

City TREES

Nov. / Dec. 2019

Journal of the Society of Municipal Arborists





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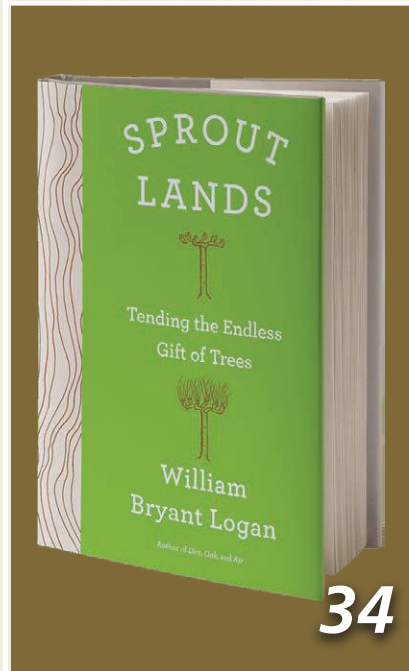
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Cover: Conk mushrooms on a sweetgum (*Liquidambar styraciflua*) in Long Beach, California that is suffering from extensive internal decay and recommended for removal. Photo by Walter Warriner, Consulting Arborist



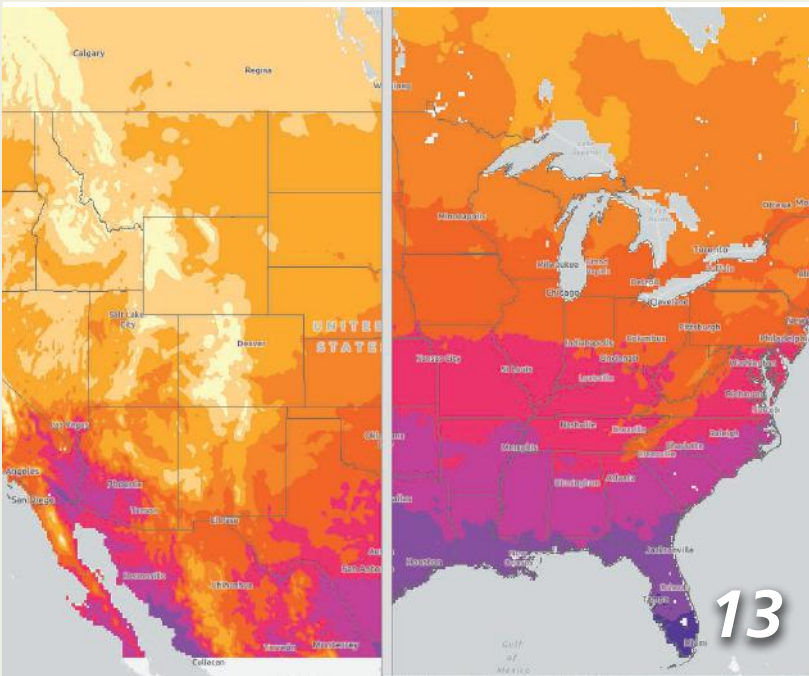
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President's Message

Keith Cline



Throughout the year I have used this column to highlight SMA partnerships and initiatives that benefit our members and the communities we serve. Perhaps there is no more important partnership, and no other in more need of strengthening, than our relationship to

the Utility Arborist Association (UAA). I have always believed that utilities and utility arborists and foresters touch more trees than any other resource managers in a municipality. It is essential that municipal arborists and utility arborists work closely together to accomplish our common goal of providing healthy and safe urban forests in our communities.

In fact, that is exactly what SMA and UAA agreed to do in our Memorandum of Understanding (MOU) adopted in 2006:

We share the common goal of improving the quality of life for all of our citizens by enhancing the extent and condition of the urban forest and by delivering safe, reliable electric power. We are committed to ongoing communication, cooperation, and collaboration to meet this goal at all levels of community.

We recognize and endorse ANSI A300 Tree Care Performance Standards, the ANSI Z133.1 Safety Standard, and ISA Best Management Practices. We support the ISA Certified Arborist/Municipal Specialist and Utility Specialist certification programs. We encourage attainment of the National [sic] Arbor Day Foundation's Tree Line USA and Tree City USA recognitions and fully support the concept of "Right Tree, Right Place."

This is a simple but powerful commitment, but unfortunately, a commitment that has not always received the attention and recognition that it deserves. That is changing. In 2018, both the UAA and SMA Board of Directors reaffirmed this MOU and have committed to working together to advance the goal and spirit of the agreement.

I have talked with many utility and municipal arborists over the last few months. There are many stories of successful and innovative collaborative projects at the local and regional level—and the one thing all these successful efforts have in common is personal relationships. Please, if you are a municipal arborist or utility arborist, pick up the phone, reach out to your professional counterpart, and sit down and talk about how you can work together to accomplish both your organizations' goals and the common goal of maintaining a healthy and safe urban and community forest.

Keith W. Cline

Executive Director's Message

Jerri J. LaHaie



One of the Board initiatives this year was to work on telling the story of SMA. When we thought about what that really meant, it was simple. It's each and every one of our members' experiences in urban forestry and how SMA has impacted them.

For some, it is attending the annual conference where you have the opportunity to rekindle friendships made over the years, learn about the latest products and services, and meet new folks from all over the country and beyond. For others, it is the growth you experienced both personally and professionally while honing your leadership skills at MFI. Those of you who aren't able to attend our programs still find great value in the articles in *City Trees* or connecting via the SMA Listserve.

Each of our Board members just gave a two minute testimonial about SMA, and it was so interesting to hear their stories summed up in a brief video clip. We know you all have your own stories—and we want to hear them. You may not think you have a story to tell, but I assure you there is a member or potential member out there who needs to hear what you have to say.

I'd venture to say that no two city arborists' jobs are alike. Besides being different sizes and in different climates, the political, social, and economic conditions of a community have a huge impact on the tree program. But the one thing you all have in common is your passion for more livable cities and your tenacity to work through the quagmire that leads to that goal. Your paths may be different, but the destination is the same.

Many of you who have attended MFI have given us a testimonial that we use to market MFI. Those of you who will be at the conference in Cleveland will have the opportunity to chat with our roving reporter. If you're not attending, feel free to video yourself and send it to us. With a cell phone or computer camera, it is so easy. We will collect and share them with our membership so you can all see what rock stars you are! It will make you proud to be a member of SMA.

Jerri J. LaHaie



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Municipal – This group includes cities and towns with the same privileges as a corporate member with one vote and up to five non-voting members at an additional \$25 per person. Annual dues are \$150.

Affiliate – This group includes non-professional individuals, who are not eligible for membership in another category, such as members of non-profits, state councils, and allied professions who are not currently employed in an urban forestry position. This category has no voting rights. Annual dues are \$50.

Senior – This subcategory of Professional membership includes retired municipal arborists. Annual dues are \$50.00.

Student – This subcategory of Professional membership includes full-time students of a college or horticultural school, enrolled in arboriculture. Annual dues are \$50.00.

Corporate – Membership for commercial companies representing products and services of the arboriculture field. Corporate members are entitled to one voting member, and employees of the company are entitled to discount non-voting memberships at \$35 a year. Annual dues are \$150.00.

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Please list names and email for those additional Corporate or Municipal Memberships at \$35 each.

I, the undersigned, wish to apply for membership in the Society of Municipal Arborists. I agree to observe all the rules of the Society and to participate as I am able in furthering its objectives.

Applicant's Signature

 _____ Date _____

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Welcome New Members...

Bienvenido Dobrodošli Fáilte Willkommen

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Amber Hedges	West Lafayette, IN	USA
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Aura Zapata Martinez	Chia, Cundinamarca	COL
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Cody Widner	Monticello, IN	USA
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Jorge Lizcano Duran	Bucarmanga, Santander	COL
Joshua Goodman-Caines	Guelph, ON	CAN
Joshua Randall	Lafayette, IN	USA

<u>Name</u>	<u>City/State/Prov.</u>	<u>Country</u>
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Katie Krauth	West Lafayette, IN	USA
Kellee Eddington	Terre Haute, IN	USA
Ken Trudy	Atlanta, GA	USA
Kiley Thoreson	Portland, OR	USA
Kyle McCarthy	Ajax, ON	CAN
Lea Clark	Winterville, GA	USA
Logan Witt	West Lafayette, IN	USA
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In This Issue: Contributors



Sitara Gare is an Arboriculture Coordinator for Brisbane City Council, Australia's largest municipal council. Brisbane is a subtropical city that has an annual storm season that starts in October and ends in March.

Sitara's arboriculture passions lie in educating the public about the benefits of trees and the retention of dead trees for habitat for wildlife, including lizards and insects. She serves on the editorial review committee for *City Trees*.



Dr. Adrina C. Bardekjian (www.adrinabardekjian.com) is an urban forestry researcher and public speaker who works with multiple groups and boards. She is Manager of Urban Forestry Programs and Research Development with Tree

Canada. She is the recipient of several awards, including SMA's Award of Achievement (2018) and ISA's Honourary Membership Award (2016). She serves on the editorial review committee for *City Trees*.



Michelle Sutton has been *City Trees* Editor since 2005. She also edits the blog and e-news of the New York State Urban Forestry Council (nysufc.org). Michelle has a Master's Degree in Urban Horticulture from Cornell University, where she studied with Dr. Nina Bassuk.



Tina Casagrand works on contract for the Missouri Invasive Plant Task Force, which is housed by the Missouri Prairie Foundation's "Grow Native!" program. She lives in Jefferson City, Missouri, and loves learning about ecology in the Ozark border.



Dr. Leslie Brandt is Climate Change Coordinator for the Eastern Region of the U.S. Forest Service and is a Climate Change Specialist with the Northern Institute of Applied Climate Science. Dr. Brandt's primary focus over the past five years has been developing and testing a framework for adapting urban forests to climate change.



Become a Contributor! Want to write for *City Trees*? We want to hear from you!

For more information request our Writer's Guidelines from *City Trees* Editor Michelle Sutton at: CityTreesEditor@gmail.com

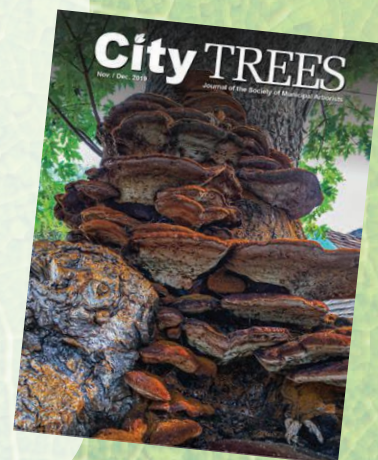
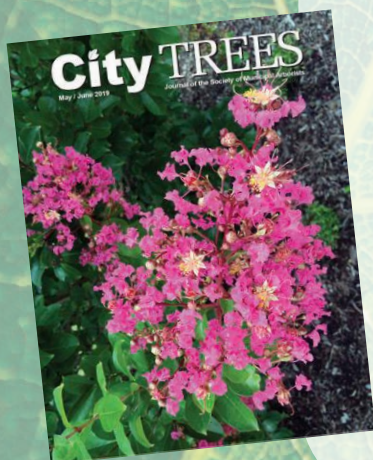
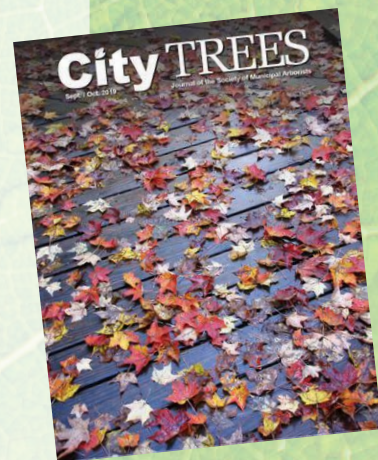
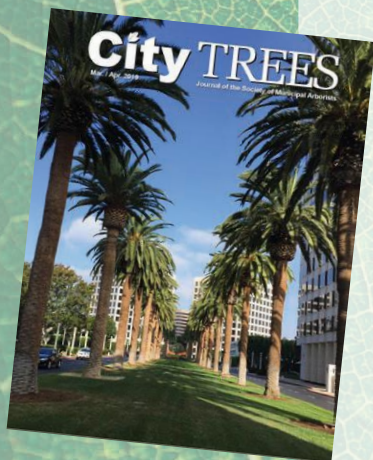
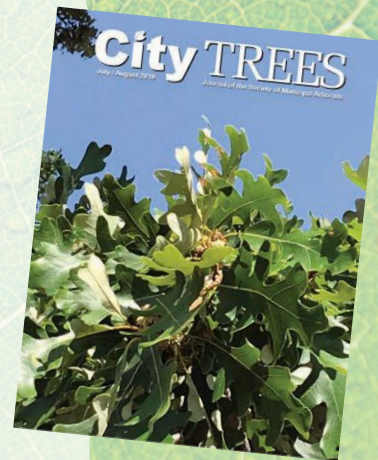
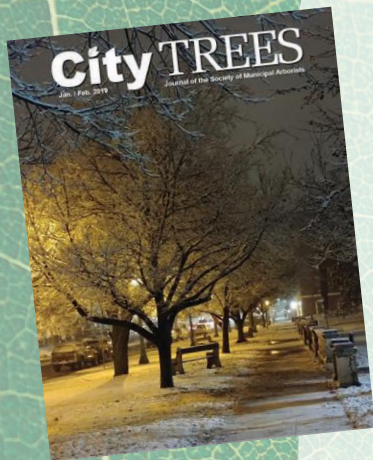
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Arborist Exchange Program



Ever feel like you can't see the urban forest for the trees? Get the wide angle view through the eyes of your colleagues!

The Arborist Exchange Program offers municipal foresters, utility arborists, and tree non-profit managers around the world the opportunity to engage with colleagues and experience urban forestry challenges and successes in varying political and cultural settings.

Participants will spend one week together in each other's community learning about their jobs and how challenges are met under differing circumstances and with differing goals. Actual dates will be chosen by the participants. Exchanges include social time as well as working time. Partners are encouraged to host each other, but one-way exchanges are also acceptable. Cross-organizational exchanges are encouraged. Travel expenses are reimbursable.

Since 2003, arborists from the United States, Canada, Slovenia, Ireland, Brazil, South Africa, Italy, Germany, New Zealand and the United Kingdom have participated in the program. Here's what some of them have to say:

"You get to see the same things, the same problems, but from a different perspective, through the eyes of someone doing the same job as you. For me it gave me a sense of detachment—a sort of arborist out-of-body experience, from which I could observe and learn." — *Andy McCutcheon, 2006*

"The exchange far surpassed my expectations. Not only did I have glorious weather—more representative of a southern California spring than winter—but the friendships I developed are of immeasurable value to me. For me, the exchange was more valuable than any conference I've attended in my 16 years of practicing urban forestry." — *John McNeil, 2005*

"With everyone I talked to, rode along with, or learned from, I noticed one commonality: passion. Passion to inspire the young, to maximize tree survival, to increase canopy—but perhaps most importantly, true passion for the people and trees of Washington DC." — *Matthew Stephens, 2015*



To learn more about the Arborist Exchange Program and to apply, visit:
www.urban-forestry.com

Applications are due by December 2, 2019.

You will have the opportunity to:

- Dig deep into urban forestry as seen by a municipal arborist, utility arborist, or non-profit professional.
- Understand tree management from another seat, and test your assumptions.
- Share successful collaborative projects between municipal and utility arborists.
- Experience peer-to-peer learning not offered anywhere else.
- Learn new techniques and solutions to shared challenges.
- Expand your professional network.
- Share your successes and promote your program.



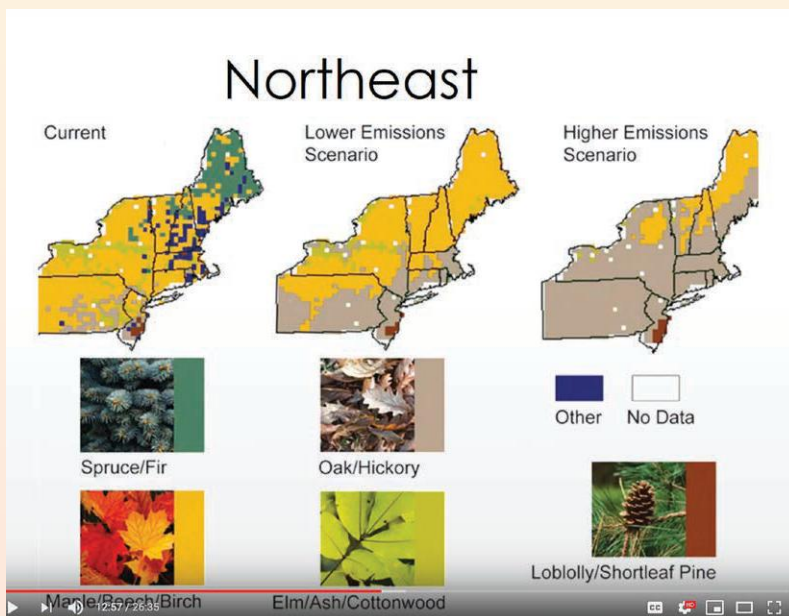
Cities4Forests



The Arborist Exchange Program is a partnership between the Society of Municipal Arborists, the Utility Arborist Association, the Alliance for Community Tree, Cities4Forests, and the Arbor Day Foundation.

URBAN FOREST ADAPTATION TO CLIMATE CHANGE:

Tools and Resources from the Climate Change Response Framework



Dr. Leslie Brandt's [video](#), "Impacts of Climate Change on Urban Forests of the Midwest and Northeast," is highly recommended viewing.

The Climate Change Response Framework (forestadaptation.org) is a collaborative, cross-boundary approach among scientists, managers, and landowners to incorporate climate change considerations into natural resource management.

Its partners are numerous and wide-ranging, including the Bureau of Indian Affairs, National Park Service, U.S.D.A. Forest Service, U.S. Geological Survey, and dozens of state and local governments, Native American tribes and tribal organizations, universities, and ecological and urban forest institutes and organizations.

The Northern Institute of Applied Climate Science (NIACS) works with partners to lead Framework >>

activities across the Midwest and Northeast U.S. Readers outside this region are invited to explore the USDA-USFS collaborative [Climate Change Resource Center](#), and Canadian readers can consult Natural Resources Canada [Forest Change Adaptation Tools](#). (We plan to explore international resources for adaptation to climate change in future issues of *City Trees*.)

Within the Climate Change Response Framework, the Urban Forestry focus addresses urban forest vulnerability for cities and creates tools to help local managers adapt to the effects of climate change. This urban forest-centered effort is coordinated by Dr. Leslie Brandt, who serves as climate change coordinator for the Eastern Region of the U.S. Forest Service and is a climate change specialist with NIACS.

Dr. Brandt’s primary focus over the past five years has been developing and testing a framework for adapting urban forests to climate change. Her work, [piloted in Chicago](#), has now expanded to other urban areas across the Midwest and Northeast. Among her professional interests are frameworks for assessing [vulnerability and adaptive capacity](#).

Here’s what urban forest professionals in the Midwest and Northeast regions of the U.S. should know about the resources and tools available at [forestadaptation.org](#):

- The site provides an [Adaptation Workbook](#) that can be printed out or worked through online. City forestry programs that have already availed themselves of the Workbook—and whose implementation, referred to as Adaptation Demonstrations, are on the Workbook website—include Cambridge, Massachusetts; Columbia, Missouri; and New York City. >>

Changing Habitat Suitability: Tree Atlas

→ 134 Eastern Tree Species

→ Statistical model

→ Developed by Dr. Louis Iverson and the Landscape Change Research Group at the US Forest Service



The Climate Change Tree Atlas from the USFS is another resource for city foresters endeavoring to strengthen their urban forest’s resiliency.

High Adaptive Capacity: Kentucky Coffeetree



- No major pest/disease issues
- Adaptable to a range of soils, climates
- Urban-tolerant
- Low maintenance
- Widely available

The Urban Forestry focus of the Climate Change Response Framework includes assessment of the adaptive capacity of various species used as street trees.

Vulnerability ratings for trees in the Cleveland Tree Plan

Latin Name	Common Name	Cultivar	Planted Adapt Class	Model Projections	Confidence	Climate Change Effect	Vulnerability
<i>Halesia tetraptera</i>	Silverbell		medium			no effect	low-moderate
<i>Juniperus chinensis</i>	chinese juniper	Keteleeri	high			no effect	low
<i>Juniperus virginiana</i>	Eastern redcedar	Canaertii'	high	New Habitat	medium-high	no effect	low
<i>Juniperus virginiana</i>	Eastern redcedar	Emerald Sentinel	high	New Habitat	medium-high	no effect	low
<i>Koelreuteria paniculata</i>	goldenrain tree		high			no effect	low
<i>Liquidambar styraciflua</i>	Sweetgum	Moraine'	medium	New Habitat	medium-high	slightly positive	low-moderate
<i>Liquidambar styraciflua</i>	Sweetgum	'Variegata'	medium	New Habitat	medium-high	slightly positive	low-moderate
<i>Liriodendron tulipifera</i>	Tuliptree		low	Mixed results	Medium		moderate-high
<i>Maackia amurensis</i>	Amur maackia	Maackia	high			negative	moderate
<i>Maackia amurensis</i>	amur maackia	Starburst'	high			slightly negative	moderate
<i>Maclura pomifera</i>	Osage orange	White Shield	high	Increase	medium-high	no effect	low
<i>Magnolia acuminata</i>	cucumbertree		medium	Increase	medium		low-moderate
<i>Magnolia</i> spp.	magnolia	Butterflies	high			no effect	low
<i>Magnolia</i> spp.	magnolia	Coral Lake	medium			no effect	low-moderate
<i>Magnolia</i> spp.	magnolia	Daybreak	medium			no effect	low-moderate
<i>Magnolia</i> spp.	magnolia	Elizabeth	medium			no effect	low-moderate
<i>Magnolia</i> spp.	magnolia	Yellow Bird	medium			no effect	low-moderate
<i>Magnolia</i> spp.	magnolia	Golden Gift	medium			slightly negative	moderate-high
<i>Magnolia stellata</i>	Star magnolia		medium			no effect	low-moderate
<i>Magnolia tripetala</i>	umbrella tree		medium			no effect	low-moderate
<i>Magnolia virginiana</i>	Sweet bay		high			slightly positive	low
<i>Magnolia x loebneri</i>	Loebner magnolia		medium			no effect	low-moderate
<i>Malus</i> spp	apple/crabapple	Bob White	medium			slightly negative	moderate-high
<i>Malus</i> spp	Crabapple species	Prairiefire	medium			slightly negative	moderate-high
<i>Malus</i> spp.	crab apple	Red Jewel	medium			slightly negative	moderate-high
<i>Malus</i> spp.	crab apple	Sugar Tyme	medium			slightly negative	moderate-high
<i>Metasequoia glyptostroboides</i>	dawn redwood		medium			slightly positive	low-moderate
<i>Nyssa sylvatica</i>	Black gum		high	Increase	medium-high		low
<i>Ostrya virginiana</i>	Ironwood (easternhophornbeam)		high	Decrease	medium-high		moderate
<i>Parrotia persica</i>	Persian ironwood	Vanessa	high			no effect	low
<i>Picea orientalis</i>	Oriental spruce		medium			slightly negative	moderate-high
<i>Pinus rigida</i>	pitch pine		low			negative	high
<i>Pinus rigida x taeda</i>	pitch-lob pine		medium			negative	moderate-high
<i>Pinus virginiana</i>	Virginia pine		low			no effect	moderate
<i>Platanus x acerifolia</i>	Planetree	Exclamation	medium			no effect	low-moderate
<i>Quercus bicolor</i>	Swamp white oak		medium	Mixed results	medium		moderate

Cleveland is the site of the SMA Conference this year. This is a section from Vulnerability Ratings for Trees in the Cleveland Tree Plan appendices, as assessed by Dr. Brandt's team. For background on what's meant by "Adapt Class" and "Confidence," see Appendix 7 of [this document](#).

Introduction

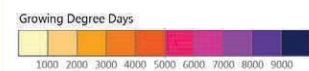
Growing Degree Days

Growing degree days (GDD) can be used to describe the season available for plants to grow and mature. GDD is calculated by:

- 1) Finding the average temperature for each day in the year.
- 2) The average number of degrees above 5 °C (41 °F) is calculated for each day (since plant growth is often limited below this temperature).
- 3) These values are summed for all the days of the year.

Although the number of growing degree days varies widely across the conterminous United States, the projections suggest that the growing season will increase substantially in all areas, especially under the high emissions scenario depicted here. Though some plants may have improved growth with an increase in GDD, this measure does not incorporate estimates of **precipitation**, which have greater uncertainties in climate change modeling. Many models suggest precipitation will occur in the form of larger extreme events (more drought, between heavy rainfall events) and with more unevenness in seasonality (lower proportion in late summer-autumn). Higher temperatures and greater moisture stress can increase stress on plants and contribute to greater mortality.

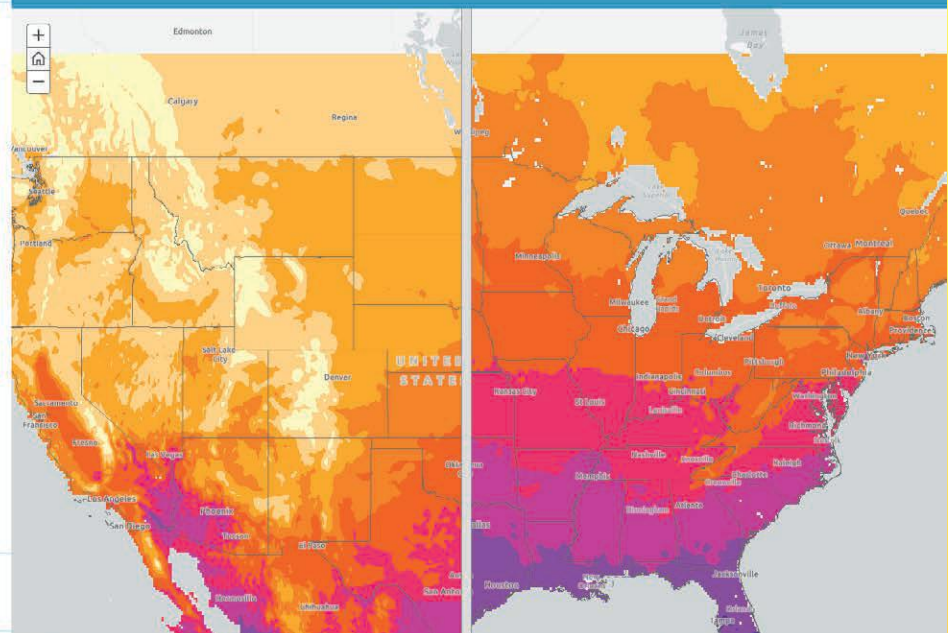
Use the slider to compare recent conditions (1980-2009; left) to projected conditions under a high emissions scenario (RCP 8.5) for the end of the century (2070-2099; right). Maps of other time periods and emissions scenarios are available [here](#).



Plant Hardiness Zones

Growing Degree Days

Historical (1980-2010) (Left) - Future (2070-2099) (Right)



The USDA-USFS Office of Sustainability and Climate prepared this [story map](#) that shows projected changes in heat and hardiness zones across the US.

- An online, free [training](#) for using the *Adaptation Workbook* is coming in Winter 2020. The [Forest Adaptation Planning and Practices \(APP\)](#) training is a proven in-person NIACS course that has helped natural resource managers throughout the eastern United States prepare for and adapt to climate change. Now the same program is available as a seven-week online course using this online tool. Through this course, participants will be able to:
 - Identify climate change impacts that pose the greatest challenges and opportunities for their project area or ecosystem
 - Describe whether and how management may need to be adjusted in light of climate change
 - Develop specific actions to help ecosystems adapt to changing conditions, and connect action plans with broader climate adaptation concepts and strategies
- Use the *Adaptation Workbook* to create their own “climate-informed” project plan
- Better communicate with stakeholders on key climate change vulnerabilities relevant to their region
- Access support from NIACS during project planning and implementation
- Understanding and evaluating the [climate change impacts](#) for a particular region or system is an important first step in adapting to climate change. It’s key information that informs the process of using the *Adaptation Workbook* to strategize natural resource management. The climate change impact data on the above-linked site is meticulously sourced and cited.
- Comprehensive Climate Change Adaptation resources featured in the *Adaptation Workbook* can be found [here](#) and can be filtered by region, sector, and subject. 🍀

Menu of Adaptation Strategies and Approaches

Developed for Urban Forests

Strategy 1. Sustain or restore fundamental ecological functions.

- 1.1. Maintain or restore soils and nutrient cycling in urban areas.
- 1.2. Maintain or restore hydrology.
- 1.3. Maintain or restore riparian areas.
- 1.4. Reduce competition for moisture, nutrients, and light.
- 1.5. Restore or maintain fire in fire-adapted ecosystems.

Strategy 2. Reduce the impact of biological stressors.

- 2.1. Maintain or improve the ability of forests to resist pests and pathogens.
- 2.2. Prevent the introduction and establishment of invasive plants and remove existing invasive species.
- 2.3. Manage herbivory to promote regeneration, growth, and form of desired species.

Strategy 3. Reduce the risk and long-term impacts of severe disturbances.

- 3.1. Alter forest structure or composition to reduce risk or severity of wildfire.
- 3.2. Maintain trees and remove hazards to reduce severity or extent of wind and ice damage.

Strategy 4. Maintain or create refugia.

- 4.1. Prioritize, maintain, and restore unique sites.
- 4.2. Prioritize and maintain sensitive or at-risk species or communities.
- 4.3. Establish artificial reserves for at-risk and displaced species.

Strategy 5. Maintain and enhance species and structural diversity.

- 5.1. Promote diverse age structure.
- 5.2. Maintain and restore diversity of native species.
- 5.3. Retain biological legacies.
- 5.4. Establish reserves to maintain ecosystem diversity.

Strategy 6. Increase ecosystem redundancy across the landscape.

- 6.1. Manage habitats over a range of sites and conditions.
- 6.2. Expand or buffer the boundaries of reserves to increase diversity.

Strategy 7. Promote landscape connectivity.

- 7.1. Reduce landscape fragmentation.
- 7.2. Maintain and create habitat corridors through reforestation or restoration.

Strategy 8. Maintain and enhance genetic diversity.

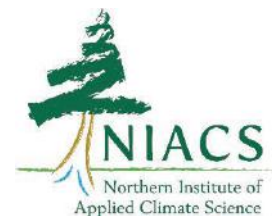
- 8.1. Use seeds, germplasm, and other genetic material from across a greater geographic range.
- 8.2. Favor existing genotypes that are better adapted to future conditions.
- 8.3. Use new genotypes that are better adapted to future threats and conditions.

Strategy 9. Facilitate composition adjustments through species transitions.

- 9.1. Favor or restore native species that are expected to be adapted to future conditions.
- 9.2. Establish or encourage new mixes of native species.
- 9.3. Select tree species to match current and future site conditions.
- 9.4. Protect future-adapted seedlings and saplings.
- 9.5. Disfavor species that are distinctly maladapted.
- 9.6. Manage for species or genotypes with wide moisture and temperature tolerances.
- 9.7. Introduce species that are expected to be adapted to future conditions.
- 9.8. Move at-risk species to locations that are expected to provide habitat.

Strategy 10. Realign urban ecosystems after disturbance.

- 10.1. Promptly revegetate sites after disturbance.
- 10.2. Prioritize remediation of remaining trees following disturbance.
- 10.3. Realign significantly disrupted ecosystems to meet expected future conditions.



Swanston et al, 2016. *Forest Adaptation Resources: climate change tools and approaches for land managers, 2nd edition* - <http://www.treesearch.fs.fed.us/pubs/52760>, www.forestadaptation.org/adapt/adaptation-strategies



Cultivating Diversity in Urban Forestry Leadership

LEADERS GROWING LEADERS
FOR URBAN FORESTRY

February 23 - 28, 2020

Do You Have What It Takes To Move Yourself or Your Urban Forestry Program To The Next Level?

The Municipal Forestry Institute (or MFI) may be able to take you there! MFI is an exciting, high-level training opportunity educating people in the leadership and managerial aspects of urban forestry. This week-long intensive educational program delivers a challenging opportunity to grow a more successful community tree program. Come learn and master leadership and management tools of program administration, coalition building, strategic thinking, program planning, and public relations by investing a week in your personal growth and development. Sign up now for MFI 2020, being held February 23-28, 2020 in Gulf Shores, AL.

What Does MFI Cover?

The Institute curriculum was developed by a team of urban forestry professionals and educators with over a century of experience in leading urban forestry efforts at the local, state/provincial, federal, and non-profit levels. There are four major components of the MFI curriculum:

- Developing A Leadership Approach To Your Position
- Thinking and Planning Strategically to Advance Urban Forestry Efforts
- Working Effectively with Boards, Coalitions, and Non-Profit Organizations
- Managing the Relationship Between People and Trees

The curriculum is presented in a variety of formats including lectures, multi-media presentations, panel discussions, group exercises, and real-life scenarios.

Who Should Attend?

People who want to become more effective leaders—who plan, manage, or advocate for urban forestry efforts. Past MFI classes have included:

- City Foresters and City Arborists
- Urban Foresters, Municipal Arborists, City Planners, Tree Wardens
- State Urban Forestry Staff
- Civil Engineers
- Municipal Tree Advocates
- Non-Profit Organization Staff

What is Diversity in MFI?

The Municipal Forestry Institute (or MFI) in collaboration with Southern University and USDA-Forest Service is pleased to announce DIVERSITY in MFI, a special edition of national diversity leadership training opportunity in Urban and Community Forestry. Participants including all ethnic origins (African Americans, Asian or Pacific Islanders, American Indians, Hispanics and White) and genders with careers in urban and community forestry and related areas will be recruited to the DIVERSITY in MFI for leadership training and professional development throughout the nation.

The Lodge at Gulf State Park Gulf Shores, AL



The all-inclusive registration fee for MFI 2020 covers the following:

- All course materials
- Five nights hotel lodging (Sunday through Thursday)
- All meals from Sunday supper through Friday breakfast

Registration Investment:

\$2299 USD for SMA members

\$2399 USD non SMA members

Participants of ethnic and racial diversity who are accepted to the Diversity in MFI 2020 can apply for stipend to cover the registration cost plus a \$500 travel stipend.

CEU Options Available

ISA CA, BCMA, Municipal Specialist SAF Certified Forester
APA/AICP Certified Planner

HOW TO APPLY

Visit www.urban-forestry.com. Course registration closes on **December 1, 2019** or when full. If you are applying for a diversity stipend, use code MFMNSCLR.

Participants will be notified of acceptance in late December.

If you have any questions, contact the SMA at: urbanforestry@prodigy.net or ask someone who has attended!



Follow us on [Facebook!](#)



Online Registration is Now Open at www.urban-forestry.com



LEADERS GROWING LEADERS FOR URBAN FORESTRY

February 23 - 28, 2020

Why Should YOU Attend?

MFI is a unique leadership and professional development opportunity you won't find anywhere else. A team of dedicated urban forestry professionals from across North America will help you gain insights into how to move from a good urban forestry effort to a great one. You will learn from and network with urban forestry professionals from large cities and small towns, state and federal agencies, and non-profit organizations. MFI is an investment in your professional future—one that pays great dividends to you and your city or organization.

MFI 2020: What to Expect

Required Institute Pre-Work

Part of the MFI experience involves readings and online discussions that will be held during January and early February, 2020. If you're accepted into MFI 2020, you'll need a valid email address and internet access from work or home. Plan on spending about 1-2 hours a week for 5 to 7 weeks on the Institute Pre-Work.

Instructors

The MFI 2020 instructional staff comes with decades of experience in all phases of urban forestry, at the municipal, state/provincial, federal, private, and non-profit levels. Most MFI teaching teams have over 100 years combined urban forestry expertise.

MFI Week Schedule

MFI is an intensive learning experience. You must be able to attend from 4 pm on Sunday until noon on Friday.

There are numerous breaks and a little free time, but the event involves a rather demanding and time-intensive schedule. Though there are sights to see in the area, plan to see them before or after, not during MFI. Your full attendance will be required at every session—partial attendance is not possible. Sorry but pets, partners, and dependents or guests cannot be accommodated at MFI.

What Past Participants Say About MFI:

"MFI has given me the confidence, support and leadership knowledge to take our urban forestry program from functional to GREAT!"

– Jaime Nunan, City of Cookeville TN

"Why attend MFI? Wrong question. Correct Question: Why haven't you done MFI already!? I wish that I had attended MFI two years ago when I first heard about it. I could have been applying these principles all this time. Thanks to the Cadre for your time and talent."

– Gina Dake, City of Portland, OR

"I thought that I was a good leader and communicator before I came to MFI, but having been exposed to the Cadre, to new learning and tools, and to other participants, I realized that I have not reached my full leadership potential. This experience has filled me to overflowing. I cannot wait to go back and build bridges to further success and to maintain bridges to/from learning and peers"

– Carlos Campero, LA Conservation Corps

MFI 2020 Location & Travel Details

The 2020 MFI will be held at The Lodge at Gulf State Park, located inside the 6,150 acre Gulf State Park along the southern coast of Alabama. You can visit the [The Lodge's website](#) for details, but note that you may NOT reserve a room for MFI through that website.

Please do not make any air travel reservations for MFI 2020 until you have received your acceptance email in late December 2019. This email will contain travel guidance including information about group transportation arrangements from the PNS airport to The Lodge at Gulf State Park.



Why Diversity in MFI?

Urban and community forestry is the art, science and technology of managing trees, forests, and natural systems in and around cities, suburbs, and towns for the well-being of all people. With more than 83% of the U.S. population (322 million) currently living in towns and cities (urban areas), urban and community forests are a vital component of the urban infrastructure that provides enormous environmental, ecological, and social-economic benefits when managed properly.

As indicated in the Ten-Year Urban Forestry Action Plan (2016-2026) by the National Urban and Community Forestry Advisory Council and USDA-FS National Urban and Community Forestry Program, one of the strategic focus areas is to cultivate diversity, equity, and leadership in urban and community forestry. This will ensure that a diversified workforce can be developed to establish, maintain and sustain the nation's urban and community forest resources at all levels. As such, actions are needed to engage minorities, women, and underserved communities in urban and community forestry education, leadership development, and promote expanded collaboration, training and communication with professional organizations within the field of urban and community forestry to build a diversified green workforce. Therefore, DIVERSITY in MFI is a collaborative effort between the Society of Municipal Arborists and its Municipal Forestry Institute, Southern University Department of Urban Forestry and Natural Resources, and USDA-FS National Urban and Community Forestry Program, to enhance national minority leadership training in urban and community forestry.

Southern University and A&M College in Baton Rouge, Louisiana is the only HBCU university in the nation that offers a comprehensive urban forestry education program leading to BS, MS, and PhD degrees in urban forestry. The Program was established in 1992 with support from the USDA Forest Service and the Louisiana Board of Regents. After 25 years of partnership with USDA Forest Service, Southern University has made and continues to make significant contributions to diversifying the nation's workforce in urban & community forestry and natural resources.

Online Registration is Now Open at www.urban-forestry.com



Recipe for Evolving Leadership: Seven Key Ingredients

By Adrina C. Bardekjian, MFC, PhD

We're excited to share this piece from SMA Editorial Review Committee Member Dr. Adrina C. Bardekjian. With this article and David Moore's recent "Seven Considerations for Budding Urban Foresters," we were gifted this year with a pair of complementary works from two of urban forestry's most dynamic young professionals.

Dr. Bardekjian (www.adrinabardekjian.com) is an urban forestry researcher and public speaker who works with multiple groups and boards. She is Manager of Urban Forestry Programs and Research Development with Tree Canada. She is the recipient of several awards, including SMA's Award of Achievement (2018) and ISA's Honourary Membership Award (2016).

Earlier this year, I was invited by telecommunications company TELUS in Montreal, Quebec to share my professional journey and research initiatives at their Women's Leadership event to an engaged audience of past winners of TELUS' CHLOE Awards for Leadership Excellence, Emerging Leaders, Champions of Diversity, and Community Engagement. Part of this presentation was to share lessons on leadership; these are the seven I chose from my own experiences.

1. Get Comfortable Being Uncomfortable

My primary research focus is on women in urban forestry and how we can support our ever-expanding involvement in our field through diverse networks and strategies. I believe everyone has the right to feel heard and that people need to get uncomfortable to effect meaningful change. To that end, I've learned to question my own biases and to become more self-reflective and open-minded to new and unconventional ideas. Ways in which I'm learning this is by working with diverse and interdisciplinary teams such as the Toronto Cancer Prevention Coalition Shade Policy Committee, participating in non-traditional partnerships, and engaging in cross-cultural collaborations such as my experiences with the U.S. Forest Service Office of International Programs—see article: [Look More Closely, Think More Deeply: Experiences from the 2017 US Forest Service International Urban Forestry Seminar](#).



Adrina Bardekjian (far right, front row) with Tree Canada colleagues at a team retreat.

2. **Communicate Considerately**

People may not remember what you say or do, but they will always remember how you make them feel— whether it's hopeful, helpful, needed, supported, or heard. When you're communicating, practice **effective dialogue** and listen to what others are saying to understand where they are coming from before passing judgment or trying to formulate a response. A few years ago, while sitting in a strategic planning meeting, I was on the receiving end of an aggressive confrontation. Unfortunately, no matter what I said or how I tried to understand this person's position, he was more intent on placing blame and making false accusations. I later learned that his wife had passed away that same week. This doesn't excuse his behavior; however, it does explain it.

Listening intently to people with an open mind does not mean you need to agree with them. However, their perspective may shed some light on your own biases. Once all sides have presented their cases, then an informed discussion can begin. So be kind and be conscious of your filter; don't speak poorly of others, it makes you look dishonest; and be professional, but be human! Studies show that three things motivate people: competition, collaboration, and curiosity. Learning to understand people's motivations is helpful in determining and explaining their behaviour, and it offers one pathway to more effective communication. >>

3. Communicate Creatively

Most industries are good at sharing ideas amongst themselves because they speak the same language, but how can we bridge that gap to find common ground across disciplines? I am an advocate for creating new and innovative ways to share ideas and stories—whether it's through film, creative writing, or art installations. As an example, the objective of my film, [Women Branching Out: A Diversity of Careers in Arboriculture and Urban Forestry](#), produced in collaboration with Fleming College, was to profile women's work in our industries and to inspire and encourage more young women to enter the fields.

Similarly, I was writer and director of the 2013 film funded by Toronto Public Health, [Partners in Action: A Shade Policy for the City of Toronto](#), exploring the twelve-year journey of the City of Toronto's UVR (Ultraviolet Radiation) Working Group by profiling members, discussing the policy, presenting examples of shade in Toronto, and demonstrating the necessity of multi-disciplinary collaboration for skin cancer prevention. This film won the 2014 Canadian Dermatology Association Public Education Award. Since then, the film has been screened at various conferences and community events and shared across multiple platforms, and the chair of our Toronto Cancer Prevention Coalition Shade Policy Committee has received calls from municipalities across Canada who want to develop their own shade policies.

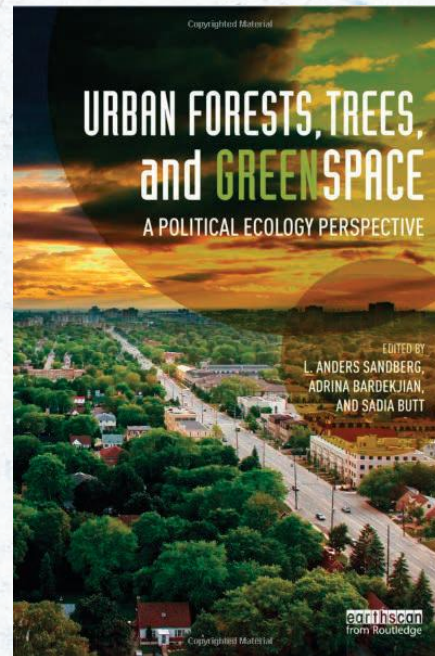


Dr. Bardekjian and her colleague Lorien Nesbitt co-curated a photography exhibit called "Human Faces, Forest Places" for the "Do Rainbows Come in Green? Urban Forests and Multicultural Citizenship" event at the University of British Columbia in 2017.

One of my colleagues used to frequently say to me, "GEPO" (Good Enough Push On) ... Perfection is subjective, and when we hold impossibly high standards, we may miss the larger picture.

4. Follow Your Instincts

Do what you love and follow your instincts even if people try to discourage you. When my colleague and I were organizing the [Urban Forests & Political Ecologies Conference](#), we were met with strong opposition from the very people we thought would support us. There were subtle indicators that we were elbowing our way onto someone else's turf. At the conference we organized an urban environmental art exhibit as part of the event; we'd never done anything like that before, but we brought together a great group of women and made it happen! From this we secured a book contract with Routledge to publish the edited volume, [Urban Forests, Trees and Greenspace: A Political Ecology Perspective](#), the first text of its kind engaging with urban forestry through a political ecology lens. In the years following, I had the opportunity to integrate many of the transdisciplinary concepts from the UFPE conference into the scientific programs of the Canadian Urban Forest Conferences in my work with Tree Canada, which has since been well received. Had we listened to those who discouraged us, none of this would have materialized.



Urban Forests, Trees, and Greenspace is the first text of its kind engaging with urban forestry through a political ecology lens. Contributors include leading authorities from North America and Europe from a range of disciplines, including forestry, ecology, geography, landscape design, municipal planning, environmental policy, and environmental history.

5. Have a Plan B

If you couldn't work where you are tomorrow, what would that look like for you? Make a list of ten companies or organizations that inspire you and stay on top of their activities. Make a list of your hobbies and the things you love to do—if you could leave it all behind, what would you do? Be a baker, a florist, a writer? It's important to think about transitions, pathways, and extension services for continuing education.

Earlier in my life, graduating with a Bachelor of Arts in Creative Writing quickly proved to be a career choice that first needed a more solid source of income to support. I had always been interested in environmental sustainability and so I embarked on graduate school, and my career shifted to urban forestry. My ingrained voracious reading habits helped me as I spent the next several years completing a Master of Forest Conservation and then a PhD in Environmental Studies while pursuing professional development opportunities, joining various networks, and contributing to various boards as a Director. Now I actively try to bridge my creative writing and arts background with my urban forestry career. >>

I actively try to bridge my creative writing and arts background with my urban forestry career.



Dr. Bardekjian (left) is shown here with colleagues from Tree Canada and Natural Resources Canada who researched Indigenous urban forestry engagement in Canada. The infographic summary of their findings is shown on the facing page.

6. Let it Go! (“GEPO”)!

One of my colleagues used to frequently say to me, “GEPO” (*Good Enough Push On*). Having a Type A personality, this has been a difficult concept for me to implement; I’m still working on it. During the final year of my doctoral work, as I was struggling with finalizing my thesis (because it needed to be “perfect!”), one of my mentors said to me, “In the course of your academic career, this is going to be the worst piece of research you’ve ever written, and you need to be ok with that because you’re only going to get better.” At the time it was the right kind of perspective to help me let go of my inhibitions and finish writing what was essential; I submitted my thesis shortly thereafter.

There’s something to be said for letting things go. Perfection is subjective, and when we hold impossibly high standards, we may miss the larger picture. Understanding, evaluating, and prioritizing my personal and professional aspirations has helped me make better choices and find a balance. No one looks back and says, “I wish I had worked more.” I try to make this point more concretely when discussing downsizing in an article on my blog, [“On selling our house: rethinking priorities.”](#) >>



URBAN FORESTRY Research

Urban forestry in Indigenous communities across Canada

Exploring the impact of greening initiatives

Natural Resources Canada's Canadian Forest Service and Tree Canada conducted a research study in 2018 to better understand the needs and interests of Indigenous communities in relation to urban forestry.

Results provided insight into how Indigenous communities perceive and engage in urban forestry projects, and how these projects create opportunities for community engagement.

Benefits

The benefits of urban forest projects in Indigenous communities across Canada include:



Education

Knowledge sharing, storytelling, formal technical training, community workshops, youth education, planting, and maintenance



Health

Traditional purpose, medicinal plantings, and food provision



Community

Heightened community interest for planting trees and urban gardens, protection and security, job creation and site beautification



Environment

Habitat creation, wind attenuation, and dust barriers

Project Types

The types of urban forest projects in Indigenous communities across Canada included:



Beautification

10 projects total
3 Street
7 Park



Urban naturalization and maintenance

8 projects total
6 Urban naturalization
2 Maintenance



Land restoration or reclamation

8 projects



Habitat creation and/or enhancement

7 projects



Schoolyard greening

4 projects

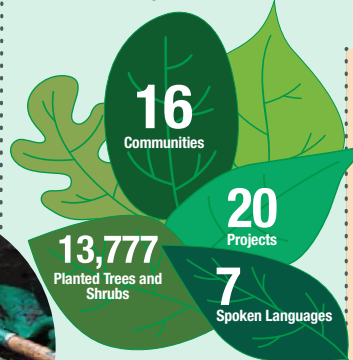


Creation of an orchard

2 projects

Demographics

The study looked at urban forest projects funded by Tree Canada, taking place in Indigenous communities across the country



Funding

In total, Tree Canada awarded \$178,210 in grants to Indigenous communities across Canada (2010-2017) for urban forest projects



Grants

\$3000 to \$25,000 was the typical funding range for urban forest projects

Projects by Province



Ontario (4)



Nova Scotia (1)



Quebec (2)



Manitoba (2)



British Columbia (10)



Alberta (1)

Community Impact

100% of respondents said their project created opportunities for sharing knowledge and traditional practices

60% of respondents agreed trees provide welcoming spaces for community members to meet

100% of respondents said their project promoted greater community engagement on urban forests and green space

80% of respondents noticed a change in urban forestry interest within the community

Gosselin-Hebert, A., Bardekjian, A., Quann, S. & Crossman, V. (2019). Urban forestry in Indigenous communities across Canada: Exploring the impact of greening initiatives. Internal report Canadian Forest Service and Tree Canada.



Natural Resources
Canada

Ressources naturelles
Canada

TreeCanada  ArbresCanada

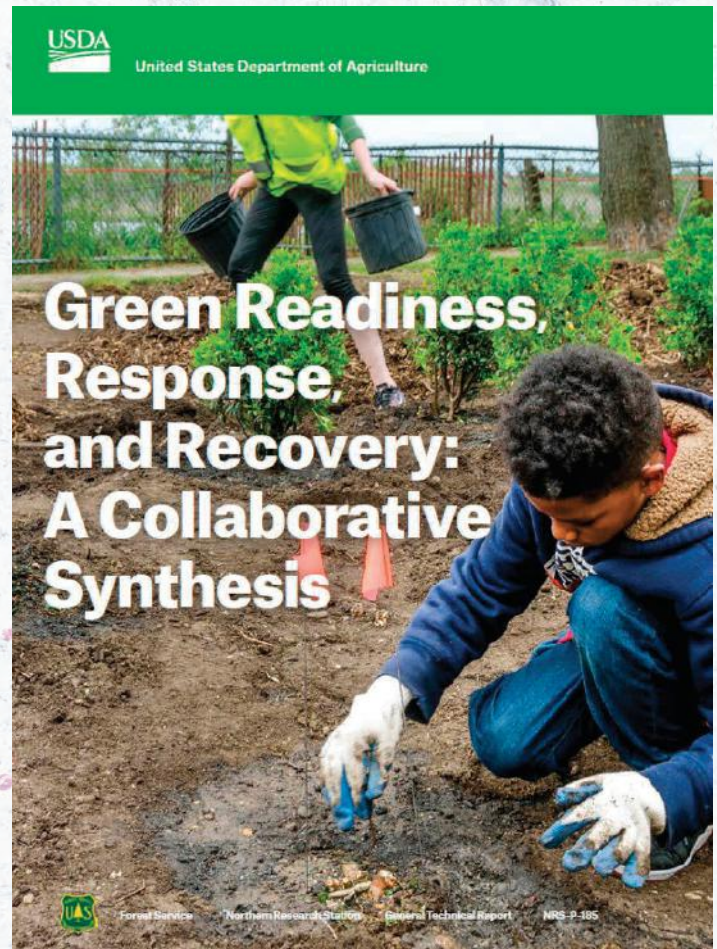
7. Respect the Past and the Future

There's a growing culture of shorter attention spans, and the need for things to happen *now*. Yet, attention is one of the greatest gifts we can give one another. I believe that if someone isn't willing to give you even 15 minutes of their time, then you really have nothing to learn from them.

Throughout my career, I've had both male and female, and both personal and professional, mentors who have paid quality attention to me, helping guide and shape my perspectives and decisions. I did not always listen to them or ask for their input, but I surely benefitted from their attention. I believe we have a responsibility to nurture the younger generations and provide support when possible—whether it's a call for advice, a reference for a past student or employee, or influencing change through our work in various ways.

I also think it's important to know the history of our field, including the people who came before us who have years of experience and knowledge—not just technical knowledge, but an understanding how to navigate the social and political arenas of each aspect of our industries.

People often ask me: *Who is the next generation?* For our field, the characteristics that I'm seeing include entrepreneurship; creative thinking; certainly [more women](#); a more informed appreciation for diversity (both applied and social); and an appreciation, desire, and demand for more work-life balance. 🌱



With coauthor Liza Paqueo of the U.S. Forest Service, Dr. Bardekjian contributed a chapter, "Beyond Trees: Growing International Stewards in Nontraditional Ways" to this publication, informed by their in-depth exploration of cross-cultural collaboration through the USFS Office of International Programs.

If someone isn't willing to give you even 15 minutes of their time, then you really have nothing to learn from them.

Board Member Profile: Earl Eutsler

In more than 12 years with the District government, Earl Eutsler has contributed to the general professionalization of the institution. When he started with DDOT's Urban Forestry Administration in early 2004, he was one of only five arborists on staff. Thousands of dead street trees citywide led to requests for service by residents, which were often never inspected. Each year, more trees were removed than planted. At that time, the program barely managed to mitigate the most hazardous trees in its population.

Mr. Eutsler who has a bachelor's from St. Mary's College, began at DDOT as a Tree Maintenance Control Monitor where he had an opportunity to see the shortcomings of the agency and to view the types of business process improvements needed to reshape the organization. By developing an inclusive culture, where every team member contributes to developing protocols for carrying out the agency's duties, he helped to build a nimble, passionate and innovative division, where the Urban Forestry Administration continuously seeks improvements and efficiencies. Today, service requests generated through the citywide call center are now resolved in record time, even as request volumes increase. While at DDOT, Mr. Eutsler earned a master's in environmental science and policy from John Hopkins University. 🌿



By developing an inclusive culture, where every team member contributes to developing protocols, Earl helped to build a nimble, passionate and innovative division.

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PEOPLE ARE OUR POWER

Partnerships Fuel Callery Pear Buy-Back Event in St. Louis



By Tina Casagrand,
Missouri Invasive
Plant Task
Force (MoIP)



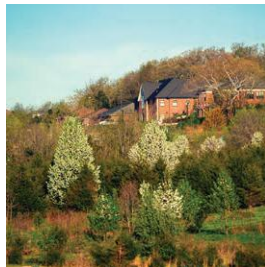
Missouri Invasive Plant Task Force (MoIP) member Dr. Reid Smeda, discusses best management practices for controlling Callery pear against a backdrop of hundreds of the trees that took over an empty lot in Columbia. Photo Courtesy MoIP

MO INVASIVE PLANT TASK FORCE & FOREST RELEAF

INVASIVE TREE BUY-BACK: CALLERY PEAR

GET A FREE MISSOURI NATIVE TREE!

- Cut down a Callery (Bradford) pear on your property.
- Take a selfie.
- Bring photo 4/26 or email info@moinvasives.org



Do your part to reduce this highly invasive tree that causes difficulties for landowners!

**FOREST RELEAF
COMMUNITREE GARDENS
NURSERY
APRIL 26, 2019, 9 AM-4 PM**

DETAILS AT MOINVASIVES.ORG

@MOINVASIVES

Like so many other regions, nearly every corner of Missouri has been hit hard with the spread of Callery pear. Callery pears are self-sterile, but it turns out they readily cross-pollinate with other cultivars. Also, the rootstock upon which a Bradford pear is grafted will sometimes sprout, eventually yielding flowers and viable pollen. Fortunately, Missourians are often out in front with innovative approaches to urban forestry and invasive plant control. >>

To raise awareness about how the invasive Callery pear (*Pyrus calleryana*) causes harm to both regional economies and the environment, the [Missouri Invasive Plant Task Force \(MoIP\)](#), an inter-agency and inter-organizational resource of the [Missouri Prairie Foundation's "Grow Native!" program](#), partnered with [Forest ReLeaf of Missouri](#) and Forrest Keeling Nursery for a Callery pear "buy-back" program that took place on April 26, 2019.

People who supplied photos of themselves with a cut-down, in-bloom Callery pear tree in their yard received a free native tree to replace it. The offer was limited to one native tree per photographic proof of cut-down tree. Participants were invited to pick up their trees at Forest ReLeaf CommuniTree Gardens Nursery, located in Creve Coeur Park in St. Louis.

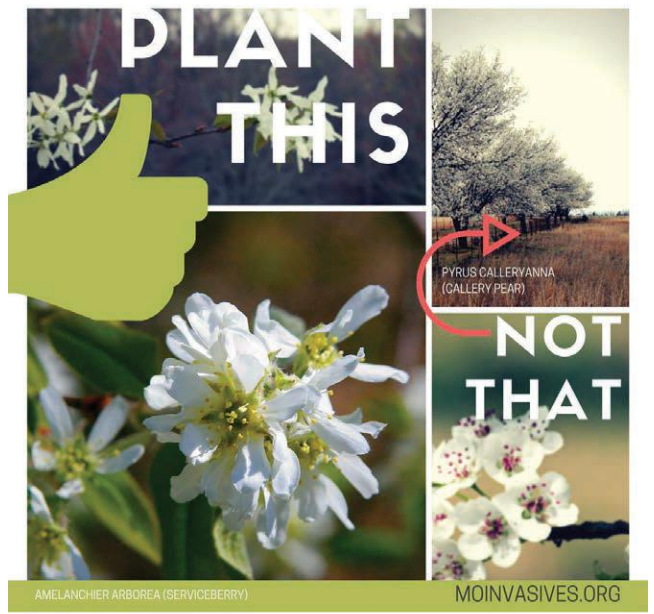
The organizations caution owners to properly identify Callery pear against other native, non-invasive trees with white flowers blooming in April, including serviceberry, wild plum, and dogwoods. [This web page from the City of Columbia](#) offers photos of native trees for comparison. >>



Forest ReLeaf of Missouri and the "Grow Native!" program of the Missouri Prairie Foundation were among the organizations providing education at the event.



Examples of evidence of pear cut-downs homeowners supplied in order to qualify for a native tree.



Serviceberry

Amelanchier arborea (serviceberry) is a tall shrub or small tree bearing clusters of fragrant white flowers in April. Flowers give rise to very flavorful, red to



A homeowner pleased to be rid of a Callery pear and taking home a free, regionally native tree instead.



Yellowwood

Cladrastis kentukea (yellowwood) is a medium sized tree, good for small areas, rich pea-green compound leaves with soft golden yellow fall color. The breathtaking, fragrant, creamy-white flowers occur

Posters created by MoIP show homeowners regionally native alternatives to Callery pear.

Although 93 native trees were provided as a trade-in to individuals happy to rid their landscapes of ornamental pears, the real value of this program was in the messaging.

Over 12,500 engagements were made on social media which translated into more than 158,500 social media impressions! Radio and television also broadcasted stories about this innovative program.

This conventional and social media reach was a welcomed victory, since the urgency to alert the general public to the consequences of this rapidly spreading exotic plant pest is intensifying every day. In empty lots and along roadsides where mowing isn't happening regularly, Callery pear takes over within just a few years. In addition to the increased economic costs of vegetation management problems in transportation/utility corridors, Callery pear progeny can cause ecological damage to native prairies and wetlands.

The news may be getting worse, as recent data from Ohio suggests that forests are also at risk. University of Cincinnati Biologist Theresa Culley has warned that in some parts of Ohio, Callery pear has taken a significant foothold in many woodlots. You can follow The Culley Lab's work on Callery pear [here](#).

While many States in the U.S. implore residents not to plant Callery pear, this is only the second buy-back program that MoIP is aware of (Fayetteville, Arkansas was first), and it's hoped it will serve as a model for other regions. 🌱



Local news station KSDK came to report on the event.



Homeowners were encouraged to bring their kids to the buy-back event.

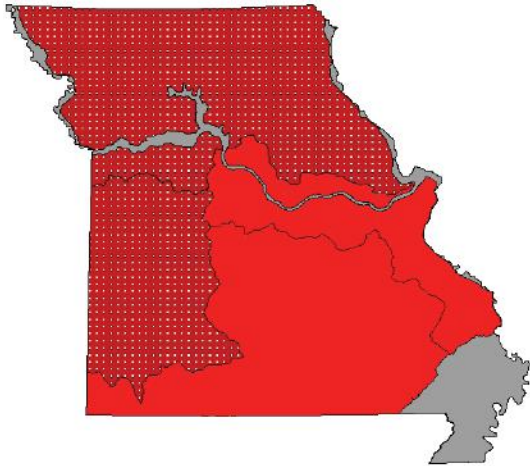
Further Reading

- [Columbia, Missouri's "Stop the Spread" Campaign](#)
- [CITY TREES Roundtable: "Pyrus, We Have a Problem"](#)
- [Missouri Invasive Plant Task Force \(MoIP\) Invasive Plant Assessment & Maps](#)
- [Pledge to Stop the Spread of Invasive Plant Species](#)

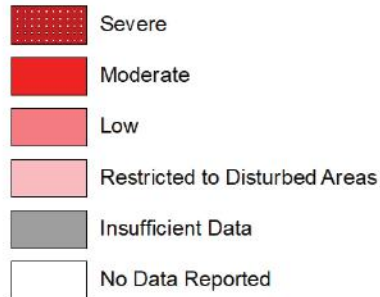
Ornamental Pear, Callery Pear

Pyrus calleryana

Impact

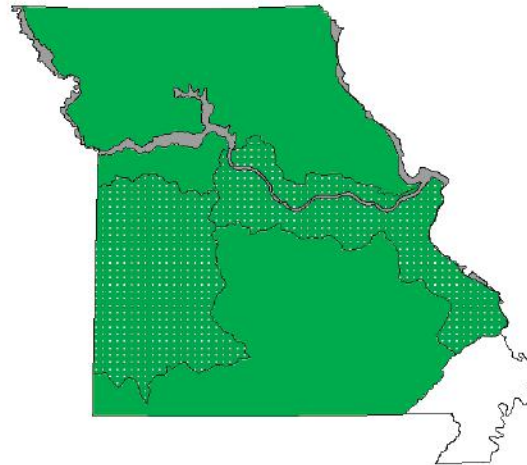
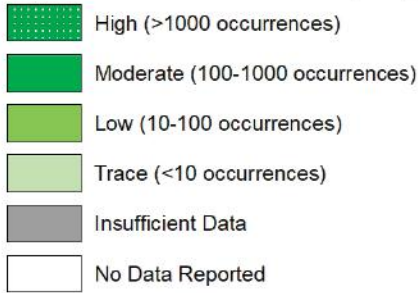


Impact: Severity of environmental degradation caused

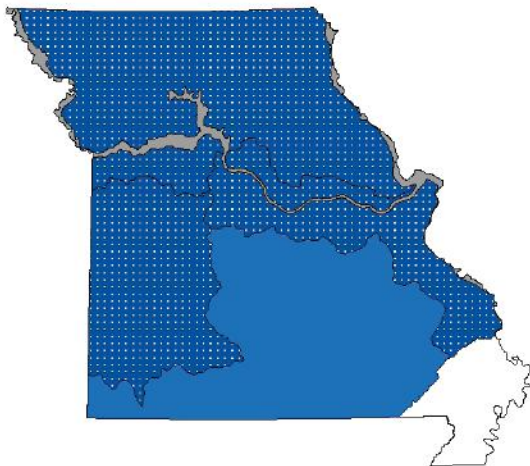


Abundance

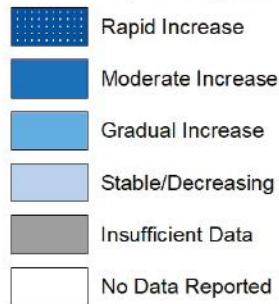
Abundance: Number of escaped populations



Trend



Trend: How rapidly the species' range is expanding/contracting



MoIP Invasive Plant Assessment Map for Callery pear, showing how severe the tree's impacts around Missouri already are.

Background image of Bradford pear flowers. Photo by Oldpointe via Wikimedia Commons

Sprout Lands: Tending the Endless Gift of Trees



Review by Michelle
Sutton, *City Trees* Editor

“Coppice and pollard ... we should know these words again, for by means of them, people built their world out of wood for ten thousand years.”

—William Bryant Logan



Air, Dirt, and Oak, other books by William Bryant Logan.

Every spring, I coppice my trio of purple smokebushes (*Cotinus coggygria* ‘Royal Purple’) because I value the deep purple foliage more than the ethereal flowers. I coppiced lots of different kinds of shrubs for clients over the years, always with ornamental aims in mind. However, I’ve never pollarded a tree and it had struck me as a strange horticultural folly or quirk, but that was my own ignorance showing—ignorance of the fact that pollarding and coppicing have been used since the last ice age to generate woody sprouts for a stunning array of human uses.

Arborist and NYBG faculty member William Bryant Logan wrote a book, *Sprout Lands* (W.W. Norton & Company, 2019), that explores how foundational to human prosperity these practices have been. Yes, it’s a whole book about coppicing and pollarding, and it’s riveting. That’s what you’d expect from the author of three acclaimed books: *Air: The Restless Shaper of the World*, *Oak: The Frame of Civilization*, and *Dirt: the Ecstatic Skin of the Earth*, the latter of which was made into a documentary.

Logan traveled to California, England, Spain, and Japan to learn about coppicing and pollarding for the benefit of his Brooklyn-based company, Urban Arborists, Inc. Among their NYC charges are 40 young, nursery-pollarded London planes (*Platanus x acerifolia*) planted outside the Metropolitan >>

Pollarding v. Topping

From Columbia, Missouri Natural Resources Supervisor Brett O’Brien:

Pollarding is a touchy subject for some tree people, because many of us have been taught for years that topping is bad—so instinctively, pollarding feels wrong. Furthermore, here in the Midwest, tree topping is sometimes called “pollarding” by its practitioners to give their type of destructive pruning legitimacy. But pollarding has a long, proud history in Europe and is not the same as topping. A good discussion of the differences between the two can be found [here](#).

Museum of Art in four groves, called bosques. His search for techniques fueled the writing of this fascinating history of these practices by ancient (and more recent) civilizations.

Not only are sprouts “important” in pruning, I found, they are the reason there are any trees or shrubs at all, and they are the reason that there are any people at all. For all but the last two centuries of human history, the whole point of pruning was to produce sprouts ... for when these sprouts grew up they gave people firewood, charcoal, building wood, ship timber, fence posts, slender willow whips (called withies) to tie knots with, hedges, fodder, fiber, rope, and baskets ... without them, human beings would not have made it past the Neolithic.

You may wonder what function the London planes on the Metropolitan’s grounds are serving the City, since their pollard-produced shoots are not being used for more than what Logan calls “a playful wattle fence.”

Our four little groves of London planes are not only strange and beautiful ... By staying small on the paved plaza, the planes do not grow big heavy branches, which they might drop in a storm on an unfortunate passerby. With the annual pruning, their roots too remain small. They do not buckle the pavement, lift the sidewalk, or create lips of concrete upon which a person might trip. They cast a shade that is cooling but not too deep and wide. Other plants can grow among and beside them ...

Part of Logan’s enchantment with coppicing and pollarding is knowing that these techniques could once again be used on a massive scale by humans in an age of otherwise shrinking resources. Where pollarding has been useful in preventing livestock feeding on the new shoots, pollarding could now be employed to generate shoots above the deer chewing line. In exploring how that could reconnect humans deeply to trees, and in his writing generally, Logan displays a lyricism and expository power that I greatly admire. 🌿

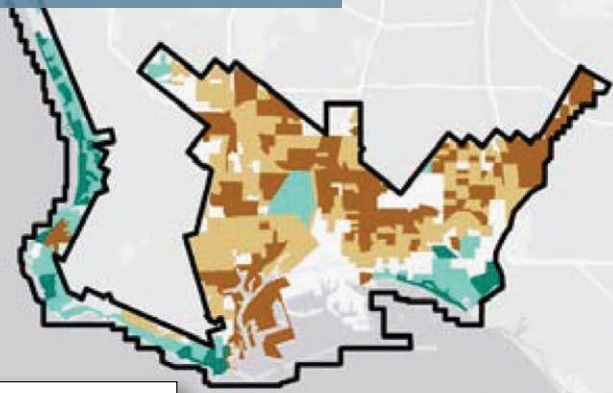






Pollarded willows. Pixabay



Pollarded willow “knuckles” Pixabay





 Study Area Outline
Census Block Groups
Tree Canopy Prioritization
 Highest Priority
 Medium
 Lowest Priority

This map, indicating tree canopy prioritization, addresses the need for green infrastructure, heat island relief and environmental justice. It factors in corresponding maps with the following variables: minority populations, median household income, impervious surfaces, surface temperature and existing tree canopy.



Willow stems have myriad practical uses. Pixabay

Where are the trees in your city?

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Pollarded London plane trees. Pixabay

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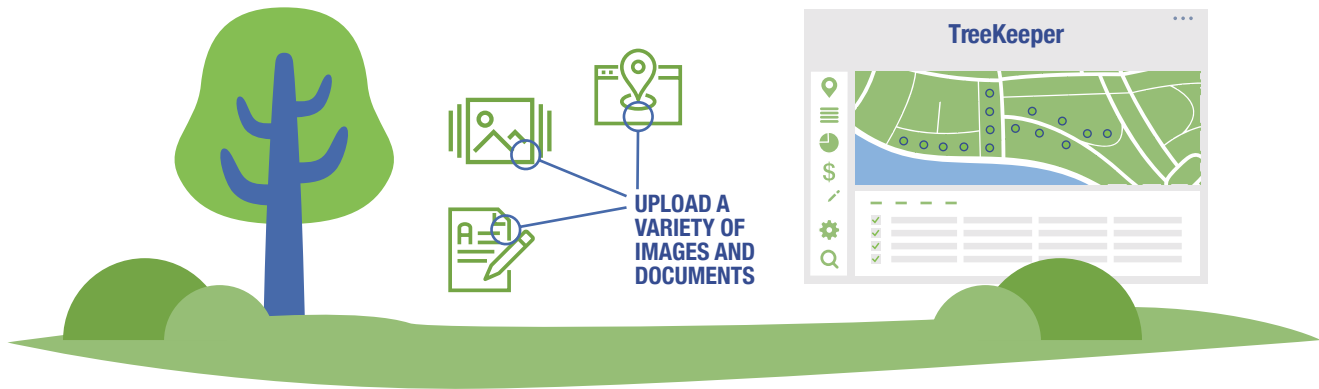


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Tree of Merit: Ivory Curl (*Buckinghamia celsissima*)

by Sitara Gare, Arboriculture Coordinator,
Brisbane City Council, Australia

One of Brisbane, Australia's top-five most commonly planted street trees, ivory curl (*Buckinghamia celsissima*), is a small- to medium-sized tree perfect for planting under power lines or in confined growing spaces. It has a densely rounded crown with very small wooden capsules as seed pods. In its native environment (the rainforests of northern Queensland), the tree can grow up to 25m (82 feet) but within urban areas it is not known to grow over 8m (26 feet).

Ivory curl is related to the Queensland nut (*Macadamia integrifolia*), detectable in the similarity of the flowers. The extremely showy creamy white tubular flowers in terminal racemes are a prized feature of ivory curl, as they densely cover the crown in summer for a minimum of four weeks and are 10-20 cm (4-8 inches) in length. They are attractive to bees and butterflies. If planted in an avenue, the trees give a stunning effect when in flower.

Ivory curl is initially a slow grower but makes up for it beginning 5-7 years after planting. The tree is low maintenance and rarely requires pruning except of minor deadwood for public safety. It can withstand compacted and low-nutrient soils; however, in the long term this will reduce the size that the tree will grow, resulting in a smaller tree which does however work well for high-density urban areas under power lines.

All of these attributes make this tree an all-around winner for cities in tropical and subtropical climates around the world. 🌿



Older specimen in a residential yard. Photos on this page by Simon Schubert of mywalkaboutplants.com.



Foliage and flowers.



Foliage closeup.



Sitara Gare is an Arboriculture Coordinator for Brisbane City Council, Australia's largest municipal council. Her arboriculture passions lie in educating the public about all the benefits of trees.

Ivory curl flowers close-up. Photo by Sandid at Pixabay.

