

Florida Arborist

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The Urban Forest as Wildlife Habitat

Robert Northrop, UF-IFAS Extension Forester



Since the late 19th century, the engineering professions have done a masterful job of ameliorating filth and spread of disease in our cities, including the provision of safe water supply, sanitary disposal of human waste and refuge, and public health regulations (Grove et al., 2016). This concept of the Sanitary City gave way in the 1990's to the concept of the Sustainable City, embracing the need to recognize the role those metropolitan regions play in the conservation and maintenance of ecosystems and the services they provide that support human health and well-being (Melosi, 2008).

Ecosystem services are the conditions and processes through which ecosystems, and the diversity of life which make them up, sustain and fulfill human life. They maintain production of ecosystem goods, such as food, forage, fuels, natural fiber, and many pharmaceuticals, and industrial products. In addition to the production of goods, ecosystem services are the actual life-support functions, such as cleansing, recycling, and renewal, and they confer many intangible aesthetic and cultural benefits as well (Daily, 1997, p. 3).

As urban foresters and arborists we have begun to address the efficient and effective management of the urban forest for tree health, reduction of risk to human life and property and formal aesthetics. Recently we began to participate in the management of the urban forest to foster the goals of the Sanitary City so ably initiated by our engineering colleagues in

Urban Forest continued on page 4



Greetings to all of my fellow Florida arborists,

It is a privilege to serve as this year's President of the Florida Chapter ISA. I have been involved with the Chapter for a number of years and I am always proud to represent our group whenever I am with arborists from different parts of the world. The Chapter has definitely made me a better arborist. I have made

friendships that will last a lifetime. Our state is home to so many great arborists, scientists, and professors. This is one of the best Chapters in the entire organization.

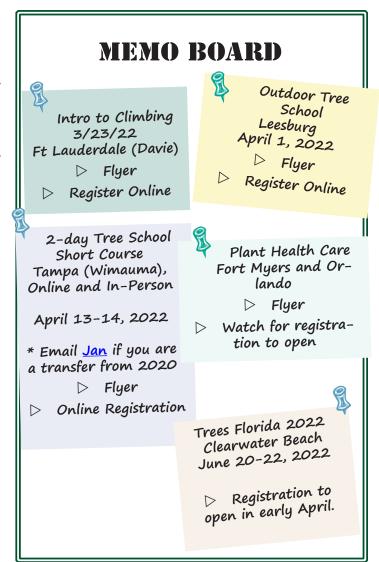
I encourage you to keep learning, be curious. Work to be a better arborist, diagnostician, consultant, business person, leader and teacher. Arboriculture is the science of tree care. Think about how this industry has evolved over just the past 40 years alone. Tree workers have moved from being a trade to being a profession. We all have the same opportunity to affect people's view of our industry. I can assure you that I use these opportunities to promote an image of professionalism. If we advance ourselves, we advance all of us. A rising tide lifts all boats.

We have all been through a lot over the past couple of years; the Chapter has too. But the Chapter is open for business! Everything with the Chapter will pretty much be status quo this year. We have tremendous education opportunities coming. Trees Florida 2022 planning is in progress. The Chapter Tree Climbing Championship (TCC) is back for 2022 after skipping last year. I understand that the TCC venue in Leesburg is one of the nicest places we have ever been. Incidentally, the TCC is a great event to team build with your crews. Consider registering for the Outdoor Tree School the day before the climbing event! The climbers really seem to love it. Note: all climber spots are filled already – volunteer, exhibitor-sponsor and sponsor registrations are still open.

Trees Florida 2022 is coming in June. Last year was awesome but I am super stoked for this year! The resort looks incredible. This is a great way to keep up on the latest research and industry practices. Feel free to come by and say hello to me in Clearwater Beach - I will be happy to hear your concerns or criticisms about what your Chapter is doing. The staff and Board of Directors are all quite busy. The Chapter is currently working on a number of big things. The Government Affairs Task Force has visited Tallahassee to advocate our industry with our state politicians. The State of Florida is looking to arborists to be the subject-matter experts. There is a new bill moving favorably through the legislature that improves the language of the tree removal law. The Chapter is still working to introduce the legislation to introduce licensure in the State of Florida. The hope is that we will see a reduction in workplace accidents and injuries.

So, as a member, feel free to come to one of the board meetings. Volunteer for a committee. Get involved. But most important, keep learning!

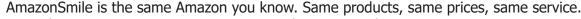
Jonathan Trank
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Urban Forest continued from page 1

the late 19th century. Reliable models are now available to assist us in guiding our efforts to foster cleaner air, adjust stormwater flows and improve water quality, as well as reduce energy, the generation of greenhouse gases and improve the economic viability of city residents.

Integral to the resilience of our urban ecosystems is the maintenance of the diversity of life forms and their habitats known as biological diversity. Critical to conservation efforts in urbanizing regions, is the need to reintroduce vertebrate and invertebrate wildlife back into our metropolitan regions. This is no easy task, since we have a century old tradition of sanitizing the city, encouraging entire generations of urban dwellers to fear the wild, messy, and 'uncivilized' character of our parks and natural areas. But there is hope ... in recent surveys and focus groups concerning residential perspectives on the urban forest, wildlife habitat consistently ranks in the first or second highest position of value (2008, 2014 and 2016). We now have a rare convergence of the values of urban residents and what conservation science is telling us. It is time to systematically implement urban wildlife conservation programs and develop wildlife conservation techniques and guidelines for use by urban foresters and arborists.

Rapid expansion of metropolitan regions has led to documented destruction, degradation, and fragmentation of natural habitats. This decline in the amount, diversity and quality of habitat, as well as loss of large complex contiguous blocks of habitat encourages the proliferation opportunistic wildlife species at the expense of wildlife with specialized habitat needs. Halting the loss of habitat will require urban foresters and municipal arborists to learn about and participate in land use planning at the city, county and regional scales of decision making. The training could be addressed by the various state Urban Forest Councils. As professionals it is our responsibility to provide guidance and comments to planning officials whether as official members of planning boards or as private citizens and business leaders. Proven techniques for conservation planning in growing metropolitan regions are well documented in the professional and scientific literature, often associated with strategies for the organization of Green Infrastructure.

Arborists, the managers of individual trees, rights-of-way, and municipal parks, need to better understand the role that urban trees and shrubs play in providing the habitat needed to support the diversity of wildlife found in our region. Again, this will begin with education which the various state Urban Forest Councils and the International Society of Arboriculture can provide. Recent presentations at the International Society of Arboriculture's International Conferences, and at workshops supported by local chapters of ISA have begun to present innovative techniques that integrate tree risk and wildlife habitat management being developed and tested in the United Kingdom, Australia, and the United States.

Let's consider an example. Dead wood, often severely <u>Urban Forest continued on page 5</u>



Continued from Urban Forest page 4

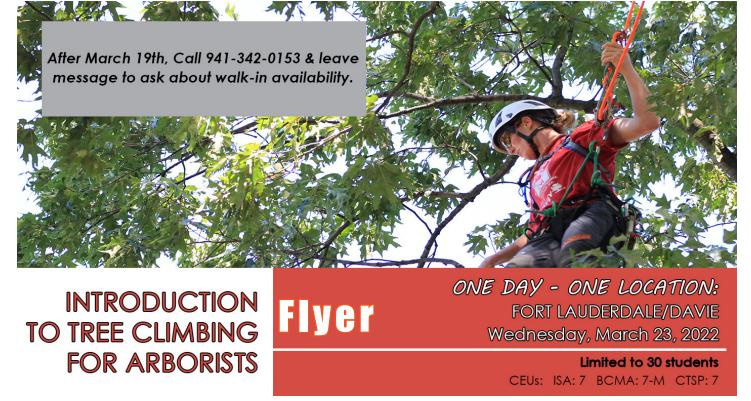
lacking in our metropolitan regions (Northrop et al., 2013), often provide greater habitat value for wildlife than when they are alive. Standing dead and dying trees, often called 'snags' are important for wildlife in both natural and landscaped settings, occurring because of insect damage, disease, lightning, fire, drought, root competition, as well as old age. Many snags are cut down without much thought to their ecosystem or wildlife value or the management options that can safely prolong the existence of the tree.

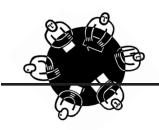
A snag can harbor numerous insects, which in turn are also food for wildlife. The outer surface of the bark is where birds such as Carolina chickadees, tufted titmouse, and woodpeckers eat bark beetles, spiders, and ants. The inner bark is where woodpeckers feed on larvae and pupae of insects. Mammals such as raccoons may tear into these areas of snags to harvest the protein-rich insects. Strong excavators such as the pileated woodpecker prey upon carpenter ants and termites in the heartwood. The space between partially detached bark and the tree trunk is where brown-headed nuthatches and house wrens roost or search for food. Tree frogs, several species of bats, and many butterflies also find shelter there. The fallen snag continues to provide important habitat on the ground for invertebrates, amphibians, as well as bacteria and fungi whose feeding leads to the incorporation of the woody organic matter into the mineral soil.

As our states and world become more and more urbanized, the urban forest will increasingly become an important reserve for wildlife habitat and the conservation of biological diversity. As professionals we need to recognize the potential of urban areas to function as wildlife habitat, and work to promote habitat development, management, and conservation. Urban foresters and arborists now have the opportunity to expand their traditional roles by incorporating a more ecological perspective into their work and supporting the sustainability of cities.

Literature Cited

- Daily, G. C. 1997. Introduction: what are ecosystem services? In G. C. Daily (Ed.), Natures services: societal dependence on natural ecosystems, pp. 1-10. Washington, D.C.: Island Press.
- Melosi, M. V. 2008. The Sanitary City: Environmental Services in Urban America from Colonial Times to the Present. University of Pittsburgh Press, 354 pp.
- Northrop, Robert J., Kathy Beck, Rob Irving, Shawn M. Landry and Michael G. Andreu. 2013. City of Tampa Urban Forest Management Plan. November 2013. City of Tampa, Florida.
- Grove, J.M; Cadenasso, M.L; Pickett, S.T.A.; Machlis, G.E. and W.R. Burch. 2016. The Baltimore School of Urban Ecology. 227 pp.





Florida Chapter Board Updates

BOARD SHORTS:

NOMINATE YOUR COLLEAGUES



Nominate your colleagues by May 15th! The Florida Chapter of the ISA recognizes outstanding achievements in the arboriculture profession, as well as the efforts by individuals to make an impact on the practice of

arboriculture. We recognize these contributions through several award categories: the Bok Award, the Award for Excellence in Education, the Award of Distinction, the Loren Westenberger Award, and the President's Award of Merit. Applications for the Florida Chapter ISA awards are due by May 15, 2022. Find the application pre-proposal form by clicking here.

GRANT APPLICATIONS



Grant applications pre-proposals are due in the Florida ISA office by April 1, 2022. <u>Click here for the pre-proposal forms and more info.</u>

JOHN WHITE SCHOLARSHIP



Fall semester scholarship applications for the John White Scholarship must be received by June 15, 2022. Click here for more details and the application form. The Scholarship program is co-sponsored by the Florida Urban

Forestry Council and the Florida Chapter ISA in honor of John P. White. Purpose Statement: The John P. White Memorial Scholarship was created to encourage students to pursue careers in Florida's arboriculture/urban forestry industry or a related field by providing financial assistance for undergraduate, postgraduate or other advanced education programs. The intent is to provide financial assistance for qualified students to gain expertise and experience, earn post high school degrees and become active members and leaders in the industry.





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Green Infrastructure: What is it and why should You care?

Henry Mayer, Miami-Dade Extension and A.D. Ali, Davey Tree Expert

Green infrastructure (GI) is an approach to water management that protects, restores, or mimics the natural water cycle. It is an effective, and economical way to enhance quality of life in urban areas. By definition, GI refers to "constructed features that use living, natural systems to provide environmental services, such as capturing, cleaning and infiltrating stormwater; creating wildlife habitat; shading and cooling streets and buildings; and calming traffic" (MacAdam 2012).

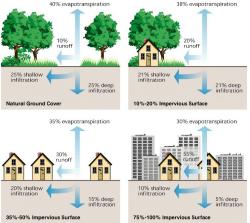


Figure 1.-Water loss in pervious vs. impervious surfaces, courtesy of NRCS-USDA

Urban areas contain substantial areas of hardscape the form in of buildings, roads, paved parking lots concrete sidewalks. The impervious nature of these surfaces leads to runoff during

periods of heavy precipitation. Up to 55% of precipitation in urban areas could turn into stormwater runoff (Figure 1). In addition, compacted soils with poor drainage that are common in urban areas, will contrib-



Figure 2.- Compacted soil in urban setting, courtesy of H. Mayer

ute to the water runoff (Figure 2). Some of the consequences of the stormwater runoff include less water that could recharge aquifers, soil erosion, overloading of the water treatment systems, and polluting

water bodies with chemicals, oils, fertilizers.



of AD Ali

How can we increase the green infrastructure? Large scale options include planting trees, restoring wetchoosing lands. efficiency systems, and re-Figure 3.-Bioswale example, courtesy storing floodplains. Smaller



Figure 4.- Green Roof of Chicago City Hall, courtesy of Chicago2

scale options include urban forests, green roofs (Figure 3), rain gardens and bioswales (Figure 4) (Soil Science Society of America 2017).

Urban forests are a key component of the green

infrastructure and are composed of trees and other vegetation planted in municipal parks, street trees as well as those found in residential landscapes. Because most of the tree benefits occur when the vegetation is mature, it is important to look at the urban forest as a long-term investment (Figure 5).



m e n t a l compo-Figure 5.- Difference in canopy coverage on trees with 3,15 and 30 nents of the ur-

Trees as

funda-

years old, courtesy of AD. Ali.

ban forest are valuable in many ways:

- In one year, a mature tree will absorb more than 48 pounds of carbon dioxide from the atmosphere and release oxygen in exchange, https://www.usda. gov/media/blog/2015/03/17/power-one-tree-veryair-we-breathe
- Trees can help reduce cooling and heating bills by 25%. Properly placed trees help conserve energy by shading and cooling buildings in the summer and blocking cold winter winds. U.S. Department of Energy predict that the proper placement of only three trees can save an average household between \$100 and \$250 in energy costs annually, https://www.energy.gov/energysaver/landscapingenergy-efficient-homes
- In addition to their practical value, trees have aesthetic and health value, and help reduce crime. They add various colors, shapes, textures, and patterns to the landscape. Properly placed trees have a welcoming effect and reduce the stress rate, https://www.tandfonline.com/

Green Infrastructure continued on page 10

Infraestructura verde: ¿Qué es y por qué debería importarte?

Henry Mayer, Miami-Dade Extension and A.D. Ali, Davey Tree Expert

La infraestructura verde (GI) es un enfoque de la gestión del agua que protege, restaura o imita el ciclo natural del agua. Es una forma eficaz y económica de mejorar la calidad de vida en las zonas urbanas. Por definición, GI se refiere a "características construidas que utilizan sistemas naturales vivos para brindar servicios ambientales, como capturar, limpiar e infiltrar aguas pluviales; crear un hábitat para la vida silvestre; sombreado y enfriamiento de calles y edificios; y calmar el tráfico" (MacAdam 2012).

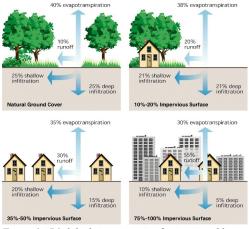


Figura 1.- Pérdida de agua en superficies permeables vs. impermeables, cortesía de NRCS-USDA

Las áreas urbacontienen nas áreas sustanciales de superficies duras en forma de edificaminos cios. pavimentados, estacionamientos y aceras de concreto. imnaturaleza permeable superfiestas

cies conduce a la escorrentía durante los períodos de fuertes precipitaciones. Hasta un 55% de la precipitación en áreas urbanas podría convertirse en escorrentía de aguas pluviales (Figura 1). Además, los suelos compactados con mal drenaje que comunes estan en las áreas urbanas contribuirán a la escorrentía de agua



un entorno urbano, cortesía de H.

(Figura 2). Algunas de las consecuencias de la escorrentía de aguas pluviales incluyen menos agua que podría recargar los acuíferos, la erosión Figura 2.- Suelo compactado en del suelo, la sobrecarga de los sistemas de tratamiento de agua y la contaminación de los

cuerpos de agua con productos químicos, aceites y fertilizantes.

¿Cómo podemos aumentar la infraestructura verde? Las opciones a gran escala incluyen la plantación de



Figura 3.- Ejemplo de un Biofiltro, cor-



Figura 4.- Techo verde del ayuntamiento de Chicago, cortesía de Chicago2

árboles, la restauración de humedales, la elección de sistemas de eficiencia hídrica y la restauración de llanuras aluviales. Las opciones de menor escala incluyen bosques urbanos, techos verdes (Figura 3), jardines de lluvia y biofiltros (Figura

> 4) (Soil Science Society of America 2017).

Los bosques urbanos son componente clave de la infraestructura verde v están compuestos por árboles y otra vegetación plantada

en parques municipales, árboles en las calles y en residencias. Debido a que la mayoría de los beneficios de los árboles ocurren cuando la vegetación es adulta, es importante considerar el bosque urbano como una inversión a largo plazo (Figura 5).



Figura 5.- Diferencia en cobertura árborea en árboles de 3, 15 y 30 nentes años, cortesía de A.D. Alí.

Los árboles c o m o compo-

funda-

mentales del bosque urbano son valiosos de muchas maneras:

- En un año, un árbol maduro absorberá más de 48 libras de dióxido de carbono de la atmósfera y liberará oxígeno, https://www.usda.gov/media/ blog/2015/03/17/power-one-tree-very-air-webreathe
- Los árboles pueden ayudar a reducir lo que se paga por aire acondicionado y calefacción en un 25%. Los árboles colocados correctamente ayudan a conservar energía al dar sombra y enfriar los edificios en el verano y bloquear los vientos fríos del invierno. El Departamento de Energía de EE. UU.

Green Infrastructure continued from page 8

doi/abs/10.1080/02827580701262733#preview and https://depts.washington.edu/hhwb/Thm Crime.html

- The property value of landscaped homes is 5 to 20% higher than that of non-landscaped homes.
- Trees provide habitats for wildlife birds, mammals, and reptiles.
- Trees provide forest products, including lumber, paper, mulch, oils, gums, syrups, and fruits

Other options to increase the green infrastructure include green roof, rain gardens, and bioswales. It is up to you and the decision-making municipal people to increase the green infrastructure investment in your community. For sure, the benefits surpass the investments!

MacAdam, J. 2012. Green infrastructure for southwestern neighborhoods. Watershed Management Group. 50 p.

Soil Science Society of America. 2017. https://www.soils.org/discover-soils/soils-in-the-city/green-infrastructure.



Infraestructura contiued from page 9

menciona que la colocación adecuada de tres árboles puede ahorrarle a un hogar un promedio de entre \$100 y \$250 en costos de energía al año, https://www.energy.gov/energysaver/landscaping-energy-efficient-homes

- Además de su valor práctico, los árboles tienen valor estético y de salud y ayudan a reducir el crimen.
 Los árboles colocados correctamente tienen un efecto acogedor y reducen la tasa de estrés, https://www.tandfonline.com/doi/abs/10.1080/02827580701262733#preview and https://depts.washington.edu/hhwb/Thm Crime.html
- El valor de propiedad de las casas con jardines es de un 5 a 20% más alto que el de las casas sin jardines.
- Los árboles proporcionan hábitats para la vida silvestre: aves, mamíferos y reptiles.
- Los árboles proporcionan productos forestales, que incluyen madera, papel, mantillo, aceites, gomas, jarabes y frutas.

Otras opciones para aumentar la infraestructura verde incluyen techos verdes, jardines de lluvia y biofiltros. Depende de usted y de las personas que toman las decisions a nivel municipalesde aumentar la inversión en infraestructura verde en su comunidad. ¡Seguro que los beneficios superan las inversiones!

MacAdam, J. 2012. Green infrastructure for southwestern neighborhoods.

Watershed Management Group. 50 p.

Soil Science Society of America. 2017. https://www.soils.org/discover-soils/soils-in-the-city/green-infrastructure. https://www.soils.org/discover-soils/soils-in-the-city/green-infrastructure.





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2022 ARBORMASTER CLIMBING KIT PRIZE PACKAGE

The Florida Chapter ISA is pleased to announce the 2022 ArborMaster Climbing Kit Prize Package for the Tree Climbing Champion (TCC), held in conjunction with the Chapter's 2022 Tree Climbing Championship (TCC) event. This climbing kit is being offered to each chapter champion (both man and woman), if applicable.

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FLORIDA CHAPTER TREE CLIMBING CHAMPIONSHIP

Saturday, April 2, 2022: Preliminaries Sunday, April 3, 2022: Master's Challenge

Venetian Gardens Park

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FCTCC Arbor Fair Chair: Bonnie Marshall, <u>bonnie.marshall@juniperlandscaping.com</u> FCTCC Climbing Chair: Adam Jackson, <u>adam.jackson@redwingcompany.com</u>

Contact the committee chairs above if you have any questions about competing, volunteering or being an exhibitor or a sponsor! We all look forward to seeing Florida's best climbers compete for the opportunity to represent the Florida Chapter at the International Tree Climbing Championship in Copenhagen, Denmark in early September, 2022.

COME AND WATCH YOUR FAVORITE CLIMBER SHOWCASE THEIR SKILLS!

All Climber spots are filled.

We still need volunteers, exhibitor-sponsors and sponsors (these are sponsors who are not going to exhibit).

ALL REGISTRATIONS ARE DONE ONLINE

Volunteers

Volunteers are needed for site preparation, event assistance and judging.

Register Online Including
Waiver

Exhibitor-Sponsors

Join us as an outdoor exhibitor!

Monetary and/or gear donations are accepted. Exhibitor-Sponsor Registration Exhibitor Rules

Sponsors

Sponsors are greatly appreciated at our event!"

<u>Donate Online</u>

Sponsor Levels

Florida Nursery, Growers & Landscape Association Welcomes New CEO





After a six-month national search, Talmadge "Tal" Coley has been tapped as the next chief executive officer to lead the Florida Nursery, Growers and Landscape Association (FNGLA).

"Over FNGLA's 70-year history, we have employed only four CEOs," Sarah Spatola, FNGLA's 2021-22 president, said. "The quality and tenure of our staff is a strength that has served us well in upholding our core values and completing our strategic goals. We are confident Tal's industry knowledge, advocacy acumen and

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esteemed service to our nation's nursery and landscape industry will further bolster the strength and innovation of FNGLA."

Coley, a Florida native, has been serving in Washington, D.C. as the senior director of advocacy & government affairs for AmericanHort, based in Columbus, OH. He has also been serving as executive director of the Nursery & Landscape Association Executives (NLAE) of North America.

Prior to his role at AmericanHort, Coley undertook leadership roles in several legislative outreach capacities over a five-year-period advocating for veterans at Concerned Veterans for America. Coley also served for four years in the United States Air Force as a Russian cryptologic linguist where he was stationed at Fort Meade, Maryland. He holds a bachelor's and a master's degree from the University of North Florida and the University of Miami respectively.

"I am humbled and honored to be the next Chief Executive Officer at FNGLA," Coley said. "The opportunity to return home to Florida and advocate for an industry I feel so passionate about is truly a dream come true. Leading FNGLA into this next chapter and building off the incredible foundation Ben Bolusky has provided is a mission I am eager to take on."

Coley will take the reins from FNGLA CEO Ben Bolusky, who announced plans to retire after what will be 24 years of faithful service to FNGLA. Bolusky and Coley will initially work side-by- side during an onboarding period, and Bolusky will cap his work at the Association during FNGLA's Annual Convention in June 2022.

"Ben brought a wide range of expertise and experience to FNGLA when he arrived, all of which have moved the Association forward on several important fronts," FNGLA Chief Operating Officer Linda Adams said. "As we start a new FNGLA leadership era, we welcome Tal to the FNGLA team and are excited to work with him to continue to innovate and build upon FNGLA's strengths." *



Join the TREE Fund at the Tour des Trees this year and cycle 440 miles over six days through the western part of Iowa. This year's ride takes place from September 3 through 10.

We will be making stops in Des Moines, Pella, Ames, Creston, and Nebraska City, Nebraska, all while spreading our love of trees and the mission of the TREE Fund.

Of course, this ride is still the primary fundraiser for the TREE Fund and all riders are required to create a fundraising page. See the <u>details on our web-</u>

<u>site</u> for registration information, travel details, fundraising information, and routes.



Important dates:

Registration: Now until June 20 Event Dates: September 3 to 10 Fundraising Deadline: September 30

Can't make it to Iowa this year for the ride? We will once again have a Virtual Ride Option so you can still get in on the fun! Virtual participants will receive links to special events during the week and be eligible for prizes with no fundraising minimums. See link for details.

Consultant's Corner

by Joe Samnik, Expert Forensic Arborist

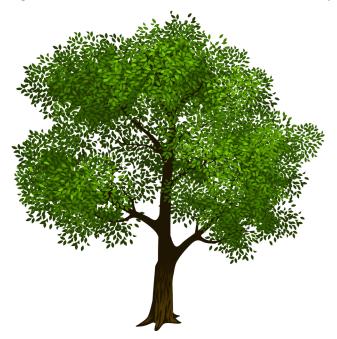


TREE ROOTS, PROPERTY LINES AND NEIGHBORS

Tree roots do not recognize or respect property lines. They regularly cross property lines without conscience or the realization of doing great harm. The question becomes, what to do with them once they do cross a property line and pose a risk to the neighbor or his property. Root pruning comes to mind; however, it may be wise to consider actions of self-help.

Self-help itself is the remedy by law that states it is wiser to leave the individual to protect himself then do subject the other to the annoyance of actions that law which would likely be innumerable. Easy for the courts to say. Putting those words into action often results in legal repercussions by the party responsible for severing the roots.

The issue at hand involves a very common theme. The roots of a pine tree belonging to neighbor A cross the boundary line of neighbor B and head directly to its favorite living space, a sewer line, causing damage to the sewer line that ran under the driveway.



Fixing the sewer line necessitated removing and replacing the driveway. While remedying the driveway issue, some roots of the pine tree were severed. This action caused the owner of the pine tree undue concern regarding its structural integrity and increased the risk that the pine tree might one day fall on to plaintiff's home. Plaintiff paid to have the pine tree removed and abate the risk.

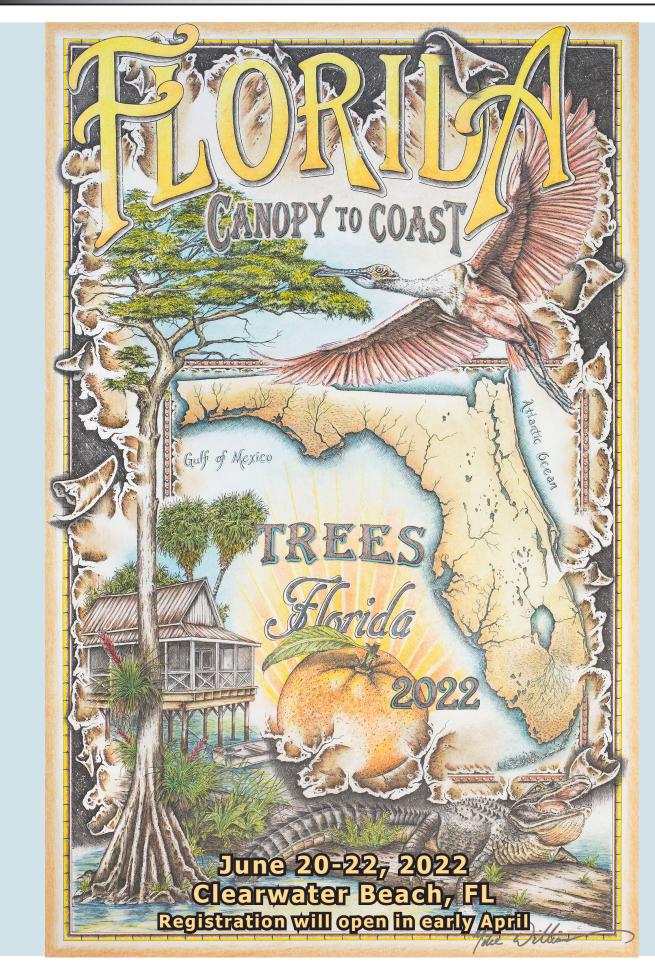
The owner of the pine tree sued to recover the costs of removing the subject tree. Neighbor B, whose driveway and sewer line were destroyed by the encroaching roots cross-appealed the judgment, arguing that the court erred in finding them liable for damaging the tree and that they had the right to cut the tree roots that encroached onto their property. Self-help.

The issue in this matter boiled down to whether the adjoining property owner was liable to the tree owner when self-help caused damage to the tree. Noting that self-help (Gallo v. Heller) reflects the predominant view around the country, that an owner of a healthy tree is not liable to an adjoining property owner for damage caused by encroaching tree branches or roots, but the adjoining property owner is privilege trim back at his own expense any encroaching tree branches or roots which has grown onto his property.

Because no controlling precedent address this issue, it followed that the court did not violate clearly established law in ruling the way that it did. The neighbor who cut the roots undisputedly had a right to do so. The only damage claimed were costs of tree removal. Had the lawsuit alleged damages to persons or property other than the tree, a different outcome may have been realized.

And there are cases where different outcomes have applied when cutting encroaching tree roots. Cases that state reasonable care must be exercised when cutting encroaching branches or limbs, and that cutting encroaching tree roots does not extend to the destruction or injury to the main support system of a tree.

Caution is always the best exercise when cutting encroaching tree parts. Perhaps the best person to differentiate the forest from the trees would be an attorney. ••



UF experts: Salvage native plants from construction sites for future use Brad Buck, UF-IFAS Communications



Sometimes, good ideas are borne from opportunity. When Kayla Hess was working on her master's thesis from the University of Florida, she sampled a wetland on a proposed development site just north of Gainesville. In the process, she found 273 types of plants.

About 80 species were native plants commonly used in urban landscaping.

"The number of native landscaping plant species illustrates the potential waste of plant materials if these species are not salvaged," said Basil Iannone, Hess' thesis supervisor and a UF/IFAS assistant professor of residential landscape ecology. "After looking at the list of plants, we realized that there were a lot of good landscaping plants that could be used on the site. We found 31 of these species are potentially well-suited for the harsh soil conditions found in newer residential developments."

Vegetation examples from the construction site include red maple, American holly and highbush blueberry. Red maple serves as a shade tree and provides habitat to birds and pollinators. American holly is a small tree or large shrub that can provide privacy, while highbush blueberry is a lower-growing shrub that can function as a shorter perimeter hedge.

Iannone and Hess talked about her findings with Taylor Clem, then an urban horticulture agent with UF/IFAS Extension Alachua County and now the director of UF/IFAS Extension Nassau County. The three discussed how we can use plants at construction sites that might otherwise be tossed.

Out of that, a new UF/IFAS Extension document emerged.

The UF/IFAS experts devised a couple of strategies to salvage plants from construction sites:

Developers can harvest vegetative material before clearing the land. Harvesting these species and using them in landscaping can cost less money and energy than growing new plants and transporting them from other locations. They can either replant them into the landscapes of newly developed sites nearby or use an on-site nursery to store the salvaged plants.

Developers can let others harvest the materials to use at places such as commercial and/or residential developments, government land or nurseries. Allowing others to harvest plants can offset the demolition cost to remove them.

"Salvaging plant species from future development sites could contribute much-needed native plant material to nurseries," Iannone said. "These efforts can prevent the waste of valuable plant material and reduce the resources required to grow plants for future development sites (such as water, fertilizers and pesticides). One of the biggest challenges for increasing native plant diversity in urban landscapes is the lack of plants for people to purchase."

For information about proper ways to grow native plants, go to the Florida Native Plant Society website. ❖

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News From International

2022 CALL FOR AWARD NOMINATIONS NOW OPEN

With the use of its awards program, the International Society of Arboriculture recognizes amazing accomplishments individuals contribute to the arboriculture industry. ISA recognizes these exceptional contributions to the profession and this organization with the ISA Awards of Distinction and the ISA True Professionals of Arboriculture. ISA welcomes you to nominate your peers in the industry who've dedicated their time and effort to push the industry forward.

Presented by the Bartlett Tree Experts, the ISA Awards of Distinction are ISA's highest honors and include nine categories—the Award of Merit, Alex L. Shigo Award for Excellence in Arboriculture Education, Sharon J. Lilly Award of Achievement, Honorary Life Membership, R.W. Harris Author's Citation, L.C. Chadwick Award for Arboriculture Research, M.F. Blair Award for Exceptional Contribution to Practical Arboriculture and Early-Career Scientist. This program honors recipients for their contributions to the advancement of the arboriculture industry. Learn more and download the nomination form.

The ISA True Professional of Arboriculture program recognizes arborists who have achieved notable success in educating their communities, clients, colleagues and/or employees about the importance of trees, the necessity for proper tree care, and the role today's arborists play in tree care service and education. Learn more and download the nomination form.

Click here to locate nomination forms. All forms and supplemental information must be submitted to awards@isa-arbor.com. The deadline for nominations is 21 March. Nominations are reviewed by the ISA Awards Committee, and the committee submits a roster of recommended award recipients to the ISA Board of Directors for approval.

The award recipients will be announced and honored publicly at the ISA 2022 Annual International Conference in Malmö, Sweden 12-14 September.

ISA 2022 INTERNATIONAL CONFERENCE – MALMÖ, SWEDEN!

ISA is excited to return to in-person events in 2022 with the ISA Annual International Conference being hosted in Malmö, Sweden 12-14 September.

The ISA 2022 Annual International Conference offers a forum for participants to learn and network with others in the arboricultural profession. This event provides a lineup of keynote speakers and educational breakout sessions led by industry leaders from around the globe, sharing their thoughts and views about research, practice, and technology.

The event is hosted by ISA alongside the Swedish ISA Chapter in partnership with their Scandinavian colleagues Denmark and Norway. All speakers will present in English!

Location

The conference will be held at the Clarion Hotel & Congress Malmö Live. The venue is in the very heart of Malmö and is only a five minutes' walk from the central station and with plenty of restaurants, bars and shopping to enjoy! Learn more about Malmö by visiting this link - https://visitsweden.com/where-to-go/southern-sweden/malmo/

Click here for more details and important air travel planning.

INTERNATIONAL ITCC – COPENHAGEN, DENMARK!

Before the ISA Conference, the ITCC event will be held in near-by Copenhagen, hosted by and in partnership with ISA Denmark Chapter. The event is scheduled for 9-11 September 2022 in Fælledparken, Edel Sauntes Allé, 2100 København, Denmark.

Click here for updates and details.





Florida Chapter ISA - 2022 Education Schedule

*The schedule below is tentative and subject to changes.

View Florida Chapter Seminars Online

Date	Seminar/Class	Location (s)	Open for Registration
March 23, 2022	Intro to Climbing	Fort Lauderdale	Register Online
April 1, 2023	Outdoor Tree School	Leesburg	Register Online
April 13-14, 2022	2-day Tree School Short Course	Wimauma	Register Online
April 13-14	2-day Tree School Short Course	Live Stream via Zoom	Register Online
April/May	Plant Health Care	Ft Myers/Orlando	Watch for Details
June 20-22, 2022	Trees Florida 2022	Clearwater Beach	Coming Early April

Welcome!

New Florida Chapter Members

Below are the individuals that joined the Florida Chapter during the fourth quarter of 2021. If you see a name from your area of the state, look up their phone number online* and give them a call. Introduce yourself and find out what aspect of arboriculture the new member is involved in. Let's make the Florida Chapter friendlier.

We're all working in different ways for the same goals. Get to know other Chapter members! You might make some helpful connections for the future.

We would like to also thank our renewing members throughout the past year. We sincerely appreciate your support of the Florida Chapter.

Ramel Adams, Palm Coast, FL Francisco Alejandre, Parkland, FL Jose Angel Garcia, Miami, FL Jay Arthurs, Lehigh Acres, FL Jesus Borrego, Tamarac, FL Mary Sandell Brunner, Palmetto, FL Christian Buckle, North Port, FL Keifer Rayburn Calkins, Saint Petersburg, FL John Campetella, Summerfield, FL Robert Lee Castleberry, Jupiter, FL Michael Cihal, Davie, FL David Scott Conser, Gainesville, FL Matthew Davis, Biscayne Park, FL Anthony A. Deleon, Saint Petersburg, FL Colton Douglas, Trenton, FL Corey Ferguson, Micanopy, FL Christopher B. Frick, Mulberry, FL Hunter Goan, Gainesville, FL Marc Goldman, Plymouth, MA Kenneth J. Greby, Miami Springs, FL Justin Blake Hall, Fort Pierce, FL Brett Harbauer, Dunedin, FL Jennifer Harris, Los Lunas, NM

James Hart, Tampa, FL Nathan Haynes, Saint Augustine, FL Humberto Javier Hernandez, Tampa, FL Olivia Grace Johnson, Boca Raton, FL Nicholas Joseph Johnston, Odessa, FL Blake Josephson, Tampa, FL Tyler Kirkpatrick-Thomas, Tampa, FL Isaiah Kozawick, Haines City, FL Aline Oliveira Teodoro Silva Kuzma. Kissimmee, FL Stuart N. Lansing, Sun City Center, FL Matthew Lollar, Milton, FL Robert Kevin Maddox, Apopka, FL Erin Nicole Maehr, Tampa, FL Shane Martin, Satellite Beach, FL Rolando Martinez, Pembroke Pines, FL Felipe Martinez-Noguera, Boca Raton, FL David Neville, Fernandina Beach, FL Celia Rose Nichols, Lutz, FL Jose Vicente Nunez-Gomez, Sarasota, FL Eric Petersen, New Berlin, WI

Clifford Randolph, Brooksville, FL Grantly Everton Ricketts, Port Saint Lucie, FL Jacob Ripp, Pembroke Pines, FL Brian James Ross, Sarasota, FL Brian Shafer, Largo, FL Brenda Slatter, Milton, WI Heather Smith, Tampa, FL Jordan Snyder, New Port Richey, FL Christy Cecilia Veronica Suhendy, Gainesville, FL Erik A Tallbe, Ocala, FL Jerry Taylor, Mulberry, FL Alexis Tisol, Miami, FL Dave Vaughn, Ocala, FL Jerome Veira, Opa Locka, FL Thomas Walsh, Lakewood Ranch, FL Marcus Tan Kok Wee, Parit Raja, Batu Bahat Johor Joe Welch, Winter Springs, FL Bonnie Cook Wells, Cocoa, FL Barry Wayne Williams, Jacksonville, FL

*Go to http://www.isa-arbor.com, then go to "Members Only" and log in. Then go to ISA membership directory. If you do not know your log in for members only, contact ISA headquarters at (888) 472-8733. Once you log in, you can update your address, check your CEU's, edit or verify Certified Arborist information and search the membership list.

Jose Quintero, Pembroke Pines, FL

Letters to the Editor

We welcome your thoughts about Florida Arborist articles, about your Florida Chapter, or about tree issues in general.

Email your letters to: jan@floridaisa.org

or mail to: Florida Chapter - ISA 7853 S. Leewynn Court Sarasota, FL 34240

Please remember: Letters should be no longer than 300 words. We reserve the right to condense letters, or to edit as necessary.



An invitation to all members to attend a

Board of Directors Meeting!
Call 941-342-0153
for specific times and locations

Up-coming 2022 Board Meeting - Dates & Locations

April 22, 2022: Orlando June 19, 2022: Clearwater Spetember 9, 2022: Orlando

Arborist Certification Committee Report

By Norm Easey, Florida Certification Liaison

<u>Click here to view all scheduled exams</u>; clicking on the "state" column will group all Florida exams together for easy searching. Relatively few in-person exams are currently scheduled; look into taking your exam at a Pearson Testing Center (throughout Florida - most are open with COVID safety precautions).

See the <u>ISA International</u> website for more information about the various ISA arborist credentials and how to earn them.

Florida Chapter currently has 2247 Certified Arborists.

The Florida Chapter would like to congratulate the following 62 Florida or Florida Chapter individuals for earning their certifications during the 4th quarter of 2021 as Certified Arborist, Board Certified Master Arborist and Utility Specialist as well as TRAQ Qualified:

Certified Arborist

Jesus Borrego, Tamarac, FL

Jordanne Maiya-Lyn Brady, Lehigh Acres, FL

Keifer Rayburn Calkins, Saint Petersburg, FL

Gina Duke, Panama City, FL

Lyzabeth A. Fiore, Oakland Park, FL

Jessica Havrilesko, Gulfport, FL

Amanda Holston, Cantonment, FL

Judd Lee, New Smyrna Beach, FL

Matthew Lollar, Milton, FL

Gabriella Noelle Martinez, Venice, FL

Jenniffer Melchiade, Jacksonville, FL

Mark Moore, Miami, FL

David Neville, Fernandina Beach, FL

Chris O'Hara, Orlando, FL

Shawn Penniman, Saint Petersburg, FL

Jacob Ripp, Pembroke Pines, FL

Antonio Rodriguez, Royal Palm Beach, FL

John Schultz, Winter Garden, FL

Brian Shafer, Largo, FL

Chelsea Trottier, Orlando, FL

Clifford Ellery Vann, Gainesville, FL

Rafael Vidal, Polk City, FL

Board Certified Master Arborist

Christopher P. Andrews, Leesburg, FL

Utility Specialist

Lenora S. Chase, Cape Coral, FL Mr. Clifford Randolph, Brooksville, FL Jacob Roggenkamp, Belleview, FL



TRAO Qualifications

Daniel Tavares Dos Santos, Oakland Park, FL

Jacob Begley, Titusville, FL

David Brayboy, Merritt Island, FL

Anthony Bruce Burr, Hobe Sound, FL

Charles Carr, Pinecrest, FL

Justin M. Carris, Tampa, FL

Chase Dalton, Panama City, FL

Ben Dolan, Jupiter, FL

Anthony Ferrer, Plantation, FL

Jacob Gambino, Tamarac, FL

Laura Gibson, Bonita Springs, FL

Omayra Guedes, Miami, FL

Tyler Hoag, DeLand, FL

Shawna L. Kornel, South Daytona, FL

Austin Kreutzfeld, North Port, FL

Kelly McPherson, Gainesville, FL

Kenia Medina, Miami, FL

Ken Miller, Inverness, FL

Mary Viola Niehaus, Santa Rosa Beach, FL

Adam Painter, Orlando, FL

Hugo L. Paiz, Plantation, FL

Elva Peppers, Tallahassee, FL

Matthew Posey, Saint Augustine, FL

Chelsea Proia, Gainesville, FL

Kailey Leona Reeves, New Port Richey, FL

Michael S. Roe, Fleming Island, FL

Sally Scalera, Cocoa, FL

Erin Cathryn Schreck, Delray Beach, FL

Jeffery Donald Trent, Brooksville, FL

Alison Walker, Miami, FL

Jeffrey M. Washeck, Satellite Beach, FL

Gene Washington, Jacksonville Beach, FL

Gregory White, Sarasota, FL

Barry Wayne Williams, Jacksonville, FL

Nick Alexander Wladyka, Punta Gorda, FL

Jovan Zeller, Brooksville, FL

International Society of Arboriculture Florida Chapter



Our Mission: "To Promote and Improve the Scientifically Based Practice of Professional Arboriculture"

Arborist Code of Ethics

Strive for continuous self-development by increasing their qualifications and technical proficiency by staying abreast of technological and scientific developments affecting the profession.

Not misuse or omit material facts in promoting technical information, products or services if the effect would be to mislead or misrepresent.

Hold paramount the safety and health of all people, and endeavor to protect property and the environment in the performances of professional responsibilities.

Accurately and fairly represent their capabilities, qualifications and experience and those of their employees and/or agents.

Subscribe to fair and honest business practices in dealing with clients, suppliers, employees and other professionals.

Support the improvement of professional services and products through encouraging research and development.

Observe the standards and promote adherence to the ethics embodied in this code.

