000) – Opens June 1; due September 1
- John Z. Duling Grant
  www.treefund.org/grants/research-grants/duling (now up to $25,000) – Open July 1; due October 1
- Jack Kimmel International Grant
  www.treefund.org/grants/research-grants/kimmel (up to $10,000) – Open July 1; due October 1

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Research & Education Program Results: Your donations are making a difference!

TREE Fund awards empower new nature programs for youth and healthier urban trees

- The TREE Fund is pleased to announce the first of our 2016 grant awards totaling over $160,000 for urban tree research and arboriculture education. As part of a strategic goal to increase the number, value, and impact of grants, the TREE Fund Board awarded three Hyland R. Johns Research Grants with a maximum value of $50,000 each, the largest outlay under this signature program since 2008. We expect to award nearly $300,000 in additional grants by year’s end, bringing our total disbursement of funding to nearly $3.0 million since our inception in 2002. See the recipients and find out what they’re studying at www.treefund.org.

- Tree health and regeneration has been deteriorating in urban forests throughout the southeastern U.S. In this study, partially funded by a Jack Kimmel International Grant, Dr. Travis Marsico of Arkansas State University determined that this is a consequence of stream channelization (changing water flow) producing unfavorable conditions for native trees, thus inviting an invasion of damaging Chinese privet. Dr. Marsico’s research highlights the importance of dynamic restoration, where habitats are managed for native tree species that will succeed in the altered environment, rather than restoration to a past state. His work can help guide such restorations in river cities throughout the world. Read more at www.treefund.org/archives/6591.

- The TREE Fund webinar featuring Dr. Ed Gilman has been archived. You can watch “An Approach to Pruning You Won’t Forget” at www.treefund.org/archives/12178.

- When emerald ash borer (EAB) invaded Colorado, Colorado Tree Coalition (CTC) acted quickly to educate communities about this devastating pest. Using an Arboriculture Education Grant from the TREE Fund, CTC’s EAB Colorado Public Relations Project informed more than 100,000 affected citizens about EAB and taught communities how to plan and budget for their response. This has decreased the risk and speed of the infestation and reduced its financial impact. Read more about this important and timely project at www.treefund.org/archives/8127.

- Toledo Botanical Garden educators introduced 200 urban K-6th graders to arboriculture and allowed them to explore science through the lens of urban forestry. Read more about this project, funded by a TREE Fund Arboriculture Education Grant, on the TREE Fund website.

- Cabling is commonplace in arboriculture, but very few scientific studies have examined how the practice affects trees. While installing a cable should reduce the likelihood of failure of a tree’s weakly attached branches, Dr. Brian Kane (University of Massachusetts Amherst) wanted to know if it would also increase the likelihood of failure of the whole tree or other parts of the tree. Good news – he found that cabling did not change the pattern of diameter growth of the co-dominant stems, and it did not seriously increase the likelihood of tree failure. Read more about this important project, partially funded by a Hyland Johns Grant, on the TREE Fund website.

- Growing trees in compacted, rock-hard urban soils is a continual challenge for arborists and urban foresters. With support from two Hyland Johns Research Grants, Dr. Susan Day (Virginia Tech) and her team developed an innovative soil rehabilitation solution called Soil Profile Rebuilding (SPR). SPR reduces soil compaction, improves storm-water capture, and yields as much as 84% greater canopy. Read more about this groundbreaking (no pun intended) project and get the specification for SPR on the TREE Fund website.

- Utilities perform vegetation maintenance to reduce tree-initiated risk to overhead power systems. With funding from the TREE Fund’s Utility Arborist Research Fund, John Goodfellow (BioCompliance Consulting, Inc.) successfully developed and validated a model that will allow utilities to make informed decisions on the tradeoffs between maintenance expenses and risk, while taking the cost consequences of outages to end-use customers into account. Read more at www.treefund.org/archives/8653.

- Most agree that getting kids outside to learn about nature is a good thing. One obstacle to doing so, however, is educators lacking the resources and confidence to conduct an outdoor classroom. To address this, the Foundation of the State Arboretum of Virginia provided professional development to all third grade teachers in rural Clarke County, VA. They helped develop an interdisciplinary curriculum on tree biology and forest ecology, and guided over 35 hours of outdoor-based learning with 160 third grade students. Read more about this insightful project, partially funded with a 2014 TREE Fund Arboriculture Education Grant, at www.treefund.org/archives/8099.

- What did they find? Read TREE Fund research results published in 2015. An important part of the TREE Fund’s mission is to disseminate findings from the research we fund. Update your knowledge of cabling, pruning and more when you read the results from the seven TREE Fund projects published in 2015 at www.treefund.org/archives/11611.
ISA Update
by John Wayne Farber, ISA Representative

ISA Board of Directors and NEC Election Results:
- BOD elected by CoR: Nicolaas Verloop and Tom Wolf
- BOD elected by membership: Dana Karcher, Skip Kincaid, and Chris Walsh
- NEC elected by membership: Mark Roberts, Jessica Sanders, de Goure Litchfield, and Ian Scott
- Appointed by BOD to serve on BOD to fill vacancy: Pedro Mendes Castro

Municipal Tree Care and Management in the United States: A 2014 Urban and Community Forestry Census of Tree Activities, now available

Trees are a recognized and significant asset to communities. For community trees to remain an asset and to increase in value, they need care and regular maintenance. The report is the fifth report over 40 years that addresses the many approaches communities take to manage public trees, and 667 communities provided data for this project. It has been more than 20 years since the last rendition in 1993. Beginning with the February 2016 issue, a six-part series of articles based on findings from this research project is being published in Arborist News magazine.

ISA Bylaws Changes

The ISA Board of Directors has begun a systematic review of the ISA Bylaws. The purpose of this is twofold: 1) To ensure the Bylaws are consistent with the changes in ISA structure following the transition to policy governance; 2) To ensure the bylaws are current given the changes in today’s technology and our operating environment (including changes within the credentialing processes).

Get a Direct Link to Your “Find an Arborist” Listing

You now have the opportunity to provide a direct link to your “Find an Arborist” listing on your website or in other marketing materials to help potential customers quickly access your ISA listing page. This way, they can access your ISA information directly rather than by going through the ISA or TreesAreGoodTM websites and using the “Find an Arborist” search tool to find you by name, view your credentials, and learn which tree care services you offer.

ISA Membership Data

As of June 30th, 2016, ISA had 22,988 members compared to 21,992 members in 2015. ISA Wisconsin 595 members compared to 588 members last year.

Tell Us About Your Grant and Scholarship Programs

We would like to help our ISA components promote grant and scholarship programs that you facilitate regionally and beyond. We are trying out a monthly section in ISA Component Connections to serve this purpose. Information needs to be sent by the 15th of the month preceding the desired publication.

Calendar of Important Dates

October 24-27: 2016 ISA Leadership Workshop in Champaign, IL.
July 29–August 2, 2017: ISA Annual International Conference and Trade Show, Washington, DC.
August 4-8, 2018: ISA Annual International Conference and Trade Show, Columbus, OH.

ISA Board of Directors and NEC Election Results:

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September 27, 2016 – ISA Board Meeting.


October 6, 2016 – WAA Fall Conference, West Bend, WI. http://www.waa-isa.org/events-programs/fall-conference/.

October 8, 2016 – WAA Tree Climbing Championship, West Bend, WI. http://www.waa-isa.org/events-programs/tree-climbing-championship/.


December 6, 2016 – WAA Board Meeting.


February 19, 2017 – WAA Board Meeting.