

# THE ARBORICULTURAL Consultant

Volume 53  
issue one 2020



## What's Inside

- 1 President's Message
- 2 TPAQ Advisory Committee Update
- 3 ASCA 2019 Annual Conference
- 5 Hiroshima Peace Trees Mark World War II 75<sup>th</sup> Anniversary
- 9 Sustainable Urban Forest Management: A Critical Challenge
- 14 Oak Decline in the Urban Forest: A Disease Complex in a Complex Environment
- 17 Tech Corner
- 18 Member News
- 18 In Memoriam: Ted Kipping
- 19 Welcome New Members
- 19 New RCAs
- 20 ASCA Member TPAQ Recipients to Date
- 22 Send Us Your Best Shot—Seasonal and Holiday Edition
- 24 Industry Reports From ASCA's Representatives
- 25 A Day in the Life of a Consultant

*asca*

AMERICAN SOCIETY of  
CONSULTING ARBORISTS

1300 Piccard Drive, Suite LL 14  
Rockville, MD 20850

Phone: 301.947.0483

Fax: 301.990.9771

Email: [asca@asca-consultants.org](mailto:asca@asca-consultants.org)

[www.asca-consultants.org](http://www.asca-consultants.org)



Richard Adkins, RCA #573  
ASCA President

A Happy New Year to all—and I trust that good health, successful business, and safety will lead you through the year.

I want to express a big thanks to all members who attended the annual conference in New Orleans. Based on my experience and participant feedback, this year's event was a huge success. Excellent presentations, good discussion, and fun activities, all in an enjoyable location. For those who did not attend, hopefully you are planning to be with us later this year in Tucson, Arizona.

I need to also thank all the volunteers that supported our committee and task force activities throughout the year. Their efforts, combined with the work of the executive director, staff, and your board of directors resulted in a productive year.

We wish Jon Butcher and Glen Gentzke well as they complete their board service, and we welcome Kay Sicheneder, Philip van Wassenaer, and Micah Pace as newly elected members to the board. I invite the membership to visit the ASCA website to see a complete list of current board members and their roles for this year. I also offer their availability for any questions, issues, blessings, and/or concerns.

It is with great pleasure that I write this message for the first *Consultant* issue of the new decade.

I am grateful to all current and former board members and volunteers for their willingness, commitment, and dedication to the membership and organization.

For those not in attendance at the annual business meeting during conference, I would like to highlight some of the action items for this year.

- Continue to review our Policy and Procedures, following the membership's adoption of bylaws changes, to establish consistency between documents and complete all updates.
- Reassess our position in the CTLA and open discussion for future opportunities and collaboration with our partners.
- Establish a research/education fund for ASCA membership to promote interest and benefit knowledge of arboriculture, consulting, and urban forestry.
- Strengthen our strategic marketing and industry brand for membership outreach activities.
- Continue to work on membership value and engagement.

The board of directors meets three times a year, with numerous conference calls in between. We plan to keep you informed following our meetings regarding our discussion and action items.

Please enjoy this issue of *The Consultant*. Articles on sustainable urban forestry, oak decline, and the Hiroshima peace trees in Oregon complement our usual informative features. Additionally, you

*Continued on page 2*

## 2020 BOARD OF DIRECTORS

### President

Richard Adkins, RCA #573, Gilbert, AZ

### President-Elect

Jeremy T. Chancey, RCA #646, Fort Lauderdale, FL

### Immediate Past President

John S. Leffingwell, RCA #442, Pleasanton, CA

### Treasurer

Micah Pace, RCA #607, McKinney, TX

### Directors:

Patrick Anderson, RCA #475, Shelby, NC

Jeffrey Ling, RCA #337, Fort Wayne, IN

Ron Matranga, RCA #488, Spring Valley, CA

Kay Sicheneder, RCA #668, Attica, MI

Philip van Wassenauer, RCA #678, Ontario, Canada

## STAFF

### Executive Director

Thérèse O. Clemens, CAE

### Vice President Meetings

Grace L. Jan, CAE, CMP

### Sr. Marketing Director

Julie Hill

### Marketing Director

Jennifer Olivares

### Managing Editor

Lynne Agoston

### Production Manager

Maryia Alenchyk

### Meetings Manager

Morgan Prior

### Marketing Coordinator

Meghan Maker

### Member Services Coordinator

Julianne Clarke

### Accounting

Dawn Rosenfeld

### Exhibits/Sponsorship Manager

Barbara Bienkowski, CEM

## NEWSLETTER

*The Arboricultural Consultant* is published four times a year by ASCA. Articles and news items are encouraged and must be submitted six weeks prior to publication.

### Editorial Review Committee

Tom Bradley, RCA #492, Mississauga, ON

Chad Clink, RCA #589, Cleveland, OH

Thomas Dodge, RCA #584, Pacheco, CA

Nick Drunasky, RCA #467, Woodbridge, VA

Jordan Endahl, Vancouver, WA

Briana Frank, Madison, WI

Jeannine Lubeshkoff, RCA #500, Duarte, CA

Jason Miller, RCA #526, Woodbury, NJ

Todd Prager, RCA #597, Lake Oswego, OR

Lisa Smith, RCA #464, Los Angeles, CA

Matt Weibel, RCA #534, Fair Lawn, NJ

Robert Wells, RCA #593, Princeton, NJ

## ASCA ANTITRUST STATEMENT

The following antitrust statement has been approved by the president and board of directors of the American Society of Consulting Arborists.

"Members of the American Society of Consulting Arborists, especially members of the board of directors and Society committees, are reminded that they do not and may not speak for or on behalf of the Society without the express permission of the president or board of directors of the American Society of Consulting Arborists. This prohibition includes the use of ASCA letterhead when making a statement of a technical, economic, or political nature. Members of ASCA speak only for themselves as professional consultants when giving opinions or making statements."

## President's Message continued

can find [links to publications](#) from some of the presenters at this year's conference. While not the actual presentations, they should give you an idea of the expansive knowledge and information shared.

In closing, I want to restate the board of director's commitment to transparency

and effective communication with and for the membership. Transition continues. The effort is intended to approach organizational needs and activities from a strategic standpoint for the benefit of all. I truly look forward to serving you throughout this year. 🌱

# TPAQ Advisory Committee Update

In the past year, we have completed our curriculum and taught 13 courses with 12 instructors. Although we have had generally positive feedback, we have adjusted the program through continual improvement after the initial rollout. At this point in the program's evolution, we are taking on a 360-degree review of the curriculum, developing better materials for the course, and improving the test—all of which is being done by our Subject Matter Experts (SMEs), our instructors, and our advisory group, with input from our members. We have renewed our advisory group (which I chair), retaining some members for consistency and adding some key people with useful experience now that we have these courses under our belt. We have received some very thoughtful and positive contributions from several of our members not in these groups, of which we are making good use.

I want to thank Dr. James Clark, whose contribution to the program has been indispensable; Dr. E. Thomas Smiley, whose help has been essential throughout the development and ongoing improvements; and, rounding out our SMEs, Mark Duntemann and Brian Gilles, who have given unselfishly with key roles in program development. Our instructors, some of the nicest people in the industry, have also given important feedback and assistance in improving the program.

If you have questions or comments about this course or the credential, please contact Thérèse Clemens at [tclemens@msp-amc.com](mailto:tclemens@msp-amc.com) or me at [pbrewer@Bartlett.com](mailto:pbrewer@Bartlett.com); we are open to discussion and want to offer you a means to contribute comments and ideas.

Sincerely,  
Patrick Brewer, RCA #543  
Chair, TPAQ Advisory Committee 🌱

# ASCA 2019 Annual Conference

New Orleans offered Southern hospitality at its finest and ideal weather for our pre-conference workshop. Additionally, we welcomed many speakers who broadened our perspectives. Near-record attendance indicates that our profession is strong and growing! Be sure to join us in Tucson in December!



**“Better conversations and sharing of experiences with other attendees than ever. Really strong urban forestry presenters with successful management projects and new concepts for us to consider.”**



“Very energetic presenters who believe what they are presenting. Good to have international reach for ASCA.”



“All of the speakers were great, and the networking was fabulous!!!”

“ASCA always does a great job organizing this conference and NOLA was no exception.”



# Hiroshima Peace Trees Mark World War II 75<sup>th</sup> Anniversary

By Jim Gersbach, Oregon Department of Forestry

To mark the 75<sup>th</sup> anniversary of the close of World War II, more than two dozen Oregon communities have confirmed that they will plant special peace trees in 2020 distributed by the Oregon Department of Forestry in partnership with nonprofit groups Oregon Community Trees and Medford-based One Sunny Day Initiative.

The seedling ginkgo and Asian persimmon trees were grown from seed collected by [Green Legacy Hiroshima](#) from trees that survived the atomic bombing of that city. The bombing occurred 75 years ago on August 6, 1945, and is also being remembered.

Once all the trees are in the ground, Oregon will have by far the largest number of Hiroshima peace trees planted in any U.S. state, according to ASCA-member Morgan Holen, a Consulting Arborist in Wilsonville, Oregon. A board member with Oregon Community Trees, Holen worked with the city of Lake Oswego, Oregon, to get one of the ginkgo seedlings planted at a local park in April 2019 as part of Arbor Day celebrations. A video of this event is available on [YouTube](#).

Kristin Ramstad is manager of the Oregon Department of Forestry’s Urban and Community Forestry Assistance Program. She said that by summer, more than three dozen peace trees (34 ginkgos and six Asian persimmons) will be planted in 28 cities and towns across Oregon. “We’ve had an amaz-

ing response from communities on the coast to northeast Oregon and from the Columbia Gorge to near the California border. The seedlings are going to parks, arboretums, schools, cemeteries, and a church.”

Ramstad said the majority of peace trees will be planted in April as part of Arbor Week. View the full list of locations at <https://www.oregon.gov/ODF/ForestBenefits/Pages/Hiroshima-peace-trees.aspx>.

The seedlings are not the first Hiroshima peace trees planted in Oregon, however. In addition to the tree Holen secured for Lake Oswego, four others grown from the same batch of seeds were planted in 2019 at Oregon State University in Corvallis and Eastern Oregon University in La Grande, and in the cities of Eugene and Hillsboro.

Ramstad said the project is a reminder that in addition to the environmental benefits tree canopy provides in cities, trees also play an important role in bringing a community together to reflect on the more meaningful aspects of life.

“To Hiroshima residents struggling in the aftermath of the atomic bomb, seeing these battered and scorched trees leaf out again gave hope that they, too, might recover,” said Ramstad. “They not only represented resilience in the face of unbelievable destruction, they have come to symbolize the desire and need for peace in a nuclear-armed world.”



Ramstad said the plantings are also an opportunity for Oregonians to acknowledge the service, sacrifices, and suffering of tens of millions of people all over the world who were touched by World War II—both civilians and veterans.

## A long journey to new homes in Oregon

One of those deeply touched by the war is Hideko Tamura-Snider, who as a 10-year-old, lost her mother in the atomic bombing of Hiroshima. Tamura-Snider is a founder of the One Sunny Day Initiative (OSDI), based in Medford, Oregon, where she now lives. Tamura-Snider secured from Green Legacy Hiroshima seeds the group had collected from trees that had survived the atom bomb.



Hideko Tamura-Snider being interviewed.

In spring 2017, Tamura-Snider gave the seeds to Oregon Community Trees board member Michael Oxendine in Ashland to germinate. Oxendine successfully sprouted the seeds, which were collected from a single ginkgo tree and a single Asian persimmon. With no facilities to care for the seedlings, he appealed to Oregon Community Trees and the Oregon Department of Forestry to find homes for them.

### Hiroshima Peace Trees *continued*

The Oregon Department of Forestry arranged for the seedling trees to be cared for by Corvallis Parks and Recreation staff under the watchful eye of the department’s Jennifer Killian. Ramstad said the Oregon Department of Forestry offered the seedlings at no cost, with priority given to Tree Cities USA and Tree Campuses USA in Oregon.

“Tree City USA and Tree Campus USA communities have proven leadership in caring for their urban forests, so it’s fitting that they be looked at first to host these special trees,” said Ramstad. She added that recipients are required to plant the trees in public places as part of a public ceremony.

Oregon Department of Forestry staff made sure each potential recipient was fully aware that the ginkgos were unsexed seedlings. Each was advised to plant them in locations where, if any turned out to be female, future fruit fall would not become an issue. Applicants had to agree to water the trees for at least five years to ensure good establishment.

Ramstad said that while a few plantings will occur over the winter, the majority

will happen after the Oregon Department of Forestry plants a ginkgo on its Salem campus on April 2. “One of the last plantings will be May 9 at Klamath Falls Union High School,” said Ramstad. “Organizer Gayle Yamasaki envisions lots of public involvement. She is planning a poetry reading by Lawson Fusao Inada, Oregon poet laureate from 2006 to 2010, as well as Japanese taiko drumming and a forum about what reconciliation looks like in the wake of World War II.”

Upon learning how many communities are embracing the Hiroshima seedlings, Tamura-Snider wrote that the anticipated plantings “filled me with joy, remembering the long journey for both the tree[s] and myself. Thank you, people of Oregon, for your enduring faith in the future, in the resilience of life.”



Hideko Tamura-Snider with Oregon Community Trees board members Mike Oxendine (l) and Jim Gersbach (r).

For more information on the Hiroshima peace trees, contact Jim Gersbach, Oregon Department of Forestry, at (503) 945-7425 or [Jim.Gersbach@oregon.gov](mailto:Jim.Gersbach@oregon.gov).

*Jim Gersbach is a public affairs specialist with the Oregon Department of Forestry. He serves on the board of Oregon Community Trees. He is also a long-time volunteer tree-planter and pruner and former board chair of Friends of Trees in Portland, where he lives and leads urban tree walks.*

## ASCA Consulting 2020 Academy

February 26–29, 2020

Sheraton Grand Sacramento Hotel  
Sacramento, CA



## SAVE THE DATE

## ASCA Consulting 2021 Academy

February 16–19, 2021

Omni Severin Hotel  
Indianapolis, Indiana



# asca 2020

ANNUAL CONFERENCE

**SAVE THE DATE**

December 2–5, 2020

Loews Ventana Canyon • Tucson, Arizona

[asca-consultants.org/AC2020](https://asca-consultants.org/AC2020)

AMERICAN SOCIETY of  
CONSULTING ARBORISTS



**[OhioChapterISA.org](http://OhioChapterISA.org)**



# Sustainable Urban Forest Management: A Critical Challenge

By Matthew Wells, Public Landscape Manager, City of Santa Monica, CA

## Introduction to Sustainability and Sustainable Urban Forest Management

The idea of sustainability is closely linked with the historical forestry practice of “sustained yield” (Finn, 2009). The guiding principle is that there is a balance between harvesting and planting. The United Nations World Commission on Environment and Development report (1987), titled *Our Common Future*, provided a popular definition of sustainable development:

*“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”*

Sustainability is about improving the lives of both current and future populations. The guiding principle of sustainable development is to plan and build a strong economy alongside healthy and functioning communities. Ideally, the environment is diverse, safe, and able to adapt to climate change. The phrase “Think globally, act locally and plan regionally” is an established philosophy of sustainability (Chang and Huang, 2004). The concept of sustainability, particularly due to its philosophical link, can be applied to all types of forestry. One widely accepted definition of sustainable forest management (SFM) comes from the United Nations, stating it is a:

*“Dynamic and evolving concept [that] aims to maintain and enhance the economic, social and environmental values of all types of forests, for the benefit of present and future generations”* (FAO United Nations, 2016).

This definition of SFM is clearly applicable to the management of urban forests. Though a desired outcome for many programs, the challenge comes in delivering on this concept by using data, research, and measurable metrics. Policies of 49 Californian municipalities were accessed; 82% indicated that species diversity was an objective, but only 48% had codified this in a management plan (Muller and Bornstein, 2010). This type of scenario is most likely common. Therefore, how does the rhetoric of SFM become a reality for a city’s management of its urban forest resource?

## Urban Forests Can Be a Tool for Sustainability

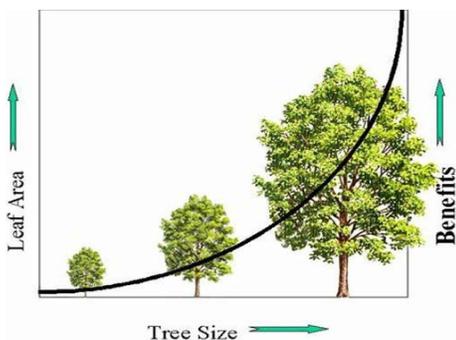
An urban forest can be a valuable sustainability-planning tool because of the wide range of economic, environmental, and social benefits it provides. The social and psychological benefits have been proven in numerous research studies (Kapland & Kapland, 1989; Kou et al., 1998; Ulrich, 1984). The economic and environmental benefits they provide can be qualified and quantified using tools like i-Tree (USFS, 2014; FC, 2010; Kling, 2008). PlaNYC, the sus-



tainability plan for New York City, used trees in multiple policy areas because of the diverse and significant benefits they provide. The city utilized i-Tree data to understand how trees could be used to help achieve sustainability goals in managing stormwater, reducing energy use, and reducing air pollution (Wells, 2011). It should be noted that trees are significantly less expensive than many other techniques used in mitigating the negative aspects of urbanization.

A valuable summary of the sustainable benefits of trees from the UK Forestry Commission (2010) is provided in Appendix 1. Additionally, Figure 1 illustrates how trees contribute more benefits as they grow and develop (USFS, 2014). Therefore, preserving existing trees and planting additional large canopied species is desirable. However, tree species and location must be carefully considered so that they do not become unsustainable to maintain. Trees can cause direct or indirect infrastructure damage to structures (Biddle, 1998) or require high maintenance. Poorly placed trees can increase energy consumption (USFS, 2014) by shading properties. They can also detract from a resident’s enjoyment if they overpower the landscape, drop excessive fruit, or pose a perceived risk.

**Sustainable Urban Forest Management: A Critical Challenge continued**



**Figure 1. Diagram illustrating the relationship between benefits and tree size (USFS, 2014)**

**Sustainable Management of the Urban Forest**

Though a powerful tool of sustainability, the urban forest must be carefully managed so it can deliver these ecosystem services for perpetuity. A recent study by the U.S. Forest Service (Nowak and Greenfield, 2012) found that 17 of 20 U.S. cities analyzed had significant declines in urban tree canopy (UTC) cover. In this study, UTC declined by an average of just over a quarter of a percent per year. This decline is likely due to increasing urbanization, population growth, and other stressors, such as climate change.

Proactive urban forestry programs, however, can help combat and communicate this decline to policymakers and the community through strategic and systematic resource management coupled with performance metrics. The city of Santa Monica (CSM) has recently adopted six urban forest sustainability metrics in its recently updated Urban Forest Master Plan (CSM, 2017). These metrics are described in Figure 2 below.

These metrics cover key indicators of the physical attributes of Santa Monica’s public urban forest resource as well as its function. These metrics are measured on a specified timeframe that differs depending on the element being measured. These metrics will be described in detail in the next section.



**Figure 2. Image depicting the six urban forest sustainability metrics adopted by the city of Santa Monica (2017) in its Urban Forest Master Plan**

**City of Santa Monica Urban Forest Sustainability Metrics**

Santa Monica is a coastal city in Southern California that covers approximately 8 square miles. The city has a publicly owned urban forest that consists of approximately 33,500 street and park trees (CSM, 2017). The urban forest sustainability metrics described below are applied to the resource in its entirety due to the city’s relatively small geographical size.

**1. Annual metrics**

**1a: Net Tree Gain or Loss**

This is perhaps the most basic of all urban forest sustainability metrics. Measured on an annual basis, it simply reports on how many trees were planted versus how many were removed. Though limited in its usefulness, as the size of the tree removed is not accounted for, it does give an indication of whether tree planting is at a sufficient level to provide for a healthy renewal of the urban forest.

**1b: Species Diversity**

A species-diverse urban forest is favorable, as it adds resilience to climate change and pathogen attack. Table 1 presents a summary of some of the most

common industry-recognized species diversity recommendations.

**Table 1. A summary of some of most common species diversity recommendations**

<i>Authors</i>	<i>Species Diversity Recommendations</i>
Miller and Miller (1991)	No species shall exceed 10% of the population
Kielbaso (1989)	No species should exceed 5% and no genus should exceed 10%
Santamour (2002)	Plant no more than 10% of any species, no more than 20% of any genus, and no more than 30% of any family

Santa Monica has adopted a desired diversity goal, which is that no species will exceed 5% and no genus will exceed 10% (CSM, 2017). As the city assigns species at a planting space level, it is able to project species percentages in the future. This guarantees that the diversity goal is planned for and therefore achieved.

**1c: Street Tree Stocking**

Street tree stocking level in many ways is an extension of net tree gain or loss (1a). It is the percentage of actual street trees versus potential street trees. Obviously, a comprehensive database of existing street trees and vacancies (empty planting spaces) is needed to calculate this metric, though modeling can be used. Santa Monica had approximately 96% stocking in 2001, which has now dropped to 93% in 2016 (CSM, 2017), with over 2,000 street tree vacancies. Understanding this metric and the geographical location of these vacancies allows for decisions to be made both on resource levels and also on planting prioritization. Santa Monica uses GIS modeling to take account of urban forest resource metrics coupled with human and environmental need to create a five-year street tree planting prioritization plan so that the city can aim to reach 100% street tree stocking (CSM, 2017).

## Sustainable Urban Forest Management: A Critical Challenge *continued*

### 2. Five-Year Metrics

#### 2a. Young Tree Mortality

Young tree mortality is a useful indicator of the success or failure of an urban forest renewal program. The failure for young trees to establish after a capital investment in planting can quickly become a significant political issue as well as lead to the eventual demise of the urban forest resource.

A study of young street trees in New York City found from a sample of trees that had been in the ground between three and nine years, only 74% were still alive (Lu et al., 2010). Another study of newly planted trees in Liverpool found that 23% had died three years after planting (Gilbertson and Bradshaw, 1990). Roman et al. (2014) assessed young trees distributed to residents in California and found a survival rate of 74.5% after one year in the ground that had dropped to 58.9% after five years.

In 2014, Santa Monica surveyed 500 young trees that had been in the ground from one to five years. Of those trees, approximately 80% were found to be alive and appeared to have established successfully. This is significant, as it shows that Santa Monica's urban forest renewal program is performing relatively well when compared to available research data. The mortality study was repeated in 2019 to see if this low level of mortality has continued.

#### 2b. Ecosystem Services

Quantifying the ecosystem services delivered by an urban forest allows for trees to be "sold" as a sustainability tool to planners, policymakers, and the community. In 2001, the ecosystem services delivered by Santa Monica's urban forest were estimated as being \$2.5 million (McPherson et al., 2001). This value increased to \$5.1 million in 2015 (McPherson et al., 2015) when remeasured using i-Tree. This information is very valuable, as it provides details on the function of the urban forest and allows for an informed decision to be made on the cost of the resource versus the benefit it provides. It additionally justifies the enhancement of the resource so that greater ecosystem services can be provided, and it allows for the urban forest to be included in wider policy plans for the city's aspiration to be a sustainable community.

### 3. Ten-Year Metrics: Urban Tree Canopy (UTC)

The city of Santa Monica's UTC was estimated as being 15% in 2001 (McPherson et al., 2001), and an updated UTC assessment was completed in 2017 (CSM, 2017). A study in New York City discovered that 21% of the city's total land area was covered by UTC, though it could potentially be 64% (O'Neill-Dunne, 2012). Following the example of New York City, an assessment of the potential for new UTC by land-use type will be performed in Santa Monica and look back on how UTC has changed. This will allow for an informed decision to be made on the city's UTC and how

climate change and urbanization has impacted the resource in recent years. Finally, understanding the potential for UTC by land-use type will allow for an informed decision to be made on establishing a UTC goal. Currently, the city has made the commitment to add 5% UTC to the publicly owned urban forest over the next decade (CSM, 2017). This will be achieved through strategic tree planting, updated tree pruning specifications, and the creation of new parkland.

### Conclusions

The urban forest has a critical role in a sustainable community because of the ecosystem services it provides. Santa Monica, New York, and Malmo in Sweden are good examples of cities using trees to build sustainability into their communities. The concept of sustainability should also be built into the strategic management of the urban forest resource. The identification and tracking of specific metrics over suitable timeframes will provide great insight into the sustainability and function of a city's urban forest so that modifications can be made if necessary. 🌿

*Matthew Wells is the public landscape manager for the city of Santa Monica, California. Previously, he was the director of tree preservation for NYC Parks and has also been an arboricultural officer in central London. He is a Chartered Arboriculturist and holds a master's degree in arboriculture and urban forestry. Matthew has presented at conferences globally and is passionate about research-driven resource management.*



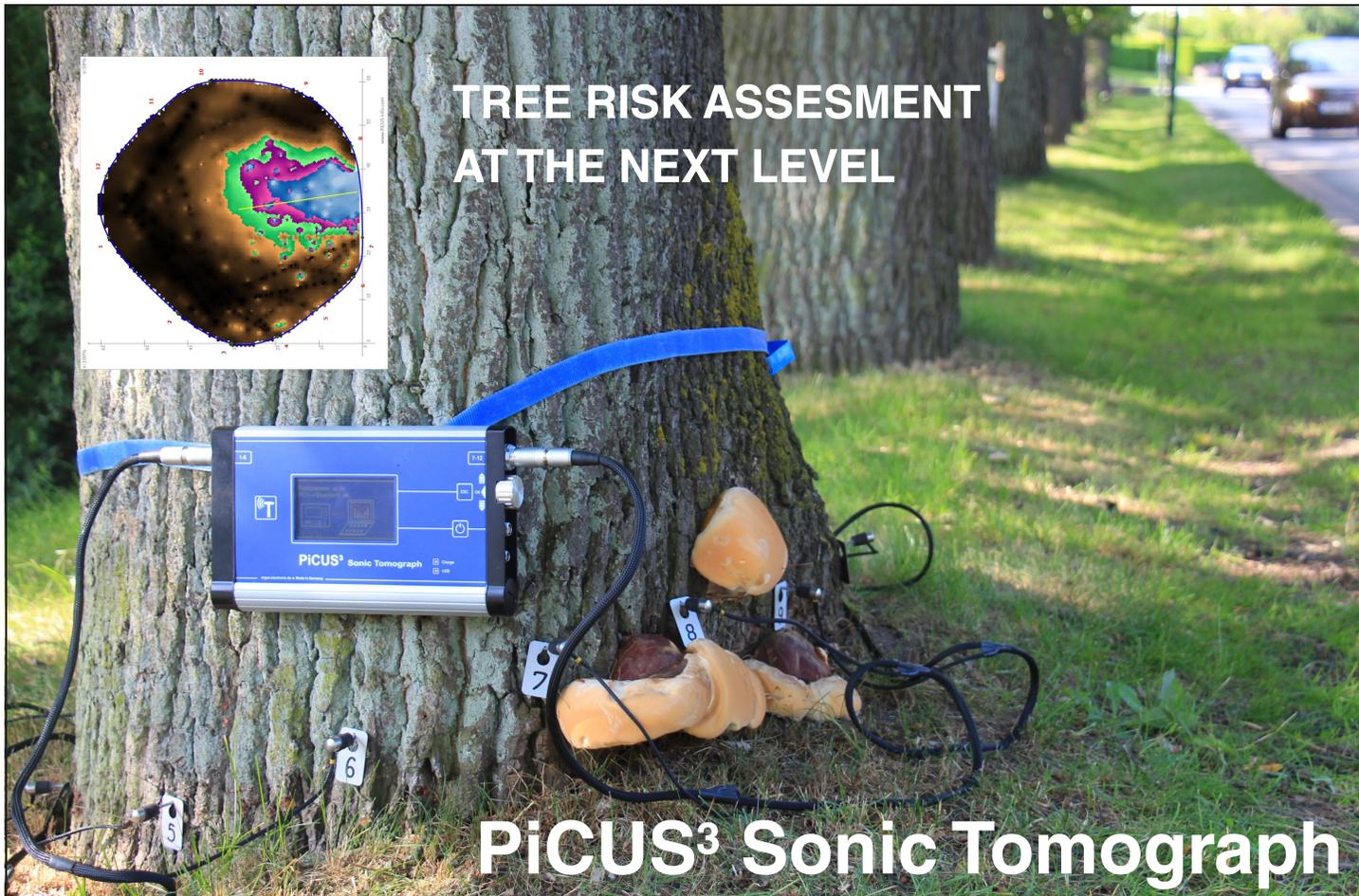
## Sustainable Urban Forest Management: A Critical Challenge *continued*

### Appendix 1: The Case for Trees Summary (UK Forestry Commission, 2010)

Climate change contributions	Countering climate change	<ul style="list-style-type: none"> <li>• Trees remove CO<sub>2</sub> to create a carbon sink</li> <li>• Trees provide significant low-carbon options for building and energy</li> </ul>
	Tempering severe weather	<ul style="list-style-type: none"> <li>• The capacity of trees to attenuate heavy rains and floodwater slows run-off and renders Sustainable Urban Drainage Systems more effective</li> </ul>
	Moderating temperatures	<ul style="list-style-type: none"> <li>• The ability of trees to evaporate water, reflect sunlight and provide shade combine to cut the 'urban heat-island' effect</li> </ul>
Environment advantages	Valuable aesthetic contributions	<ul style="list-style-type: none"> <li>• More attractive landscape</li> <li>• Eye-sores hidden</li> <li>• Greener more natural</li> <li>• Linking town to country</li> </ul>
	Cutting soil erosion	<ul style="list-style-type: none"> <li>• Preserves the valuable soil resource and keeps carbon locked in</li> </ul>
	Positive impact on water quality	<ul style="list-style-type: none"> <li>• Trees act as natural filters</li> </ul>
	Contributing to wildlife	<ul style="list-style-type: none"> <li>• Increased biodiversity as countryside becomes more porous with extra links</li> <li>• Brings wildlife closer to people</li> </ul>
Economic dividends	Providing profitable by-products	<ul style="list-style-type: none"> <li>• Firewood/woodchip</li> <li>• Compost/leaf litter mulch</li> <li>• Renewable fuel – via coppicing</li> <li>• Timber</li> <li>• Fruit – community orchards</li> </ul>
	Reducing greenspace maintenance costs	<ul style="list-style-type: none"> <li>• Trees are much less maintenance intensive</li> </ul>
	Contributing indirectly to local economies	<ul style="list-style-type: none"> <li>• People more productive</li> <li>• Job satisfaction increased</li> <li>• Jobs created</li> <li>• Inward investment encouraged</li> <li>• Retail areas with trees perform better</li> <li>• Increased property values</li> <li>• Adds tourism and recreational revenue</li> </ul>
Social benefits	Delivering a range of health benefits	<ul style="list-style-type: none"> <li>• Cleaner air means less asthma</li> <li>• Lower risk of skin cancer</li> <li>• Quicker patient recovery times</li> <li>• Reduced stress</li> <li>• Positive impact on mental health and wellbeing</li> <li>• Encourages exercise that can counteract heart disease and Type 2 Diabetes</li> </ul>
	Assisting urban living	<ul style="list-style-type: none"> <li>• Improves buildings' energy efficiency and can help alleviate fuel poverty</li> <li>• Improved protection in winter</li> <li>• Increased pedestrian safety</li> <li>• Baffles noise</li> <li>• Moderated micro-climate</li> <li>• Increased CO<sub>2</sub> absorption</li> <li>• Reduced crime levels</li> </ul>
	Adding to social values	<ul style="list-style-type: none"> <li>• More harmonious environments</li> <li>• Heightened sense of pride in place</li> <li>• Greater community cohesion</li> </ul>
	Offering spiritual value	<ul style="list-style-type: none"> <li>• Heightened self esteem</li> <li>• Puts people more in touch with Nature and the seasons</li> <li>• Symptoms of anxiety, depression and insomnia alleviated</li> </ul>
	Benefiting education	<ul style="list-style-type: none"> <li>• Concentration increases in 'natural' classrooms</li> <li>• Better learning outcomes</li> </ul>

### References:

- Biddle, G. (1998) *Tree Root Damage to Buildings*. London, Willowmead Publishing.
- Chan, S. and Huang, S. (2004) 'A systems approach for the development of a sustainable community – the application of the sensitivity model'. *Journal of Environmental Management* 72, pp. 133-147.
- City of Santa Monica. (2017) *Santa Monica Urban Forest Master Plan*. Santa Monica, CA, City of Santa Monica.
- Finn, D. (2009) *Our Uncertain Future: Can Good Planning Create Sustainable Communities?* Ph.D. University of Illinois.
- Gilbertson, P. and Bradshaw, A.D. (1990) 'The survival of newly planted trees in inner cities'. *Arboricultural Journal* 14, pp.287–309..
- Kielbaso, J.J. (1989) City Tree Care Programs: A Status Report. In Moll, G. ed. *Shading Our Cities: A Resource Guide for Urban and Community Forests*. Washington, Island Press.
- Kling, J. (2008) 'Greener cities: US Forest Service software package helps cities manage their urban treescape'. *Science Perspectives* Fall 2008. US Forest Service, Pacific Southwest Research Station.
- Kou, F.E., Bacacoa, M. and Sullivan, W.C. (1998). 'Transforming inner city landscapes: trees, sense of safety, and preference'. *Environment and Behavior* 30(1), pp. 28–59.
- Lu, J.W.T., Svendsen, E.S., Campbell, L.K., Greenfeld, J., Braden, J., King, K.L. and Falzaraymond, N. (2010) 'Biological, social, and urban design factors affecting young street tree mortality in New York City'. *Cities and the Environment* 3(1), article 5.
- McPherson, E.G.; Albers, S.; de Goede, J.; van Doorn, N.S. (2015) *City of Santa Monica's municipal forest assessment*. Davis, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station.
- McPherson, E.G.; Simpson, J.R.; Peper, P.J.; Xiao, Q. (2001) *Benefit-cost analysis of Santa Monica's municipal forest*. Davis, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 44 p.
- Miller, R.H., and R.W. Miller. 1991. *Planting survival of selected street tree taxa*. J. Arboric. 17:185-191.
- Muller, R. N., & Bornstein, C. (2010). Maintaining the diversity of California's municipal forests. *Journal of Arboriculture*, 36(1), 18.
- Nowak, D. J., & Greenfield, E. J. (2012). Tree and impervious cover change in US cities. *Urban Forestry & Urban Greening*, 11(1), 21-30.
- O'Neil-Dunne (2012) *A Report on the City of New York's Existing and Possible Tree Canopy*. Burlington, University of Vermont : Spatial Analysis Lab.
- Roman, L. A., Battles, J. J., & McBride, J. R. (2014). Determinants of establishment survival for residential trees in Sacramento County, CA. *Landscape and Urban Planning*, 129, 22-31.
- Santamour, F.S. (2002) 'Trees for urban planting: Diversity, uniformity and common sense'. *Proceedings of the 7th Conference of the Metropolitan Tree Improvement Alliance*: 7, pp. 57-65.
- UK Forestry Commission (2010) *The Case for Trees*. Edinburgh, Forestry Commission.
- Ulrich, R.S. (1984). 'View through a window may influence recovery from surgery'. *Science* 224 (4647), pp. 420–421.
- United Nations (2016). *Natural Forest Management*. Food and Agricultural Organization (FAO) of the United Nations. Accessed 03/11/2017 via: <http://www.fao.org/forestry/sfm/85084/en/>
- US Forest Service (2014). *i-Tree Urban Forest Assessment Applications*. Washington, US Forest Service. Accessed 01/03/14 via: <http://www.itreetools.org/applications.php>
- Wells, M.P. (2011) 'Using urban forestry research in New York City'. Trees, People and the Built Environment: Proceedings of the *Urban Tree Research Conference*: 13-14 April, 2011. Edinburgh, Forestry Commission.



## TREE RISK ASSESMENT AT THE NEXT LEVEL

# PiCUS<sup>3</sup> Sonic Tomograph



Urban Forest  
Innovative Solutions

905-274-1022 [ufis.ca](http://ufis.ca)



## RCA Embosser and Stamp—Distinguish Yourself



**The Registered Consulting Arborist® (RCA)\* status represents ASCA's premier level of membership. Official RCA stamps and embossers are available for purchase—use these items to distinguish your work products.**

\*You must be an RCA to order RCA products.

[RCA Information](#)

[Purchase Stamp](#)

# Oak Decline in the Urban Forest: A Disease Complex in a Complex Environment

By Ryan Blaedow, Ph.D., Plant Pathologist, USDA Forest Service

There is certainly no shortage of “declines” in the field of forest health. It is, some argue, a term that is used too often and too loosely when we don’t fully understand what is ailing a tree, and “decline” can be an easy label to slap on a tree that is suffering from an unidentified malady. But in many instances, there is no single causal agent to which we can point when diagnosing an unhealthy tree. In some cases, the declining health or vigor of a tree may result from a lifetime of exposure to several interacting stress factors, and there is no one cause to which we can attribute the damage. In these cases, the term “decline” or “disease complex” is the most precise way we can frame the issue. It acknowledges that the physiological drivers of declining tree health and eventual mortality can be complex, can vary widely from individual to individual, and may in truth be poorly understood. But the resulting symptoms from these sets of stressors are often quite similar.

Oak decline is a stress-mediated disease complex most commonly observed in older, mature trees afflicted with biotic and abiotic stress agents that alter carbohydrate physiology. The disease can be exacerbated by opportunistic fungal pathogens and secondary insects. Decline, which initially manifests itself in reduced radial growth and progressive crown dieback, generally occurs over many years, and it may take decades for a tree to fully succumb and die. The individual factors or stress agents that combine to result in a specific oak decline

scenario can vary widely, but it is the interaction among three major groups of stress factors that has come to define the oak decline concept.

## Predisposing Factors

The first group of stress factors is the long-term, historical, predisposing factors that act to reduce the health and resiliency of trees to biotic or abiotic stressors. Urban trees are often exposed to a wide array of predisposing factors. Among these are edaphic conditions, such as soil depth, soil texture, or truncated soils. Sites typically thought of as predisposed would be, for example, xeric sites with coarse soil textures, shallow or restricted soils with significant hardpans or shallow bedrock, compacted or highly eroded soils, or sites with chronic nutrient deficiency issues. Trees with restricted or otherwise compromised and damaged root systems are highly predisposed to oak decline. Physiological age is often a very important predisposing factor in that there comes a time in the life of a tree when critical levels of water transport and translocation efficiencies, growth regulator balance, and balance between photosynthesis and respiration are exceeded, leading to senescence (what we might call old age). Some species, such as oaks in the red oak group (e.g., northern red oak, northern pin oak, scarlet oak), are much shorter lived and more predisposed to oak decline than are species in the white oak group (e.g., white oak, bur oak). One must also consider the life history of the tree; stresses such as improper planting techniques and injuries that may have



affected individuals many decades ago can have lasting impacts on tree health and predispose them to problems many years later. Also, be aware of competing vegetation that can affect tree growth patterns and resource allocation that ultimately play an important role in determining crown structure and root:crown ratio, as well as the ability to effectively compete when resources become limiting. These predisposing factors can push oaks to the edge of the proverbial cliff, but without additional stressors they usually have a negligible impact on what we would visually assess as a healthy tree.

## Inciting Factors

The second group comprises inciting factors associated with the depletion of carbohydrate reserves, the initiation of decline, and the early onset of decline-specific symptoms such as reduced growth and crown dieback. Factors in this group include prolonged or severe droughts, flooding, mechanical damage, and defoliation resulting from herbivorous insects, late spring frosts, or severe storms. These inciting factors nudge trees that are already predisposed into a decline spiral that begins to manifest itself outwardly. As opposed to predisposing factors, inciting factors tend to be short-term, single event, discrete stressors. Construction injury and soil grade changes are common oak decline inciting factors. Early-season injury to foliage, which oaks produce through the allocation of stored energy reserves from the previous year, can be par-

## Oak Decline in the Urban Forest *continued*



ticularly impactful, so a poorly timed wind or hail storm or late spring frost can overnight put a significant strain on a tree's carbon balance. While late-season defoliation by insects or diseases such as orange-striped oak worm or oak anthracnose generally have little serious impact on tree health, early-season defoliation by insects such as the gypsy moth is poorly tolerated by most oak species and can initiate decline. Drought is undoubtedly one of the most important inciting factors and will likely play an increasingly important role on the health of our urban oaks, given climate

change predictions over the next century. Severe droughts can cause hydraulic failure and tree death when embolisms form in the water-conducting vessels in the tree's xylem. When water becomes extremely limited, the tension on the water column in the tree's vascular systems becomes so great that the water column breaks and an air bubble forms in the vessel element. When this happens, the vessel can no longer conduct water and the tree will rapidly wilt and die. Like many plants, oaks protect themselves from embolism formation and hydraulic failure by closing

their stomates (small pores in the leaf surface) during periods of physiological water stress. However, when the stomates are closed, the tree has a reduced ability to uptake carbon dioxide needed for photosynthesis. Because of this, during prolonged droughts, oaks are actually at greater risk of carbon starvation and depletion of energy reserves than they are of hydraulic failure, and this can have lasting impacts on the tree's health and resiliency.

### Contributing Factors

The third group of factors includes the contributing factors that can bring about the demise of downward spiraling trees. These are biotic agents such as secondary insects or pathogens that are well adapted to exploit weakened trees and are frequently implicated as the cause of mortality due to their presence and abundance at the time of death. Under normal circumstances, however, these organisms would pose little or no threat to a healthy resilient tree not predisposed and already weakened by inciting factors. The most commonly implicated contributing factors involved in the final stages of oak decline are *Armillaria* root disease and *Hypoxylon* canker, which are caused by common facultative parasites in natural ecosystems but can become more aggressive pathogens causing root disease or stem cankers, respectively, in weakened hosts. Two-lined chestnut borer and the red oak borer are two insects that play a similar role in the ultimate demise of weakened trees by creating galleries in the inner bark and effectively girdling the host. The red oak borer, for example, was implicated in a major oak decline event in the Ozark Mountains from the late 1990s through the early 2000s, during which this normally secondary insect was able to reach outbreak levels with a population that exploited a highly predisposed oak population. Also, bacterial leaf scorch, while not normally considered to be an issue in forested ecosystems, can be a major contributing factor in urban

## Oak Decline in the Urban Forest *continued*

areas and open plantings and seems to be an ever-increasing issue on susceptible species, often resulting in mortality after several years.

### Symptom Development

The earliest above-ground symptom of oak decline is dieback of the live crown, beginning with the outer twigs and branches. This can sometimes occur during the growing season, leaving dead foliage attached. More commonly, however, the dieback occurs during the dormant period, with affected limbs failing to break bud in the spring. Relatively slow, progressive dieback downward and inward in the crown, eventually involving larger limbs and main leaders, occurs over several years or even decades and is a distinctive symptom of oak decline. Foliage may appear stunted, thinned, or chlorotic, but more often it takes on a scorched appearance that is similar to drought symptoms. Crown dieback is accompanied by similar dieback in the root system and reduced secondary growth. Often the death of twigs and branches in the crown can trigger the production of epicormic sprouts along the larger limbs and main stem. While trees can recover when inciting or contributing factors are alleviated and conditions improve, trees that experience decline affecting more than 1/3 of the live crown generally lack the capacity to recover and eventually die. Oak decline is most often confused with oak wilt, but keep in mind that oak wilt, which is caused by a vascular fungal pathogen, is generally going to kill susceptible species in the red oak group within a period of a few months, whereas oak decline is a chronic issue that will occur over many years. The two issues can be a little more difficult to distinguish in white oaks, where oak wilt progresses more slowly, and also in cases of bacterial leaf scorch. Laboratory diagnosis is often the only way to confirm the presence of these pathogens and distinguish between those diseases and progressive oak decline.

### Management

Oak decline management begins and ends with proper tree care and minimizing the predisposing, inciting, and contributing factors discussed above. While some commercial products available on the market (e.g., soil amendments, mycorrhizal inoculations, synthetic growth regulators) show some effectiveness in slowing or even reversing decline symptoms, and techniques such as soil aeration and vertical mulching can improve the health of the root system, these are often the last options available for trees in an advanced state of decline. Proper tree planting, species and site selection, pruning, mulching, and supplemental watering (when possible) are the most efficient and effective methods for preventing the initiation of the downward spiral of oak decline. In addition, be sure to plan for the future. There is a tendency to forget that trees have a lifespan, and that decline is inevitable for all oaks that are fortunate enough to survive to maturity in the hostile urban environment. Planting the next generation of oaks in the shade of cherished specimen trees is one of the best ways to plan for the future and ensure a healthy, resilient urban forest. 🌱

*Ryan Blaedow is a plant pathologist with the U.S. Forest Service, Forest Health Protection-Southern Region, based in Asheville, North Carolina. Originally from Wisconsin, Ryan obtained a bachelor's degree in forestry from the University of Wisconsin—Stevens Point, a master's degree in tree physiology from Purdue University, and a doctorate in forest pathology from the University of Minnesota. He has served as a forest pathologist with the North Carolina Forest Service, the Minnesota Department of Natural Resources, and Forest Health Protection in the Pacific Northwest Region, where he has worked on a wide array of forest health issues.*

### References

Abrams, M.D. 1990. Adaptations and responses to drought in *Quercus* species of North America. *Tree Physiology* 7: 227-238.

Allen, C.D. et al. 2010. A global overview of drought and heat-induced tree mortality reveals emerging climate change risks for forests. *Forest Ecology and Management* 259: 660-684.

Fan, Z. et al. 2012. Spatio-Temporal Trends of Oak Decline and Mortality under Periodic Regional drought in the Ozark Highlands of Arkansas and Missouri. *Forests* 3: 614-631.

Haavik, L.J. et al. 2015. Emergent insects, pathogens, and drought shape changing patterns in oak decline in North America and Europe. *Forest Ecology and Management* 354: 190-205.

Iverson, I.R. et al. 2019. Analysis of Climate Change Impacts on Tree Species of the Eastern U.S.: Results of DISTRIB-II Modeling. *Forests* 10 (4): 302.

Juzwik, J. and T.L. Schmidt. 2000. Oak Wilt and Oak Decline in the Upper Midwest. *Recent Advances on Oak Health in Europe* pp 139-145.

Knott, J.A. et al. 2018. Shifts in forest composition in the eastern United States. *Forest Ecology and Management* 433: 176-183.

Manion, P.D. 1991. *Tree Disease Concepts* (2nd Edition), pp 328-348. Englewood Cliffs: Prentice Hall.

McDowell, N. et al. 2008. 2008 Mechanisms of Plant Survival and Mortality During Drought: why do some plants survive while others succumb to drought? *Tansley review. New Phytologist* 178, 917-739.

McEwan, R.W., J.M. Deyer, and N. Pederson. 2011. Multiple interacting ecosystem drivers: toward an encompassing hypothesis of oak forest dynamics across eastern North America. *Ecography* 34: 244-256.

McNab, W.H. et al. 2014. *Climate-Induced Migration of Native Tree Populations and Consequences for Forest Health. A guide for natural resource managers in southern forest ecosystems.* CRC Press - Taylor and Francis pp. 307 - 378.

Mercker, D. and G. Hopper. 2004. *Why do Trees Die.* University of Tennessee Agricultural Extension Service SP 615.

Oak, S.W., M.A. Spetich, and R.S. Morin. 2016. Oak decline in Central Hardwood Forests: Frequency, Spatial Extent, and Scale. *Natural Disturbances and Historic Range of Variation.* Springer International Publishing pp. 49-71.

Seager, R., A. Tzanova, and J. Nakamura. 2009. Drought in the Southeastern United States: Causes, Variability over the Last Millennium, and Potential for Future Hydroclimate Change. *Journal of Climate* 22: 5021- 5045.

Sinclair, W.A. 1965. Comparisons of recent Declines of White Ash, Oaks, and Sugar Maple in Northeastern Woodlands. *Cornell Plantations*, 20, 62-67.

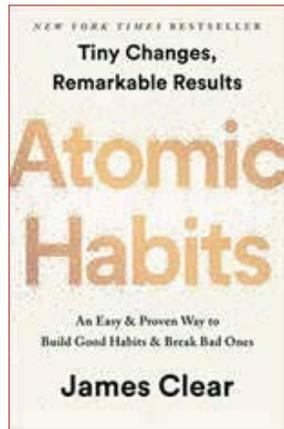
Spetich, M.A. et al. 2016. Oak Decline Across the Ozark Highlands – From Stand to Landscape and Regional Scale Processes. *Proceedings of the 18th Biennial Southern Silvicultural Research Conference.* E-Gen. Tech. Rep SRS 212 614p.

Starkey, D.A. et al. 1989. *Evaluation of Oak decline Areas in the South.* US Forest Service Southern Region Protection Report R8-PR 17.

# Tech Corner

## Members recommend their favorite digital resources

Lisa Smith, RCA #464, recommends Audible book *Atomic Habits*, by James Clear. She says, "It's a phenomenal book, and I enjoy listening while walking."

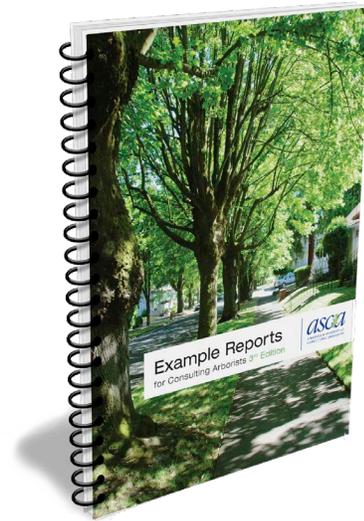


From Amazon: No matter your goals, *Atomic Habits* offers a proven framework for improving—every day. James Clear, one of the world's leading experts on habit formation, reveals practical strategies that will teach you exactly how to form good habits, break bad ones, and master the tiny behaviors that lead to remarkable results. 🌱

# Example Reports

## for Consulting Arborists 3<sup>rd</sup> Ed.

This is your resource for knowing what information to include and how to format Consulting Arborist reports. The book encompasses practice reports from students of the ASCA Consulting Academy and a real-life report as submitted by an author to an actual client.



Order your copy at [www.asca-consultants.org](http://www.asca-consultants.org)

# Submit Your CEUs!

You must earn 30 CEUs every two years to maintain your ASCA membership. ASCA provides many opportunities to earn CEUs—[View a full list of approved CEUs.](#)

Remember to submit your CEUs as you earn them.

Once you have 30 approved CEUs for the period, additional credits are not required.

Submitting CEUs online is easy:

- Log in to the ASCA website.
- Click "Manage Profile."
- At the top of the page, click the "Enter Your CEUs Now" icon.
- In the Certification/Program dropdown, select the 20–21 cycle.

[View step-by-step instructions.](#)

## Member News

**Julian Dunster, RCA #378**, has uploaded a large number of his writings onto his website, <https://dunster.ca/home/articles/>, where they can be downloaded as PDFs. The collection is not entirely complete but represents his past 25+ years of writing. Julian is also pleased to announce that the legal firm Lexis Nexis Canada has asked him to write for *The Lawyer's Daily* on legal issues involving trees. Julian says, "I believe this is the first time an arborist has been asked to contribute to a legal journal and is a result of the positive reviews garnered by *Trees and the Law in Canada*." The first article for *The Lawyer's Daily* was published in December.

**Lew Bloch, RCA #297, HLM #1** (right) and **Scott Cullen, RCA #348** (left), visited Harmony Hill Nursery's booth at the Mid-Atlantic Nursery Trade Show (MANTS) in Baltimore, Maryland, held January 8–10. Harmony Hill is owned and operated by ASCA member Chris Uhland. This was the 50th MANTS event, and Lew has attended every one! Note the ASCA signage proudly displayed on the table. 🌿



## In Memoriam: Ted Kipping, 1945–2019

We are sad to learn of the passing of Ted Kipping in December. Ted was a renowned horticulturalist as well as an indefatigable artist, speaker, musician, and photographer. After attending Columbia University on a full scholarship and working at the San Francisco Botanical Garden in Golden Gate Park, Ted established his own tree care firm, Tree Shapers. He was active in several local horticultural clubs, a lifetime member of a dozen horticultural organizations, and a longstanding member of ASCA and ISA.

Ted's generosity, leadership, and vision led to the formation of the Bay Area Arborist Co-op in 1995, which now

has 13 members. Ted's philanthropy is not widely known, as his generosity was not self-serving. When business was slow, Ted kept his crew busy and paid by donating their services to Bay Area institutions such as the Tilden Regional Park Botanical Garden, UC Santa Cruz, Berkeley Arboreta, Strybing Arboretum (now the San Francisco Botanic Garden), Audubon Canyon Ranch, and the Sunnyside Conservatory.

Ted was well known for his plant and flower photography. Hundreds of his images have appeared in numerous publications. His illustrated lectures and photographic presentations informed and delighted thousands of people nation-

wide. Ted also appreciated and collected art, pottery, woodturnings, paintings, prints, and fine books on nature.

Ted is survived by his wife of 30 years, Diana; son Kirk; brother John; and niece Zoe. Donations in Ted's name may be made to Save the Redwoods, one of Ted's favorite groups. 🌿



# Welcome New Members

**Christopher Arend**  
Huntington Beach, CA  
[chrisarend@gmail.com](mailto:chrisarend@gmail.com)

**David Cooper**  
Grand Lake, NS  
[dave@arbornovascotia.com](mailto:dave@arbornovascotia.com)

**Timothy Crothers**  
Anaheim, CA  
[tcrothers@wcainc.com](mailto:tcrothers@wcainc.com)

**Matthew Flanders**  
West Tisbury, MA  
[mbfcomv@gmail.com](mailto:mbfcomv@gmail.com)

**Kerry Holt**  
Surprise, AZ  
[kyle.holt@carescape.com](mailto:kyle.holt@carescape.com)

**Ernesto Marquez**  
West Hills, CA  
[helloernesto@gmail.com](mailto:helloernesto@gmail.com)

**Jean Mitchell**  
Upperco, MD  
[mitchell@uppercobalt.com](mailto:mitchell@uppercobalt.com)

**Brandon Namm**  
Portland, OR  
[brandonnamm@gmail.com](mailto:brandonnamm@gmail.com)

**John O'Shea**  
Oroville, CA  
[banjojackshea@gmail.com](mailto:banjojackshea@gmail.com)

**Mike Olles**  
Simi Valley, CA  
[atreedoc@hotmail.com](mailto:atreedoc@hotmail.com)

**Jonathan Picker**  
Sha Tin, Hong Kong  
[jonpicker@atptree.com](mailto:jonpicker@atptree.com)

**Joshua Plotner**  
Sacramento, CA  
[plotnerjosh@yahoo.com](mailto:plotnerjosh@yahoo.com)

**David Rivkind**  
Montauk, NY  
[montaukarborist@yahoo.com](mailto:montaukarborist@yahoo.com)

**Robert Siudzinski**  
Campbell, CA  
[bobs@campbellca.gov](mailto:bobs@campbellca.gov)

**Michael Swanson**  
Denver, CO  
[michael.swanson@denvergov.org](mailto:michael.swanson@denvergov.org)

**Monica Szarvas**  
Gig Harbor, WA  
[monicaszarvas@gmail.com](mailto:monicaszarvas@gmail.com)

**Maria Tranguch**  
Asheville, NC  
[maria@legacylandconsulting.com](mailto:maria@legacylandconsulting.com)

**Christopher White**  
Eugene, OR  
[chrisw@sperrytreecare.com](mailto:chrisw@sperrytreecare.com)

# New RCAs

**Douglas Gordon-Blackwood, RCA #689**

**John Siefer III, RCA #690**

**Zachary Vought, RCA #691**

**Craig Southwell, RCA #692**

**Darya Barar, RCA #693**

**Michael Arat, RCA #694**

**Matthew Foti, RCA #695**

**Scott Liudahl, RCA #696**

**Chad Simmons, RCA #697**

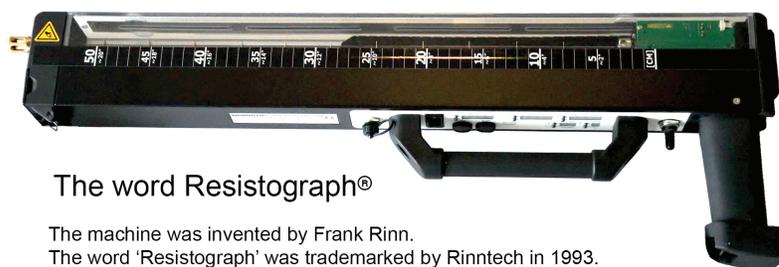
**Ian Scott, RCA #698**



Reliable and accurate decay detection equipment.

## Resistograph®

- When you need accurate data about decay, you need the Rinntech Resistograph® 650 series. All models :
- very fast, up to 5 cm / second
  - very accurate
  - on board electronic computerised motors control feedrate, drill speed, calibration. No need to change anything between wood types. No need for two graphical outputs to interpret.
  - sampling at 0.2 to 0.1 mm (depending on model)
  - powerful batteries
  - easy to read real time output to printer, laptop, or phone
  - store up to 10,000 profiles on board.



The word Resistograph®

The machine was invented by Frank Rinn. The word 'Resistograph' was trademarked by Rinntech in 1993. See <http://www.resistograph.com/die-marke-the-trademark/>

## Arbotom

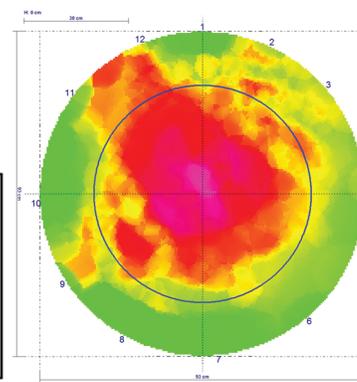
Arbotom sonic tomography offers you a complete picture of internal tree conditions at the testing site. Using sophisticated algorithms, the Arbotom accurately highlights decay patterns. Software provides strength loss calculations. Options include the Arboradix root sensor to map out roots, 3D imaging, and statistical analysis. Rinntech provides a comprehensive approach to tree risk assessment.

Check out the software applications available for mobile devices.

- ArborStapp™ - tree stability software
- ArboRef™ - shell wall thickness analysis
- ArWilo™ - wind loading assessment

For more information and a quotation:  
Contact Julian Dunster.

North American distributor for Rinntech  
778 977 1395 [jd@dunster.ca](mailto:jd@dunster.ca)  
To see the full range of Rinntech products go to:  
<http://dunster.ca/rinntech/>





Tree and Plant Appraisal Qualification

## ASCA Member TPAQ Recipients to Date

- |                             |                            |                               |                           |
|-----------------------------|----------------------------|-------------------------------|---------------------------|
| Aero Acton                  | Matthew Fried, RCA #651    | Evin Lambert, RCA #667        | Ronald Rothhaas           |
| Robin Adair                 | Russell Friesen            | Shane Lapage                  | Jorge Sandoval            |
| Jose Aguilar                | David Froede               | Michael LaPorte               | Mark Sargent              |
| Jason Aguirre               | Martin Frye                | Kevin Lester                  | Jonathan Schach, RCA #535 |
| Benjamin Anderson, RCA #686 | Steven Geist, RCA #340     | Louise Levy                   | Douglas Schoch            |
| Codie Anderson, RCA #568    | Glenn Gentzke, RCA #485    | John Lichter, RCA #375        | David Schwartz            |
| Faith Appelquist, RCA #495  | Kelley Gilleran, RCA #688  | Christopher Lichty            | Luke Scott                |
| Gregory Applegate, RCA #365 | Ryan Gilmore               | Jason Lubar                   | Donald Scully             |
| Henry Arends                | Glen Ginzel, RCA #681      | Jeannine Lubeshkoff, RCA #500 | Chris Seifert             |
| Timothy Armstrong           | Paul Goin                  | James MacNair                 | Maureen Sexsmith-West     |
| Timothy Ascher              | Daniel Goyette, RCA #632   | Mark Malone                   | David Sexton              |
| Edward Badeaux              | Kay Greeley                | Philip Maple                  | John Sievers              |
| Michael Baefsky, RCA #456   | Michael Green, RCA #602    | Daniel Maple, RCA #627        | Edwin Slowik, RCA #462    |
| Darya Barar, RCA #693       | Mike Greer                 | R. Duff McCully               | Andrew Smit               |
| Eric Batty                  | Tanja Grmovsek             | Brian McGovern                | William Spiewak, RCA #381 |
| Timothy Bergquist, RCA #650 | Jennifer Gulick            | Todd McNeil                   | Scott Stanley             |
| Lewis Bloch, RCA #297       | Peter Harnisch, RCA #595   | Joseph McNeil, RCA #299       | Mark Stephens             |
| Carl Bogar                  | John Harris, RCA #468      | Bob Meoak                     | Martin Stone              |
| Stacy Borden, RCA #519      | Alan Haywood               | Andrew Mertz, RCA #542        | James Sudderth            |
| Art Brooks                  | Anna Heckman               | John Meserve                  | Lisa Sullivan, RCA #624   |
| Robert Brudenell, RCA #417  | Reuben Herrera             | Jeffrey Meyer                 | Michael Swanson           |
| John Burke, RCA #591        | Mark J. Hoenigman          | Edward Milhous, RCA #350      | Jun Tang                  |
| Lucas Capachin              | Norman Hol                 | Jason Miller, RCA #526        | Ryan Thomas, RCA #653     |
| Jeremy Chancey, RCA #646    | Frederick Hoppe            | Micheal Molkenhain            | Robert Thomasson          |
| Timothy Clancy              | Steven Horhut              | Ken Moore                     | James Thompson            |
| Scott Conover               | Jennifer Horn              | Leonardo Moran, RCA #660      | Stefanie Turner           |
| Dani Creighton              | Gaspar Horvath             | Verna Mumby                   | Christopher Umland        |
| Scott Cullen, RCA #348      | John Hosbach Jr., RCA #483 | Lori Murphy                   | Zachary Vought, RCA #691  |
| Randy Cyr                   | Jim Hosick                 | Michael Neumann               | Walter Warriner           |
| Matt Davis                  | Brial Hotsko               | John Newsome                  | Gavin Watson              |
| James Dennis                | Tristram Hurley, RCA #600  | Erik Nobs                     | Mark Webber               |
| Kimberly Dowell             | Kelly Jackson              | Apollo O'Neil                 | Stephen Weil              |
| Michael Dunn                | James Jenkins              | Rowland Orr                   | Garth Welch, RCA #622     |
| Annette Durbin              | Nicholas Johnson           | Alicia Ortega, RCA #675       | Andrew White, RCA #510    |
| Gregg Eberly                | Zachary Johnson            | Mike Parker                   | Glenn Whitlock-Reeve      |
| Deanne Ecklund, RCA #647    | Lara Johnson               | Thomas Pramuk, RCA #409       | Mark Williams, RCA #580   |
| Anthony Eggink              | Jennifer Jolliff           | Mark Rawlins                  | Richard Wilson            |
| Mark Ellis                  | James Kaiser               | Lisa Regnier                  | Corrine Winfield          |
| Michael Embesi              | James Kelliher             | Walter Reins                  | Sarah Wist Regent         |
| Zack Erickson               | Cene Ketcham               | Robin Rice                    | Galen Wright              |
| John Farley                 | William King, RCA #563     | Ben Rickenbacker              | Michael Yadrack           |
| Erin Finn                   | Kenneth Knight, RCA #507   | Mickey Riggan                 | Torrey Young, RCA #282    |
| Busara Firestone            | James Komen, RCA #555      | Christopher Rippey, RCA #633  |                           |
| Matthew Foti, RCA #695      | Peter Kuntz                | Nadine Ropp                   |                           |

# Involved With Community and Urban Forestry?



There is a professional organization waiting for you. Confidence, competence, and camaraderie.



[www.urban-forestry.com](http://www.urban-forestry.com)

## Join the Society of Municipal Arborists Today!

# Send Us Your Best Shot— Seasonal and Holiday Edition

Wintertime is special for trees and an opportunity to see them in a different light! We asked members to share their examples of trees in the wintertime, where they are enjoying them as part of the beauty of their communities, holiday festivities, or travels near and far.



Aspen near Carson Pass, California.

*(Photo credit: Randall Frizzell, RCA #361)*



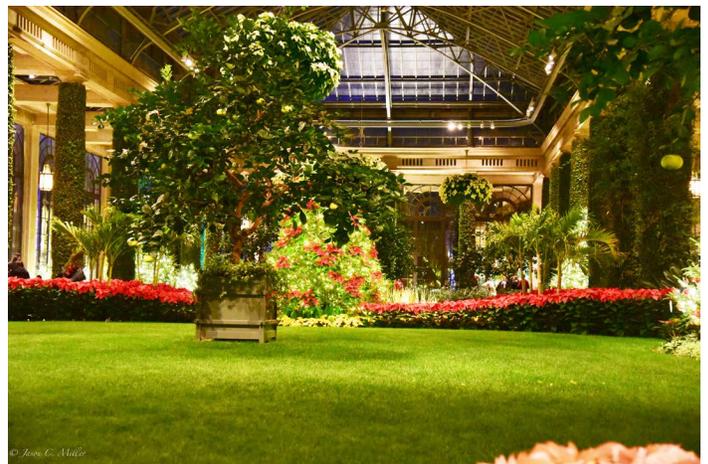
Ice crystals on a birch tree. Best time of the season to appreciate this species in Montana.

*(Photo credit: Mike Garvey, RCA #461)*

**Best Shot continued**

**Winter fog accents native plains cottonwoods living in lime and sandstone cliff fissures 300 feet above the city of Billings, Montana.**

*(Photo credit: Mike Garvey, RCA #461)*



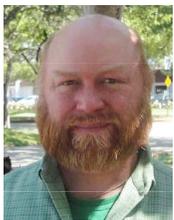
**A collage of holiday lights at Longwood Gardens in Pennsylvania.**

*(Photo credit: Jason Miller, RCA #526)*

# Industry Reports From ASCA's Representatives



## Sustainable Urban Forests Coalition (SUFC)



By John Harris, RCA #496

Starting this new decade as your SUFC representative fits a theme that I have for my next 10 years. This is the “Sustainable 20s” for me. I am asking everyone I know to improve our shared environment one community, or one property, at a time. The SUFC is centered on that theme too.

I have good news for ASCA in terms of increasing our recognition and involvement with SUFC in 2020. I am on the advisory committee for a research project that is one of the chosen presentations for this year’s SUFC Annual Meeting in Arlington, Virginia, on March 4. That project is developing protocols and reasoning for valuing “Urban Tree Canopy (UTC) as an Asset.” The University of Maryland School of Architecture, Planning & Preservation is the

lead university for the research project. This research is a project of the NUC-FAC (National Urban and Community Forestry Advisory Council) to standardize a value for urban forest benefits that can be used in investment markets (e.g., for carbon credits, stormwater control, tree canopy) and for other valuation purposes (e.g., Capital Asset value, updating iTree value, mitigation value). This is a national project with collaborators/advisors from multiple universities, nonprofits, government agencies, and businesses. The value of a Consulting Arborist being on the advisory committee for this research is recognized.

Thanks to our board of directors and all our ASCA members for your interest in my SUFC update at our 2019 ASCA Annual Conference in the low country of New Orleans. I am including your comments and ideas in what I plan to say in committee discussions for SUFC this year.

I will have more news to share about urban forestry collaborative projects after

the March 4 Annual Meeting. My main advice to ASCA members is that all of these urban forestry projects promoted and publicized by SUFC—and others like them that may be closer to your locations—could have a “seat at the table” for ASCA members. To support our members, I will keep promoting ASCA as a source for professional advice and arboriculture expertise with the SUFC and their member organizations.

I ask ASCA members to keep me informed of projects you are involved with that we can promote out to SUFC to show the leadership and value of Consulting Arborists in urban forestry. A shareable example project promotes Consulting Arborists better than an article about why we think we are important to urban forestry projects. What we do is more visible and memorable than just what we say.

Get out and enjoy the benefits of an urban forest near you, and be part of increasing those benefits by improving that urban forest in your work too. 🌿

# A Day in the Life of a Consultant

## Highlighting experiences in the tree consulting world

### Consulting for FREE or Consulting for a FEE?

*By Lew Bloch, RCA #297*

I do a lot of residential consulting for homeowners with regard to their tree issues. Sometimes they call me to prevent problems, but, unfortunately, most of the time the call is about an existing problem. I get numerous referrals from tree contractors, and I am happy to say that sometimes they come directly from the ASCA website.

A woman called me recently and explained her tree concerns. After listening to them, I told her what my fee would be for an onsite consultation. Her reply was, “What do you charge just to come look at my tree?” My quick reply was that I would agree to look at her tree for free, but if I talked, it would be extra ... I think that she was laughing as she hung up on me. Obviously, no gig. 🌿

