

In the Shade

NEWSLETTER OF THE ISA TEXAS CHAPTER
FEBRUARY 2024



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International Society
of Arboriculture

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From the President

Winter greetings to all fellow arborists. As I write there is a hard cold front soon to arrive across the entire state. Hoping that your plants and plumbing survived nicely.

The new year is when things may have slowed down a teensy bit at work for you, and a great time to create a plan for 2024. Whether you set goals, perform maintenance on your equipment, review trends from 2023 or just catch your breath, don't forget about all the Educational opportunities across our great state listed in this issue. You likely subscribe to philosophy of 'never stop learning' and the Chapter event opportunities are geared towards that mindset. Sessions are scheduled in ideal locations, designed for specific skill sets and experience levels to assist you in advancing your knowledge, understanding and proficiency. If you have an idea or wish for an event assist, drop us an email.



Chapter Business

The Board has been working closely with International ISA Staff in Atlanta and has signed a MOU to host the 2025 North America Tree Climbing Championship here in TX. The event will be held sometime between late February and mid March at a TX location yet to be determined. We can say that San Antonio and Austin are both under consideration. We will keep you posted on this exciting opportunity to showcase our experience in hosting climbing competitions and our extensive bench of volunteers. Kirsten Schneider, TX Chapter Vice President, and Kirbie Houser-Pastenes will take the lead for our Chapter on this event.

Several select Board members are currently engaged in interviewing and selecting a permanent TX Chapter Executive Director. As you read this that process will have concluded and we hope you've had an opportunity to welcome that person aboard.

With Dr. Dave Appel onboard as newsletter editor you may have noticed some format changes to In The Shade. We reduced the amount of space dedicated to advertising and will increase content. Ad rates have increased slightly to offset our added expenses. Thanks Dave.

Spring is just around the corner, and it carries the promise of emerging leaves and new beginnings. Plant or prune a tree and get a head start on the summer.

—Gary O'Neil

In the Shade

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On the Cover:

Ash juniper (*Juniperus ashei*) in Lost Maples State Natural Area, January, 2024.

Winter 2023

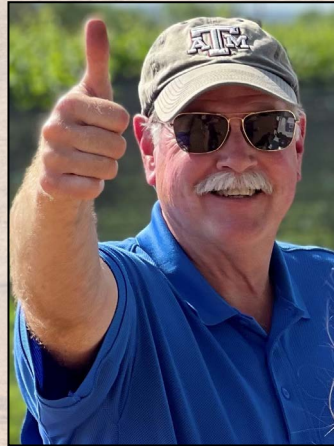
Vol. 47, No. 5



**For me, the trees
are trying to tell us
things."**

— Mr. Ted Green, Ecologist
and Advisor to the Crown
Estate at Windsor,
Berkshire, England

Editor's Note



So much to learn!

During my career I have edited book reviews, homework assignments, Master's Theses, Ph.D Dissertations, book chapters, and journal articles but this newsletter is turning out to be a whole new experience. One of the real joys of the job

is interacting with our membership and learn about the critical work they do. For example, in this issue Gretchen Riley and her colleagues with the Texas Forest Service demonstrate the value of the USDA Forest Service Forest Inventory Analysis (FIA) Program by using the data to determine the impact of Hurricane Harvey on Houston's tree composition. The FIA program is just one of the many important programs conducted by TFS to regularly survey tree health issues at hundreds of sentinel locations throughout the state.

Having traveled with Mark Duff to a meeting of the San Antonio Arborist's Association in January, I heard many interesting tree stories resulting from his trips around the globe. One of these, concerning the Tule tree in Mexico, makes me sorry I never encountered this specimen on one of my own trips to Mexico looking for oak wilt (never found it, but I am convinced it is there somewhere). As you will see, the Tule is the penultimate example of the inspirational potential of the regional impact a tree can have on a culture.

Similarly, Guy Le Blanc relates the sad fate of a well-known and popular pecan tree growing along Barton Springs in Austin.

Rachel Cywinski tells of how finding a slippery elm on her property leads to a surprising search through the genus *Ulmus*, a species I thought I knew until I read her submission. You will also catch up with Chapter business in all the regular features in this issue, along with the ads for products and services to enhance your work!

—Dave Appel



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- **Networking and Promotional Opportunities:** Texas Tree Conference, Texas Tree Climbing Championship, Arbor Day and other events
- **Discounts:** Discounts on Texas Chapter seminars, workshops, and conferences
- **Online Learning:** Monthly/bi-monthly educational webinars created by the Chapter

Certification Exams 2024

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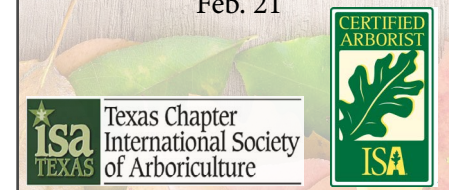
San Antonio, TX —
Feb. 2, 9, & 16

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Feb. 8

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A City Plagued:

Leveraging Multiple Risks for Insightful Preparation and Response

Gretchen Riley, Hughes Simpson, Rebekah Zehnder, Texas A&M Forest Service

Numerous cities across the United States have experienced catastrophic floods in the past several years; Houston, Texas, has experienced several. The 2015 implementation of Urban Forest Inventory & Analysis (FIA) in Houston provided a unique opportunity to explore effects of flooding from Hurricane Harvey on the urban forest. Hurricane Harvey dumped up to 50 inches of rain across Houston in 2017, causing inundation that ranged from several days to six weeks. Flood risk is only one of the issues facing Houston; invasive species and associated diseases, air pollution, and urban heat islands also pose risks for the city, all of which are exacerbated by tree loss or stress from storms and other disasters.

We looked at Harvey flood extent and severity relative to Urban FIA data collected before and after Hurricane Harvey to answer the following questions:

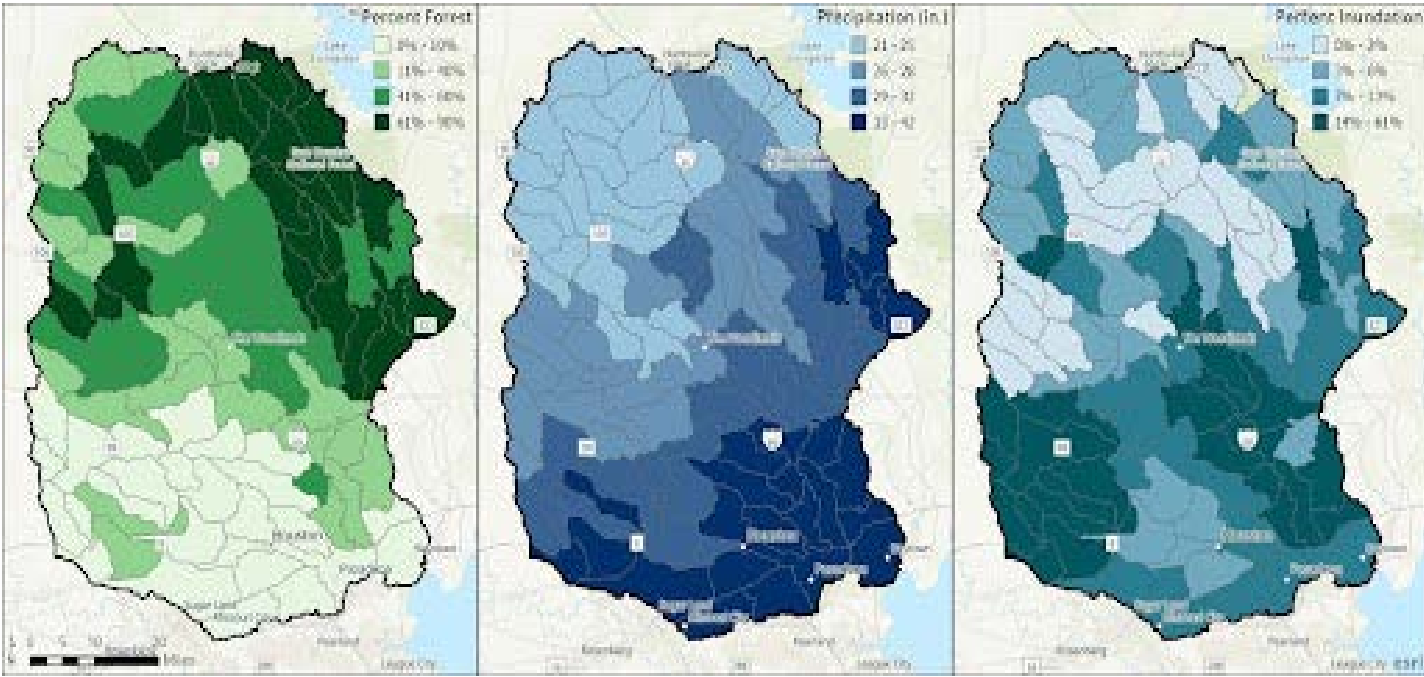
- What, if any, mitigating effects did forest cover have on flooding?
- Did species composition affect tree mortality?
- And, was there a difference in impact across socioeconomic classes?

Considering the extremity of the event and the fact that a tree's impact on flooding on the landscape does not correspond exactly with the area directly beneath its crown, the initial portion of the analysis was expanded to the watershed scale, comparing watershed land cover composition of 98 watersheds to the percent of the watershed that experienced flooding. Forest cover ranged from 0% to 90%. Average cumulative precipitation from August 23 through August 30, 2017, in these watersheds ranged from 21 to 42 inches. Inundation as a consequence ranged from 0% to 61%. Both the mean and the range of inundation percent by watershed decreased with increasing forest cover, while high proportions of impervious cover tended to correspond with greater areas of inundation.

Houston's urban forest comprises over 33 million trees, with a canopy that covers an estimated 18.4 percent of the city (www.mycitystrees.com, 2020). The species make-up reflects the two major ecoregions of the area, the Gulf Coastal Plain and the East Texas Pineywoods. Houston's urban forest is diverse; seventy different species are found within the city. Dominant native upland species include yaupon (*Ilex vomitoria*), loblolly pine (*Pinus taeda*), American elm (*Ulmus americana*), and sweetgum



Above: An atypical Urban FIA plot in Houston



(*Liquidambar styraciflua*). Native tree species found along the numerous bayous in the area include green ash (*Fraxinus pennsylvanica*), water oak (*Quercus nigra*), and boxelder (*Acer negundo*). Non-native and invasive species are common as well, with Chinese tallow of significant concern.

The composition of live trees in Houston's urban forest following Hurricane Harvey remained relatively stable with a few notable exceptions. Of the 25 species found on remeasured plots, 20 exhibited little change in total number present. Elm (*Ulmus spp.*) and Chinese tallow (*Triadica sebifera*) readily regenerated, increasing in total number post-Harvey, while maple (*Acer spp.*), holly (*Ilex spp.*) and sparkleberry (*Vaccinium arboreum*) decreased. Sparse crown is an indicator of poor tree health and cumulative decline from both abiotic and biotic stressors, including insects and disease. Trees were assessed for amount of absent foliage at both time periods. The average foliage absent on trees at least 5 inches in diameter that were alive both before and after Harvey went from 6.4% prior to the storm to 36.0% following Harvey, with ash seeing the greatest impact and sweetgum seeing the least. Ash, while neither gaining nor losing individual specimens due to flooding in this study, experienced stress that can affect its resistance to EAB.

Disparity of impacts across socioeconomic classes was less straightforward. More trees were proportionally present in less socially vulnerable areas, as defined by the Social Vulnerability Index (SVI) from the Centers for Disease Control, and the least socially vulnerable class sustained the most tree mortality. When looking at income level, the most trees (50%) were in the middle income class,

Above: Percent forest cover of study area watersheds with average precipitation from Hurricane Harvey and percent inundation.

which also sustained the most mortality, accounting for 90% of trees that died. Two sizeable U.S. Army Corps of Engineers stormwater control facilities, Addicks and Barker Reservoirs, comprise a large portion of land that falls in this income class. These forested reservoirs are designed to collect and hold stormwater, and as such, trees were inundated for a longer duration than trees not so located, accounting for the higher mortality in this class. Loss tended to be of larger trees at the lower income and more vulnerable classes. The average diameter of dead trees in the second lowest income level was 14.2 inches and in the most vulnerable class was 12.4 inches. With an already lower number of total trees in these classes, loss of mature shade trees means a proportionately large loss in social, environmental, and economic benefits provided by trees.

Full study report with recommendations may be found at <https://tfsweb.tamu.edu/elibrary/>. ■

Texas Tree Critters



Cedar x apple rust caused by the fungus *Gymnosporangium juniperi-virginiana* on crabapple (*Malus spp.*) found on the TAMU campus in College Station, TX.

The pinkish, delicate tubes are the aecial stage producing aeciospores, one of 5 spore stages in the life cycle this pathogen.

Pathogen has an “alternate” host, in this case probably eastern red cedar (*Juniperus virginiana*).

This disease can be very damaging in commercial apple production, but is normally a minor nuisance in ornamentals in the genus *Malus*.

Management: removal of alternate host in vicinity, chemical control in apple orchards, remedial pruning to remove infected plant parts.

The Tule Tree in Oaxaca Mexico

by Mark Duff

After a long week of treating close to 2,500 patients during our medical mission in Oaxaca early in September, I had a chance to visit the biggest diameter tree in the world. My hosts were Victor Valesco, an ISA Certified Arborist, and his wife Aurora who own a tree care business in Oaxaca.

The tree is a *Taxodium mucronatum* or commonly known as ahuehuete. It closely resembles our *Taxodium distichum* (baldcypress) in Texas, but tends to have a much more excurrent growth pattern and, being in southern Mexico, retains its foliage for at least two years (not so baldcypress). This famous and historic tree is locally known as the Tule Tree, located on the church grounds in the center of Santa Maria del Tule. In 2001, it became a candidate on a UNESCO list of World Heritage Sites, but was removed from the list in 2013. The impressive dimensions of Tule are: Circumference at 4.5 feet above ground is 138 feet, diameter is listed at just over 46 feet, its height is roughly 140 feet, and boasts a crown diameter of 150 feet. The age of this tree is estimated between 1,200 and 3,000 years. The best scientific evidence however, points to a range between 1,433 and 1,600 years old. “Local Zapotec legend holds that it was planted about 1,400 years ago by Pechocha, a priest of the Aztec wind god Ehecatl - this age is in broad agreement with the scientific estimate; its location on a sacred site (later taken over by the Roman Catholic Church) would also support this.”

Beyond its age and size, one of the most frequently asked questions is: Is this tree a single trunk, or is it several grafted stems? In an effort to answer this nagging question, DNA samples were taken. Results indicate that it is indeed a single trunk. While I am no plant geneticist, I question how stems that may originate from the same root system and graft, would show different DNA signatures.

During the late 1980s an underground irrigation system was installed due to the fear that local wells and recent development were causing the groundwater level to drop, and thus drying out the site.

I first visited this tree around 40 years ago when my parents lived in Mexico. I visited it four years ago and then again last year while on medical missions. Over the past few years I have noticed that the lower limbs have been encroaching into the pedestrian area outside the barrier fence under the canopy, impeding photography and foot traffic. To relieve this situation a slight crown lift focused on the ends of the lower branches would suffice. While less than 1 percent of the foliage would be removed, local municipal officials are very nervous to undertake any kind of clearance pruning.

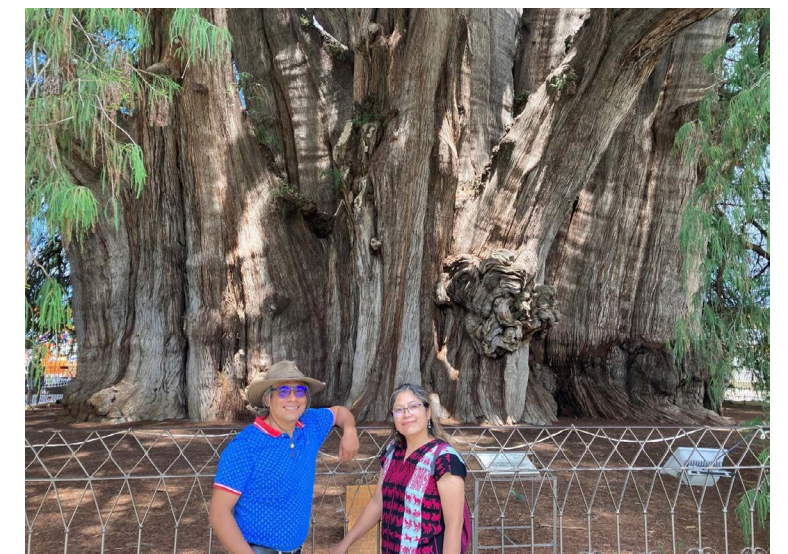


El Árbol del Tule in the church grounds in the town center of Santa María del Tule in the Mexican state of Oaxaca.

The last time any pruning was done to the tree was about ten years ago. Eduardo Medina, Gerard Passola from Spain, Victor Valesco, Adolfo Sanchez and several other Mexican arborists and foresters pruned and evaluated the tree’s health. We are now in the process of getting a group of arborists, mostly from Mexico to serve as an advisory team for maintaining the tree. Of critical importance will be managing any future construction and having good data on soil moisture levels.

Another idea that can help provide funds for professional care is to set up a kiosk nearby that will sell tree-related items. One is to retain wood from pruned branches and turn pens from them. These could be laser-engraved and be accompanied with a laminated sheet that describes the history and dimensions of the tree. Another is to design a very nice shirt (not a tee shirt) with a classy stitched pattern of the tree with its name over the breast. Finally, a coffee table book of the

Tule with historical pictures and legends could be sold. The idea is that the funds generated through sales of these items, would be used for professional care of the tree by certified arborists. ■



Victor Valesco, an ISA Certified Arborist, and his wife Aurora who own a tree care business in Oaxaca in front of the Tule tree.

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Member Spotlight.....

Nic Griffin

Share with us how you got into tree care and what you do in your current role with HCFCD and with HAUFCD?

From a very early age I was always interested in science and the natural world. When I finished high school and began college at the University of Texas I really had no idea what career path I should pursue. I just knew, like most people in our field, that I didn't want to be behind a desk all day. After some searching, I found that a career in Forestry really matched well with my interests. I transferred to Stephen F. Austin State University to pursue Forestry, and later Urban Forestry. Upon graduation I received a job offer in Houston with a large tree care company where I really learned hands on about the field. After a year in that position, I accepted a job with the Harris County Flood Control District as an Urban Forester. The role has expanded and changed over the past 20 years, but my day-to-day focus is still on improving the urban forest along Harris County's vast drainage network. At the same time I began with the Harris County Flood Control District, I was introduced to the Houston Area Urban Forestry Council where I have served as Treasurer and currently serve as President.

What about tree care in Houston inspires you? What challenges you?

Being a resident of the 3rd largest county in the US has given me some real perspective on the importance of our work in Urban Forestry and Arboriculture. It is easy to see the importance of trees and natural areas when you see the constant pressure they are under in the urban environment and the steady progress of development shrinking these areas each year. Working for one of the largest landowners in Harris County gives me the unique opportunity to shape how at least a portion of this land functions. Establishing new forests and being able to see the progress of plantings I directed many years ago is what keeps me motivated in my role.



What has been your proudest moment in your tree care career to date?

Being a part of the Houston community for the past 21 years has given me the opportunity to work with and get to know so many great people. I'm very grateful for all of those who have helped me in my career and share the same desire to create a positive impact on the environment we all share. One of my proudest moments has been mentoring students through our Summer Forestry Internship Program and seeing these former interns have success in their careers.

What does being an ISAT member mean to you?

I have been a member of ISAT since I was a forestry student in 2002. The vast knowledge base of the members of this organization cannot be overstated. Beyond the professional resources ISAT provides, I have always valued the "family" that we have. Every ISAT Tree Conference is like a family reunion! ■

New Members

- Austin Adams Katy TX
- Peter Aleman Georgetown TX
- Nicholas Belitere Dallas. TX
- Keith Brock Fort Worth TX
- Daniel Cranfill Killeen TX
- Benjamin Doolin Midlothian TX
- Anthony Forshage San Antonio TX
- Alex Fuller Austin TX
- Alejandro Garcia Alvin TX
- Hilary Garnish Austin TX
- Jacob Gaskamp Chappell Hill TX
- Jose Gonzalez Dallas TX
- Ricardo Guerra San Marcos TX
- Samuel Hanson Pflugerville TX
- Charles Harris Houston TX
- Charles Jalufka Austin TX
- John Joestgen Spring Grove IL
- Cody Jones Austin TX
- Jose Juarez Joshua TX
- Gary Kennemer Sugar Land TX
- Christopher Kinsey Midlothian TX
- Matt Kitchen San Antonio TX
- Amanda Lane Robstown TX
- John Larroque Buda TX
- Jesse Leger Houston TX
- Carlos Leyva Austin TX
- Jacob Long Burleson TX
- Austin Lowery Austin TX
- William Maas Austin TX
- Lisa Maciques Fort Worth TX
- Chance Markham Kingsland TX
- Jessica Marquez Abilene TX
- Miguel (Mike) Mendez Arlington TX
- Andrea Myers Lufkin TX
- Ryan Myers Georgetown TX
- Michael Parks Austin TX
- Derek Pedigo Bacliff TX
- Claire Pybus-Campbell Houston TX
- Randall Reeder Amarillo TX
- Martin Rodriguez Humble TX
- William Ryan Plano TX
- Brandon Westmoreland Cedar Park TX

Newly Certified Members

- CA-U Nicholas Anderson Leander TX
- CA Keith Brock Fort Worth TX
- BCMA Dale Bufkin Jr. Nevada TX
- BCMA Christopher Courville ... Austin TX
- CA Michael Easley Crockett TX
- CA Megan Elwood Austin TX
- CA Jacob Gaskamp Chappell Hill TX
- CA Matthew George Fort Worth TX
- CA Ricardo Guerra San Marcos TX
- CA Michael Ibarra Wichita Falls TX
- CA-U Lisa Maciques Fort Worth TX
- CA Cameron Mauze Schertz TX
- CA-U Christian Montgomery ... Fort Worth TX
- BCMA Joshua Morales Georgetown TX
- CA-M Jessie Parker Brandon MS
- CA Jacob Primeaux Austin TX
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- CA Randall Reeder Amarillo TX
- CA Josh Reis Plano TX
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- CA Daniel Scott Universal City TX
- CA Isaac Vigil Harper TX
- CA-M Steven Wielgosh Cibolo TX
- CA Gregory Works San Antonio TX

On Paper-thin Wings: Slippery Elm Lands in The Most Unlikely Places

Article and photos by Rachel Cywinski,
ISAT Professional Member

When I purchased my homestead in “the original city limits” per San Antonio planners, the occasional springs on the hillside in nearby yards were waning even after the heaviest rains. Twenty years later and with much more human demand drawing water from underground, those springs no longer flow. If current patterns continue, the remnant pecans from 19th century orchards may no longer be evident in the rows still visible across our residential fencelines.

On the surface, an urban hillside in South Texas might seem an unlikely place for riparian plants to thrive. Nothing has caused me to ponder the lingering effects of its natural history as much as the tree that sprouted in the sun-blasted highly-compacted soil at the bus stop in my yard. The tiny tree resembled the *Ulmus crassifolia* behind my house, but the leaves were different. I did not find an answer in available Texas tree quick-finder resources, and looked for help. An ethnobotanist excitedly declared the seedling a hopeful sign of *Ulmus americana*, and went on to discover similar tiny trees in riparian areas of local nature preserves.

Leaving the tree at the bus stop was not an option, as it somehow continued to grow in the exact spot where people stepped off the bus and would quickly become entangled in overhead transmission lines. So I walked around the backyard with the uprooted tree asking aloud

where its new home would be; and eventually planted it next to one of the century-old pecans.

Soon after, I realized another tree of the same species had sprouted next to a century-old orchard pecan farther downhill in my yard. How amazing, I thought, that one volunteered in sun-blasted compacted soil and the other in almost full shade downhill. I began scouring the neighborhood for a potential parent tree but never found it.

I tried to convince myself that the tree in the yard was *U. americana* as the botanist declared. The tree guide descriptions didn’t quite match its characteristics. Then one summer day while traversing the boardwalk over Four Holes Swamp in Francis Biedler Forest, in the presence of trees so tall they seemed not to end, I looked at the foliage right in front of me and saw leaves exactly like the ones in my yard. It was labeled “water elm”.

Back in San Antonio, I began contacting arborist lifelines. David Vaughan assured me the tree was an American elm. His intuition was that it was a slippery elm but he was not familiar with the species. San Antonio’s original City Forester, Michael Nentwich, who spent several years amongst elms in Norfolk, VA before returning to San Antonio as a consulting arborist, made the definitive slice of a twig with a pocketknife. Nentwich explained the sure way to tell was scratch the outer bark from a twig and look for a thin dark ring. It was slippery elm! Nentwich explained there are several characteristics that differentiate *Ulmus americana* (USDA symbol ULAM) “American elm” from *Ulmus rubra* (USDA symbol ULRU) which has many common names including “slippery elm” and “red elm” which are derived from its slick red inner bark.

Nentwich said although the species’ nature habitat differs, humans have planted so many elms outside the

habitats where they grow best, that this alone is not reliable. Other characteristics he uses to differentiate are:

- Leaves: ULRU hairy top and bottom; ULAM typically smooth
- Samaras: ULRU not/nominally notched; ULAM deeply notched
- Red inner bark: ULRU only

Nentwich has also observed *U. rubra* canopies not to split as habitually as *U. americana*.”

American elm limbs tend to have more limbs attached at the same location and spreads more than slippery elm. This has led to my experience that American elms tend to get included bark in the crotches, have a lot of opposing pressure from limbs, and fail at the crotches more than slippery elm. Think about how callery pears grow to visualize the issue (Personal communication, Michael Nentwich). Many elms tend to have co-dominant trunks. Commonly available advice is for any removal of co-dominant branches to be done as soon as the branch collar forms, so that the new dominant leader can fill in the canopy.

Even in upland areas, slippery elm may grow quickly and rapidly fill in the canopy. *U. rubra* is classified as a “facultative” National Wetland Indicator which can tolerate both dry and wet soil conditions. The range of *U. rubra* extends from Quebec and Ontario along the Atlantic Coast of the U.S.A. and to central Texas. Botanical gardens in Eastern states sometimes attribute the species with a tendency to be “weedy”. Judging from the depletion of slippery elm throat lozenges, supplements and powder from Texas grocery store shelves during every seasonal allergy spike, the potential for commercial gain is obvious. Ashley Adamant provides an easy-to-follow guide for harvesting and use of slippery elm bark (<https://practicalselfreliance.com/slippery-elm-bark/>). The moist inner “red elm” bark, a demulcant, has been used to treat human ailments for centuries.

But there have been many other uses for medicinal purposes and for tools of daily living over centuries. Botanical Research Institute of Texas provides a comprehensive list of known uses in the Native American Ethnobotany Database (<http://naeb.brit.org/uses/search/?string=ulmus+rubra>). WebMD states the slippery inner bark causes mucous secretions when swallowed, and this may be used for stomach and intestinal problems. WebMD also states applying the slippery bark topically is not a proven remedy and may irritate some people (<https://www.webmd.com/vitamins/ai/ingredientmono-978/slippery-elm>). A few sources warn that slippery elm bark can be dangerous or irritating to women during pregnancy. Medical researchers Elzabeth Mazanec, et al, describe it as “unpleasant” but nontoxic to some pregnant women (<https://www.sciencedirect.com/topics/medicine-and-dentistry/ulmus-rubra>).

General botanical information is available in the Native Plant Information Network profile of *Ulmus rubra* (<https://www.wildflower.org/plants/result>.



Above: *Ulmus rubra* is differentiated from all other elms by rougher leaf texture (not pictured) and highly visible yellowish veins on the undersides of leaves.



Left: *Ulmus rubra* has a strong tendency to co-dominant branching yet may not be as likely as *Ulmus americana* to split. Arborist Michael Nentwich has found *Ulmus americana* (not pictured) more likely to split from the pressure of included bark where there is multiple branching.



Right: *Ulmus rubra* “red elm” is distinct among elms with its red inner bark that has been used to treat human ailments for centuries.

<https://practicalselfreliance.com/slippery-elm-bark/>). *Ulmus rubra* is differentiated from all other elms by rougher leaf texture and highly visible yellowish veins on the undersides of leaves. Trees each have female flowers and male flowers. Pollination results in samaras—winged seeds carried away by the wind. All elm seeds have similar appearance but each seed of red elm is surrounded by a thin edge that looks like unbleached paper when ripe. When ripened, the circular “wing” may be carried in the wind to disperse slippery elm seeds great distances. The term “samara” refers specifically to such a “winged seed” which is considered the “fruit” of the species.

Numerous insects feed on the tree, and thus it is a highly important food source for birds. The “uneven” leaf base which gives humans a sense of movement when looking at the tree, also provides solid shelter for songbirds. Many animals eat the seeds and buds. *Ulmus rubra* is the larval host of *Nymphalis antiopa* “Mourning Cloak” and preferred food source of *Polygonia interrogationis* “Question Mark” butterflies and *Hypena abalienalis* “White-Lined Bomolocha” moths.

Whatever brought *Ulmus rubra* samaras of thin wings to my yard on a sunny hilltop in San Antonio, I am forever grateful to have these two swamp giants with their branches reaching upward as if to the heavens. ■



Tree of Heaven and Spotted Lanternfly Threaten the historic Town of Leesburg, Virginia

Submitted by Noble Atkins, Urban Forester, Leesburg, VA

created educational posters (see accompanying poster) and a GIS-based online system which has received approximately 1,300 reports to date. This data is crucial in developing a management plan and allocating resources for ongoing treatment.

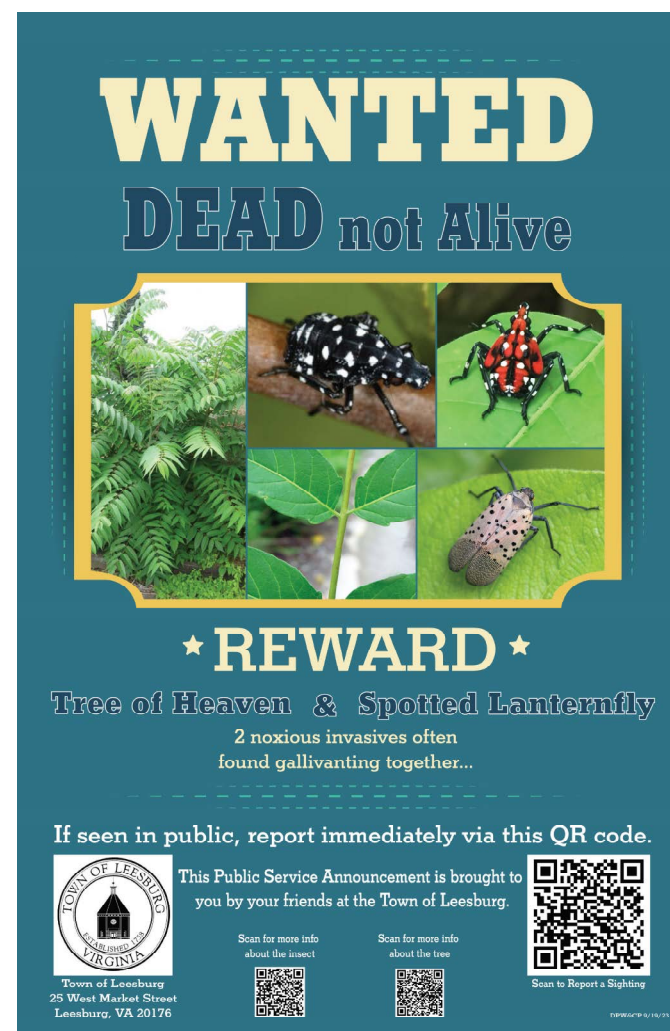
Leesburg's example demonstrates effective community collaboration that has the power to mitigate the impact of these pests on native populations. Together we can unite to safeguard our natural resources for generations to come.

Leesburg, Virginia, is facing a silent invasion, and it's not from a sci-fi movie—it's happening in its own backyard. The invasive Tree of Heaven (*Ailanthus altissima*) and the spotted lanternfly (*Lycorma delicatula*) have become unwelcome guests, causing concern among residents and environmentalists.

The Tree of Heaven originates from East Asia and sounds idyllic, but its rapid growth and ability to outcompete native vegetation have earned it a notorious reputation. This invasive species disrupts the delicate balance of local ecosystems, impacting biodiversity and the overall health of the urban forests.

Adding to the challenge is the spotted lanternfly, an invasive insect that not only feeds on the Tree of Heaven but also targets over 70 other plant species, including the prized vineyards of Loudoun County. Native to Asia, this pest has infiltrated Leesburg, posing a significant threat to agritourism destinations. Beyond damaging plants, the spotted lanternfly's feeding habits create a sticky residue, attracting mold and compromising the health of trees and vegetation. This insect is often seen in groups of dozens, hundreds or even thousands, completely covering the bark of a tree. When approached, the bugs hop and fly which can be rather shocking to observers. There are currently no known predators of these bugs.

While this threat is being felt by localities nationwide, the Town is taking an innovative approach to combat these invasive insects by enlisting public support. The Town's Tree Commission asked the public to report sightings to Town Urban Forester Noble Atkins. To streamline reporting, Atkins



Top: Spotted Lanternfly (*Lycorma delicatula*)

Above right: Winning poster submitted by Noble Atkins for the 2023 Texas Tree Conference.

Left: QR code to go to the Town of Leesburg invasive species locator map. ■

Behind the Bark: A look at the Beautiful Wood Inside North Texas Trees

By Kelly Geer, Urban Tree Merchants

Editors Note: The following feature, submitted by Kelly Geer, is a multi-part article analyzing the outer and inner bark of some of the most popular shade trees in Texas. Be sure to look for additional species in future issues of ITS!

PART 1a.

Changing trees. Autumn breeze. Falling leaves. Cooler temps are often a reminder to look up and take in the beauty of the trees and nature around us. But let's take a deeper look at the beauty hiding behind the bark in five of the most popular trees in North Texas.

Ash

Fraxinus velutina or Arizona Ash is a large and fast-growing shade tree with a rounded canopy and light green leaves. It is well suited for hot, dry conditions. Ash wood is considered a hardwood however it is also lightweight and shock-resistant making it popular for baseball bats and other sports equipment as well as durable furniture like tables and desks. Ash trees are very susceptible to freeze damage and are currently under attack in North Texas from the Emerald Ash Borer, a dark green beetle that weakens trees in the winter and kills them in the summer. Contact an Arborist if you believe your trees might be infested. ■



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2024 Events Update

By Gene Gehring

Below is the 2024 “Events Calendar” that was approved at the board retreat. By now you may have noticed a change to our online newsletter “TreEmail”. It will now focus on upcoming ISAT events and other Certified Arborist CEU opportunities. It goes out the first Wednesday of the month to Texas Chapter ISA members and then 10 days later to the entire email list. Open workshop registrations will be announced first to ISAT members through “TreEmail”. The first event of the year, a full TRAQ course January 22-24 in the DFW area filled quickly. So, make sure your ISAT membership is up to date for timely announcements.

We are hosting two more full TRAQ courses April 3-5 in Schertz (San Antonio) and in June (Houston). We will have two in person TRAQ renewals April 2 in Schertz (San Antonio) and Waco the Wednesday before the conference. We have also partnered with the Southern Chapter to host four online renewals this year. The first was February 7th.

The Master’s Series Workshop focused on tree and plant appraisal. James Komen, Marty Shaw, Scott Cullen and Mark Weber did an excellent job guiding attendees through the process of appraisal followed by an explanation of the different methods that can be utilized. Let me know if you have a topic you would like to see and I will forward it to the education committee. They are currently planning for 2025.

The Oak Wilt Qualification (TOWQ) dates have been set for May 22-23 (Glen Rose) and June 12-13 (Fredericksburg). The TOWQ renewal will be online May 29th. Mark your calendars now, registration will be in the TreEmail that comes out March 6th.

We plan to have a Wildfire Risk Reduction (WRRQ) course and a Diagnosis workshop in March. Both are dependent on instructors. The Texas Tree Climbing Championship will be held in May. Usually, the Friday and Saturday after Mother’s Day. For more information email gene@isatexas.com.

2024 Texas Chapter ISA Events (Partner Events)

February

- 7th – TRAQ Virtual Renewal (Southern Chapter partnership)
- 15th – Texas Trees & Technology Conference, Hurst (Cross Timbers UFC partnership)
- 20th – Dallas Bilingual Workshop, Dallas (Trinity Blacklands UFC partnership)
- 22nd – 14th Annual Bilingual Tree Workers Workshop, San Antonio (San Antonio Arborist Association partnership)
- 23rd-25th – Women’s Tree Climbing Workshop, Wimberly (WTCW partnership)

March

- 11th-12th – Tree Diagnosis Workshop, College Station
- TBD – Wildfire Risk Reduction Qualification (WRRQ), Austin

April

- 16th-17th – Regional Urban Forestry Conference, San Antonio (Bexar Branches Alliance partnership)

May

- 1st – TRAQ Virtual Renewal (Southern Chapter partnership)
- 16th-18th – Texas Tree Climbing Championship (TTCC), Location TBD
- 22nd-23rd – Texas Oak Wilt Qualification (TOWQ), Glen Rose
- 29th – Texas Oak Wilt Qualification (TOWQ) RENEWAL, Virtual

June

- 12th-13th – Texas Oak Wilt Qualification (TOWQ), Hye
- TBD – Tree Risk Assessment Qualification (TRAQ), Houston

Iconic Pecan at Barton Springs Pool Removed

By Guy LeBlanc

A large pecan that for at least 80 years had leaned heavily over the well-known Barton Springs Pool in Austin was removed by the city last fall. Photos from as early as the mid 20’s show the tree growing on a steep slope leading down to the pool.

Preservation attempts by the city go back to the 40’s, beginning with a six or seven foot high retaining wall built several feet away from the root collar, and the area backfilled to level the slope (see <https://www.austintexas.gov/page/barton-springs-pool-tree-updates>). Sometime between 1948 and 1958, two large steel prop poles were installed in the pool deck with “cradles” or “saddles” atop them, against the trunk. Over the decades these became deeply engulfed in woundwood. Also from this time we have photos showing an extensive concrete cavity covering on the upward facing part of the trunk. In the 70’s, this covering was removed and the entire trunk filled with a variety of materials including more concrete, and rebar. This filling extends from below the backfill surface to about fifteen feet toward the canopy and is over four feet wide at the base, making up well over half the circumference of the tree at soil level. The sapwood thickness was about three inches at soil level. Remarkably, the canopy was still full and vigorous. Also in the 70’s, a replacement tree was installed directly uphill from the tree, close to its base.

In 2009 the city did an extensive assessment of trees in the pool area and this tree was listed as being at high risk of failure. Due to public outcry, the city elected not to remove it, instead installing a third steel pole, and a triangular steel platform between the three poles. More cradling was built on this platform. A Cobra-type support cable was also installed, anchored to the replacement tree (now a sturdy, full-sized specimen).

In July 2023 city staff noticed a fungal fruiting body where the trunk emerges from the backfill and touches the retain wall. A sample was sent to the Texas A&M Plant Diagnostic lab and they identified the sample as Kretzschmaria deusta. The city then had three ISA Certified Arborists each provide an assessment of the tree (Vincent DeBrock of Heritage Tree Care, Keith Brown of Austin Tree Experts and Zach Powers of Bartlett Tree). After these reports were completed (but not yet



Above: Pecan tree with props arching over the walkway at Barton Springs in Austin, TX.

made public), several local environmentalists asked the city to get an opinion from me. Whereas the city already had three assessments, and I had already advised the city to remove the tree in 2009, I agreed to provide a more basic description of the tree’s condition and my recommendation. While I did not personally see any evidence of Kretzschmaria, a picture taken prior to my visit clearly shows a black crust typical of that fungus (I suspect it had been removed). However, I told the city I did not believe its presence or absence was relevant- the tree was a nightmare waiting to happen either way. When the assessments were all released, they revealed that all four

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arborists were in agreement that the tree should be removed.

In a last ditch effort to save the tree, a local environmental group hired another arborist for an opinion (despite previously insisting that arborists in general were unqualified to render an opinion on what was “purely an engineering problem”), but that arborist said he did not have the expertise or training to assess the tree, and with that the removal went forward.

The removal went quite smoothly thanks to the expertise of the Austin PARD crew. Cutting the steel posts to separate them from the totally hollow trunk while keeping the trunk supported was the trickiest part, but PARD climber Rich Tarkington did a superb job, rigging the trunk pieces and suspended mid-air while wielding a band saw on the posts. Removal of the concrete and rebar was quite an undertaking, performed by the city’s PWD. They spent days cutting, hammering and chiseling the concrete mass before the rest of the trunk could be removed.

This beautiful tree provided poolside shade decades longer than it otherwise would have due to the preservation efforts of the city. Since those efforts included planning for its replacement fifty years ago, some of that shade is still there.

Left: Extent of heart rot in pruned limbs in Barton Springs pecan tree.

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What's the Big IDEa?



Hint: This tree species grows on the banks of La Nana Creek in the Arboretum in Nacogdoches.

Can You Identify this Texas Tree?

If you know this tree, look for the photo on our Facebook page and correctly identify it in the comment section under the photo, using the full scientific name and one or more common names. If you don't know it, check the page for an answer in a few days. The winner gets bragging rights and the chance to submit a tree to stump fellow arborists in the next issue.

Last Issue's Tree ID



Last issue's winner:
Kelly Hinte Eby

Tree was: Bigelow Oak
(*Quercus sinuata* var. *breviloba*)

New challenge submitted by:
Kelly Hinte Eby